User Manual

Manually operated sliding windows

Manually operated sliding windows

CE

User manual for manually operated Sky-Frame sliding windows.



Sky-Frame AG Langfeldstrasse 111 CH-8500 Frauenfeld Switzerland

Phone:+41 52 724 94 94E-mail:info@sky-frame.comInternet:www.sky-frame.com



Download PDF

Manually operated sliding windows Table of contents

Table of contents	1.	GENERAL INFORMATION	<u>14.1.1.1</u>
	1.1	Information concerning this manual	<u>14.1.1.1</u>
	1.2	Explanation of symbols	14.1.1.1
	1.3	Symbols in this manual	14.1.1.2
	1.4	Liability restriction	14.1.1.2
	1.5	Warranty conditions	14.1.2.1
	1.6	Customer service	14.1.2.1
			<u></u>
	2.	SAFETY	<u>14.1.2.1</u>
	2.1	Use for correct purpose	<u>14.1.2.2</u>
	2.2	Basic dangers	<u>14.1.2.2</u>
	2.2.1	Transparent wall connection	<u>14.1.2.2</u>
	2.2.2	Objects in the vicinity of the door	<u>14.1.2.3</u>
	2.2.3	Water-bearing inner tracks	<u>14.1.2.4</u>
	3.	DESIGN AND FUNCTIONALITY	<u>14.1.3.1</u>
	3.1	Short description	<u>14.1.3.1</u>
	3.2	Types of sliding windows	<u>14.1.3.1</u>
	3.2.1	Single-panel sliding window	<u>14.1.3.2</u>
	3.2.2	Extending sliding window	<u>14.1.3.2</u>
	3.2.3	Combined system	<u>14.1.3.3</u>
	4.	OPERATION	<u>14.1.4.1</u>
	4.1	Operating safety instructions	<u>14.1.4.1</u>
	4.1.1	Moving components	<u>14.1.4.1</u>
	4.1.2	Incorrect operation	<u>14.1.4.1</u>
	4.2	Danger areas	<u>14.1.4.2</u>
	4.3	Opening/closing the sliding windows	<u>14.1.4.3</u>
	4.3.1	Single-panel sliding window + extension	<u>14.1.4.3</u>
		l Opening the sliding window	<u>14.1.4.3</u>
		2 Closing the sliding window	<u>14.1.4.4</u>
		B Locking the sliding window (RC 2)	<u>14.1.4.4</u>
	4.3.2	Opening / closing a combined system	<u>14.1.4.5</u>
	4.3.3	Sliding window with locking catch	<u>14.1.4.5</u>

Manually operated sliding windows Table of contents

Table of contents	5.	CLEANING AND CARE	14.1.5.1
	5.1	Glass	<u>14.1.5.1</u>
	5.1.1	Non-permissible materials	14.1.5.1
	5.1.2	Important notes	14.1.5.1
	5.2	Surface	14.1.5.2
	5.3	Sill profile	14.1.5.3
	5.4	Seals	<u>14.1.5.4</u>
	5.5	Insect screen	<u>14.1.5.4</u>
	6.	TROUBLE-SHOOTING	<u>14.1.6.1</u>
	6.1	Debugging the system	<u>14.1.6.1</u>
	6.2	Incorrect repair	<u>14.1.6.1</u>
	6.3	Spare parts	<u>14.1.6.1</u>
	6.4	External condensation	<u>14.1.6.2</u>
	6.5	Internal condensation	<u>14.1.6.2</u>
	7.		14 1 7 1
	7.	DISMANTLING AND DISPOSAL	<u>14.1.7.1</u>
	8.	FURTHER INSTRUCTIONS	14.1.7.1

SKA-EBUWE

User Manual

all times.

Manually operated sliding windows General information

1. General information

1.1 Information concerning this manual



The instructions must be read carefully!

