

The background of the page is a dark grey gradient with white line art illustrations of various window and door frames. The illustrations are scattered across the page, showing different styles such as multi-paned windows, arched windows, and door frames. The text is centered on the page.

**User guide and
product information**

**Windows and
exterior doors**

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Congratulations with your new windows and doors
You have chosen a high quality product which unites design, craftsmanship and function in true architectural harmony. If properly cared for, you will be able to enjoy your windows and doors for many years to come.

Receiving and storage

Immediately after receiving your order, check to make sure that the units received match the order agreement. If you receive the wrong product, or something is missing or damaged, contact your dealer without delay.

Unload and handle your products with care. Make sure window and door units are stored on a flat surface and keep them properly covered to protect them from moisture, dirt and other contamination and the weather.

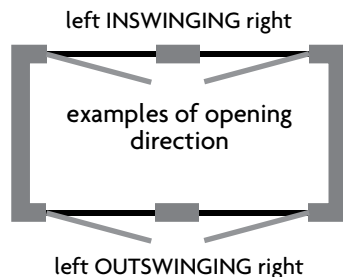
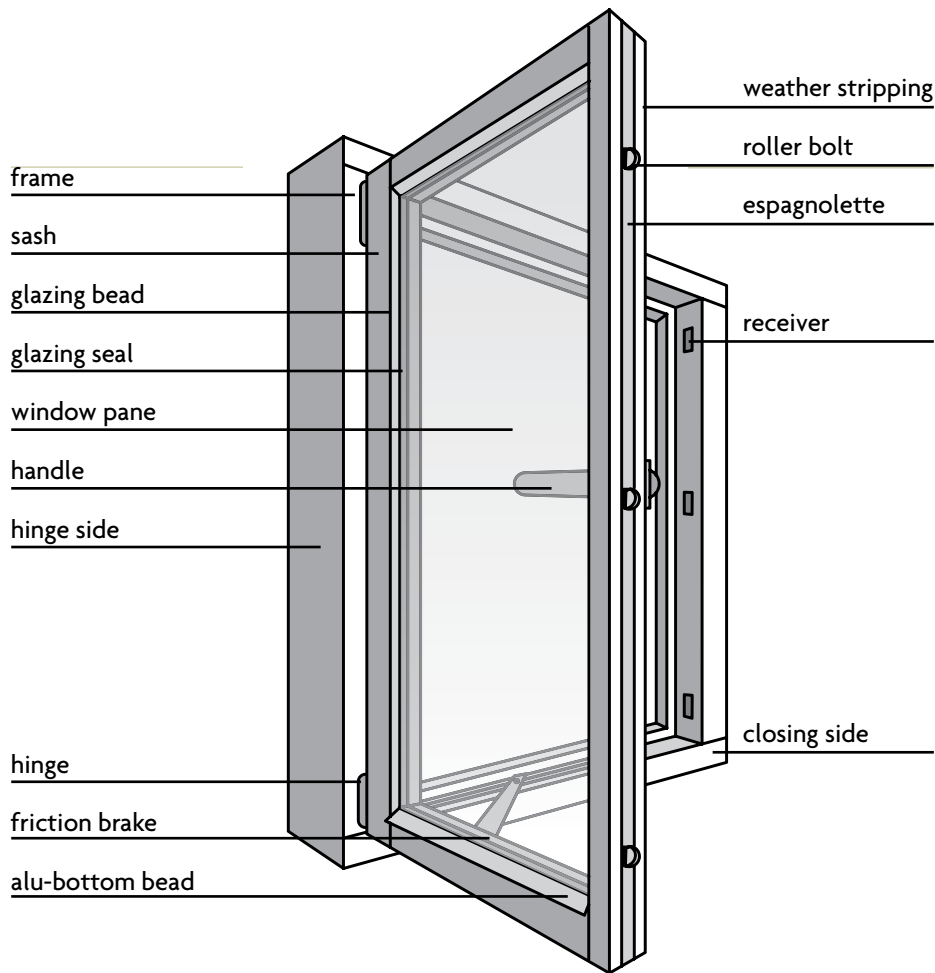
Delivery

Prior to delivery to the contractor, the person in charge of installation should ensure that:

- all mortar has been cleaned off weather stripping, hardware and grooves
- operational sashes have been properly adjusted to open and close correctly
- hinges and receivers have been adjusted to the correct tension level
- all parts, with the exception of friction parts, have been properly lubricated
- any damage to the surface finish has been repaired
- the end-users have been instructed on how to operate the product and/or receive this instruction manual.



