USER MANUAL FOR WINDOWS, DOORS, BLINDS AND SHUTTER SYSTEMS

deceuninck

Dear Customer,

Congratulations on selecting high-quality Deceuninck products.
Please familiarize yourself with this user manual to ensure many years of trouble-free operation.

ekolojik

All Deceuninck profiles are lead-free and use environmentally friendly Calcium-Zinc. Our Environmental Product Declaration (EPD) is proudly certified by IBU, ensuring that Deceuninck is the right choice for a brighter and cleaner future.

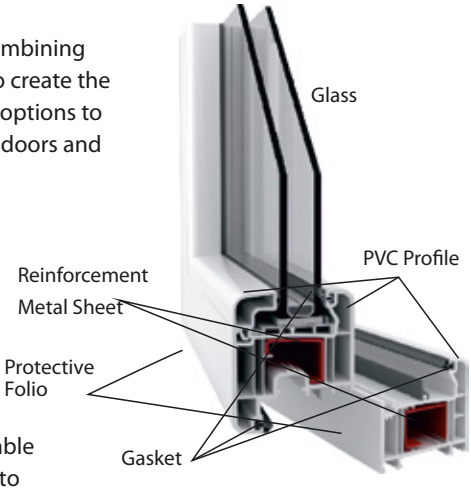
Incorporated above

Deceuninck complies to; EN ISO 9001: 2008 Quality Management System, EN ISO 14001: 2004 Environment Management System, EN 18001: 2008 Occupational Health and Safety Management System Certificates. Additionally Deceuninck systems have received: EN 14351+A1, Ukraine, Romania, Russia Standards Quality Certificates.

innovation *ecology* *design*

WINDOW COMPOSITION

* Deceuninck profiles are designed to be versatile, combining the many sash profiles, frame profiles and mullions to create the right product for you. There are many available glass options to select from as well as ancillary profiles that give your doors and windows a personally designed outcome.



*** STEEL REINFORCEMENT**

Specially designed galvanized steel reinforcement profiles are available in various thickness options. This enables us to increase wind deflection where necessary and best suit your local conditions.

*** TPE GASKET**

Deceuninck has developed an innovative and recyclable TPE gasket which is factory-mounted on our profiles to provide the best available sealing system that minimizes air infiltration.

*** GLASS**

Being a large part of your building envelope, glass is an important element in your home. Effective insulation from sound and heat is largely dependent on good glass choices. Double glazed units with a minimum gap of 16mm is the ideal solution and is easily accommodated by all Deceuninck systems.

*** ACCESSORIES**

Deceuninck have an excellent range of accessories such as handles and hardware to provide easy operability and security to all opening types and sizes.

*** PROTECTIVE FOLIO**

All Deceuninck uPVC profiles are supplied with a factory fitted protective film to minimize any scratching or blemishes during transit or assembly.

IMPORTANT: THE PROTECTIVE FOIL SHOULD BE REMOVED IMMEDIATELY AFTER ASSEMBLY

ATTENTION ELEMENTS

WATER DRAINAGE CHANNELS

* During rainfall, water is drained from the window through water drainage channels. These channels are slot-shaped and a minimum width of 30mm.

* In order to reduce wind pressure and facilitate effective water drainage, specially designed drainage caps should be installed. Drainage slots should be above the level of any plaster or masonry structures to ensure disbursement away from the building envelope.

* Drainage slots should be periodically checked for any blockages to prevent internal ingress.

AIR VENTILATION HOLES

* Proper use of specified air holes is imperative towards a windows high performance.

* Water drainage is greatly assisted by properly located air holes, further protecting the door or window against flooding. Example: Much like holding water within a drinking straw by blocking the top opening, effective drainage acts in the same way.

* In regions with extreme temperature differences, air holes are used to manage the expulsion of any residual heat within the profiles.

IMPORTANT: Check the presence of water drainage channels and air holes on the PVC profiles and contact your dealer if they are not present.

HINGED SYSTEM

The Deceuninck Hinged System is the commonly used name for doors and windows that open by way of a connecting hinge. Designed to be used as both inward and outward opening products, this systems is the most popular amongst our types. Double opening systems are particularly sought after for its highly-efficient ventilation capabilities.

In Deceuninck Product Group the following hinged options are available:

* Legend = 80 mm
* Zendow = 70 mm
* Fusion = 70/60 mm
* EverestMax = 60 mm

Examples of the Hinged Systems

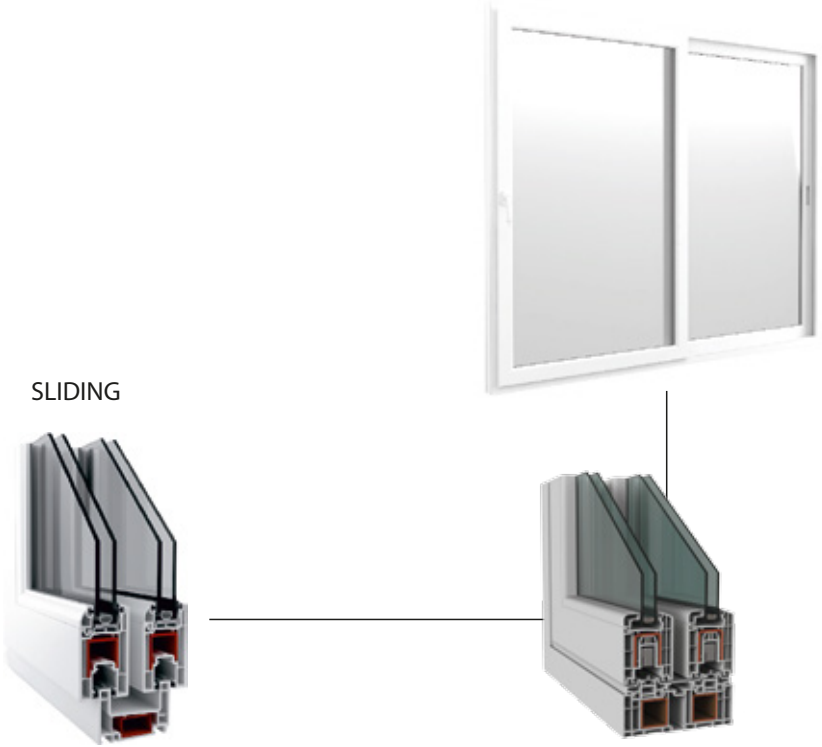
SLIDING SYSTEM

FEATURES OF THE SYSTEM

The Deceuninck Sliding System utilizes sashes that are opened or closed by sliding horizontally on an integrated railing system incorporated into the frame. The Sliding System is gaining in popularity due to its design that minimizes the need for swing space normally required by a hinged system.

The Deceuninck Product Group offers the following Sliding systems:

* Sliding System
* HS76 Sliding System: An exciting lift and slide system that offers unsurpassed sash sizes and exceptional sealing performance.
* Parallel sliding or bi fold door applications



STORBOX ROLLER SHUTTERS

Storbox Roller Shutters are ideal for rooms where lighting control is important and excess sunlight needs filtering. The effective use of roller shutters offer significant improvements to the home's thermal and acoustic performance.

Operation of the shutters can be assisted by a manual pulley motorized systems.
Being a highly versatile system, the dimensions of the box and lamination options are changeable to suit your application.

LOUVRE SHUTTERS

* Shutter systems can make a real difference to your home's appearance as well as help control the desired level of sunlight.
* Our shutters have integrated sills that create an effective closure and maintain their appearance and performance for years to come.
* Deceuninck Louvre Shutters can be installed in two ways:
  - Mounting the louvre sashes directly to the window frame.
  - Attaching the louvre sashes onto the wall
* Inner sashes can also be included within the main sash. These can be opened for ventilation purposes while the main sash is kept closed.
* The number and intervals between louvres are variable and can be fine tuned to best suit your needs relating to sunlight and aesthetics.
  In the panel applications the shutter sash is completely closed.
* Deceuninck offer a range of laminate colour options to match your home's colour palate.

FLY SCREEN

* Deceuninck fly screen options are adaptable to suit all our styles and systems. Being a complete system, they can be modified according to the opening type of all windows and doors within our range.
* Our sliding fly screen is best used with our sliding sash systems and our inward opening fly screen is perfectly suited to our hinged systems.

OPENING TYPES

OPENING TYPES

SINGLE OPENING WINDOW

Opening the window sash

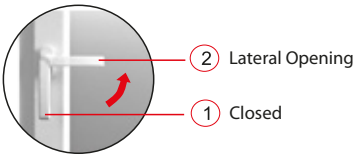
- It is opened by moving the handle from Position 1 to Position 2.
- In the single opening window the handle should not be moved upwards when it is in position 2.

Closing the window sash

- After closing the sash completely the handle is moved from Position 2 to Position 1 for locking the window.

Closed

Open



OPENING TYPES

DOUBLE OPENING WINDOW

Closed

DOUBLE OPENING

- The transom opening is an efficient solution for ventilating the indoors while preventing wind from directly entering.

LATERAL OPENING

- It is opened by moving the handle from Position 1 to Position 2.
- After closing the sash completely the handle is moved to Position 1 to lock the window.

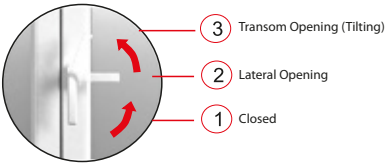
NOTE: The handle should never be moved to Position 3 while the sash is open.

Open

Transom Opening (Tilting)

TRANSOM OPENING (Tilting)

- Tilt the sash open by moving the handle from Position 1 to Position 3.
- After closing the sash completely, the handle is moved to Position 1 to lock the window.



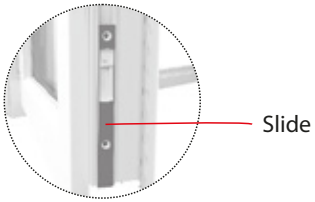
DOUBLE OPENING WINDOW

DOUBLE OPENING WINDOW

There are two openable sashes within the window.
Two different types of accessories can be chosen.

Opening the Sashes

- The sash (B) with handle is opened by moving the handle from Position 1 to Position 2.
- The sash (A) is opened by sliding the lower latch upwards and the upper latch downwards.



Picture: Opening the Double Sash Window

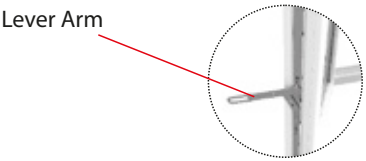
Closing the Sashes

- First the sash (A) is closed by locking the latches.
- Then sash (B) is closed and locked by moving the handle from Position 2 to Position 1.

