

SLIFT 170

LIFT-AND-SLIDE DOOR



Application example:
Residential building

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THE SLIFT SYSTEM

Variety & variability



Photo: Hautau GmbH

SLIFT opens the door to innovative architectural possibilities. Large glass panels allow maximum transparency and optimal lighting to transform creative visions into reality. Discover the brilliant fusion of **elegance, variability and optimal user-friendliness** with the new SLIFT 170. The versatile lift-and-slide door system made from aluminium facilitates designs with extremely narrow profile face widths and **fulfils the strictest structural requirements.**

Flexible in use, comfortable to operate: the SLIFT 170 can be perfectly combined with the FRAME⁺ 75 WI window system from RAICO and

easily installed in the THERM⁺ curtain wall system. Thanks to the large selection of additional fitting components, safe operation without any exertion is child's play.

In addition to adhering to the highest structural and design requirements, we also kept the unique architecture and aesthetics in mind during the development and optimisation of the SLIFT 170. Thanks to different sash and fixed glazing variants, the SLIFT elements can be adapted to optimally suit individual building requirements.

Easy-to-assemble system

The SLIFT 170 lift-and-slide system will win you over with its **high variability in construction and production**. It can be glazed both from inside (GI) and outside (GO). A wide variety of design and **technical facets of façade and wall integration** can be achieved when the SLIFT 170 is combined with the RAICO FRAME⁺ and THERM⁺ systems. You will find all of the required assembly details in our product documentation, which provides assemblers with a **quick overview and information on how to work** with the array of possible variants. We recommend the use of a machining centre for assembly. However, standard machines and drilling jigs can also be used for standard assembly.



Good to know: The SLIFT 170 is extremely **easy to install**: The patented adjustable middle sealing strip permits tolerance compensation, thermal distortion is reduced by sash profiles with low-thrust insulation bars and all profiles can be coated in combination. All frame profiles are available with a longitudinal joint and a 90° corner.

Technical highlights



- Maximum frame dimensions: 9,100 x 3,300 mm
- Maximum sash dimensions:
Width 4,500 mm | Height 3,200 mm
Maximum surface area 10 m²
- Maximum sash weight: 330 kg single roller | 440 kg tandem roller
- Heat and structurally-optimised curtain wall area
- Roll-formed stainless-steel profile rollers
- Optional thermal insulation of the profiles, incl. attachments: U_f value up to 1,9 W/(m²K) can be achieved (average of all profiles)
- When triple glazing with $U_g = 0,5$ W/(m²K) is used, $U_w \geq 0,85$ W/(m²K) can be achieved depending on the size
- Direct glazing in the frame profiles enables invisible integration into structural attachments. Glass thickness: 10 – 56 mm (GI); 22 – 53 mm (GO)
- No visible glazing beads:
High-quality GO variant design of the sash

FITTINGS & ACCESSORIES

Suitable for every requirement

Perfectly combined for individual requirements: We use customised, high-quality fittings components provided by our partner Hautau for our SLIFT 170 system.

In addition to the standard fitting, the lift-and-slide sashes are also available with the following **additional components**:

- **Dual-sided operation:**
From inside and outside
- **Security door lock:**
With profile cylinder or round cylinder (Swiss)
- **Recessed handle:**
For a pleasant feel when opening the door
- **Comfort close:**
Smooth, secure closing of the door sash
- **Comfort stop:**
Timely and safely dampens the opening push

- **Safety stop:**
Finger-trap protection for maximum safety
- **Torsional dampers:**
Facilitate gentle closing of even the heaviest sashes
- **Softlift:**
Enables heavy sashes to open easily and effortlessly
- **Available with lock/condition monitoring**
with switching contacts if required

For that extra level of comfort:

We are also happy to facilitate easy opening and closing of larger elements upon request.

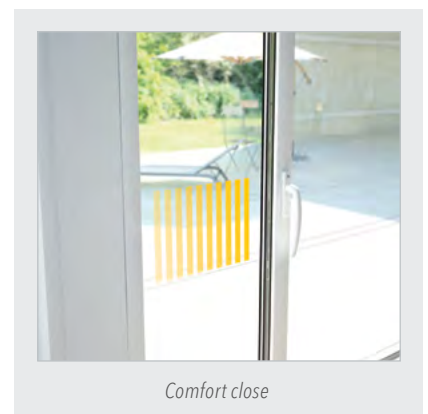
Good to know: Other fittings can also be used with the SLIFT 170, providing you with maximum design freedom for every project.



