SYSTEMS

METRA Building Use and Maintenance Guide for windows and doors

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To you who chose METRA Building

Congratulations on choosing METRA Building windows and doors!

These windows represent an ingenious synthesis of advanced technology, energy saving, acoustic comfort, air, water and wind tightness performance, durability and stability, burglary safety, environmental protection and compliance with international standards.

Quality guarantee

Using METRA Building brand products and accessories gives you the security of using materials that guarantee excellent performance and durability over time.

Please remember:

The accessory is an integral part of the system and only with original METRA Building accessories you can achieve high performance.

Did you know?

METRA is also the first Italian company to receive and apply the trade-mark to its own products in order to promote brand recognisability for consumer protection purposes.

Cleaning and maintenance

To keep your windows and doors beautiful and efficient for a long time, all it takes is a few simple steps.
In this guide you will find all indications for cleaning, maintenance and tips for the correct use of METRA Building windows and doors.

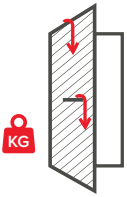
METRA Building stands by you

Choosing METRA Building means choosing the highest quality for your aluminium windows and doors, a characteristic that is realised even after installation in the constant after-sales service.

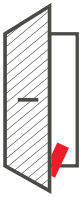
General Recommendations

FOR SAFETY

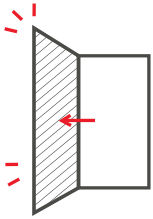
To maintain the functionality and ensure the safety of your window, the following guidelines must be observed:



Do not load the window sash with additional weight.

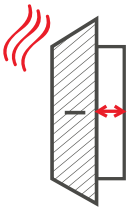


Do not insert objects between sash and frame.

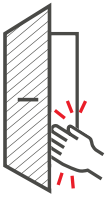


Do not slam or push the sash against masonry.

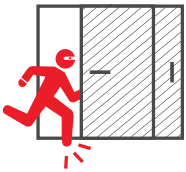
If children or psychologically handicapped persons have access to the window, a lockable handle should be used (key in the custody of an adult) to avoid potential accidents..



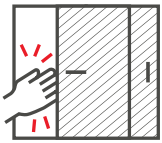
In windy conditions or when there are air currents due to open windows in other parts of the building, windows or doors should be kept closed or opening limiters should be used to prevent damage.



Caution! Suddenly closing a sash can result in injury. Do not insert your fingers or hand between the frame and sash when closing the window.

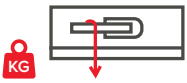


Risk of tripping or falling

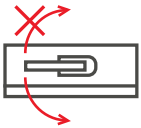


Risk of crushing

Improper use of handles

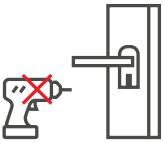


Loading the handle with weights can damage the locking mechanism.

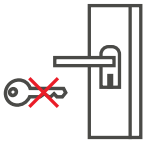


Operate the element handles only in the direction of the arrow as indicated in the manual and only until rotation stops. Otherwise the handle and the operating mechanism may be damaged.

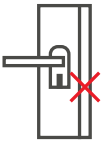
Improper use of locks



Never drill holes in the device when the lock has been installed.



Do not force the lock if it is difficult to operate. The cause of the problem should be assessed and solved by a professional.



Do not close the door when the latch is locked: this will damage the lock and the door frame.

In the case of a motor drive system, please observe the operating and maintenance instructions provided by the actuator manufacturers.

ATTENTION

Any adjustments or replacements of worn or damaged parts of windows and doors must only be carried out by competent personnel.

Warranties cannot be claimed against the installation company or METRA if it is evident that the recommended maintenance has not been carried out or if unsuitable products have been used.

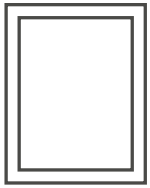
All maintenance work shall be recorded in an appropriate register.

Operation of windows

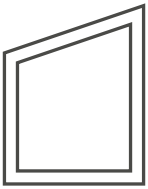
Observe the safety warnings

Types of shapes

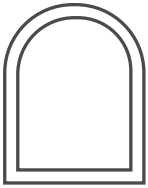
The instructions for use apply to various forms.