What is what on a window?



Installation and fitting

Correct installation is the key to perfectly functioning windows. For this reason, we recommend that your windows be installed by a trade professional.

The masonry opening should be 10-15 mm wider than the frame, making sure to allow adequate space for the exterior sill.

Place the frame inside the masonry opening approx. 3-5 cm from the exterior edge of the wall, and temporarily secure its position by installing shims from the inside and outside at the corners of the frame. **IMPORTANT:** Shims are used to square the frame. Check to make sure that frame sides are plumb and level, and that the diagonal measurements from corner to corner of the unit are equal.

Make sure there is a solid base sheathing behind all fixing points, and that the sheathing and any other stabilizing blocks have the appropriate size to allow for filling material in the interior and exterior joints. The sheathing surface should measure no less than 25 cm², and should consist of a rigid material such as waterproof plywood, oil-treated masonite or building paper.

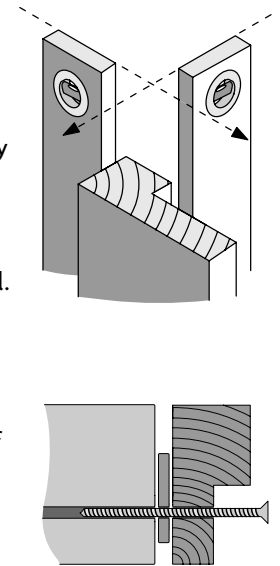
Secure the frames firmly in place using screws, the screw type depending on the wall material. We recommend using sill screws with a large head. Place screws in the rebate as illustrated. (composite units, see page 6).

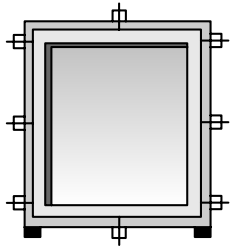
First, secure the hinge side of the frame. It is important that the frame is level and plumb in all directions. After this, mount the sash to the frame. Adjust as needed so that the sash closes securely to the frame, and so that the clearance – the air gap between the frame and sash – is the same at the top and sides of the frame. Lastly, secure the closing side of the frame, checking to make sure that the window sash strikes the frame precisely and can open and close with ease. No part of the frame should bend or bow.

Units secured to an inner wall before brick facing has been applied should be shimmed and secured to the facing after its application to ensure unit stability.

Control closing tension and if necessary adjust receivers for roller bolts and flush bolts.

The surface finish is extremely wind and weather resistant. Still, care should be taken during installation not to scratch or dent the window unit. Protect the unit from mortar, grout and cement spatter, and avoid unit contact with glue, tape, aggressive cleaning agents, acid, etc.





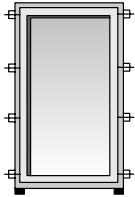
Especially for windows

The distance between 2 fixing points must not exceed 900 mm. Double or multi-panelled window units must have permanent stabilizing blocks/shims installed under fixing points. For units measuring less than 1188 mm high, the centre fixing points along the side jambs can be omitted. For units measuring less than 1000 mm wide, the fixing points along the head jamb and bottom sill can be omitted.

For best results, install the screws into the rebate of the frame.

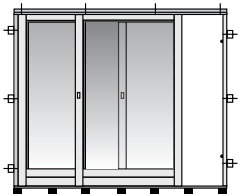
Especially for doors

When securing the frame, the fixing points at the top and bottom of the side jambs should be located as close to the hinges as possible. In addition to the fixing points illustrated, double-panelled door units must have a minimum of 1 additional fixing point along the head jamb and bottom sill.