The basic prerequisite for safe operation is compliance with all specified safety instructions and instructions in this manual.The illustrations in this manual are intended to provide a basic understanding and may differ from the actual situation.

This manual describes how to use the system safely and efficiently. The manual is a constituent of the system and

must be accessible and in close proximity to the system at

1.2 Explanation of symbols <u>Safety instructions:</u>

The safety instructions in this manual are marked with symbols. The safety instructions are preceded by signal words that indicate the level of danger. Adhering to the safety instructions and taking careful action will help to avoid accidents, injuries and damage to property.



WARNING! (Danger to life and limb)

These symbols indicate a potentially dangerous situation which, if not avoided, can result in death or serious injury.

<u>CAUTION!</u> (Risk of fault)

This combination of symbol and signal word indicates a potentially dangerous situation that could lead to minor injuries if it is not avoided.

NOTE:



This symbol highlights useful tips, recommendations and information for efficient and fault-free operation.

Manually operated sliding windows General information

1.3 Symbols in this manual	The following symbols and highlighting are used in this manual to mark action instructions, result descriptions, lists, references and other elements:
	1. Marks step-by-step action instructions.
	→ Marks a status or an automatic sequence resulting from an action step.
	Marks lists and list entries with no fixed order.
	$[\rightarrow$ Page No.] References to chapters in this manual.
1.4 Liability restriction	All information and notes in this manual have been put together taking the applicable standards and regulations, the state of technology, our knowledge and our many years of experience into consideration.
	The manufacturer does not accept liability for damage caused by:
	 Failure to follow the instructions in the manual Failure to use the equipment for its correct purpose Making technical modifications Using non-approved spare parts
	The actual scope of delivery may differ from the information in this manual in the event of customised versions, the use of additional ordering options or because of technical changes.
	The obligations agreed in the delivery agreement, the manufacturer his general business terms and conditions and delivery conditions, and the legal regulations that were applicable when the agreement was signed are applicable.

Manually operated sliding windows General information

1.5 Warranty conditions	The warranty conditions are included in the manufacturer's general business terms and conditions.
1.6 Customer service	If you have questions about your Sky-Frame product please contact your official Sky-Frame partner.
	Our employees are also always interested in receiving new information and experiences resulting from the use of the equipment that may be useful for improving our products.

2. Safety

This section provides an overview of all important safety aspects for providing the user with the best possible protection and for ensuring that operation is safe and problem-free.



Failure to observe the action instructions and safety instructions in this manual can lead to considerable danger.

Manually operated sliding windows Safety

2.1 Use for correct purpose	The equipment is exclusively designed and constructed for the intended purpose of use that is described in this document.
	The equipment is exclusively intended for installation in a wall opening, and is intended to provide light, ventilation and access.
	Correct purpose of use also includes complying with all of the specifications in this manual.
	Any other use is considered to be incorrect.
	Claims of any kind for damage caused by incorrect use will not be entertained.
2.2 Basic dangers	In order to minimise health hazards and avoid dangerous situations, the safety instructions listed here and in the other chapters of this manual must be followed.

2.2.1 Transparent wall connection



WARNING!

Risk of injury from transparent wall connection!

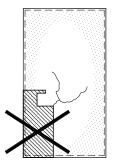
A frameless, closed sliding window may appear invisible and may be overlooked by persons. Walking into the closed door can cause serious injuries.

- In case of doubt, check that the sliding window is open.
- An authorised person must point out the danger to unauthorised persons or persons (including children) who are at risk because of their physical, sensory or mental capabilities or due to lack of experience or awareness.

User Manual

Manually operated sliding windows Safety

2.2.2 Objects in the vicinity of the door



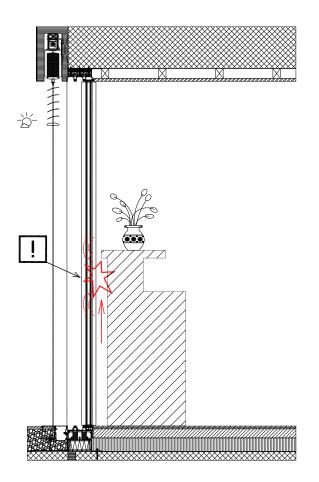
CAUTION!

