



*Il cielo in cornice*

CATALOGUE 2015

  
**Axel**  
IL CIELO IN CORNICE

# AXEL: SKY IN A FRAME.

Axel designs its products to fully satisfy its clients. Following this concept, we aim to be, in the construction industry, a company that cares for both: the beauty and the safety of its products. We build knowing that our clients are looking for products that will be allocated in important places, such as private houses and offices, where people live most of their life time.

There are five key factors to consider developing the perfect setting for an attic. Five factors that Axel considers when designing its windows:

Temperature

Practicality

Light

Ventilation

Design





## MISSION

Axel's mission is to offer a new product, which combines design, eco-sustainability and technological research with a dynamic company's image. In other words, Axel is an expression of the traditional Made in Italy style, synonym of premium quality and design, with a special care for the environment.

## SUSTAINABILITY

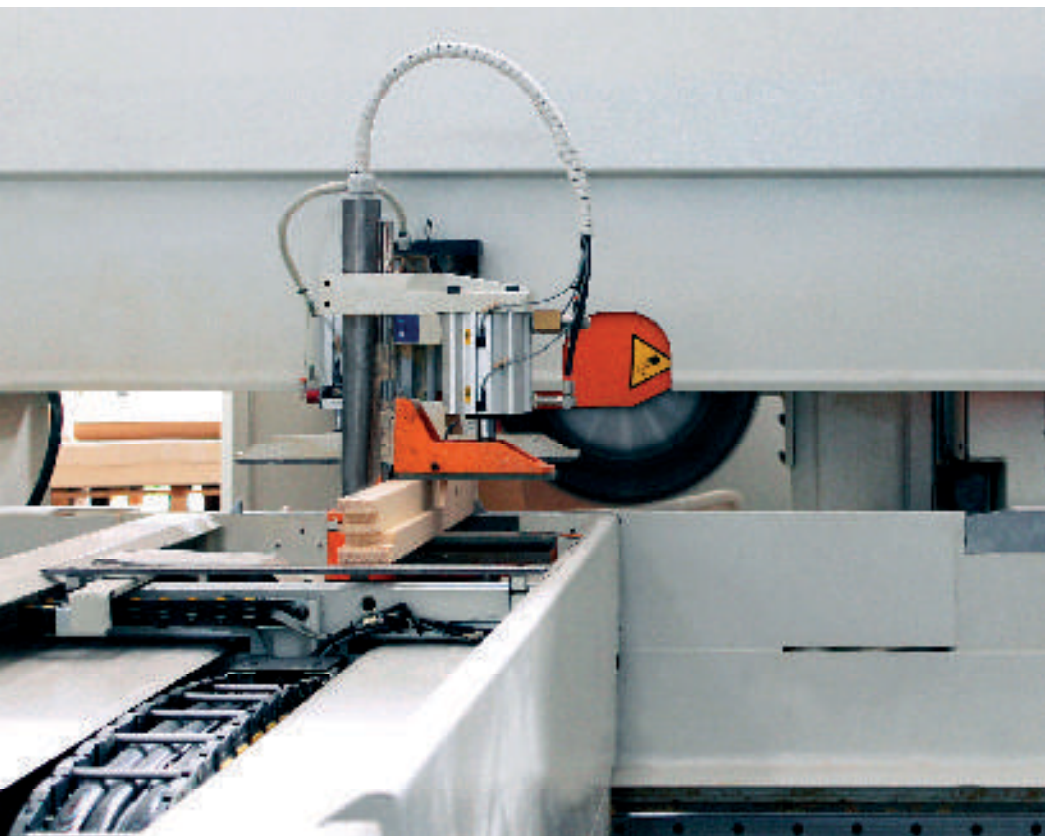
For Axel, succeeding does not only mean taking care of its clients; it also means having a positive impact on the territory and respecting the environment. This implies working in an eco-sustainable way. Through years of research and production experience, we have learned how to operate in our market using resources in a way that will allow the next generations to have the same resources we have today.

For this reason the wood we produce with comes from areas in which it is performed the practice of forestation. Axel's



wood suppliers are certified PEFC, which is the guaranty, according to the European Commission, that they support an eco-sustainable plantation and a controlled wood manufacturing. Using wood in this way does not damage the environment and it makes this material available for ever.

# SELECTING ONLY THE BEST RAW MATERIALS FOR THE PRODUCTION CHAIN.



Axel collaborates only with wood suppliers that procure premium-quality wood. We use only premium-quality fir wood, which is a material that guarantees the durability of the roof windows, which are placed in a critical position: always exposed to the sun, rain, snow and wind. Moreover, every wood lot we buy is carefully checked and tested before being used in the production process.

In the production process, Axel combines the best technology available on the market with the traditional Italian culture of craftsmanship and design. In this way it is possible to unify the production of a large amount of pieces with the care for details that makes a product great.

## QUALITY PROCESS

In Axel we produce with the "Quality Process", which includes:

- n Selection of top-quality wood

n Production conducted through technological machinery

n Wood protection (with ecological products based on water varnish) that comprehends

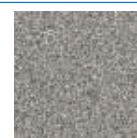
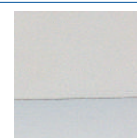
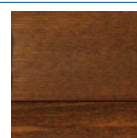
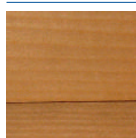
- First phase, impregnating the wood: placing the pieces in a tub with ecological varnish. This is done to protect the deepest part of the wood.
- Second phase, sanding the wood: to make it smooth and ready for the final phase
- Final phase, varnishing: to make the material waterproof. This protects the wood from humidity and it emphasizes the natural beauty of wood (no extra paint required).