Especially for sliding doors

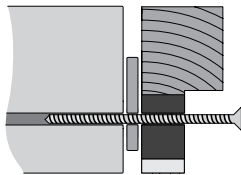
Concerning sliding glass doors there must be at least a 10 mm air gap between the top of the frame and overhead wall member to allow for any sagging or settling that might occur. Do not use rigid sheathing under the fixing points along the head jamb, and do not use mortar as a filling material.



Secure sliding doors along the side jambs, head jamb and bottom sill at 90 cm intervals. Block up the side jambs and bottom sill under fixing points. Also install extra blocking at the outermost points of the bottom sill (under each side jamb) and under the fixing points of the bottom rail, making sure the bottom sill is level and straight. Always install extra side jamb blocking under the lock retainer as a precaution against burglary. Do not use foam insulation with sliding doors. To detach the door sash, remove the top rail.

Especially for wood/composite/alu units

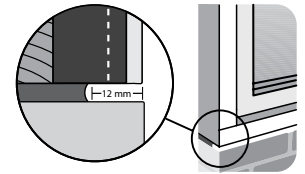
All wood/composite/alu windows are fitted with concealed hinges, handles and espagnolette locks and friction brakes when frame size permits.



Secure the window units into place by installing the screws into the black composite material in the rebate of all outswinging units as illustrated. Secure inswinging units by installing the screws into the wood rebate.

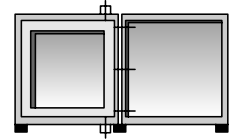
Replace the glass from the interior sash side. First remove the glazing bead from the sash. Then remove the locking clips using the small tool that came with your unit. Remove the sash and replace the glass. After replacing the glass, turn the locking clips back into place, reattach the glazing bead and remount the sash.

IMPORTANT! When installing filler material under the window unit, stop installing filler 12 mm before reaching the frame edge. This 12 mm gap will insure that any drainage holes are kept unobstructed.



Building units together

Units can be built together side by side and fixed together with screws. The distance between fixing points should be approx. 25 cm. Block up the head jamb and bottom sill with shims, and secure at the top and bottom. Before screwing the units together, install a seal between the units using a glazing seal or other material. This will equalize pressure and eliminate any air gaps between the units.



When building units together on top of one another, it is important to keep drainage hole requirements in mind.

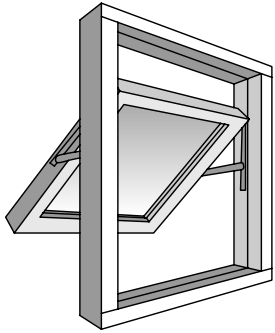
Filler

For advice on which filler or sealant material to use for interior and exterior joints, see the guidelines established by BASA (British Adhesives and Sealants Association) at www.basaonline.org or go to www.feica.com/members.htm to locate another member association. Put the correct amount of insulation material around the unit, making sure that no part of the frame is bowed.

Always check for any drainage holes under the bottom sill. These must be kept unobstructed.

Operation and Function - Windows

Top guided windows



Operation

Open and close the window using the handle in the centre of the bottom sash. The handle operates an espagnolette with bolts that fasten the sash to a receiver on the frame. If the receiver has two slots, the inner slot is used to close the window; the outer slot is used for fresh-air ventilation. You should never leave your home with the window in the ventilation position.

When the window is opened and pushed out at the bottom, the top window sash slides downward, providing effective ventilation. The window cannot be expected to stay open in strong winds and drafts in an unfastened ventilation position.

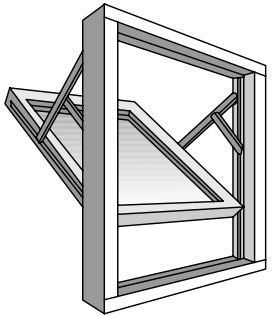
Detachment of sash from frame

Remove the screws holding the moving parts to the sash (from sides and top), then detach the sash from the frame. Before removing the screws, the window must be open to approx. 30°. This manoeuvre requires at least 2 persons.

Adjustment

Adjust the friction by turning the screws in the slide block on each side. The screws must be tightened equally on each side to prevent the sash from warping.