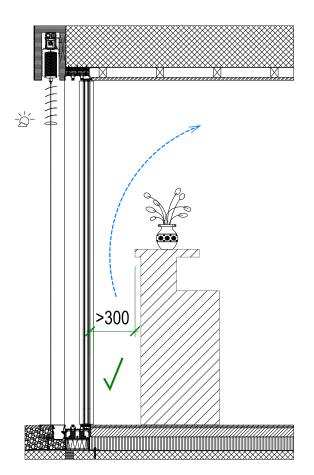
Risk of damage to property from selective heating of the glass!

Objects close to the window in direct sunlight can lead to partial heating of the glass and thus to glass breakage* (risk of thermal shock).

Do not place objects in the immediate proximity (up to 300 mm / 30 cm) of the sliding window.

* Only possible with glass configurations that deviate from the standard (ESG-H) (e.g. VSG).





User Manual

Manually operated sliding windows Safety

2.2.3 Water-bearing inner tracks

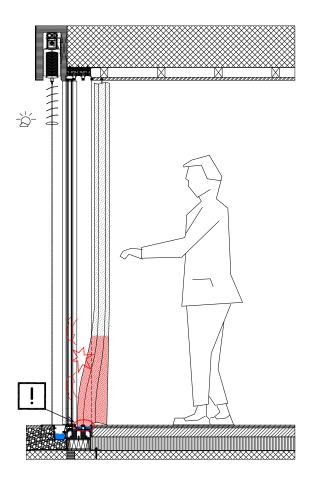


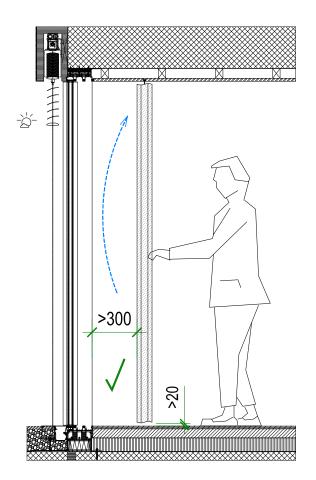
CAUTION!

In extreme situations, inner tracks can carry water, which could be absorbed by overly long curtains.

Curtains must end at least 20 mm above the floor.

Dark curtains must be at least 300 mm (30 cm) away from the window door (risk of thermal shock).





User Manual

Manually operated sliding windows Design and funtionality

3. Design and functionality	The single sliding window consists of a fixed panel (2) and a sliding panel (1).
3.1 Short description	The sliding panel (1) is opened (arrow) and closed by operating a locking handle (3).
	The sliding panel is locked when it is closed and unlocked by the locking handle (3) when it is opened.
3	 Sliding panel Fixed panel Locking/opening profile with locking handle

3.2 Types of sliding window
Single-panel sliding window
Extending sliding window
Combined system
Wallside / Edge opening (RV)
Centre opening on same level (MVe)

٠

•

Centre opening offset

Corner opening

08.08.2023

(MVv)

(EV)

Manually operated sliding windows **Design and funtionality**

3.2.1 Single-panel sliding window

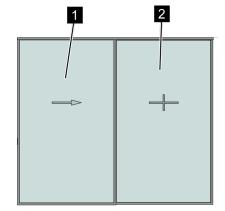


Fig. 2: Single-panel sliding window

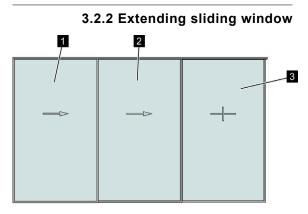


Fig. 3: Right extension

Only the sliding panel (1) of the single-panel sliding window moves.