Traditional window

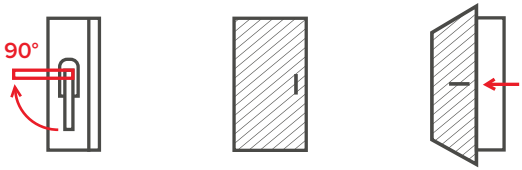


Non-orthogonal window



Bow window

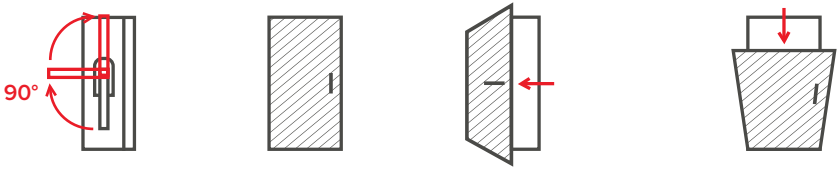
Single casement windows



Closed position *Turn position*

Closed position: *Handle in vertical position facing downwards.*
Turn position: *Open the window by turning the handle 90° upwards.*
Closing from turn position: *Push the sash against the frame and turn the handle 90° downwards.*

Tilt and turn windows

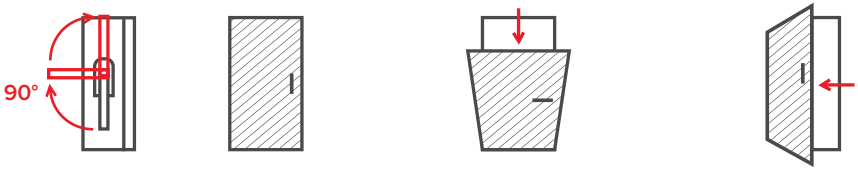


Closed position *Turn position* *Tilt position*

Closed position: *Handle in vertical position facing downwards.*
Turn position: *Open the window by turning the handle 90° upwards.*
Closing from turn position: *Push the sash against the frame and turn the handle 90° downwards.*
Tilt position: *Open the window by turning the handle 180°.*
Closing from tilt position: *Push the casement against the frame and turn the handle 180° downwards.*

Tilt and turn windows (tilt first)

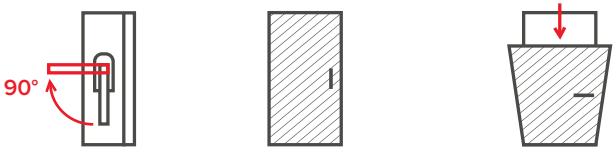
Observe the safety warnings



Closed position *Tilt position* *Turn position*

Closed position: *Handle in vertical position facing downwards.*
Tilt position: *Open the window by turning the handle 90° upwards.*
Closing from tilt position: *Push the sash against the frame and turn the handle 90° downwards.*
Turn position: *Open the window by turning the handle 180°.*
Closing from turn position: *Push the casement against the frame and turn the handle 180° downwards*

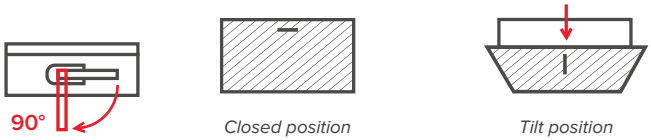
Bottom hung windows (vertical handle)



Closed position *Tilt position*

Closed position: *Handle in vertical position facing downwards.*
Tilt position: *Open the casement by turning the handle 90° upwards.*
Closing from tilt position: *Push the casement against the frame and turn the handle 90° downwards.*

Bottom hung windows (horizontal handle)

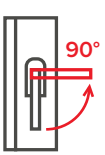


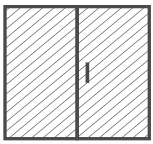
Closed position *Tilt position*

Closed position: *: Handle in horizontal position facing right/left.*
Tilt position: *Open the casement by turning the handle 90° downwards.*
Closing from tilt position: *Push the casement against the frame and turn the handle 90° upwards*

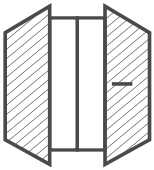
Double casement windows

Observe the safety warnings





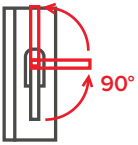
Inactive sash – Active sash
Closed position

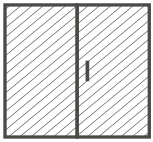


Turn position

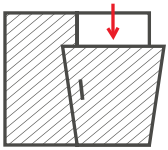
Closed position: *Handle in vertical position facing downwards*
Turn position active sash: *Open the sash by turning the handle 90° upwards..*
Turn position inactive sash: *Open the sash by unlocking the locking bolts.*
Closing from turn position: *Push the inactive sash against the frame and lock the locking bolts. Push the active sash against the frame and turn the handle 90° downwards.*

Double casement windows with tilt and turn

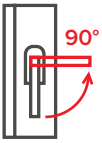


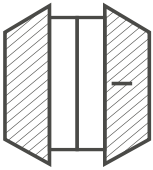


Inactive sash – Active sash
Closed position



Tilt position





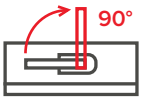
Turn position

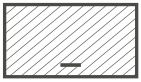
Closed position: *Handle in vertical position facing downwards*
Turn position active sash: *Open the sash by turning the handle 90° upwards.*
Turn position inactive sash: *Open the sash by unlocking the locking bolts.*
Closing from turn position: *Push the inactive sash against the frame and lock the locking bolts. Push the active sash against the frame and turn the handle 90° downwards.*
Tilt position: *Open the window by turning the handle 180°.*
Closing from tilt position: *Push the casement against the frame and turn the handle 180° downwards.*

Horizontal pivot windows

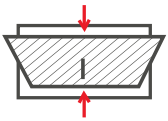
Observe the safety warnings

Horizontal pivot windows are fitted with friction clutches whose function is to keep the sash in the open position.