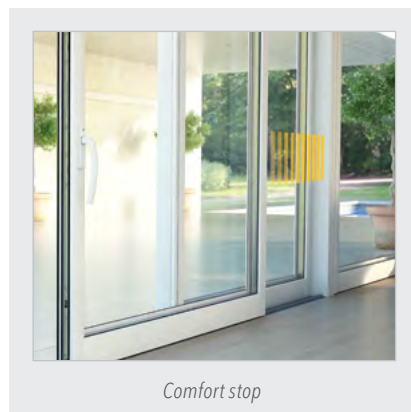
Handle



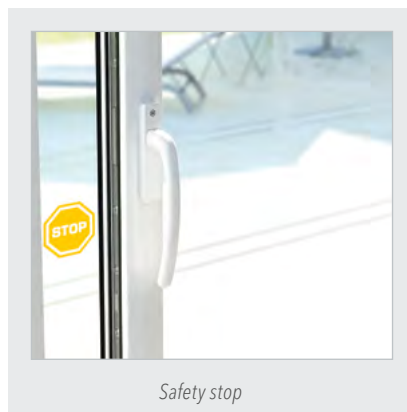
Grip shell



Comfort close



Comfort stop



Safety stop



Gear damper

Photos 1 - 2: FSB GmbH + Co KG | Photos 3 - 6: Hautau GmbH

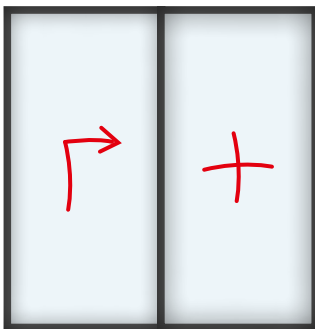
OPENING TYPES

Combine to your heart's content

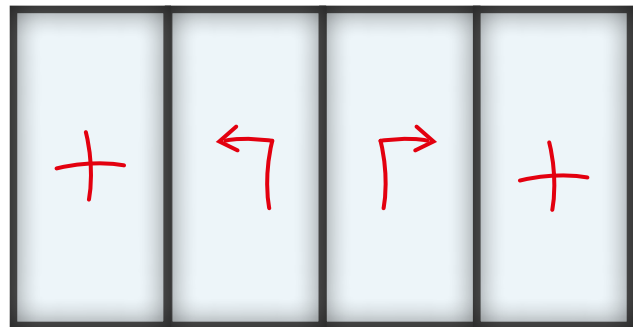
Customisable to suit your **individual design ideas**:
Achieve the **opening type you require** through the versatile design variants of the SLIFT 170 lift-and-slide doors. You are free to select the configuration

that **suits your needs**: How many elements should the door consist of? Which elements will be opened? Learn more about the flexibly combinable configurations of the SLIFT 170 below:

Scheme A/A+



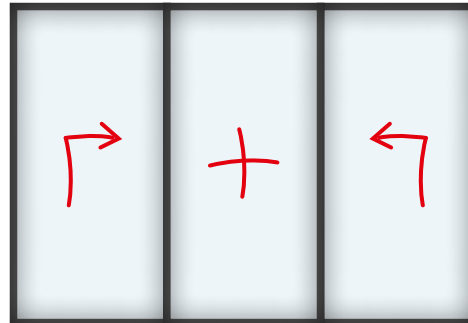
Scheme C/C+



Scheme G+



Scheme K/K+



Scheme A, C and K are available with production-optimised profiles.
Please refer to page 24 for more information.

Legend:

Variant +: Variant with direct glazing in the fixed panel (e.g. configuration A+).



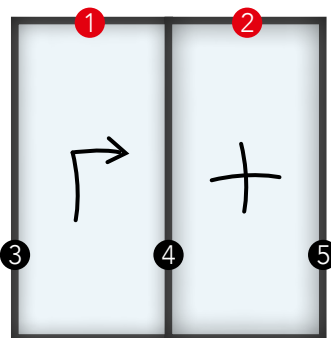
Lift-and-slide sash



Fixed glazed panel

SCHEME A

Classic & variable

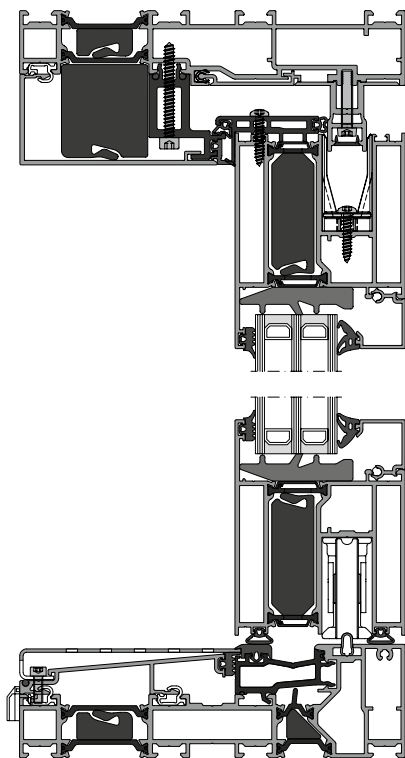


System scheme A:

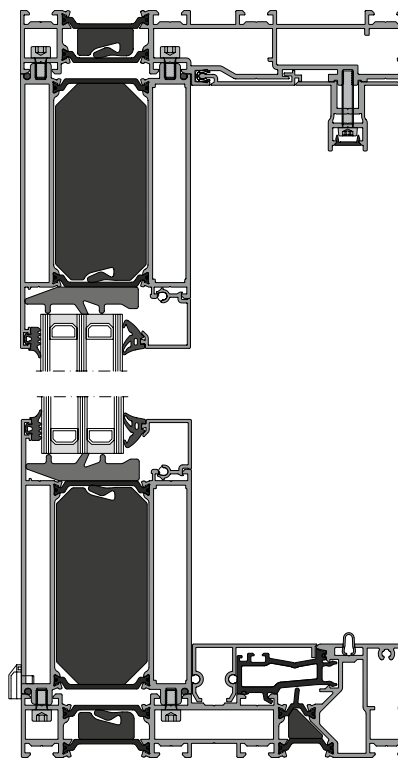
Lift-and-slide sash + fixed glazed panel

This classic door scheme enables 50% of the glazed panel area to be opened, in the living area for example. The position of the lift-and-slide sash is variable and can be configured as required.

Vertical cross sections

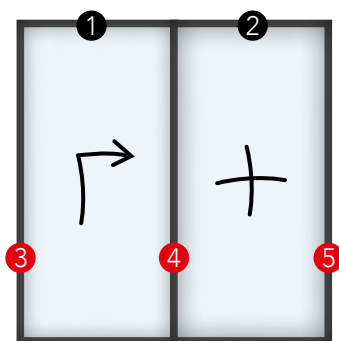


1 Lift-and-slide sash (PO)

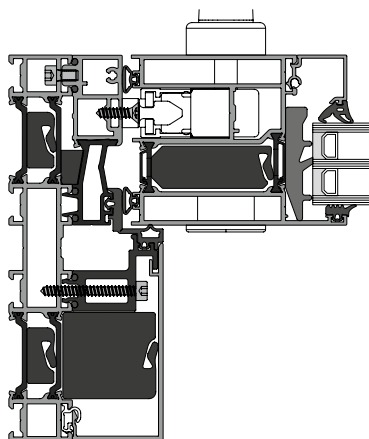


2 Fixed glazing profile (PO)

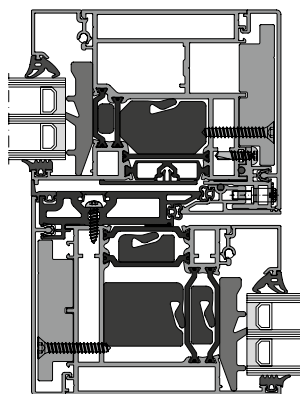
PRODUCTION-
OPTIMISED



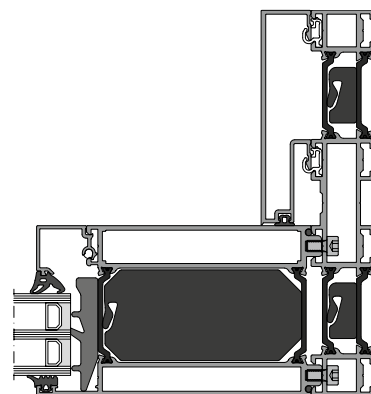
Horizontal sections



3 *Lift-and-slide sash*



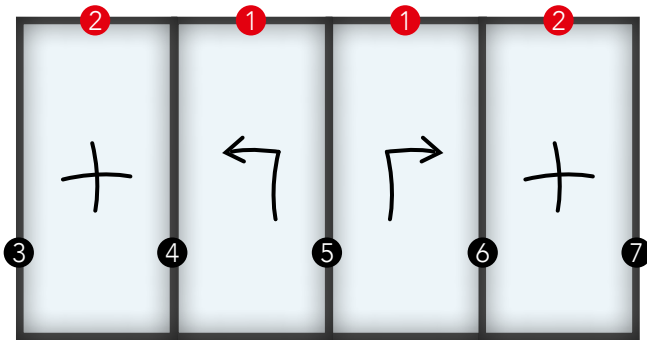
4 *Mullion joint*



5 *Fixed glazing profile*

SCHEME C+

Open & bright

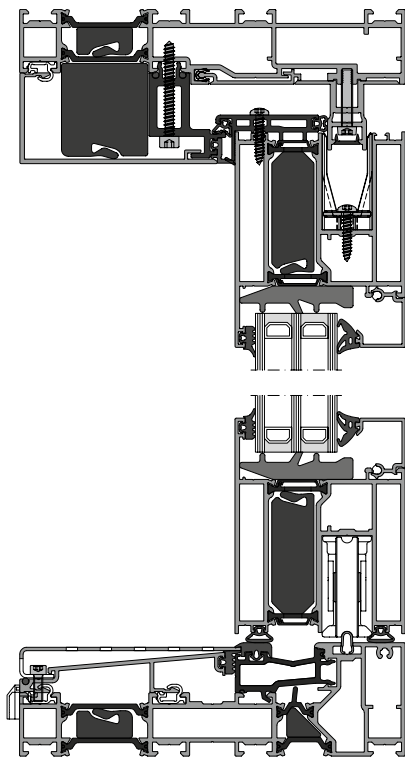


System scheme C+:

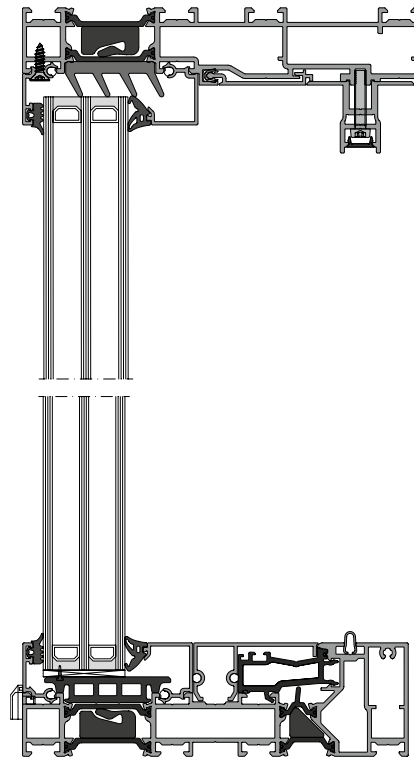
2 lift-and-slide sashes + 2 fixed glazed panels

Opening scheme commonly used in commercial properties, e.g. hotel lobbies: The lift-and-slide sashes are situated between the two fixed glazed panels and can be opened simultaneously to facilitate a large opening width. The wide glass front ensures optimal lighting for the fixed glazed panels.