Top guided reversible windows



Operation

Open and shut the window using the handle in the centre of the bottom sash. The handle activates an espagnolette with bolts that fasten the sash to a receiver on the frame. If the receiver has two slots, the inner slot is used to close the window; the outer slot is used for fresh-air ventilation. You should never leave your home with the window in the ventilation position.

The window is fitted with a safety device that locks the sash in place when opened to approx. 10°. The window can be opened wider by activating the device. When activated, the sash can be rotated 180° outside the house façade, a feature that makes it easy to clean outside windows from the inside. A safety device also locks the sash in place at the 180° position. The window cannot be expected to remain in place in an open and unlocked position.

Detachment of sash from frame

Remove the screws holding the moving parts to the sash (from sides and top), then detach the sash from the frame. Before removing the screws, the window must be opened to approx. 30°. This manoeuvre requires 2 persons.

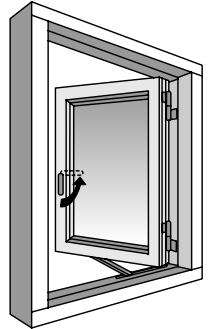
Adjustments

Top guided reversible windows cannot be adjusted.

Side hung windows

Operation - with handle controlled brake

Side hung windows can be fitted with an espagnolette locking mechanism, with or without a handle controlled friction brake. Both the espagnolette and brake are operated using the handle, which can be placed on either side of the sash. The friction brake is fitted to the bottom of the sash, which makes it possible to open and lock the window into any stationary position between 5° and 90°. Lock the window into the desired position by turning the handle of the open window to closed position. Never attempt to pull the window shut when the handle is in the locked position.



Operation - side hung windows - general

Always make sure that the window is held securely in position by a stayrod or brake. In strong winds it is not always possible for the friction brake to hold the sash in place in the ventilation or open position. You should never leave your home with the window in the ventilation position.

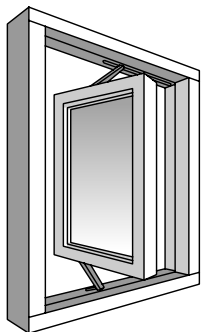
Detachment of sash from frame

A standard side hung sash can be lifted off the frame when the sash is opened to 90°.

For a sash with a friction brake, release the brake before lifting the sash from the frame. Do this by removing the friction arm from the groove in the frame. This manoeuvre requires 1 or 2 persons, depending on the size of the window.

Adjustment

Slack brakes can be adjusted to the desired friction using an adjusting screw. Handle controlled brakes cannot be adjusted.



Side guided and side swing reversible windows

Operation

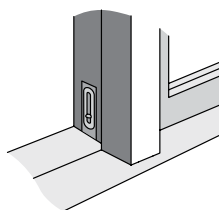
Side guided and side swing reversible windows can be fitted with fasteners or a handle controlled espagnolette locking mechanism (see side hung windows above). The advantage with both side guided and side swing reversible windows is they make it very easy to clean outside windows from inside the house. Side guided windows can be opened up to 90°, leaving a 15 cm gap between sash and frame for cleaning outside windows. Side swing windows can be rotated 180°. This feature is designed exclusively to ease cleaning and should not be used for ventilation purposes.

Detachment of sash from frame

The sash can only be detached from the frame by removing the screws that fasten the guide arm to the sash. Even with small sashes, this manoeuvre requires 2 persons.

Adjustment

Adjust side guided windows by regulating the top window hardware.
Side swing reversible windows cannot be adjusted.



Floating mullion

As a safety precaution and to comply with fire regulations, double and multi-panelled windows can be fitted with a floating mullion. This centre post is attached to a vertical sash member and can be disengaged together with the sash by releasing the top and bottom flush bolts.

Operation and Function - Doors

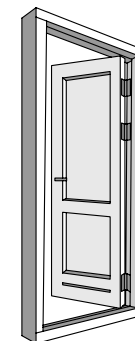
Entrance doors

Operation

Standard entrance doors are fitted with a cylinder lock and a 3-point closing mechanism. Engage the top and bottom closing points by turning the handle upward. This ensures that the door is firmly closed and can now be locked. Release all 3 closing points by turning the handle downward.