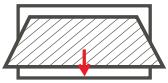


Closed position



Opening position

Note: *Should the sash spontaneously tend to return to the closed position, the clutches must be adjusted.*



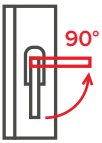
Opening position for external cleaning

This is an operation reserved exclusively to competent personnel.

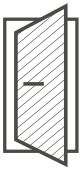
Closed position: *Handle in horizontal position facing right/left.*
Opening position: *Open the sash by turning the handle 90° downwards and push it outwards.*
Closing from opening position: *Pull the sash against the frame and turn the handle 90° downwards.*

Vertical pivot windows

Vertical pivot windows are fitted with friction clutches whose function is to keep the sash in the open position.



Closed position



Opening position

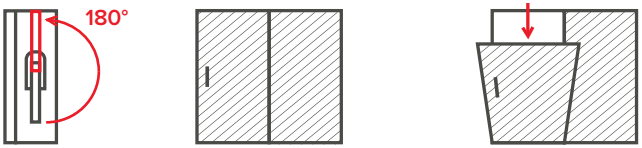
Closed position: *Handle in horizontal position facing right/left..*
Opening position *Open the door by turning the handle 90° upwards and push it outwards..*
Closing from opening position: *Pull the sash against the frame and turn the handle 90° downwards.*

Note: *hould the sash spontaneously tend to return to the closed position, the clutches must be adjusted.*

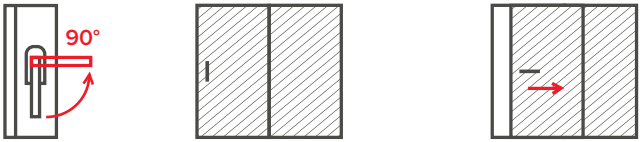
This is an operation reserved exclusively to competent personnel.

Tilting - Parallel sliding window

Observe the safety warnings



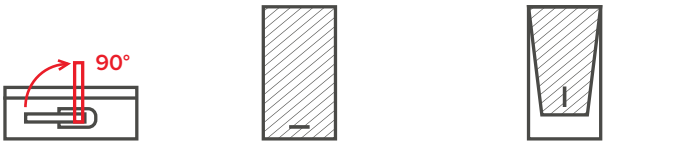
Closed position *Tilt position*



Closed position *Sliding position*

Closed position: *Handle in vertical position facing downwards.*
Tilt position: *Open the sash by turning the handle 180°.*
Sliding position: *Open the sash by turning the handle 90° upwards, pull the sash inwards and slide it to the right or left.*
Closing from sliding position:Slide the sash in the closing direction, push it towards the frame and turn the handle 90° downwards.

Top hung outward projecting windows

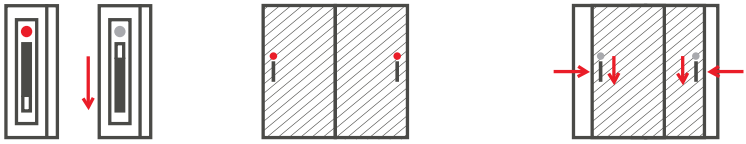


Closed position *Outward projecting position*

Closed position: *Handle in horizontal position facing right/left.*
Projecting outward position: *Open the sash by turning the handle 90° upwards and push it outwards to the end stop of the friction stays.*
Closing from outward projecting position: *Pull the sash against the frame and turn the handle 90° downwards.*

Sliding windows with recessed handle

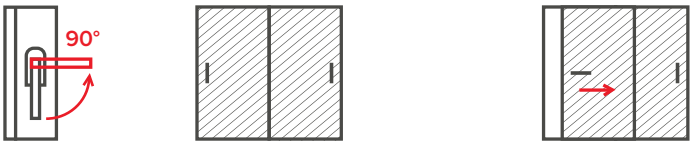
Observe the safety warnings



Closed *Open* *Closed position* *Sash sliding position*

Closed position: *Slider on red indicator..*
Opening position: *Open the sash by moving the slider onto the green indicator and allow it to slide to the side.*
Closing from opening position: *Slide the sash in the closing direction against the frame and move the slider on red indicator.*