The arrow (Fig. 2) indicates the opening direction.

- 1 Sliding panel 2 Fixed panel

The extending sliding window has two extension panels (1) and (2).

When the door opens (arrows) both extension panels move together until the extension panel (2) reaches the end position in the fixed panel (3).

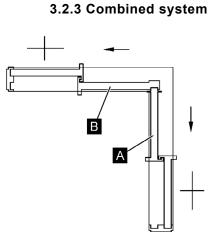
The sliding panel (1) continues to open until it comes up against the locking profile of the sliding panel (2).

When the door closes, the two extension panels (1) and (2) move together until the extension panel (2) engages in the fixed panel (3).

> The extending panel (1) continues to move until it engages in the end position. The system is locked in this position.

- **1** Extension panel 1
- 2 Extension panel 2
- 3 Fixed panel

Manually operated sliding windows Design and funtionality



The single-panel sliding window (Fig. 2) and the extension (Fig. 3) can be combined in different variants to create a system (Fig. 4 and Fig. 5).

A combined system is divided up into system **A** and system **B**.

System **A** is a system that opens first and closes last. System **B** is a system that opens second and closes first.

The arrows (Fig. 4 and Fig. 5) show the opening direction of the systems.

Fig. 4: Combined system, top-down view

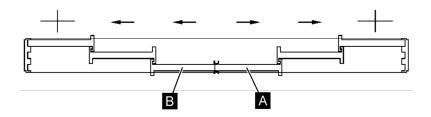


Fig. 5: Combined extending system, top-down view (left extension and right extension)

A combined double extending system (Fig. 5) consists of four sliding panels.

Two of the sliding panels are opened to the right (system A) and the other two open to the left (system B).

SKA-EBUWE

User Manual

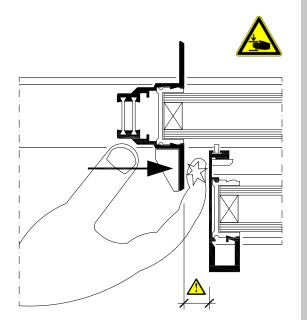
Manually operated sliding windows Operation

4. Operation

4.1 Operating safety instructions

The system has been manufactured taking the applicable standards and regulations, the state of technology, our knowledge and our many years of experience into consideration. However, injuries can still occur in the event of improper behaviour. Please observe the safety instructions explained in the following to avoid dangerous situations.

4.1.1 Moving components



WARNING!

Risk of injury from moving components when opening and closing the sliding window!

Moving components can cause injuries when opening and closing the sliding window.

- Before opening and closing the sliding window, ensure that no persons are present in the door area.
- Do not reach into or handle moving components whilst the door is being opened and closed.
- Persons (including children) who are incapable of using the equipment safely because of their physical, sensory or mental capabilities or lack of experience or awareness may not use the equipment without supervision or instruction from a responsible person.