## PAINTING OPTIONS

Our production system allows the client to choose the color of the window considering its particular needs and taste:

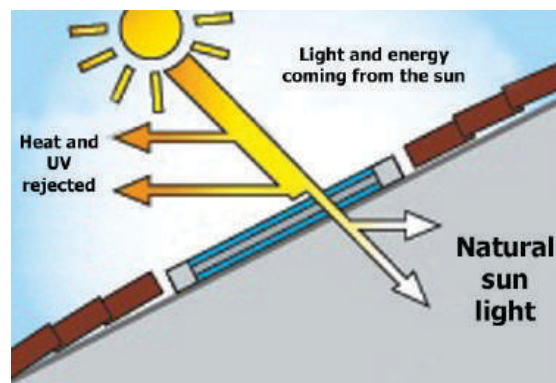
Painting options:

| Traditional<br>HONEY | Classic<br>WALNUT | Lacquered<br>WHITE | HIGH<br>PROTECTION |
|----------------------|-------------------|--------------------|--------------------|
|----------------------|-------------------|--------------------|--------------------|



## HIGH-TECHNOLOGY GLAZING UNIT

Axel studied its smart glass wall system in order to allow the light transfer, but at the same to protect the internal environment from the penetration of humidity and hot and cold temperatures. Furthermore, this perfect system allows to conserve the temperature desired in the house, saving money when refreshing or warming the house. It is possible to select different types of glass walls, depending on the different needs, considering preferences in terms of thermal insulation, sound proof and impact resistance. Moreover, on the extremity of every glass wall, Axel places a thin isolating plastic, which improves the thermal insulation and reduces the potential condensation effects around the shutter's perimeter.



### GLAZING UNIT OPTIONS

#### Inner pane 4 low emission/16/outer pane 4 tempered



Thermal performance:  $U_w = 1,51 \text{ W/mq.k} / U_g = 1,40 \text{ W/mq.k}$   
 Energy: solar factor  $g = 61\%$   
 Light trasmittance  $t_v = 79\%$   
 Acoustic performance:  $R_w = 30\text{db}$

#### Inner pane 4 low emission/16Argon/outer pane 4 tempered



Thermal performance:  $U_w = 1,27 \text{ W/mq.k} / U_g = 1,10 \text{ W/mq.k}$   
 Energy: Solar factor  $g = 61\%$   
 Light trasmittance  $t_v = 79\%$   
 Acoustic performance:  $R_w = 30\text{db}$

#### Inner pane 4/12Argon/4+4 low emission + solar factor



Thermal performance:  $U_w = 1,35 \text{ W/mq.k} / U_g = 1,20 \text{ W/mq.k}$   
 Energy: solar factor  $g = 40\%$   
 Light trasmittance  $t_v = 70\%$   
 Acoustic performance:  $R_w = 36\text{db}$

#### Inner pane 3+3 low emission/14Argon/outer pane 4 tempered



Thermal performance:  $U_w = 1,27 \text{ W/mq.k} / U_g = 1,1 \text{ W/mq.k}$   
 Energy: solar factor  $g = 60\%$   
 Light trasmittance  $t_v = 78\%$   
 Acoustic performance:  $R_w = 35\text{db}$

#### Inner pane 4 low emission/12Argon/outer pane 4+4 sound proof



Thermal performance:  $U_w = 1,43 \text{ W/mq.k} / U_g = 1,30 \text{ W/mq.k}$   
 Energy: sola factor  $g = 54\%$   
 Light trasmittance  $t_v = 77\%$   
 Acoustic performance:  $R_w = 39\text{db}$

#### KLIMA glazing unit:

##### 3+3 low emission-14Argon/4/12 Argon/4 tempered



Thermal performance:  $U_w = 1,12 \text{ W/mq.k} / U_g = 0,90 \text{ W/mq.k}$   
 Energy: solar factor  $g = 55\%$   
 Light trasmittance  $t_v = 71\%$   
 Acoustic performance :  $R_w = 36\text{db}$

# HB model

## CENTRE PIVOT WINDOW

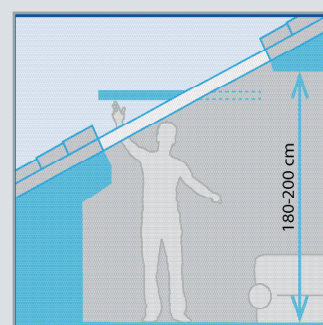


HB is a very well equipped center pivot window with hinges located in the middle of the window height. It has an easy operation thanks to the use of handle positioned on the lower part of the sash. The sash when rotated is supported by a groundbreaking supplementary mechanism, which allows you to leave the window open in any position.

- "Thermix" seal on the perimeter of the glazing unit to avoid water condensation.
- Can allow air ventilation even when the window is closed.
- Easy and simple installation process.
- Available with various types of glazing unit included laminated and toughened.
- Easy and safe cleaning of external pane and blinds installation thanks to the possibility to rotate and block the sash up to 180 degrees.
- Wood coated with two coats of ecological lacquer.