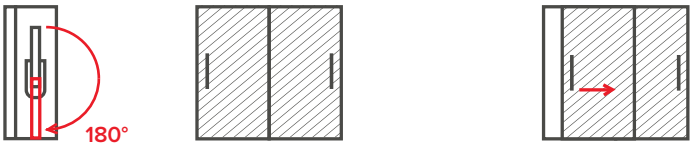
Sliding windows and doors with pull handle



Closed position *Sliding position*

Closed position: *Handle in a vertical downwards facing position.*
Sliding position: *Open the sash by turning the handle 90° upwards and allow it to slide to the side.*
Closing from sliding position: *Allow the sash to slide towards the frame in the closing direction and turn the handle downwards by 90°*

Lift and slide windows and doors

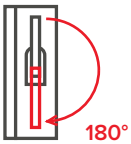


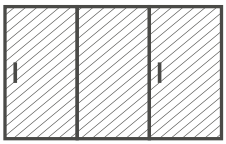
Closed position *Sliding position*

Closed position: *Handle in vertical position turned upwards.*
Sliding position: *Open the sash by turning the handle 180° downwards (the sash is lifted up so that it can slide with minimum friction) and slide it sideways*
Closing from sliding position: *Slide the sash in the closing direction against the frame and turn the handle 180° upwards.*

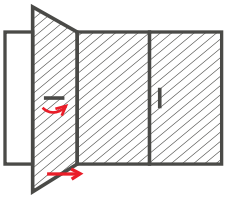
Folding sliding windows and doors

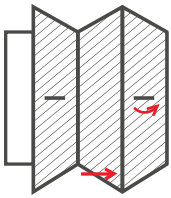
Observe the safety warnings





Closed position





Opening position

Sliding folding position

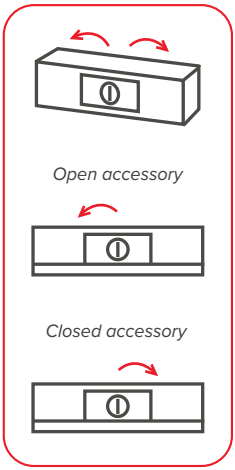
Note: *With all the solutions, start by unlocking and opening the main sash.*

Closed position: *Handle in vertical position facing right/left.*
Opening position: *Open the main leaf by turning the handle upwards by 90° and unlock the successive sashes in the same way.*
The main sash (if necessary) must be fully opened in order to be able to hook it onto the second sash; at this stage, remove the remaining sashes and fold them to the side.
Closing from the opening position: *Pull the sash against the frame and turn the handle 90° downwards.*

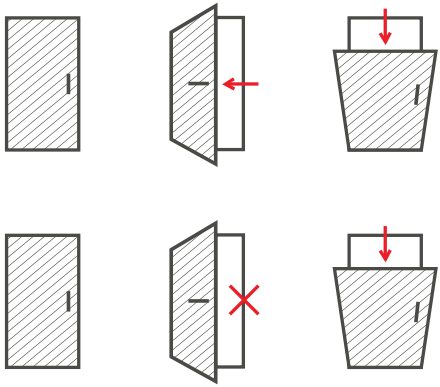
Additional accessories

Observe the safety warnings

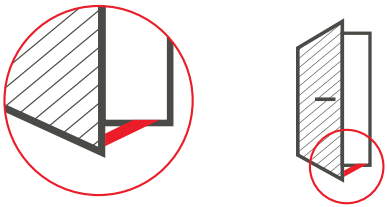
CASEMENT OPENING BLOCK



The accessory prevents the turn opening of a tilt-and-turn window but only allows it to open in tilt position.



OPENING RESTRICTOR

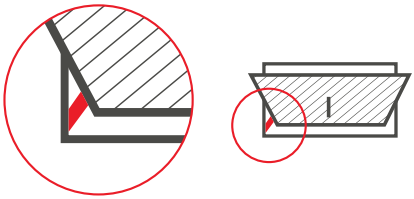


Using a restrictor results in:

- ***customised opening of the sash by preventing it from opening completely***
- ***control of unwanted sash movements in draughts***

The opening restrictor can be adjusted by increasing or decreasing the braking effect, maintenance-free and does not need to be oiled.

OPENING RESTRICTOR FOR HORIZONTAL PIVOT WINDOWS



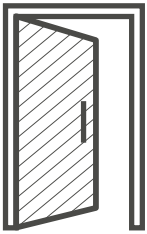
*By using a restrictor, a **customised opening of the sash** is achieved, preventing it from opening completely. For external cleaning, the limiter must be released, and the sash must continue to be turned through 180° until it clicks into the optional cleaning lock.*

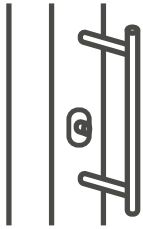
Operation of doors

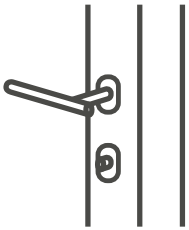
Observe the safety warnings

To pull or push a door, always use the handle and not the key itself, so as not to run the risk of crushing fingers.
The lock must always be locked using full key turns in order to make full use of the lock's features.