4.1.2 Incorrect operation

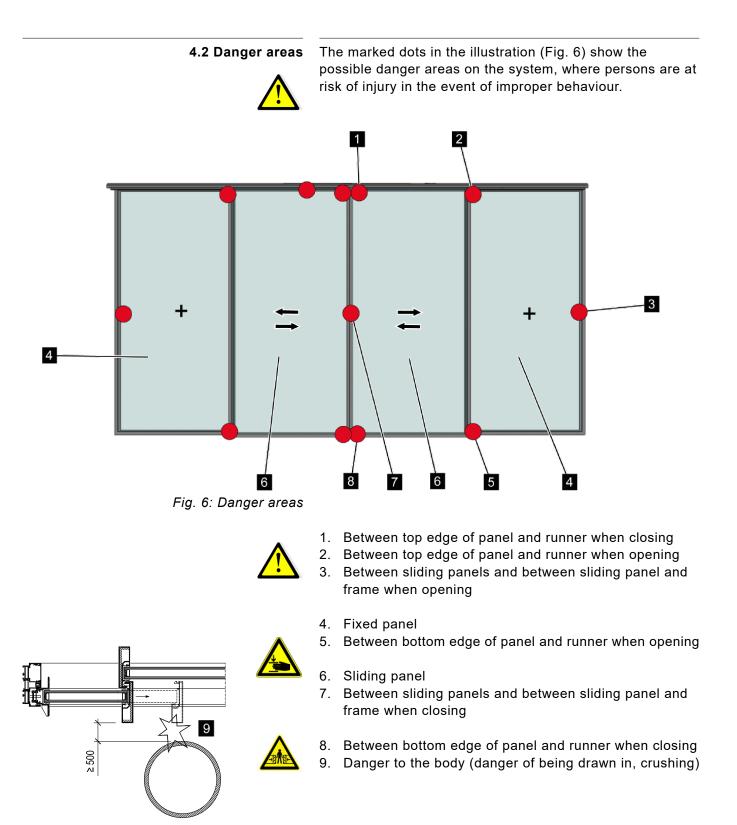


Risk of injury from incorrect operation!

Incorrect operation can lead to serious injuries and considerable damage to property.

- The sliding panels must never be bent, twisted or subjected to additional loads.
- Do not place objects in the door area between the sliding panels and the frame.
- Never slacken screws or remove them from the system.

Manually operated sliding windows Operation



User Manual

Manually operated sliding windows Operation

- 4.3 Opening/closing the sliding windows
- 4.3.1 Single-panel sliding window + extension

4.3.1.1 Opening the sliding window

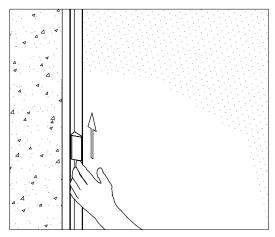


Fig. 7: Unlocking the locking handle



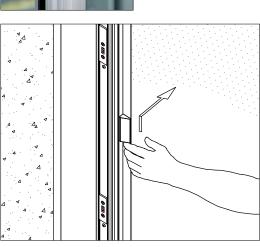


Fig. 8: Opening the sliding window

The method of operation of the single-panel sliding window and the sliding window extension is identical.

- **1.** Slide locking handle upwards (arrow) and hold in this position.
 - \rightarrow The sliding window is unlocked.
- **2.** Ensure that no living beings or objects are in the door area.

CAUTION!

Risk of damage from uncontrolled opening and closing of the sliding panels!

Uncontrolled opening and closing of the sliding panels can cause a considerable amount of damage.

- Move sliding panels slowly when opening and closing.
- Ensure that the sliding panel is moved along the frame extremely slowly, and that it does not bump against it in an uncontrolled way when it reaches the end position.
- 3. Open sliding panel slowly (arrow).

SKA-EBUWE

User Manual

Manually operated sliding windows Operation

4.3.1.2 Closing the sliding window 1. Ensure that no living beings or objects are in the door area.

CAUTION!

Risk of damage from uncontrolled opening and closing of the sliding panels!

Uncontrolled opening and closing of the sliding panels can cause a considerable amount of damage.

- Move sliding panels slowly when opening and closing.
 - Ensure that the sliding panel is moved along the frame extremely slowly, and that it does not bump against it in an uncontrolled way when it reaches the end position.
- 2. Slowly move the sliding panel as far as it will go.
 - \rightarrow The sliding window is locked automatically.

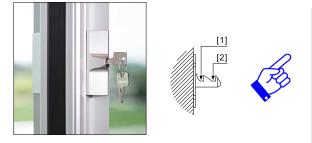
WARNING! Risk of being locked out!

Slid the

Sliding windows that do not have a locking handle on the outside lock automatically when they are fully closed (otherwise you'll need a locking handle with locking catch).

4.3.1.3 Locking the sliding window (RC 2)

Systems with increased burglary protection have a lockable locking handle.