OPENING TYPES

DOUBLE SASH WINDOW

- The other choice for double sash window is the employment of the lever arm.
- In that design the sash B can be opened in two ways.

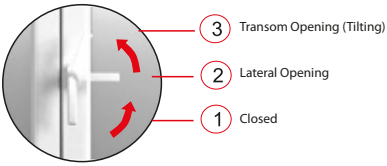


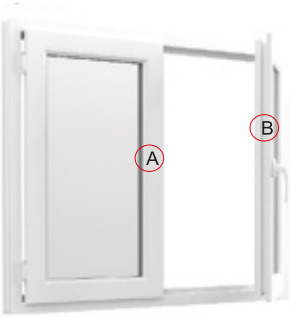
Lever Arm

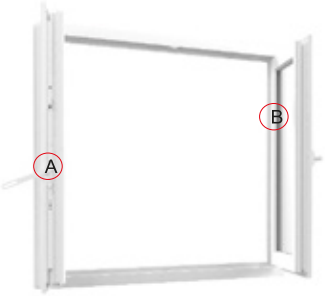
Opening the Sashes

- The sash (B) installed with a handle, is opened by moving the handle from Position 1 to Position 2
- To open sash (A) the installed lever arm is raised upwards.

Sash B







Closing the Sashes

- Close sash (A) and lock by lowering the lever arm. Then close sash (B) and lock the window by moving the handle from
- Position 2 to Position 1.

OPENING TYPES

DOOR APPLICATIONS

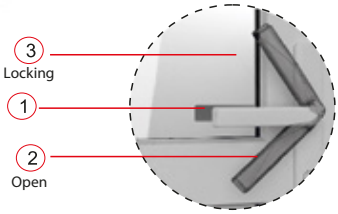
Opening Doors

- Unlock the door using the key.
- The door is opened by moving the handle from Position 1 to Position 2.

Closing Doors

- The handle is moved from Position 1 to Position 3.
- The door is locked by turning the key in reverse direction when the handle is in Position 3. (The key does not function if the handle is not raised sufficiently)

In door applications the security can be upgraded by employing a secured latch cotter.



OPENING TYPES

OUTWARD OPENING WINDOWS

- In outward opening windows the sashes can be opened vertically in addition to the horizontal opening by employing the appropriate accessories.
- In horizontal openings, the maximal window width is 900-1,200 mm, it is 600-1,200 mm in vertical openings.

HORIZONTAL OPENING

VERTICAL OPENING

Opening the Sash

- The sash with handle is opened by moving the handle from Position 1 to Position 2.
- The sash is opened outwards.

Closing the Sash

- The sash is closed inwards.
- The sash is locked by moving the handle from Position 2 to Position 1.

OPENING TYPES

Window with Espagnolette

Opening the Sash

- First the handle is moved from Position 1 to Position 2.
- Then the sash is opened by pulling it downwards.

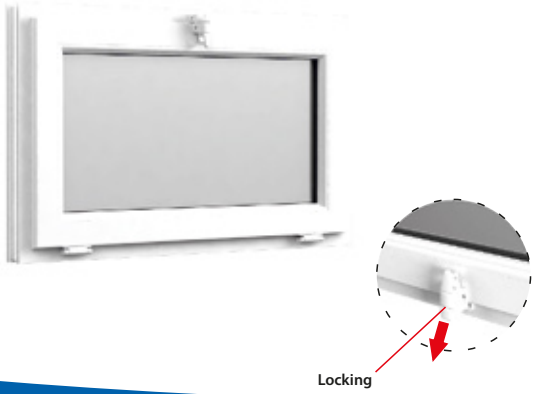
Closing the Sash

- The sash is closed by pushing forwards.
- The sash is locked by moving the handle from Position 2 to Position 1

Window with Transom Latch

Opening the Sash

- First the hatch is pulled down.
- Then the sash is opened by pulling it downwards.



Closing the Sash

- The sash is closed by pushing forwards.
- Then the sash is locked by inserting the latch in its hole.

OPENING TYPES

SLIDING

Opening the Sash

- The handle or the embedded sliding handle is moved from position 1 to position 2.
- When the handle is in position 2 the sash is opened by sliding it on the rail.

Closing the Sash (window with handle)

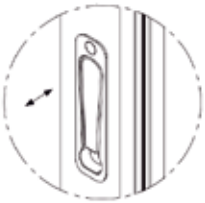
- The sash is slided the reverse direction until it is completely leaned against
- the frame.
  The sash is locked by moving the

Window with embedded handle .

- The handle or the embedded sliding handle is moved from position 1 to position 2.
- When the handle is in position 2 the sash is opened by sliding it on the rail.