Single-leaf door







Opening from the outside:
Turn the key in the direction of the hinge and move the door. Open the door using the bar or handle.

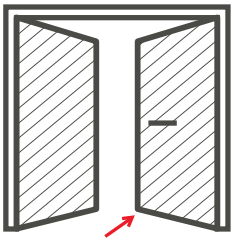
Clsoing from the outside:
Pull the sash towards the frame and lock by fully turning the key towards the frame.

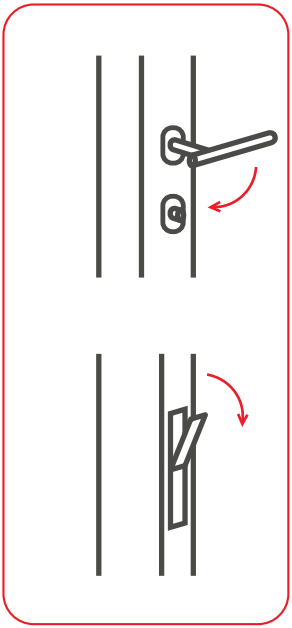
Opening from the inside:
Turn the key in the direction of the hinge, lower the handle and open the door.

Closing from the inside:
Pull the sash towards the frame and lock by fully turning the key towards the frame.

Double-leaf door

Observe the safety warnings



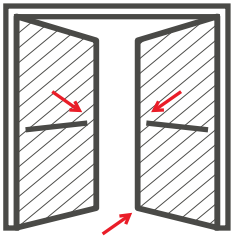


Opening of the main leaf:
Unlock the door leaf with full key turns in the direction of the hinge, operate the handle and open the door.
Closing:
Proceed in reverse order.

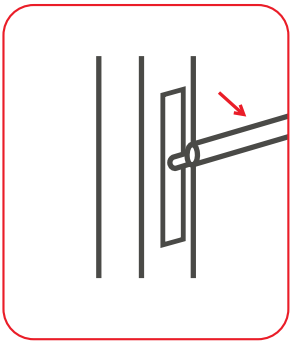
Opening of the secondary leaf:
Unlock the bolt and open the leaf.
Closing:
Proceed in reverse order.

Double-leaf door with panic bar

Observe the safety warnings



In an emergency, closed doors are opened from the inside by acting on panic bars.



Opening of the main leaf from the outside:
Open the main leaf by turning the key in the direction of the hinge and pull the sash using the handle.
Closing: *Proceed in reverse order.*

Opening the main leaf from the inside:
Push the panic bar.
The sash opens even when the door is locked.

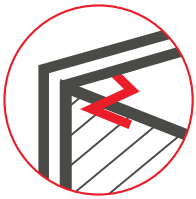
Opening of the secondary leaf:
Push the panic bar.
Both leafs open even with the door locked.

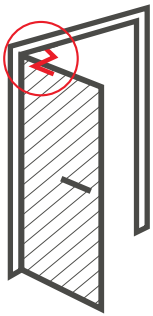
Additional accessories

Observe the safety warnings

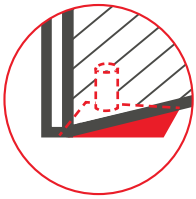
The overhead door closer or floor-concealed door closer automatically closes the door.
The sash can be locked in the open position with some door closers.
In order to close the door, you are required to gently pull the sash in the closing direction and then release it. The door will then close automatically.

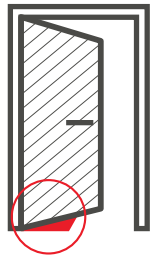
OVERHEAD DOOR CLOSER





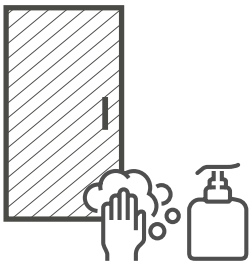
FLOOR-MOUNTED DOOR CLOSERS





Cleaning and maintenance of aluminium windows and doors

By respecting the following cleaning and maintenance prescriptions, aluminium windows and doors will maintain their original sealing qualities as well as their surface aesthetics.
IN ORDER TO PRESERVE THESE QUALITIES, THE EXPOSED PROFILES AND SURFACES MUST UNDERGO REGULAR CLEANING AND MAINTENANCE.
The frequency of the intervention depends on the environment surrounding the building; this will however be greater for buildings in proximity to the coast, industrials zones and in areas where pollution levels are high.



Regular supervision of the elements is of major importance. The timeframe interval between these check-ups depends on the installation situation and the amount of window or door movements. This is defined in the contract with your fabricator.
Any possible irregularities in the operation (slowness, unusual sounds, ...) which might occur during maintenance must be reported immediately to the concerned specialist. Windows and sliding doors should undergo regular maintenance to prolong their service life and to ensure their functionality and the conservation of value.