NOTE:

Partially-opened sliding elements (in the hygienic ventilation position, gap ventilation with bump stop or flush edge bolt) are regarded as open windows and are therefore not burglary-proof. In order to fulfil RC 2, the sliding element must be <u>fully closed</u> (hook position [1]) and <u>locked</u>, and the <u>key must be removed</u>.

Manually operated sliding windows Operation

4.3.2 Opening / closing a combined system

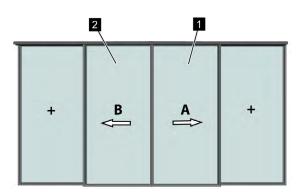


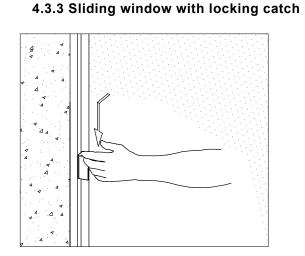
Fig. 9: Two-panel system

Opening the system:

- 1. Unlock sliding panel (1) of system **A** and open (arrow). [\rightarrow «Opening the sliding window» on page 14.1.4.3].
- 2. Open sliding panel (2) of system B.

Closing the system:

- 1. Close sliding panel (2) of system B.
- **2.** Close sliding panel (1) of system **A**. $[\rightarrow \text{ «Closing the sliding window» on page 14.1.4.4]}.$



If you want to be able to fully close the sliding window from the outside without it locking automatically, a locking <u>handle with locking catch</u> must be used.

The locking catch holds up the locking handle so that the panel is not locked.

In order to lock the sliding windows again after opening, the locking handle with locking catch must be pushed down manually.

1. Push locking handle down (arrow).

Fig. 10: Locking the sliding window





<u>NOTE:</u>

The additional pushbutton makes it possible to lock the locking handle in the lower closed position, ideal for securing the door in the hygienic ventilation position.

Manually operated sliding windows Cleaning and care Glass

5. Cleaning and care

5.1 Glass

As part of the facade, glass is subject to natural soiling. In order to provide problem-free use, certain points must be adhered to during cleaning and care.



Normal soiling is not a problem for glass. Plenty of clean water should be used in order to avoid a scouring effect caused by dirt particles.

Suitable tools:

- Soft, clean sponges
- Leather / cloths
- Rubber wiper

The cleaning effect can be assisted by using cleaning agents that are as neutral as possible or normal commercial household glass cleaner.

If the soiling consists of grease or sealant residue, normal commercial solvents such as white spirit or isopropanol can be used for cleaning.



TSG:

5.1.1 Non-permissible materials

Of the chemical cleaning agents that are available, do NOT use alkaline solutions, acids or materials containing fluoride.

The use of pointed, sharp metal objects (blades and knives) or scraping off with a glass scraper can cause surface damage and deep scratches, and is not permitted! Scratches may only become visible after a certain time with TSG due to its surface tension.

CAUTION!

NEVER use metal blades!

These can cause severe damage to TSG glass.

5.1.2 Important notes The following point

The following points must be observed during glass cleaning:

- use normal commercial glass cleaning products
- rinse cloths as often as possible
- grains of dirt in cloths can scratch the glass
- do not use abrasive or scouring materials
- do not use alkalis (lyes)



08.08.2023

Film "Cleaning and Care"

on sky-frame.com/manual

Float:

Cleaning instructions:

Manually operated sliding windows Cleaning and care Surface

therefore a prerequisite for the guarantee.

then dry with a clean cloth

Proper cleaning and care of the coated surfaces is required to keep the surface of the aluminium profiles clean and retain their shiny appearance for many years, and is

Loose dust: Wipe off with a dry cotton cloth without using pressure, or remove with a sponge and water and

Adhesive, paint, putty, tar: Carefully remove using a

neutral cleaning agent and a sponge. Do not use abrasive, mechanical cleaning! Rinse and dry.