Vertical cross sections

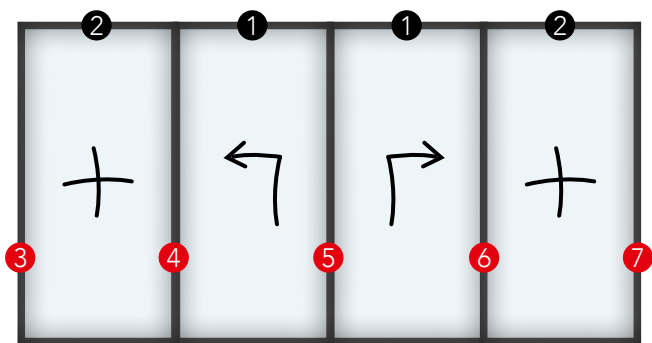


1 Lift-and-slide sash (PO)

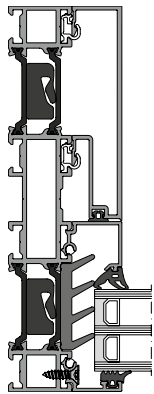


2 Direct glazing (PO)

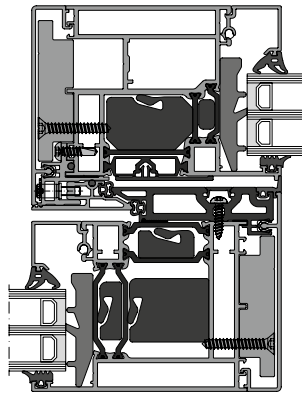
PRODUCTION-
OPTIMISED



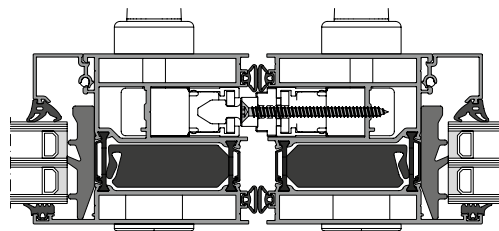
Horizontal sections



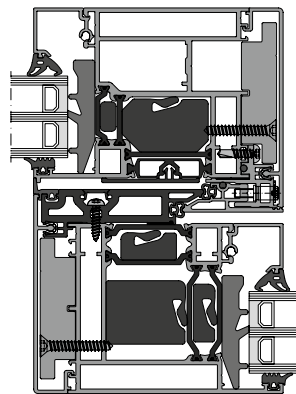
3 Direct glazing



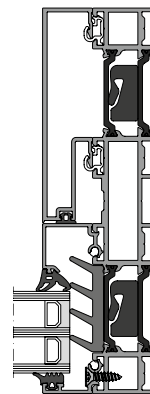
4 Mullion joint



5 Dummy mullion



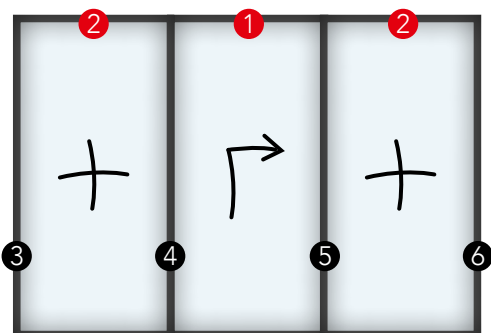
6 Mullion joint



7 Direct glazing

SCHEME G+

Harmonious & transparent

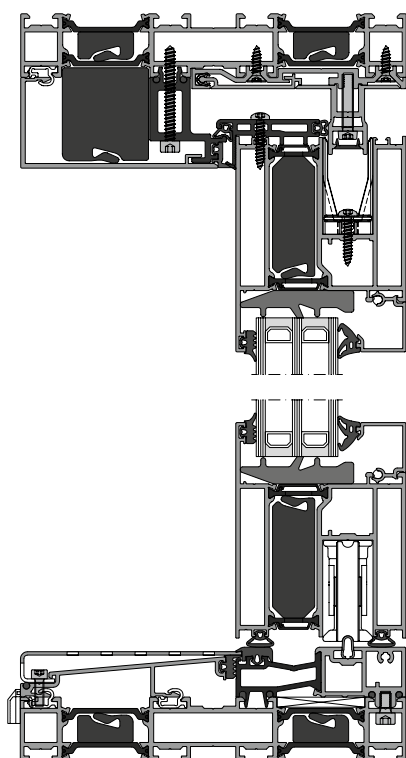


System scheme G+:

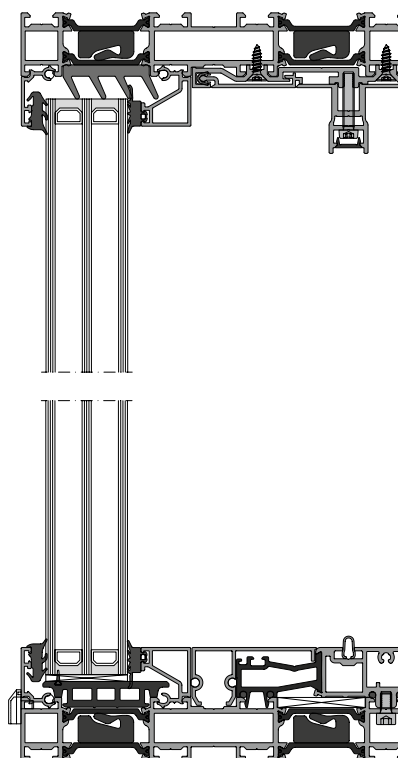
1 lift-and-slide sash + 2 fixed glazed panels

Scheme G+ combines a lift-and-slide sash with two fixed glazed panels. The lift-and-slide sash is situated between the two fixed glazed panels and the opening direction can be selected to the right or left. Architectural harmony and optimal lighting effects are achieved by the direct glazing of the two fixed glazed panels.