Frequency of maintenance for profiles and hardware in non-corrosive atmospheres and

provided that the aluminium constructions are exposed to rain: twice a year. In all other cases: minimum 4 times a year.
Some corrosive atmospheres or other risk factors (e.g. limited rain) may however require even more frequent cleaning to be observed by the end-user.
Non-exhaustive list of examples of such corrosive atmospheres/risk factors:

- near the coast (<10km) or close to estuaria or large rivers (<5km);
- above water (condensation);
- within industrial areas, in particular areas with heavy emission of chemicals, fluorides, gasses, and ore materials;
- exposure to large traffic (motorways, railways, airports);
- very agressive atmospheres (e.g. swimming pools, water treatment industry, laboratories, pollution by animals etc.).

ENVIRONMENT TYPE	MINIMUM CLEANING FREQUENCY
Normal	once every 12 month
Tropical	once every 9 month
Swimming pools and gyms	once every 6 month
Coastal areas	once every 3 month
Industrial environment	once every 3 month
Hazardous Areas	monthly

Frequency of operation

OPENING TYP	USE	FREQUENCY	MAX. CYCLES
Doors	Limited use	Once every 6 months	50.000 cycles
	Normal use		50.000 cycles
	Intensive use	Once every 3 months	50.000 cycles
	Doors on escape routes (EN 179 / EN 1125)	Once every month	50.000 cycles
Windows/ Sliding systems		Once every 6 months	10.000 cycles

DO NOT USE

- ✓ Aggressive alkaline chemicals (Example: ammonia)
- ✓ Strong acids
- ✓ Hypochlorites (e.g. bleach)
- ✓ Oxidising products
- ✓ Nitro-acetone solvents
- ✓ Abrasive cloths

What to use

Use the specific cleaning agent for cleaning aluminium parts of doors and windows with an anodised or painted surface finish.

Important notes: *anodised and painted aluminium cannot come into contact with wet mortar or plaster. During masonry work, therefore, it is always recommended to protect frames and sashes in order to avoid possible damage.*

MU0455 - Cleaning and maintenance set for windows and doors with painted surface finishes

Package contents:

- Product for the routine cleaning of painted aluminium
- Product specifically designed for EPDM gaskets
- Product for the lubrication of the equipment

MU0456 - Cleaning andmaintenance set for windows and doors with anodised surface finishes.

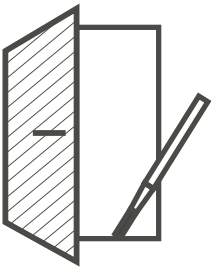
In confezione:

- Product for the routine cleaning of anodised aluminium
- Product specifically designed for EPDM gaskets
- Product for the lubrication of the equipment

Note: *these products can be purchased from your trusted window and door fitter*

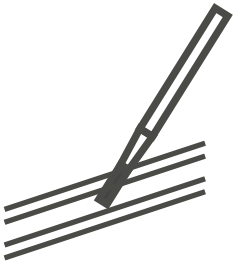
Cleaning of the window and door

CLEANING INSIDE THE WINDOW



To ensure proper functioning, your window should be inspected periodically to check that there are no residues or foreign bodies in the rails and cracks of the window.
itself. This operation preserves any clogging of the drainage holes, allowing the window to maintain its performance.

CLEANING OF THE DRAINAGE HOLES



To do this, remove dust and dirt with a vacuum cleaner and, if there are clogged drainage holes, carefully remove the obstruction with the help of a rod-like attachment.

PRODUCT FOR GASKETS

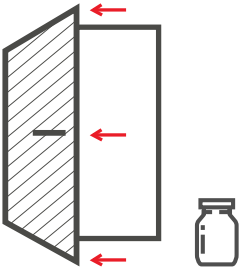
By wiping the gaskets with the special stick and a cloth, the gaskets retain their correct elasticity.

Window and door maintenance

In addition to cleaning the profiles, the seals and accessories must be periodically maintained and checked for signs of wear or damage.

Note: *Any adjustments or replacements of worn or damaged parts of the windows and doors must only be carried out by competent personnel.*

MAINTENANCE OF HARDWARE AND ACCESSORIES

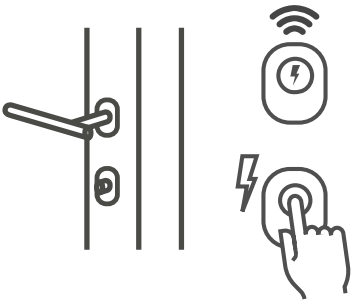


Moving parts and all locking points must be lubricated. The product deposits a protective film on the treated parts, improving handling and reducing possible annoying handling noise.
Remove dust, grease and graphite from the following areas annually. Clean the hardware exclusively with a soft cloth and mild, pH-neutral cleaning materials in diluted form.