Cement, mortar, concrete, plaster: Remove immediately with a sponge or soft cloth before it dries. Wash off under flowing water and then dry with a clean cloth. Sealed surfaces: Rinse with plenty of water. Clean with

Soiling in general: Rinse with plenty of water. Clean with

neutral cleaning agent and a sponge. Rinse and dry.

suitable solvent and and clean cotton cloth

5.2 Surface



Recommendation:

• pH-neutral cleaning agent in diluted form



<u>Cleaning interval:</u> at least once per annum*

Cleaning agent:

- NOT with high concentration of solvent
- NOT scouring / abrasive
- NOT alkaline (lyes)
- NOT acidic
- NOT containing chlorine

Elements installed in a particularly aggressive atmosphere (near the sea, industrial climate or the combination according to corrosivity categories C4 and C5 according to ISO 9223): **monthly***

* or if urgently required

(direct exposure to salt or chlorine water, also spray; sand; bird droppings; insects; pollen; autumn leaves...)

The following generally applies:

- Always wipe in the rolling or grinding direction.
- Only use gentle pressure when cleaning.
- Use distilled or mineral water for final rinse (avoids streaking).
- Remove with a squeegee and dry with a clean cotton cloth.
- Do not clean in direct sunlight or if the surface is very hot.



Film "Cleaning and Care" on <u>sky-frame.com/manual</u>

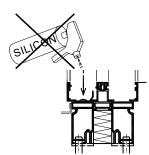
Manually operated sliding windows Cleaning and care Sill profile

5.3 Sill profile To retain **good running properties** and guarantee that **correct drainage** takes place over the long term, the sill profiles should be checked and cleaned if necessary:

- Check channels for soiling and clean.
- Remove soiling from the sill profile (running tracks) with a vacuum cleaner (narrow nozzle).
- Clean sill profile with a damp cloth and a liquid cleaning agent.
- Check that all drainage slits are clear [OK?].

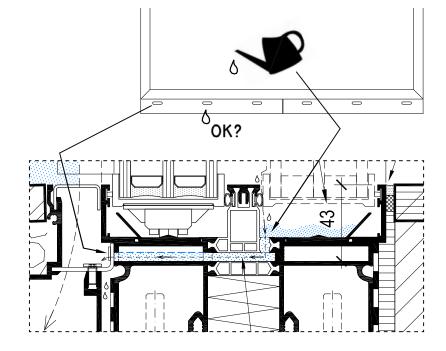
NOTE:

The surface of the running track (stainless steel) should **NOT BE TREATED WITH SILICON SPRAY** or other lubricants.



The running properties are best on a **dry** surface.





TIP:

Clean blocked drainage slots with a thin piece of wood or plastic and rinse with plenty of water in order to ensure that drainage takes place.

CAUTION!

DO NOT USE A HIGH-PRESSURE CLEANER!

High pressure can damage the seal of the sill profile.

Manually operated sliding windows Cleaning and care Seals + Insect screen

5.4 Seals The seals have been treated with silicone in the factory to prevent them from freezing on.



If this protection has deteriorated over time, proceed as follows:

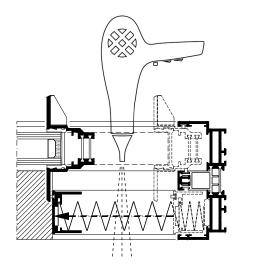
- 1. Spray silicone spray onto a cloth outdoors.
- 2. Apply silicone spray to the seals using the cloth.

<u>Recommendation:</u> Rub the seals with silicone spray once a year.

<u>CAUTION:</u> Damage caused by road salt!

Road salt can damage the sliding windows. Avoid use of road salt in the immediate vicinity of the sliding window.

5.5 Insect screen Clean frame, handle profile and fabric with soapy water and a soft cloth.



The fabric can also be cleaned by blowing through it from the inside to the outside using compressed air or a hair dryer (using cold air).