Pictures: Windows with handle and embedded handle

Open



Closed

OPENING TYPES

SLIDING

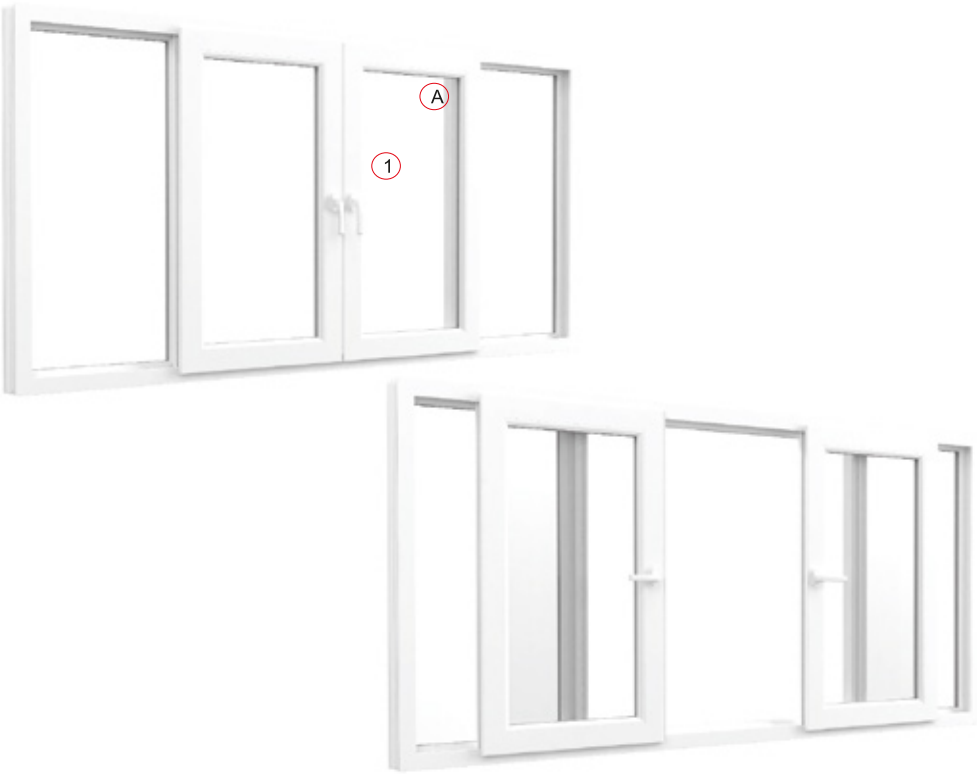
Four Sashes sliding system

Opening the Sash

- When using four sashes sliding windows, move the handle on sash A from Position 1 to Position 2.
- The two middle sashes are then free to be opened.
- Where a key lock is used, the sash should be unlocked first.

Closing the Sash

- Slide back the two sashes to their initial positions and lock by moving the handle from Position 2 to Position 1.
- Where a key lock is used, turn the key to completely lock the unit.



Window with 4 parts; in Closed and Open Positions

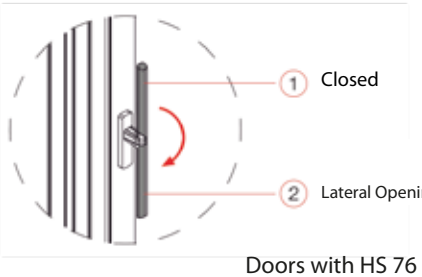
HS 76 SLIDING

Opening the Sash

- The door handle on the sash is moved from Position 1 to Position 2.
- When the handle is in position 2 the sash is opened by sliding on the rail.

Closing the Sash

- The sash is slided in the reverse direction until it is completely home against the frame.
- The sash is locked by moving the handle from Position 2 to Position 1.



Doors with HS 76 Sliding system

OPENING TYPES

AUTOMATIC PARALLEL SLIDING

In Deceuninck parallel sliding systems the parallel sliding accessories and parallel sliding handle are employed. These handles are longer than regular handles and provides easier functioning of the mechanism. The accessories provide the opening of the door in the ventilation position and the complete sliding of the sash on the rail. In the closed position, locking points are provided on all four sides of the sash. Turning the handle is prevented by our security mechanism.

NOTE: Sliding the sash at inappropriate speeds may be detrimental to the longevity of the hardware pose a safety risk to the operator. Regular inspection is recommended to ensure the rail is free and clear of household objects and obstructions.

FULL AUTOMATIC PARALLEL SLIDING AND SEMI AUTOMATIC PARALLEL SLIDING

Opening the Sash

- Move the sash by moving the handle from position 1 to position 2. Ventilation is obtained when the sash is in that position.
- The handle is moved from position 2 to position 3 and the sash is pulled forwards and slid on the rail to open.

Closing the Sash

- The sash is pulled in the reverse direction and passed onto the locking support.
- The sash is in transom position. It is locked by moving the handle from position 3 to position 1.

Closed

Tilt

Open

OPENING TYPES

PULL-OPEN PARALLEL SLIDING

Opening the Sash

- The sash is moved from position 1 to position 2.
- The sash is pulled forwards and taken in transom position.
- When the handle is in position 2 it is slid laterally to open.

Closing the Sash

- The sash is pulled in the reverse direction and passed onto the locking support.
- The sash is in transom position. It is locked by moving the handle from position 3 to position 1.

Closed

Tilt

Open

OPENING TYPES

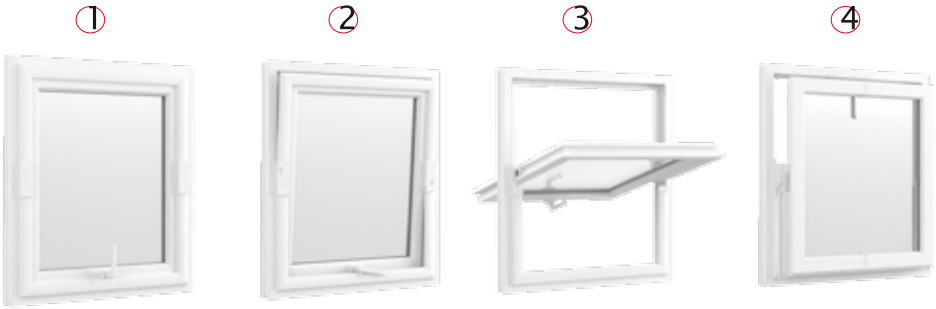
PIVOT WINDOW

- In pivot window systems there are four main positions: (1) closed, (2) Secured Ventilation, (3) Full Opening, (4) Glass Cleaning.
- In the secured ventilation position, the sash can be opened only by an angle of 15°.
- In Glass Cleaning Position, the sash can be turned by 180o and the outer surface of the glass can be cleaned.