### DIMENSIONS

|       |       |       |       |        |       |        |        |       |        |       |         |        |
|-------|-------|-------|-------|--------|-------|--------|--------|-------|--------|-------|---------|--------|
|       |       |       |       |        |       |        |        |       |        |       |         |        |
| 48x98 | 55x78 | 55x98 | 66x88 | 66x118 | 78x98 | 78x118 | 78x140 | 94x98 | 94x140 | 94x55 | 114x118 | 134x98 |



POSSIBILITY OF INSTALLING ELECTRICAL CONTROL



SUITABLE FOR ROOF PITCHES BETWEEN 15° AND 80°



WIDE RANGE OF ACCESSORIES

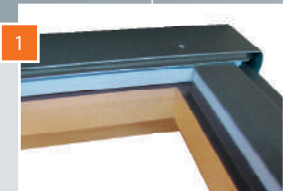
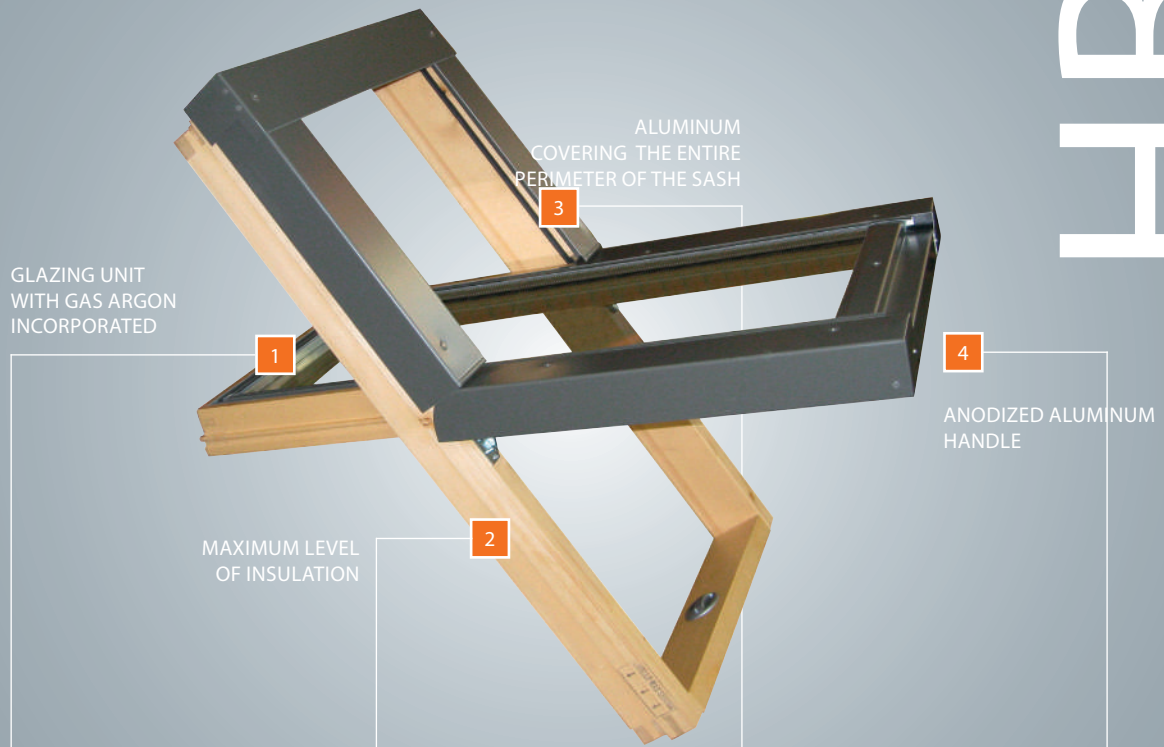


## MAIN BENEFITS:

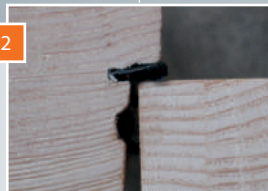
- Suitable for roof pitches between 15° and 80°
- Can open the window sash in any position
- Easy and safe cleaning of the external pane
- Can allow ventilation even when the window is closed



# B H B



1 Premium glazing unit with inner pane low-emission heat-reflecting, and outer pane tempered. The space between the panes is filled with Argon gas. Window UG 1.1.



2 Seal projected to allow perfect insulation from rain, wind and air.



3 UV resistant cladding made from coated aluminum for long-term performance. Aluminum covering the entire sash's boarder to improve the window's performance. Aluminum's back side covered with a particular plastic to avoid condensation effects.

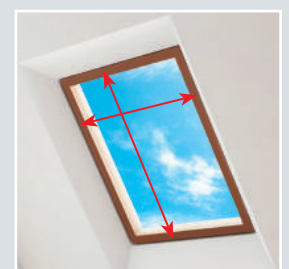


4 Aluminum handle. In order to check the quality and duration of the handle we examine it through a test of 15.000 openings and has a 10 years warranty.

## CUSTOMIZED MEASURES

Axel can customize any kind of window, depending on the different needs of the customer.

| Width   |        |                     | Height  |        |                     |
|---------|--------|---------------------|---------|--------|---------------------|
| Minimum | 40 cm  | Minimum hole 36 cm  | Minimum | 60 cm  | Minimum hole 56 cm  |
| Maximum | 134 cm | Maximum hole 130 cm | Maximum | 140 cm | Maximum hole 136 cm |



# SINTESI model

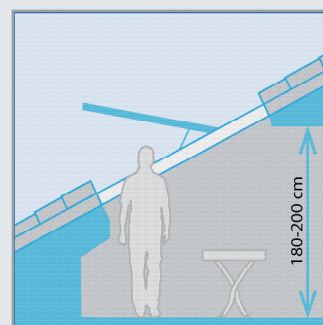
## PIVOT WINDOW WITH ROTATION AXIS PLACED ABOVE THE MIDPOINT OF ITS HEIGHT



The SINTESI model opens in pivot function, but the rotation axis is placed above the midpoint of its height, so that the window's sash does not occupy any space inside the house when opening. Easy operation thanks to the use of handle positioned on the lower part of the sash .

- Window's sash when rotated is supported by a groundbreaking supplementary mechanism, which allows you to leave the sash open in any position 0°-90° for an easy exit to the roof.
- "Warm Edge" seal on the perimeter of the glazing unit to increase insulation performance.
- Can allow air ventilation even when the window is closed.
- Easy and simple installation process.
- Available with various types of glazing unit included laminated and toughened.