<u>CAUTION:</u> NEVER use chemical or abrasive materials!

CAUTION:

In strong winds, the insect screens must be closed immediately (risk of damage).

Manually operated sliding windows Trouble-shooting

6. Trouble-shooting	The possible causes of faults and the work that is required to remedy them are described in the following chapter. Please contact specialist company in the event of faults that cannot be remedied using the following instructions.
6.1 Debugging the system	Sliding panel cannot be moved:
	 Object trapped between sliding panel and frame → remove object
	• Damage to system \rightarrow contact a specialist company
	Sliding panel can only be moved slowly:
	 Heavy soiling in movement area
6.2 Incorrect repair	WARNING! Risk of injury from incorrect repair!
	Attempts to repair the system by an insufficiently qualified person can result in serious injuries and damage to property.
	 Never dismantle the system. Never repair or modify the system yourself.
6.3 Spare parts	<u>WARNING!</u> Risk of injury from using the wrong spare parts!
	The use of wrong or defective spare parts or failing to install them correctly can put the user at risk and cause damage.
	• Always have defective parts replaced by a specialist company.

Manually operated sliding windows Trouble-shooting

6.4 External condensation



The external glass is in a direct "radiation exchange" with the sky. Depending on the installation situation, this radiation exchange can now lead to considerable cooling of the external glass (particularly on clear nights).

If the temperature of the outer glass surface drops below the temperature of the adjacent outside air, this will result in the formation of condensation on the outer surface of the glass (even ice in certain cases).

This procedure is generally known in nature as dew or hoar frost formation.

Heating of the outer surface and the outside air (by the morning sun, for example) will cause the condensation to disappear again.

This phenomenon is not a malfunction, but is an **indication of the outstanding heat insulation** and the functionality of the insulating glass that is used.

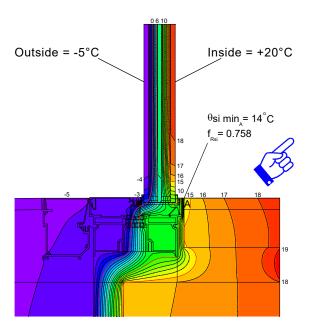
The following generally applies to any insulating glass: The lower the heat transmission (the smaller the U_g value or also: the better the insulating glass) the warmer the glass remains at the room side and therefore the colder the outside glass, which may become fogged.

Because of the improved insulation of triple-glazed units, condensation is more likely to form on the surface of the outer glass layer more frequently than with double-glazed units.

6.5 Internal condensation

The formation of dew on the room-side pane of glass is assisted if the air circulation is blocked (protruding soffits, curtains, unfavourable radiator arrangement, lack of ventilation) and the ambient air is too humid.

The ambient humidity must be adapted to the situation accordingly (dehumidifier, convector).



Manually operated sliding windows Dismantling and disposal

7. Dismantling and disposal When the system reaches the end of its service life, it must be dismantled and disposed of in an environmentally friendly way.

WARNING! Risk of fatal injury from incorrect dismantling!

Problems that occur during dismantling can lead to lifethreatening situations or cause a considerable amount of damage.

- Only allow experts from the specialist company to dismantle the system.
- Do not dismantle the equipment or make local modifications yourself.

8. Further instructions Available user manuals:

П	
4	-
The second secon	10

- avallable user manuals:
- 14.1 Manually operated sliding windows
- 14.3 Power-operated sliding windows
- 14.4 Control button "Touch"

Available languages:

- German
- English
- French
- Italian
- Norwegian
- USA

Download: https://www.sky-frame.com/manual

Disclaimer:

All specifications are non-binding and must not be regarded as a guarantee.

Sky-Frame AG reserves the right to modify, extend or delete the specifications, product data and appearance without notice. The latest version of this document is always decisive.

© 2023 Sky-Frame AG