Detachment of door sash from frame

The door can be lifted off its hinges when opened to 90°.



Stable doors

Operation

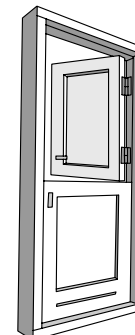
To open both door halves as one door, turn the bottom door handle to the open position and use the top door handle to open and shut the door.

On lockable doors with 2-point closing mechanisms, turn the top door handle upward to lock the door.

For doors without cylinder locks, see Terrace door operation below.

Detachment of door sash from frame

The door can be lifted off its hinges when opened to 90°.



Terrace doors

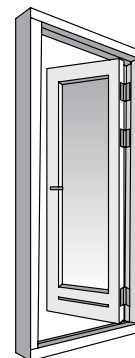
Operation

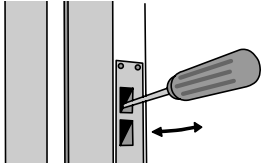
The handle operates an espagnolette 3-point closing mechanism, and a friction brake fitted to the top door sash. To open the door, turn the handle to the horizontal position.

The friction brake makes it possible to secure the door at any ventilation position between 5° to 90°. Secure the door in the desired position by turning the handle on the open door to the closed position. The friction brake cannot hold the door sash in place in strong winds. Never attempt to shut the door when the handle is in the closed position. Normally on double terrace doors there is only a handle on the operational panel of the door. The other panel is locked in place by flush bolts.

Detachment of the door sash from the frame

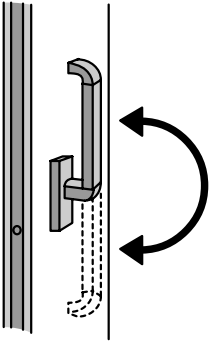
The door sash can be lifted off its hinges when opened 90°. If the door is fitted with a brake, this must first be removed from the frame.





Adjustments to Entrance, Stall and Terrace doors
The receiver on the frame may require adjusting between summer and winter seasons. This is done by bending “the tongue” inward or outward until the door closes firmly against the frame.

Sliding glass doors



Operation

Sliding glass doors are opened by turning the handle downward 180° which raises the door and makes it possible to slide it sideways. The door can be lowered and secured in any open position. The door is securely locked only when it is in the closed and lowered position (handle turned upward).

Detachment of door sash from frame

To remove the door sash, dismount the top rail. The operational door panel can be detached by removing the screws holding the aluminium rail in place at the top. The panel tilts out at the top and can be lifted off the glide rail at the bottom. This manoeuvre requires 2 persons.

Adjustment

Even correctly installed, adjustments might be needed, depending on the time of year.

Maintenance

Check the surface of windows and doors regularly so that any damage can be detected and repaired as quickly as possible. Horizontal mouldings become especially worn by wind and weather and require more frequent maintenance than other surface areas.

Surface Treatment - mahogany

Window and door units have received a prime coat at the factory. After installation, they should be treated with a suitable top coat. During the first year your units should be retreated two times. Inspect the surface finish at regular intervals, and at least once a year check that the finish has not deteriorated and remains water repellent. Re-treat the wood as needed. Maintenance intervals are guiding only, and the durability of the surface finish depends on how exposed the units are to sun and wind. South and west facing facades are especially exposed. A good rule-of-thumb: surface treatment is sufficient when “droplets” of water form on the wood surface.

Before treating your wood, make sure it is dry, clean and grease-free. Surface treatment consists of applying one layer of suitable hardwood oil. We recommend TRÆ-NOLIN 65 which can be purchased from the company, Træ-Nord, Esbjergvej 18B, DK-6000 Kolding, Tel.: 75 50 82 11. It is very important to choose a product that does not contain varnish or linseed oil.

To repair any damage to the wood, clean and then sand the damaged area using fine sandpaper. Carefully apply paint to the spot until it matches the color of the surrounding area. Then apply a single stroke of paint to the entire unit section to achieve uniform color.