### DIMENSIONS



POSSIBILITY OF INSTALLING ELECTRICAL CONTROL



SUITABLE FOR ROOF PITCHES BETWEEN 15° AND 80°



WIDE RANGE OF ACCESSORIES







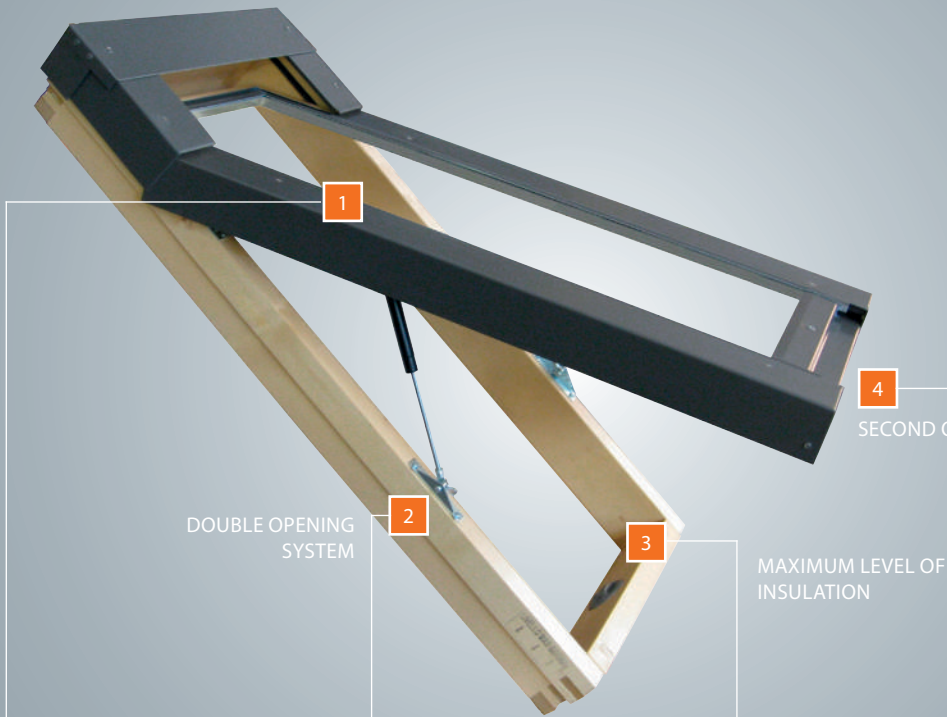
## MAIN BENEFITS:

- Easy and safe access to the roof
- No space occupied by the sash inside the house when opening it
- It can allow ventilation even when the window is closed



# SINTESI

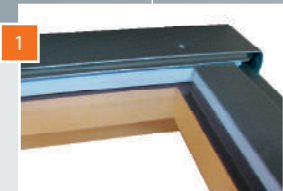
GLAZING UNIT WITH GAS ARGON INCORPORATED



SECOND OPENING

DOUBLE OPENING SYSTEM

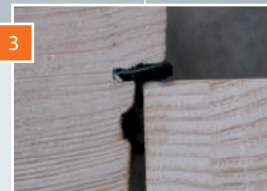
MAXIMUM LEVEL OF INSULATION



Outer pane tempered which improves the insulation performance and the impact resistance.



This supplementary mechanism allows a double opening system: a 0°- 45° degree opening and a 0° - 90° opening.



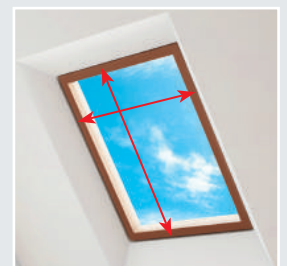
Seal projected to allow perfect insulation from rain, wind and air.



## CUSTOMIZED MEASURES

Axel can customize any kind of window, depending on the different needs of the customer.

| Larghezza |        | Altezza      |        |
|-----------|--------|--------------|--------|
| Minimum   | 40 cm  | Minimum hole | 36 cm  |
| Maximum   | 134 cm | Maximum hole | 130 cm |



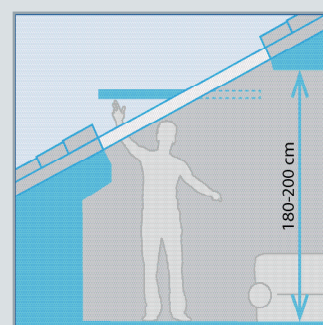
# KLIMA model

## MAXIMUM THERMAL INSULATION








Exceptional roof windows intended for energy-efficient construction and total insulation from hot or cold temperatures.

- The glazing unit is set in a particularly designed sash frame. It has wider wooden profiles, compared with a standard window. This design reduces the occurrence of thermal bridges and delivers better insulation of the window.
- "Warm edge" seal on the perimeter of the glazing unit to avoid water condensation.
- Can allow air ventilation even when the window is closed.
- Easy and simple installation process.
- Easy and safe cleaning of external pane and blinds installation thanks to possibility to rotate and block the sash up to 180 degrees.
- Wood coated with two coats of ecological lacquer.