Pivot with vertical axe

Positions of the Window

Pivot with horizontal axe



Positions of the Window

OPENING TYPES

Bİ-FOLD DOORS

Deceuninck folding doors provide the maximum available openings to the outdoors. Your gardens, pools or terraces become part of your indoor space with uninterrupted views and access.
Door leaves can be slided and stacked in either direction, creating a fully open space within the door frame.

321 (3 Parts = 2 sashes + 1 sash)

Opening the Sash

- The handle on the sash B is moved from Position 1 to Position 2.
- Sash B is opened by pulling forwards.
- The handle on sash A is moved from Position 1 to Position 2 and opened.

Closing the Sash

- The folded sashes are closed by sliding on the track system.
- The handle on sash A is moved from Position 2 to Position 1.
- The handle on sash B is moved from Position 2 to Position 1, thus locking the door.

Closed and Open Positions

OPENING TYPES

SLIDING FLYSCREEN

Opening the Sash

- Slide the sash open by operating the handle.

Closing the Sash

- Reverse the procedure to close the sash.

OPENING TYPES

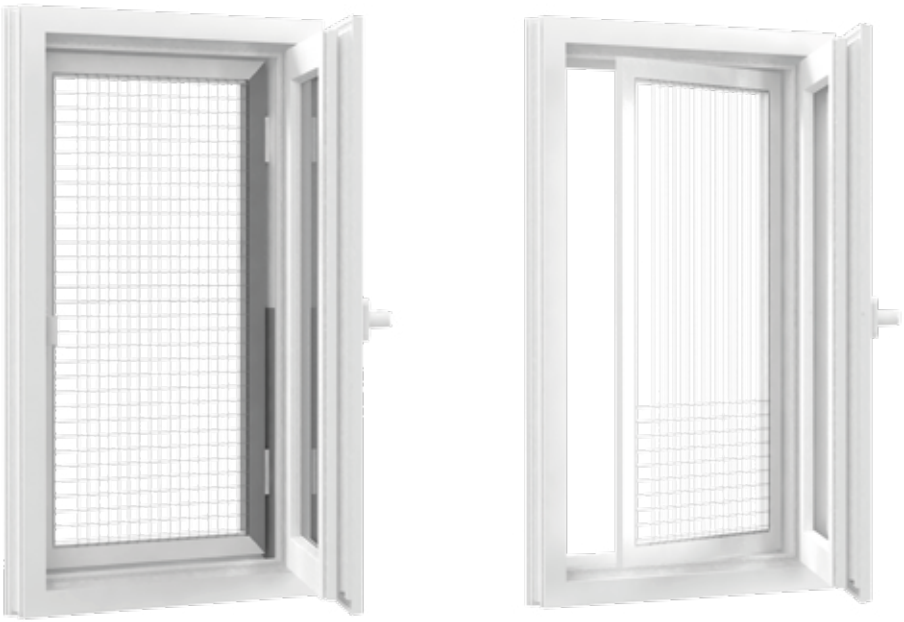
INWARD OPENING FLYSCREEN

Opening the Sash

- Open the window sash and pull the flyscreen inwards with the handle.

Closing the Sash

- Push the flyscreen forwards and snap the fitting into the corresponding holes



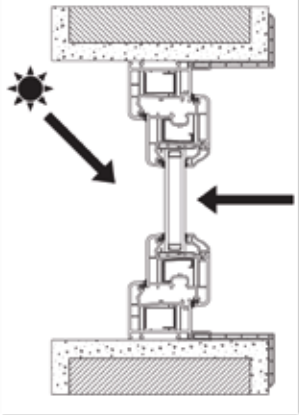
Closed and Open Positions of the FlyScreen

ENERGY SAVING
THERMAL INSULATION

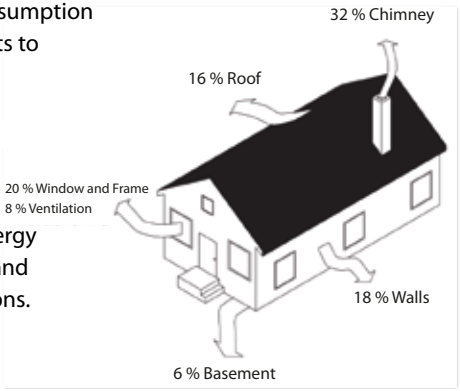
IDEAL SOLUTION FOR THERMAL INSULATION: PVC WINDOWS

- The need to improve energy efficiency and reduce comsumption is a sheer necessity. Population increases across the globe has exponentially increased our thirst for energy and created irreparable resource depletion.
  Energy costs are rapidly rising and in our country, 32 % of all energy consumption takes place in the home. Heating and cooling applications are the largest culprits in this unhealthy scenario, pushing economies and living standards to the limits. It has now become crystal clear that real savings in usage and consumption are achievable by making strong improvements to household thermal insulation.