Vertical cross sections

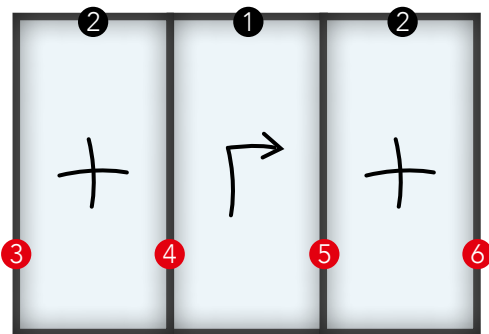


1 Lift-and-slide sash

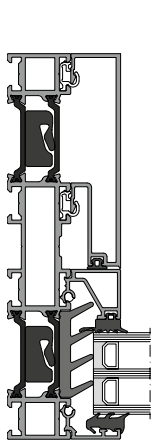


2 Direct glazing

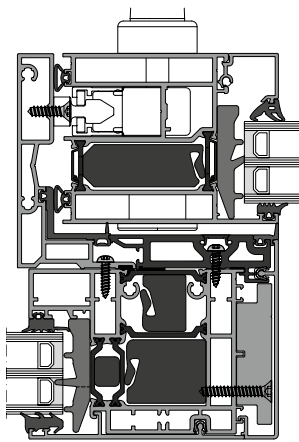
STANDARD



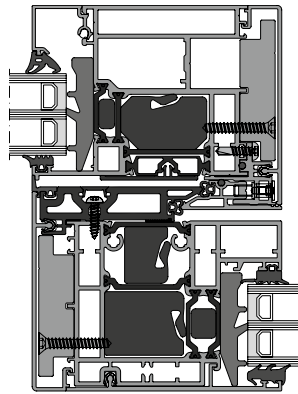
Horizontal sections



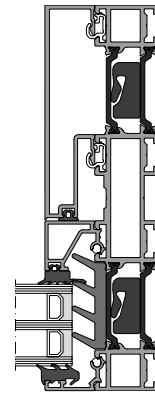
3 Direct glazing



4 Mullion joint



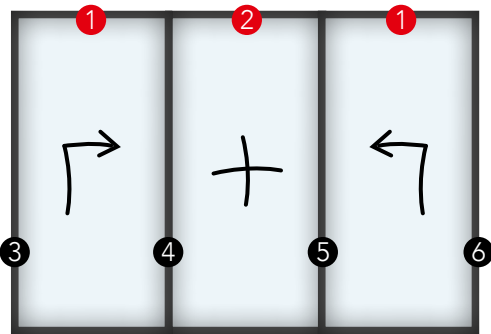
5 Mullion joint



6 Direct glazing

SCHEME K

Flexible & space-saving

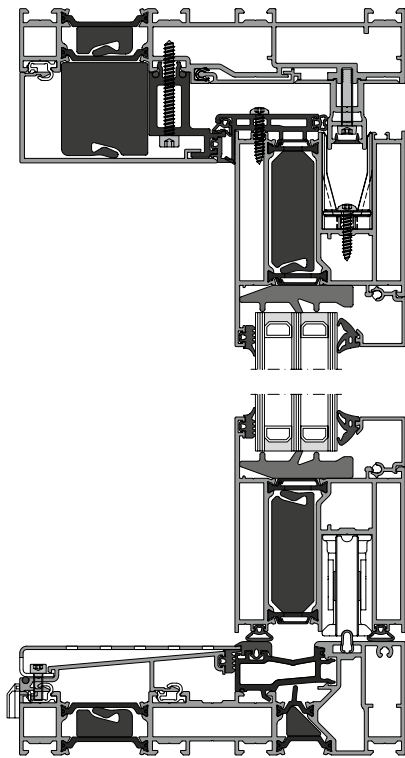


System scheme K:

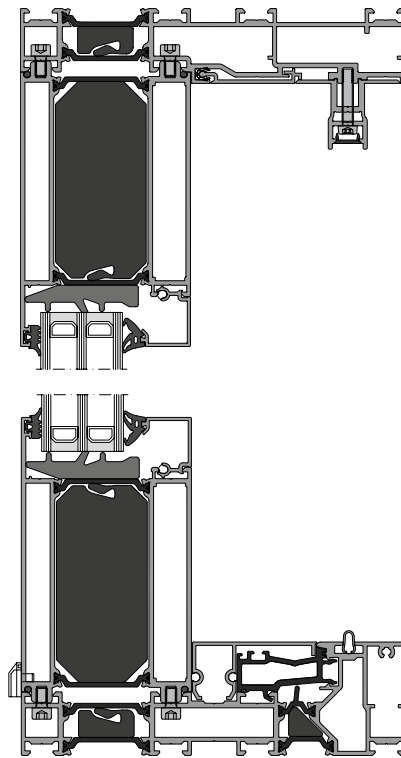
2 lift-and-slide sashes + 1 fixed glazed panel

Scheme K combines two lift-and-slide sashes with a central fixed glazed panel. The lift-and-slide sashes are situated to the right and left of the fixed glazed panel. This opening configuration provides maximum freedom in the use of space, especially in the living area, and the central fixed glazed panel enables furniture to be positioned in a way that provides optimal lighting, such as the kitchen table.