### DIMENSIONS

|   |   |   |   |   |
|---|---|---|---|---|
|  |  |  |  |  |
| KL9   | KL20  | KL5   | KL4   | KL8   |
| 55x98   | 66x118  | 78x98   | 94x98   | 114x118   |



POSSIBILITY OF INSTALLING ELECTRICAL CONTROL



SUITABLE FOR ROOF PITCHES BETWEEN 15° AND 80°

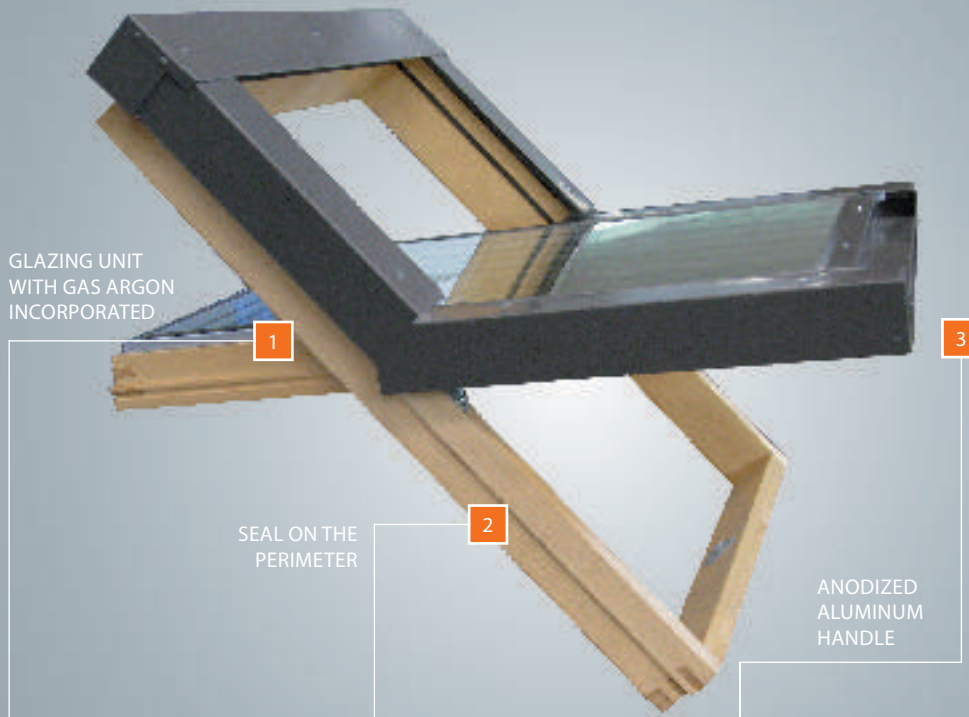


WIDE RANGE OF ACCESSORIES



## MAIN BENEFITS:

- Maximum thermal insulation
- Can open the window sash in any position
- Easy and safe cleaning of the external pane
- Can allow ventilation even when the window is closed



# KLIMA



1

Premium-quality glazing unit with inner pane with double low-emission heat reflecting glass, central pane tempered and outer pane tempered (UG 0,9). The two spaces between the panes are filled with Argon gas.



2

Seal projected to allow perfect insulation from rain, wind and air



3

Aluminum handle. In order to check the quality and duration of the handle we examine it through a test of 15.000 openings and has a 10 years warranty.

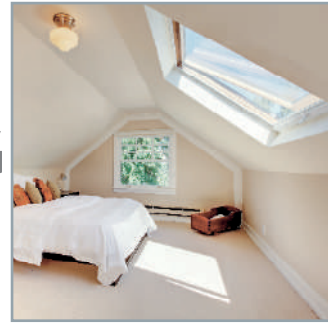
## EXTERNAL TRIM INSULATED



The external trim is wider than all the other models to increase the insulation performance. Moreover, it is covered with UV resistant cladding made from coated aluminum for long-term performance. Aluminum covering the entire sash's boarder to improve the window's performance. Aluminum's back side covered with a particular plastic to avoid condensation effects.

# BBO model

## DOUBLE OPENING: PIVOT AND TOP HUNG



**MAIN BENEFIT:** the window's sash does not occupy any space inside when you open the window. The double opening allows an easy and safe cleaning of the external pane.

# BBO



METALWARE

ALUMINUM COVERING THE ENTIRE SASH'S BOARDER



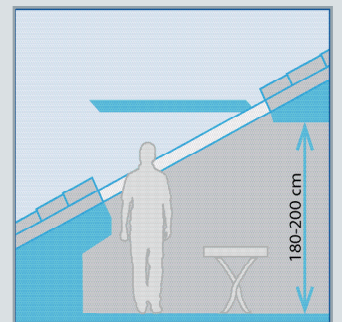
Solid opening mechanism for a safe and easy opening



UV resistant cladding made from coated aluminum for long-term performance. Aluminum covering the entire sash's boarder to improve the window's performance. Aluminum's back side covered with a particular plastic to avoid condensation effects.



Top-hung opening.



-BBO brings comfort to the user by allowing a top-hung opening and the pivot type opening. A simple switch positioned at the side of the sash, permits to change the window from pivoting version to top-hung one easily.

-Axel suggests this model when the window needs be installed in the lowest part of the roof. The top-hung opening function allows the sash to be open in any position from 0 to 35 degrees while the pivot function allows the sash to be rotated up to 180 degrees.