Surface treatment - pine

All window and door units have been factory treated with a wood preservative to protect against rot and decay and have received a surface finish. Periodically retreat your windows or doors as needed using the correct type of stain or paint. Before retreating, thoroughly clean the window or door surface with a mild detergent (not dishwashing liquid). Scrape away any peeling paint and sand lightly with sandpaper, cleaning away any dust and apply a base coat. When dry, lightly sand with fine sandpaper, brush away the dust and apply the first layer of paint or stain. Do not paint over moving hardware, glazing seals, weather stripping or DVC sticker. Do not close operational sashes or panels until completely dry. Surface retreatment should be carried out when the most exposed parts of your windows or doors again show signs of wear.

Surface treatment - aluminium

Washing your units is a good way to protect their finish – wash them each time you wash your windows. Use only a ph-neutral (5-8) cleanser.

Any damage to the aluminium surface can be repaired by sanding the area, wiping away the dust and applying metal varnish or paint according to the manufacturer's instructions. Please note that this type of repair will always be visible.

Resin

Wood is a living material. Because of this, droplets of resin may seep out onto the wood finish. Some discolouring (primarily with light colours) and resin penetration can be removed - carefully - using mineral spirits.

Weather stripping

Units come with all-weather weather stripping that is secured into a groove around the sash perimeter. Weather stripping can be cleaned using an ordinary detergent. **IMPORTANT:** Do not remove weather stripping.

Glazing (glazing seals and glazing beads)

Glazing seals do not require maintenance, but we recommend inspecting them at least once a year - especially at the bottom. If tears or cracks appear, the seals ought to be replaced. We recommend replacing the glazing beads at the same time. It is important to carry out regular surface treatment of glazing beads.

Lubrication

Hinges, handles and rivet joints, as well as any espagnolette locks, slide bars, roller bolts, slots, locks or bar locks should be lubricated as needed or at least once a year with all-purpose oil. On sashes fitted with friction brakes and/or concealed side swing and reversible hardware and mountings, it is important to keep the slide rails clean and oil-free - and also free from paint.

Cleaning

Use plenty of water the first time you wash your windows and doors after finishing your building or remodelling project.

Remove window stickers using a sponge and water. Remove any leftover glue or silicone on the glass using gasoline or paint thinner. After washing or polishing the windows, be sure to dry off the sash and frames with a dry cloth. The outside trim should also be washed off.

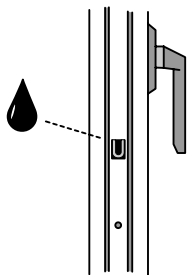
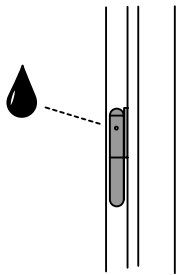
IMPORTANT: Never use gasoline, paint thinner or other solvents that contain ammonia on painted or treated surfaces.

Ventilation

It is important that your home receives sufficient ventilation. Ventilation prevents damage to your windows and doors due to moisture and condensation, and improves the quality of the air within your home. Condensation on the inside of an insulating window when the outdoor temperature is 0° does not indicate a problem with your window, but indicates the humidity level in your home is too high. Condensation can also form on the outside of low energy glass. This is not due to a problem with the window, but is due to atmospheric conditions and cannot be helped.

Things to keep in mind:

- new windows are tighter-fitting than older windows, increasing the need for ventilation
- a new or renovated home (the first year) needs more ventilation than an older home
- an adult exhales about 2 litres of water every day
- moisture problems increase as the room temperature decreases
- close-fitting window treatments can cause moisture problems
- on days with little wind, the sun provides more free heat than is lost through normal ventilation
- insufficient ventilation causes a poor indoor climate.



Warranty

Windows and doors

A 10 year warranty is extended on windows and doors subject to the conditions and exclusions set forth below, with the exception of surface treatment which is covered by a 5-year warranty, and the glazing which is covered by a 5-year right of exchange warranty.