- A staggering 28% of all heat loss in homes occurs through inefficient window insulation. Windows are no longer purely aesthetic, they are a significant vehicle towards stemming energy consumption, improving household budgets and on a larger scale, reducing greenhouse emissions.



- Thermal insulation of a window is expressed by the value U (head transfer coefficien).
  The value U denotes the capability to transfer energy. Low U values signify lower thermal conductivity; accordingly they indicate that the related material is a better insulator.



Lower U Value

Better **THERMAL INSULATION** is provided by window.

- Heat Transfer Coefficients of all our systems are tested and certificated by IFT-Rosenheim.
- For example U value of the Zendow System is 1.4 W/m2 K.

EFFECTS OF GLASS ON THERMAL CONDUCTIVITY

- Features and thickness of the glass is an important factor in thermal insulation.
- Double pane windows are 50 % more efficient than the single pane windows in thermal insulation.
- In double pane windows; increasing the space between panes up to 16 mm or filling in the space with argon gas instead of air increase the thermal insulation.

Heat conductivity coefficients of different windows with double or single panes are shown in Table 1.

$$Uw = \frac{A_f \cdot U_f + A_g \cdot U_g + l_g \cdot \Psi_g}{A_f + A_g}$$

Uw = Window Heat Conductivity Coefficient (W2/mK)
Uf = Profile Heat Conductivity Coefficient (W2/mK)
Ug = Glass Heat Conductivity Coefficient (W2/mK)
Ig = Visible glass perimeter (m)
¥g = Spacer coefficient (W/mK)
Ag = Glass area (m2)
Af = Profile area (m2)

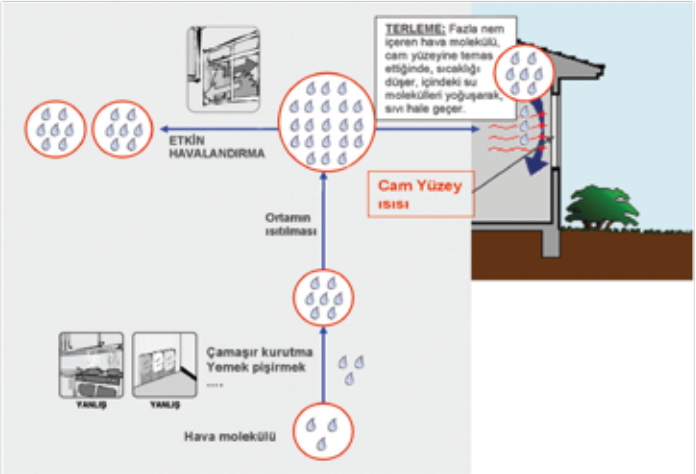
CONDENSATION

CONDENSATION

PVC window profiles used with TPE (Thermo Plastic Elastomer) gaskets, provides excellent acoustic and thermal insulation to indoor areas. This scenario of highly efficient insulation can prevent the release of humidity (moisture from cooking, hot water etc) when the outside temperatures are colder.. Periodic ventilation will prevent this from occurring.

What is condensation?

Air always contains an amount of water vapour. How much water vapour being held is dependent on air temperature. Condensation occurs when high levels of water vapour are faced with cool temperatures, causing the air to release the water vapour in the form of condensation.



Picture: Perspiration Scheme

1. AS THE TEMPERATURE DECREASES THE MOISTURE AMOUNT CAN BE HELD BY AIR DECREASES

The water vapour amounts can be held by air at defined temperatures are shown in Picture 2.

For example 1 m^2 air;

- Holds 28 gram water vapour at 30°C,
- Holds 15 gram water vapour at 20°C,
- When the temperature decreases to 0°C the air con hold only 4 gram water vapour. And the excessive water vapour amount is discharged by "CONDENSATION" (perspiration).

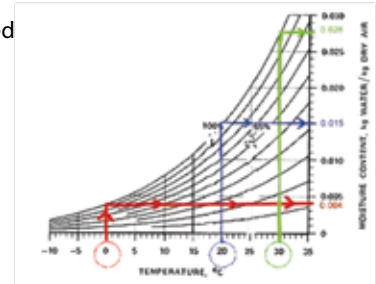


Figure 2: Psychometric Graph

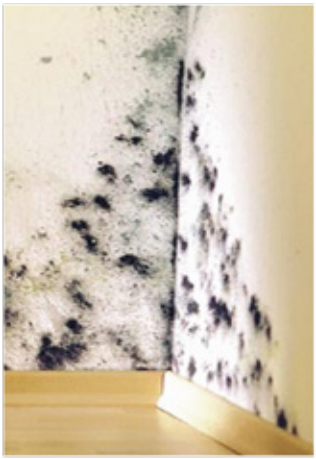
2.WHEN THE MOISTURE CONTENT OF THE AIR INCREASES, CONDENSATION OCCURS AT CERTAIN TEMPERATURES

In houses, the water vapour content of the air is continuously increased by daily activities. Generated moist amounts per hour is as follows:

• The resting human being (by breathing)	30 gram / hour
• Washing clothes	300 gram / hour
• Drying wet clothes by hanging	500 gram / hour
• Cleaning home by using water	1000 gram / hour
• Cooking	1000 gram / hour
• Taking a shower	2600 gram / hour

NEGATIVE EFFECTS OF PERSPIRATION

- Condensation on glass surfaces restricts the visibility.
- It can negatively affect the health of the habitants; it can cause allergic reactions, headaches, insomnia or dizziness.
- Stains and unpleasant odour can be caused by mould by condensation.