### DIMENSIONS

|       |        |       |       |
|-------|--------|-------|-------|
|       |        |       |       |
| BBO9  | BBO20  | BBO5  | BBO4  |
| 55x98 | 66x118 | 78x98 | 94x98 |



POSSIBILITY OF INSTALLING ELECTRICAL CONTROL



SUITABLE FOR ROOF PITCHES BETWEEN 15° AND 55°



WIDE RANGE OF ACCESSORIES



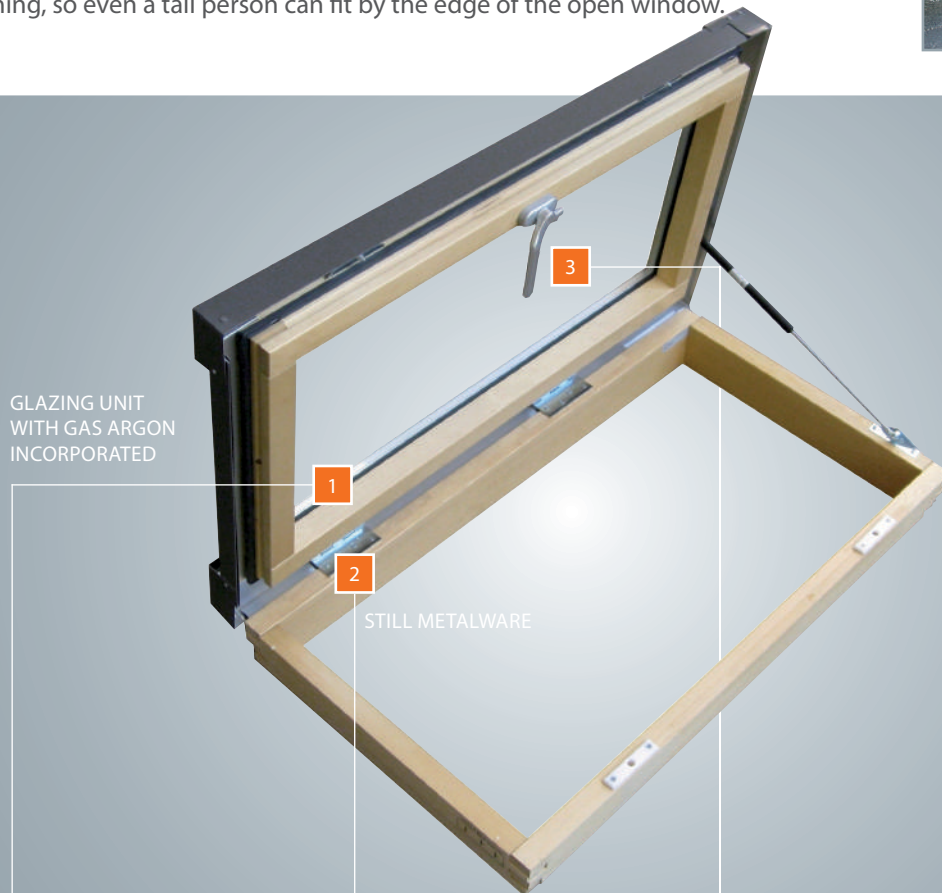
# BHLX model

## FOR AN EASY ACCESS TO THE ROOF

**MAIN BENEFITS:** Easy access to the roof . the sash does not occupy any space inside when opening, so even a tall person can fit by the edge of the open window.



# BHLX



GLAZING UNIT WITH GAS ARGON INCORPORATED

STILL METALWARE



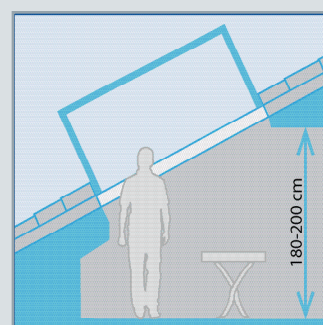
Outer pane tempered which improves the insulation performance and the impact resistance.



The sash is supported by a gas spring that allows a gradual and easy opening



Handle that allows to keep the window open in a midpoint position



- The BHLX model enables a safe and easy access to the roof and also acts as an escape window
- "Warm edge" seal on the perimeter of the glazing unit to avoid water condensation.
- Can allow ventilation even when the window is closed.
- Easy and simple installation process.
- Available with various types of glazing units included laminated and toughened.
- Wood coated with two coats of ecological lacquer.

### DIMENSIONS



BHLX9

55x98



BHLX5

78x98



POSSIBILITY OF INSTALLING ELECTRICAL CONTROL



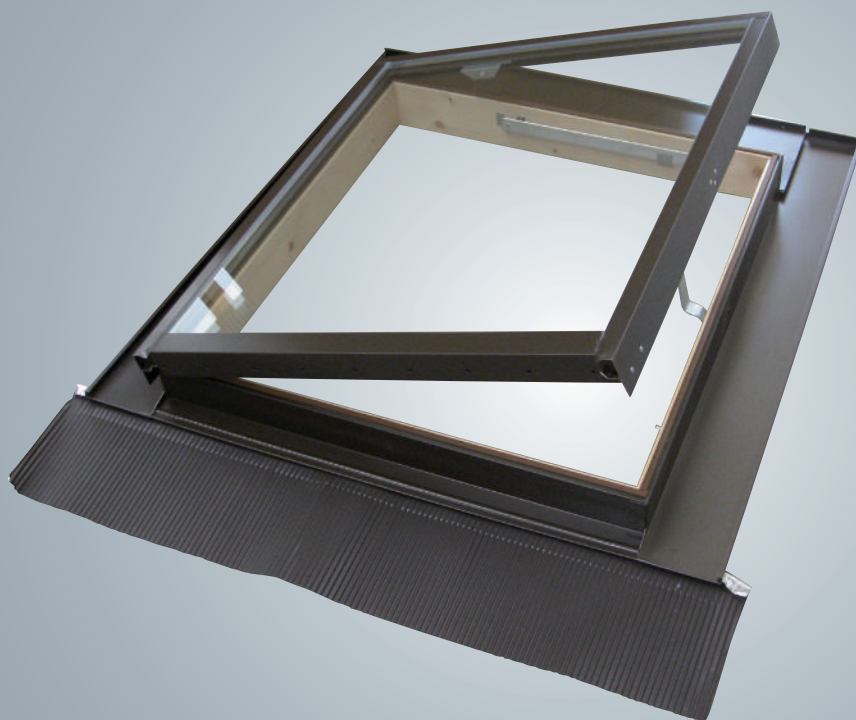
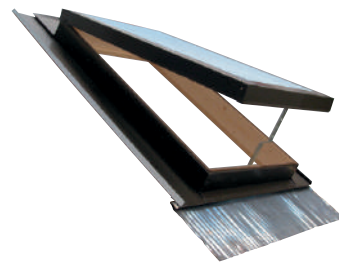
SUITABLE FOR ROOF PITCHES BETWEEN 15° AND 55°