1. This warranty is extended by the manufacturer. This does not limit or change in any way your rights pursuant to legislation and/or the contract agreement between you and your supplier the manufacturer.
2. If within 10 years of receiving your product you make a warranty claim due to damage caused by defects in factory workmanship or materials, this warranty provides you with rights against the manufacturer as set forth in item 3. A label on the product notes the product's date of manufacture. If necessary it is the responsibility of the customer to provide proof of delivery date.
3. In the case of a valid warranty claim for damage caused by defects in factory workmanship or materials during the term of this warranty, the manufacturer will provide a replacement product at no cost. This warranty does not include costs incurred for removing the old product, nor the installation of the new product, nor does this warranty cover costs for any finishing work that may be necessary as a result of the unit replacement. If at the time of the warranty claim the product is no longer in production, the manufacturer has the right to provide another similar product. The manufacturer also has the option to repair, or partially replace, manufacturing or material defects if it is deemed prudent and practical to do so. If this option is elected, the repairs or partial replacement will be done at no cost.
4. This warranty does not cover damage to the hermetic sealed glazing units caused by defects in manufacturing or materials. In these cases, warranty coverage is provided by the glazing manufacturer. (See Glazing on page 17).
5. This warranty does not provide any rights other than those set forth in item 3.
6. If you wish to make a complaint about damage caused by defects in factory workmanship or materials, your warranty claim must be lodged within a reasonable time after the defect is discovered, or should have been discovered. A warranty claim can be made to the manufacturer, or to the supplier of the windows and doors.

7. This warranty is not valid if the alleged defects in manufacturing or materials are the result of incorrect installation, lack of or insufficient maintenance or the incorrect operation of the product. Please see this product information manual for installation, operation and maintenance information.

For wood window and door units that have received surface treatment at the manufacturer, please see the maintenance instructions in this manual, as well as the data sheet "The expected outcome of industrially surface coated wood elements".

8. Under the limits of this warranty the manufacturer will not be liable for manufacturing or material defects that are the result of circumstances occurring after your windows or doors were delivered. With reference to this warranty, claims made to the manufacturer for damage and defects in materials resulting from, for example, the incorrect storage, transport or installation by an intermediary/building contractor are not valid.

Not covered by the warranty:

- incorrect installation, including
 - units that are not installed at true plumb and level, and that do not have equal diagonal dimensions
 - units not installed in accordance with the "Installation and Fitting" instructions on page 5-7
 - units that are installed using only foam
- finishing details such as minor planing jobs and adjustments to hardware
- condensation on the inside pane not caused by a defective unit, but lack of ventilation
- condensation on the outside pane, which may occur with energy windows
- glass fissures, such as cracks in glass are ordinarily an insurance matter.

Glazing

The hermetic sealed window unit manufacturer providing the glazing for our windows and doors is a member of the Glass Industries Association (GS), and their glazing is controlled in compliance with Danish standard DS 1094.0. If fitted prior to delivery, glazing installation is also carried out according to the guidelines prescribed by the Glass Industries Association (GS).

For a period of 10 years from the stamped date of fabrication, the manufacturer guarantees the insulating windows delivered will remain free from dust and condensation between the panes of glass.

The warranty does not cover costs for the following:

- cranes, scaffolding, etc. for windows that cannot be installed from normal points of access
- structural building work or the dismantling of adjoining parts of buildings
- any finishing work such as masonry, carpentry or painting
- labour in connection with uninstalling and reinstalling burglary systems or other security arrangements.

Conditions of warranty:

- The glass in the spacer rail displays the Glass Industry guarantee label and the fabrication date (month and year).
- The glass has been installed according to the installation guidelines from the Glass Industries Association (GS)
- The glass has been properly cleaned and protected during building and construction.
- The glass has not been damaged by external factors, such as impacts, blows, movement of adjacent building structures, etc.
- That damage is not the result of cracking due to freezing or thawing, thermal influences in general, chemical attack on the glass or tarnishing resulting from incorrect storage.
- The glass has not been altered subsequent to delivery by processes such as sand blasting, etching, painting, adhesion of material or other surface alteration.
- That alterations or additions have not made to the glass, such as leaded pane inserts, alarm systems, blinds, etc. which have caused dust and condensation to form between the inner window panes.
- That sufficient, periodic maintenance is carried out on the sash/frame and installation materials. Consult this product information manual for details.

The manufacturer reserves the right to make changes in the construction, function and design of our units.