Mould formed on the walls

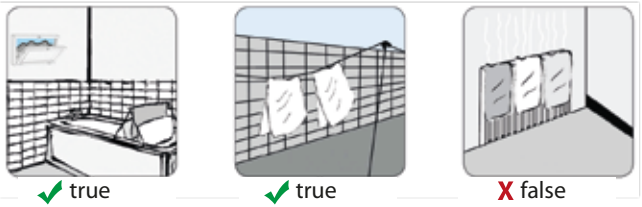
CONDENSATION

- Aesthetic problems,
- Condensation and mould formation can harm the building seriously (deterioration, corrosion etc.)
- Rusting of metal objects, electric and electronic devices.
- Spoilage of foods caused by moisture.
- Art works and cultural items are harmed in museums and libraries in that way.

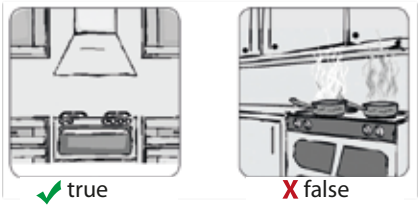
POINTS TO BE CONSIDERED AT PLACES WHERE PERSPIRATION OCCURS

Determination of the elements which generate humidity

- Washed clothes should be dried at balconies or other open places instead of the in doors.



- Most water vapour is generated in the kitchen. The aspirator should be operated during cooking.



- Places consuming more water such as baths and toilets should be well aerated.
- Doors of the rooms containing high humidity such as kitchens and bathrooms should be kept closed.
- Suitable wall paints that help room aeration should be preferred (for example plastic paints applied to ceilings can hinders aeration).
- Plastic flooring materials and ceramics used in the indoors affect aeration negatively.
- For heating purposes, air conditioners or central heating should be preferred over kerosene stoves.
- Water should not be heated on the stove or heater.
- Rooms should be ventilated after cleaning.
  Homes with aquariums should be particularly ventilated frequently.

VENTILATION

VENTILATION

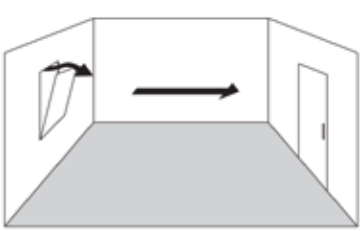
Ventilation is the freshening of the air within a room or building.
In addition to removing humid air, ventilation also supplies fresh air into the home.

EFFECTIVE VENTILATION :
In order to minimize the energy loss during ventilation it should be done in the shortest possible time and in an effective way.

VENTILATION METHODS (Double Opening) :

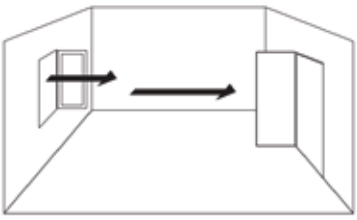
1. Ventilation by transom opening:

- The room is filled with fresh air within one hour.



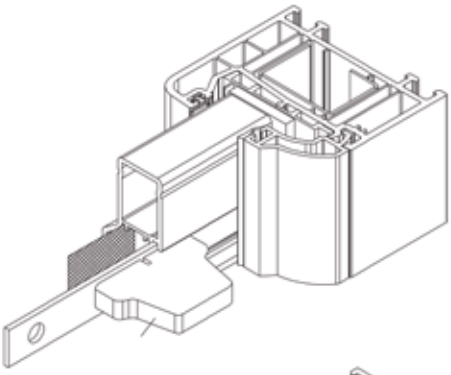
2. Cross ventilation by opening windows on the opposite walls:

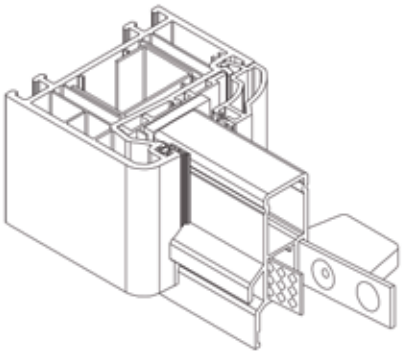
- The room is filled with fresh air within 5-10 minutes.
- It is the most efficient ventilation method.
- In winter it should be completed before the walls, furniture, ceiling and floor become cold (without much heat loss).

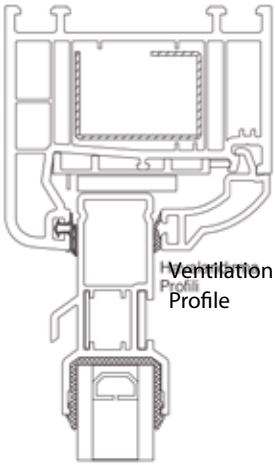


3.Ventilation Profile:

- Effective ventilation can be maintained by using the ventilation profile.
- Ventilation system can be opened or closed by help of a hand knob.







Ventilation Profile

Ventilation Profile

CLEANING AND MAINTENANCE OF THE WINDOWS

Dirt is formed on the surfaces of the windows due to several external or internal conditions. In the rooms where ventilation is insufficient, the excessive humidity and heat from daily activities (cigarette smoke, cooking, ironing, shower, plant watering, aquarium etc.) can create dirt.