- *Hinges*
- *Friction stays*
- *Moving parts of the handles*
- *Locks and cylinders, using a graphite pipette and graphite powder*
- *Sliding element opening limiter device*

- **AVOID SILICONE LUBRICANTS**, rather use a dry cloth and mounting oil to protect the surface and prevent the accumulation of dust on parts of the hardware.
- **DO NOT LUBRICATE** the rods or the door hinges.
- **NEVER USE AGGRESSIVE ACIDIFEROUS CLEANING MATERIALS OR SCOURING AGENTS.** These can cause damage to the hardware.

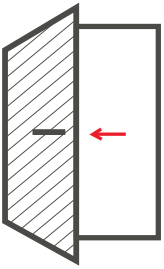
Maintenance of electrical components



WARNING

- Maintenance and repair of the motor and/or lock may only be carried out by qualified staff.
- Motorised sliding windows must never be used as escape routes. There must always be another way of leaving the room.
- Make sure children do not play with the control button and/or cannot access the remote control.
- The motor must be able to be disconnected from the power supply for maintenance or repair work.
- Make sure water never enters the motor housing, even during cleaning.

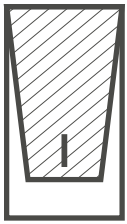
Maintenance of casement windows / tilt and turn



The following maintenance operations must be carried out on a regular basis:

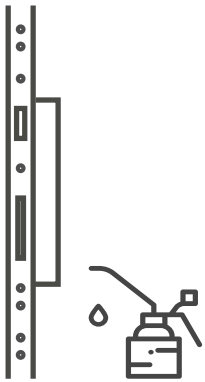
- Clean the mechanism and remove any traces of dirt. Use a soft cloth and mild, pH-neutral cleaning materials in diluted form.
- Check all the components that are important for safety (hinges, extension arms). In particular, the hinges should be checked for damage and/or deformation due to violent impact.
- Lubricate the moving parts and closure points as indicated in the diagram (use neutral lubricants). If necessary carry out adjustments to the mechanism and replace worn-out components to restore the correct functioning of the sash. **This operation must be carried out by qualified service personnel.**

Maintenance of projecting windows with friction stays



- Clean all dirt, dust and debris from all parts of the product and keep any obstructions away from the pivoting and sliding parts.
  - Use a vacuum cleaner or a small soft brush to remove dry materials.
  - Use a dry cloth to remove any remains of dirt.
- Check that all fixing screws are present and are securely and fully tightened.
- Verify that other hardware fitted to the window assembly, e.g. hinges, locking mechanism(s), handles, motors, etc. are operating correctly.
- Lubricate all pivoting and sliding parts of the products using high quality light, machine oil, such as provided in the cleaning products box.
  - One drop per pivot or sliding part is sufficient.
  - Do not use a WD40-type or silicone-based maintenance spray for lubrication purposes.
- Wipe any excess lubricating oil over the surfaces of the hinge mechanism links using a soft lint free cloth.
- Check the correct and smooth operation of the sash.

Maintenance of locks

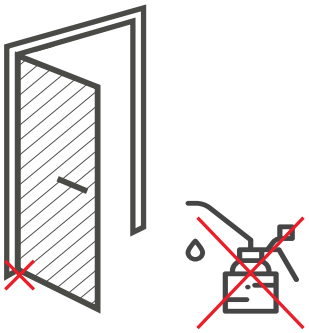


Safety-relevant hardware should be checked at least annually* for wear and tear and a continuous firm fit. Depending on the requirements, fixing screws have to be tightened. The damaged or worn parts should be exchanged by original parts by an authorized specialist.

All movable parts and locking parts have to be oiled and their working order should be checked. The cylinder can be maintained by using graphite powder.

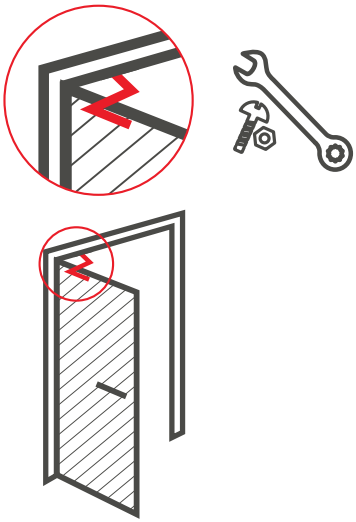
* The frequency depends on opening type and environment, please check specifications on page 20.

Maintenance of hinges



In general, hinges are maintenance free and don't need to be greased.

Maintenance of door closers



Safety elements of door closers must be checked for wear regularly to ensure that they are fitted correctly and securely.

Fixing screws must be tightened and any damaged components must be changed.