Vertical cross sections

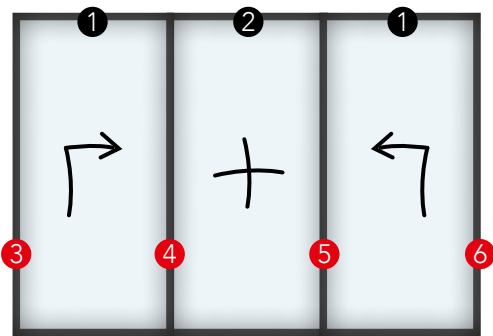


1 Lift-and-slide sash (PO)

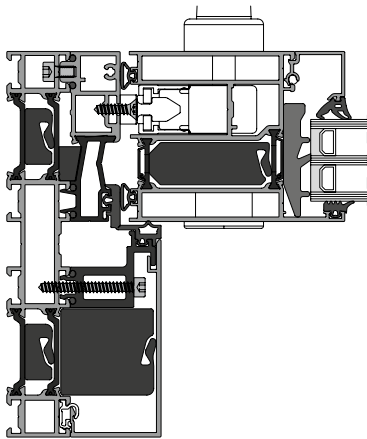


2 Fixed glazing profile (PO)

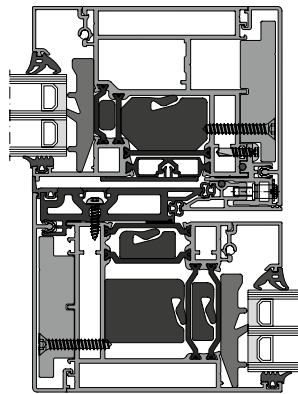
**PRODUCTION-
OPTIMISED**



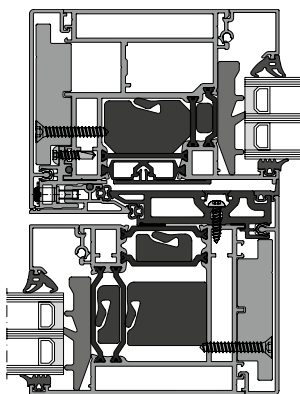
Horizontal sections



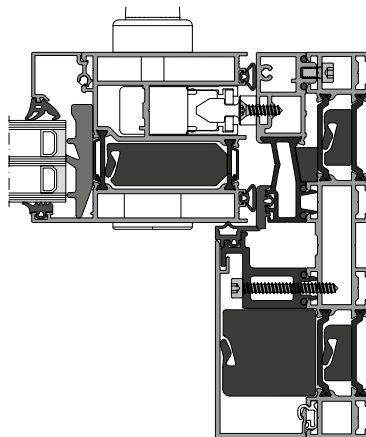
3 *Lift-and-slide sash*



4 *Mullion joint*



5 *Mullion joint*



6 *Lift-and-slide sash*

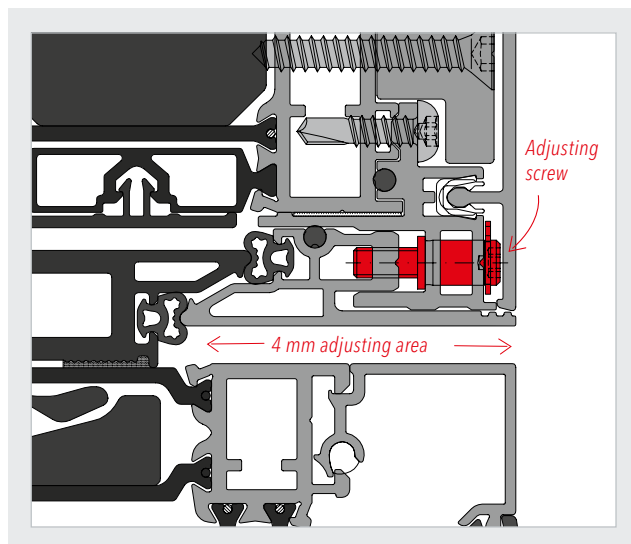
DESIGN BASICS

Static design & stability

Carefully considered RAICO details give our clients the crucial edge and facilitate **convenient and easy** assembly of the SLIFT 170.

Robust mullion

- The **robust mullion** in the area between the lift-and-slide sash and the fixed glazed panels stiffens the complete element and reliably guides the strongest of wind loads into the surrounding frame construction.
- The mullion has been designed as a profile with a **thermally insulated corner joint** to optimise the surface temperatures and the U_f value.
- **Customisable:** The mullion can be adapted to suit your personal needs, both through integrated structural reinforcement made of high-strength aluminium and a surface-mounted structural mullion.

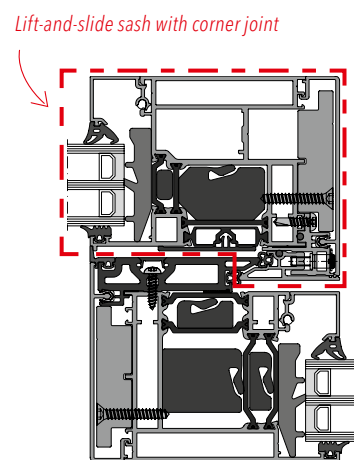
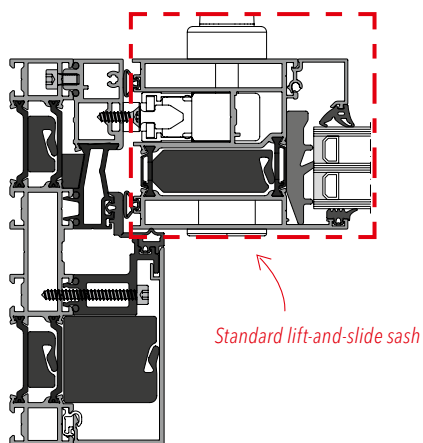


Middle sealing strip

- The adjustable middle sealing (adjustment range of ± 2 mm) facilitates noticeably **easier installation** and **enables adjustment to production and installation tolerances**. This allows the SLIFT 170 to be easily customised to suit every installation situation.
- The contact pressure can be readjusted with an adjusting screw to achieve a **perfect seal**. Our patented sealing strip is delivered pre-assembled, adjusted to its final position.