WIDE RANGE OF ACCESSORIES

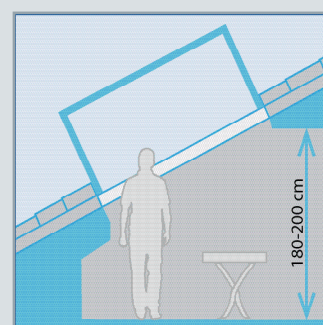
# UNIKO model c€

## SKYLIGHT FOR THE ROOF ACCESS



# UNIKO

- Manual opening and closing mechanism.
- Made from premium fir wood.
- Quick and easy to install - no brackets.
- Enables safe and easy access to the roof and also acts as an escape window.
- UV resistant cladding made from coated aluminum for long-term performance.
- Glazing unit with outer pane tempered, and inner pane laminated.
- Glazing unit with inner pane low-emission heat-reflecting, outer pane tempered (UG 0,9). The two spaces between the panes is filled with Argon gas.
- Handle made of steel, that allows four different opening positions.
- To be used in uninhabited attics.



### DIMENSIONS

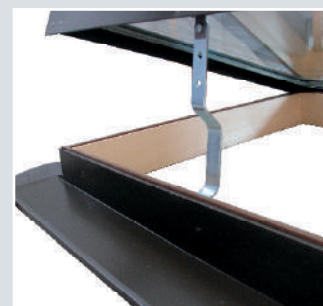


UNIKO

74x80



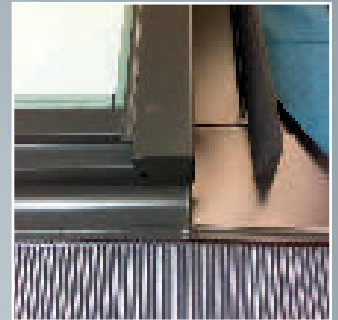
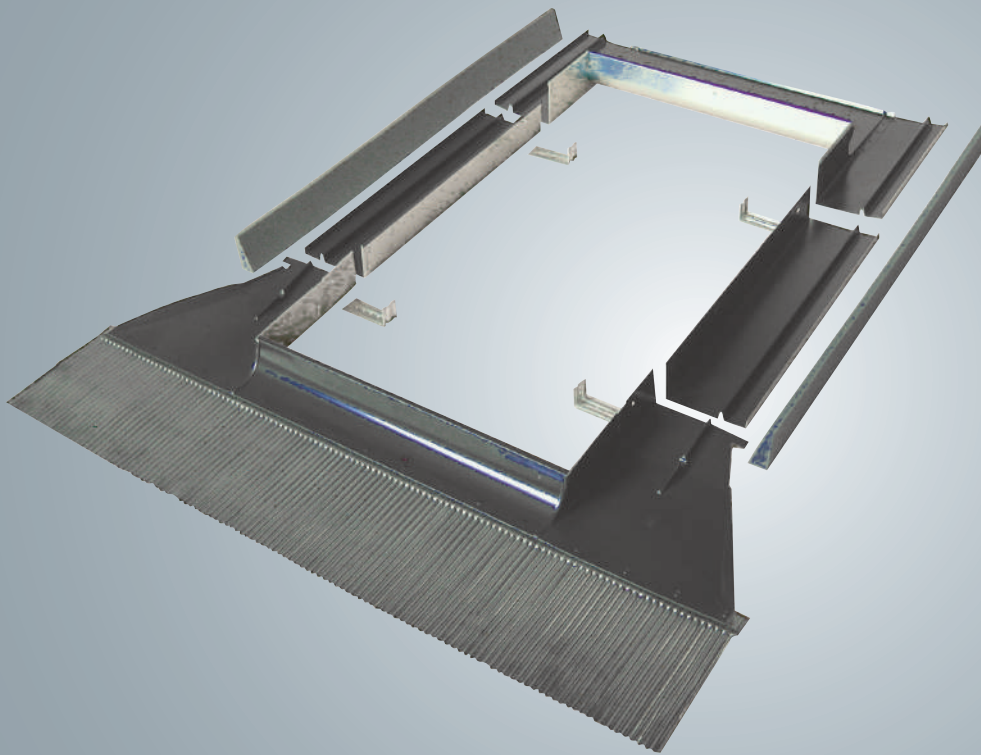
SUITABLE FOR  
ROOF PITCHES  
BETWEEN 15°



# FLASHING AND ACCESSORIES

Axel's flashings are made of aluminum coated with RAL 7022, a special varnishing that protects the aluminum or of copper. The frontal part is made of lead coated with RAL 7022 and it can be applied to every type of surface as it is adaptable. Axel also offers flashing for flat roofs.

When multiple windows are connected together Axel produces a flashings set that allows the lateral combination of them. Every part of the window, flashings included can be personalized for any special need.



For the KLIMA model, the flashing is provided with a special frame made of

## INSULATION FOR RAIN, AIR, WIND, VAPOR AND NOISE.

During the installation of the window, Axel's installation team verifies that the window or the skylight closes perfectly, to avoid :

- Entrance of hot air during hot periods
- Loss of warm air during cold periods
- Condensation effects
- Loss of comfort due to the air passing from the window
- Noise

In order to avoid the above consequences it is useful to apply on the window a special Axel's tape, before the installation of the flashings.