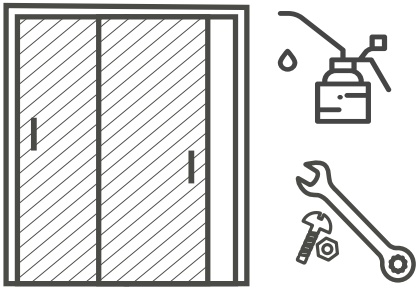
The frequency depends on opening type and environment, please check specification on page 20.

Furthermore, the following maintenance work must be performed at least once a year (depending on the type of hinged leaf doors and their applications).

- All moving parts on the link arm must be greased.
- The closer settings (e.g. closing speed) must be checked.
- Smooth operation of the door must be checked.
- In the case of door closers with special functions(hold-open devices/ hold-open systems), the legal check, monitoring, and maintenance must be observed.
- Door closers and / or defective parts must be replaced immediately if their proper function is no longer guaranteed.

Only cleaners without corrosive and damaging components should be used.

Maintenance of sliding windows and doors



All safety aspects of the equipment, in particular the fastening elements of the locks, hooks and door handles, must be checked regularly. All adjustments to the gears, especially the latches and rollers, the replacement of parts and the assembly and disassembly of the sashes should be done by a window expert.
Maintenance must be carried out at appropriate intervals (see page 20) in relation to the amount of use and environmental conditions.
Follow the instructions below:

- Check the function of the components.
- Any dust and dirt should be removed from the components as this could affect the proper functioning of the system.
- Clean the mechanism and remove all traces of dirt. Use a soft cloth and mild, pH-neutral cleaning materials in diluted form.
- After cleaning the surface of the hardware, treat it with silicone and non-corrosive (i.e. non-acidic) oil.

Maintenance of lifting sliding windows and doors

To ensure smooth and trouble-free operation, the following maintenance instructions must be performed at least once a year:

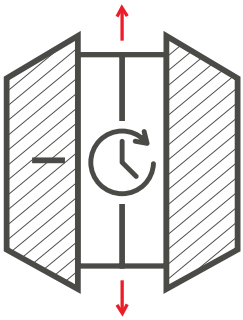
- Lubricate or oil all locking parts.
- Use only clean, non-resinous grease or oil.
- After cleaning the hardware surface, treat it with silicone and corrosion free (i.e. non-acidic) oil.

WARNING

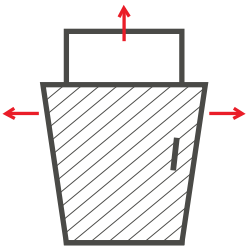
The following work should only be performed by an authorized specialist:

- replacement of hardware.
- The assembly / disassembly of the sashes.

Room ventilation



A. With the heating turned on, air the rooms as illustrated in the diagram several times a day for approximately 5 minutes.



B. With heating switched off, air the rooms as illustrated in the diagram, for long times depending on the use.

The lack of air exchange between the inside and the outside of buildings can be caused by a rise in the level of relative humidity, which, on the contrary, in order to control condensation, must be kept at normal levels by acting as illustrated in **diagrams A and B.**

The following are to be considered additional possible sources of humidity within the indoor environment:

- **boiling of water**
- cooking
- **laundry**
- showers
- indoor plants
- **number of persons inside the rooms, etc.**

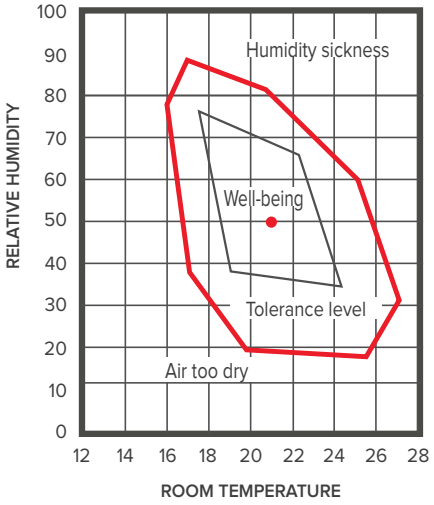
The damp air is deposited on the fixings, as well as on nonporous materials (e.g. glass) in the form of condensation and on the walls in the form of mould and water marks. Condensation begins to form when the wall temperature of the building falls to lower than the so-called ***"dew point temperature"***.

The dew point temperature is determined by the following factors:

- **Level of relative humidity inside the buildings**
- Inside temperature of the rooms
- Outside temperature

Airing the buildings brings the level of humidity back to more normal values.

With brief and repeated airing, little energy is wasted, guaranteeing an efficient air exchange.



Well-being diagram

Living wellbeing, as shown in the diagram, is reached as a function of room temperature and relative humidity.

Example: *at a room temperature 21° C and a relative humidity 50% a WELL-BEING condition can be achieved.*

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