Other parts of the room can also be soiled from air pollution, dust, coal consumption etc.

PVC PROFILES :

Protective foil should be promptly removed after completing the assembly. If some construction work (plastering, painting, etc.) continues after the assembly the protective foil should not be removed until those works are finished. Protective foil subjected to sunlight for a long time can stick on PVC profiles. Therefore the protective foil on the exterior surfaces of the building should be promptly removed.

First Cleaning of the Window or Door :

During the transport sand and other solid particles can be present on the surfaces therefore more attention should be paid to avoid harming the surfaces of the profiles.

- Impurities such as mortar or paint should be cleaned before drting. Cleaning should be made without scratching. Construction materials such as cement or lime splashed on the glass or accessories can react with the pvc materials so they should be cleaned without delay.
- The profiles should be cleaned by using a clean white cloth and liquid detergent not containing watered solid particles.
- Use of chemicals causing surface wears (acetone, methylene chloride, thinner etc.) in cleaning should be certainly avoided.
- Cleaning should not be made only by using a dry cloth, but also a moist cloth should be used for wiping the surfaces.
- PVC profiles should not be painted externally. If a colour other than white is preferred other colour alternatives can be chosen by getting into contact with Deceuninck Dealer. Externally painted profiles are not covered by guarantee of our firm.
- Cleaning of the windows coated with laminate (coloured/wood patterned) should be made by using a moist cloth.

ACCESSORIES

- Accessories are items such as hardware, mounted on the windows for facilitating opening or closing. In order to maintain the smooth and easy functioning of the accessories, the moving parts should be lubricated once a year.
- When cleaning the doors of humid rooms such as bath and toilet etc. pressurized water should not be used. Door handles and locking mechanisms can be affected by water.
- To ensure the long life of your accessories, any adjustments of the accessories should be made carefully.
- You can ask technical support from your dealer about the adjustments of the accessories.

TPE GASKET

- TPE (Thermo Plastic Elastomer) gaskets are mounted on profiles for weather tightness of the windows. While opening and closing the window, the upper soft part of the gasket can be seen. That part of the gasket is specially designed to obtain good water and air isolations.
- TPE gasket does not leave traces on the window even after long uses.
- Cleaning of TPE gasket should be made with soapy water.

GLASS

Glass covers the largest area in the window, therefore it is the most important element in the isolation matters.

CLEANING THE GLASS

- Glass should be wiped with a clean cloth.
- Knives and similar sharp objects should not be used for removing stains from the surface of the glass.
- If a special glass (glazed etc.) is employed, the relevant cleaning instructions should be applied.
- If the glass of the window is broken get into contact with your dealer.
- If necessary, it is possible to turn your single glass window to a double glazed window by mounting a spacer. (This modification can be possible after the necessary checks are made by the authorised dealer).

CE LABELLING

Dealer's Name/ Address:	
Year of Issue: ….15	
Joinery Type:	TS EN 14351 - 1 + A1
Dimensions (mm)	1490 x 2300
Air Permeability Class	4
Water Permeability Class	9A
Resistance to wind load	C 2 / B 3
Load bearing capacity of the safety mechanism	PROPER
Acoustic Performance Features	32 (-1;-5) dB
Thermal Conductivity Coefficient (Uwindow)	1,6
Operating Forces Class	0
System 3	
Hazardous materials	None
Performance Declaration Letter Number	E01

This selection is the stable section to be placed on CE label.

The joinery results will be written in this section.

Height and width measurements of the manufactured joinery will be written.

Air Permeability (EN 12207)
Air losses of the joinery at different stages of pressure applied on the joinery are measured.

Water Tightness (EN 12208)
Performance of the joinery under rain and high wind is measured

Resistance to Wind Load (EN 12210)
Joinery is subjected to positive and negative experimental pressures and its resistance to damage by wind load and deflection amount vertical to the surface are measured and evaluated. Furthermore 50 cycles including positive and negative pressures are applied to the experiment sample.

Thermal Conductivity (ISO EN 10077-1)
It indicates the thermal insulation provided by the joinery.
It is expressed by the Value UW and in the unit W/m²K

Acoustic Performance (ISO 140-3)
It indicates acoustic insulation value of the joinery.
It is defined by dB (decibel) and sound reduction coefficient RW.

Dealer's Name/ Address:	
Year of Issue: ….15	
Joinery Type:	TS EN 14351 - 1 + A1
Dimensions (mm)	
Air Permeability Class	
Water Permeability Class	
Resistance to wind load	
Load bearing capacity of the safety mechanism	
Acoustic Performance Features	
Thermal Conductivity Coefficient (Uwindow)	
Operating Forces Class	
System 3	
Hazardous materials	
Performance Declaration Letter Number	

Dealer's Name/ Address:	
Year of Issue: ….15	
Joinery Type:	TS EN 14351 - 1 + A1
Dimensions (mm)	
Air Permeability Class	
Water Permeability Class	
Resistance to wind load	
Load bearing capacity of the safety mechanism	
Acoustic Performance Features	
Thermal Conductivity Coefficient (Uwindow)	
Operating Forces Class	
System 3	
Hazardous materials	
Performance Declaration Letter Number	

PRODUCER FIRM	AUTHORISED DEALER
Deceuninck Egypt	***Climate uPVC***