# INTERNAL AND EXTERNAL BLINDS: LIGHT CONTROL



## BLACKOUT ROLLER BLIND

Black out roller blind SRF allows you to obtain complete darkness even in the brightest room. Aluminum rails covering the edges of the blind, a special seal in the bottom aluminum strip, as well as a special plastic material covering the blind, work to stop the light entirely while reducing heat flow both in winter and in summer. The side rails allow you to stop the blind in any position. It is manually or electrically operated.



## DOUBLE OPTION BLIND, BLACKOUT AND SHADING

Very useful to control the intensity of light and temperature coming from the window. The side rails allow you to stop the blind in any position. It is manually or electrically operated.



## PLISSÉ BLACKOUT BLIND

Allows you to obtain complete darkness in any room. The fabric is made of water repellent and antistatic material. The side rails allow you to stop the blind in any position. It is manually or electrically operated.

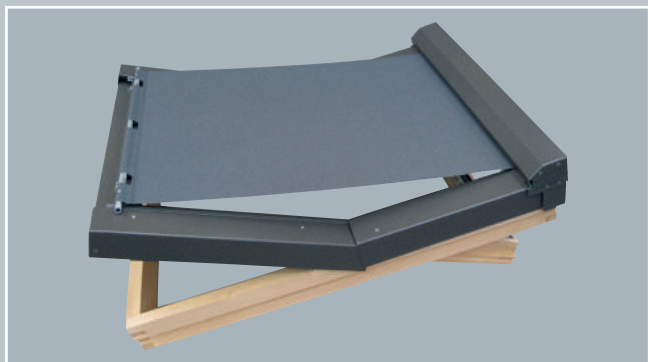


## PLISSÉ SHADING BLIND

Light diffusing water repellent and antistatic material. Allows diffused light to enter the room. It is manually or electrically operated.







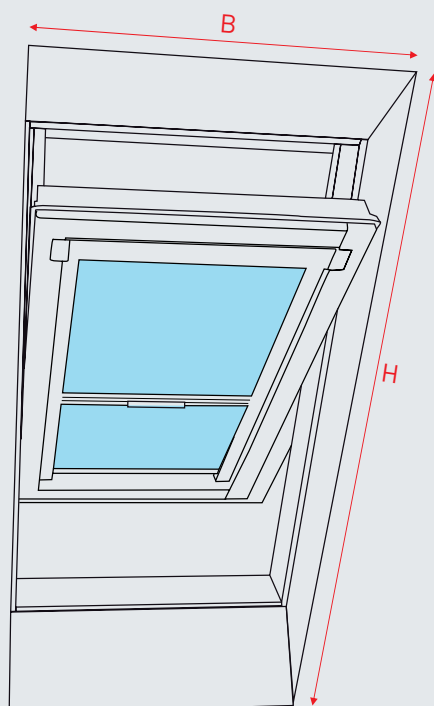
### EXTERNAL SHADING BLIND

External blind manually operated which allows for a perfect insulation from the heat. It is installed on the sash of the window and it allows any movement of the window. It can not be installed on BHLX model.



### REMOTE MANUAL CONTROLS

Manual actuator to open the roof windows with a beam of 150 cm. Maximum height 260cm.  
Beam to open windows and blinds are also available in any measure.



### INSECT SCREEN

The insect screen is manually operated and it is available for any kind of window.

### MODEL TAG

Every products has a label which certifies the safety of the product. Furthermore the label is useful to ask the company the accessories that comply with that specific model.

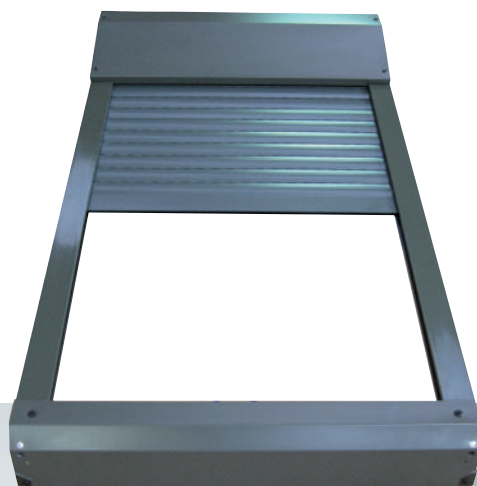


# ACCESSORI MOTORIZZATI



## WINDOWS MOTOR

This system is studied to open the window automatically. The control can be placed on the wall or it is possible to use a remote control. The motor has a 220v power and it allows to open the window in two different positions 24 or 36 cm. It is possible to order the motor also after the installation of the manual model.

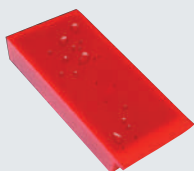


## EXTERNAL ALUMINUM BLIND

This blind model perfectly protects the window from the rain and the wind and it is also useful against the burglars. It allows to close the window and to create dark and shade just pressing a button. It is delivered already installed to facilitate the application on the window. It can be provided with a remote control for an easy opening from everywhere. It can be provided with a solar panel that makes the blind work without electricity.



CONTROL UNIT



RAIN SENSOR



REMOTE CONTROL



4 CHANNELS CONTROL UNIT

(controls up to 4 different windows)



# WARRANTY AND CERTIFICATIONS

**10** 10-YEAR WARRANTY ON WINDOWS AND FLASHINGS

**3** 3-YEAR WARRANTY ON THE ACCESSORIES

Axel constantly implements controls and certifications on its products which are always attached to the products in the package.

Axel's products are made of the best materials and with the top quality along all the production chain. This allows us to give a 10 year warranty on our windows and skylights and a 3 year warranty on blinds and accessories.





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