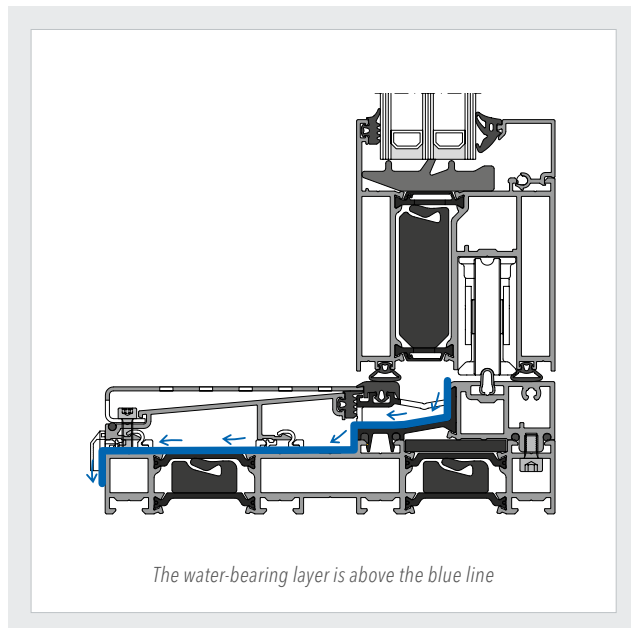
Variable sash profiles

- The lift-and-slide sash features **standard sash profiles on three sides** and a special sash profile and **thermally insulated corner joint** on the mullion side. The profiles are connected with special fork corner brackets and panel profiles to create an **aesthetically pleasing appearance**.
- **Robust and elegant:** The sash profiles with corner joints are also available with invisibly integrated structural reinforcement.
- The standard sash profile is equipped **with warp-resistant bars** to reduce deformation. This enables us to achieve **improved structural stability** even in the case of higher temperature fluctuations.



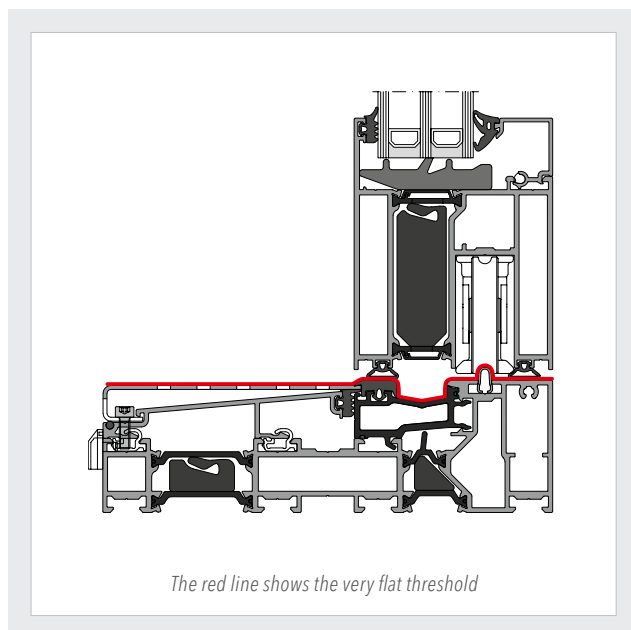
DESIGN BASICS

Optimised threshold formation



- The well **thought-out SLIFT drainage concept** enables water to flow **outside the chambers** of the profiles and the composite zone in the lower frame profile.
- These profiles can be extended at any time **without leading to sealing issues** in the structural attachment by screwing on **widening profiles**. The water-bearing level is above the blue line: This simplifies structural attachments and ensures optimal sealing.

Barrier-free and easy to clean



- **Optimum accessibility** is provided by the exceptionally low protrusion of the rollers (approx. 5 mm).
- The threshold is extremely flat thanks to the surface-mounted balloon seals and forgoes the use of deep, dirt-sensitive joints, making the **threshold area easy to clean**.
- **Flexible threshold area:** The **outer step protection plate** of the threshold area is available in range of materials and perforations.

DESIGN BASICS

Impressive variability

The SLIFT 170 is the perfect lift-and-slide door system all-rounder – **it's as variable as you need it to be!** Our flexible basic system offers our clients everything that the market demands. As the assembler, you can select how you would like to configure the SLIFT 170 to suit your specific project.

■ Two sash variants:

- Glazed from inside (GI)
- Glazed from outside (GO)

■ Three fixed glazing variants:

- Direct glazing – glazed from outside (variant +)
- Direct glazing – glazed from inside (variant +)
- Fixed glazing profile – glazed from inside

■ Different face widths of the frame

- with production-optimised profiles
- with standard profiles
- mitre or butt joints corner
- with a longitudinal joint in horizontal frames
- with a 90° corner in the frame

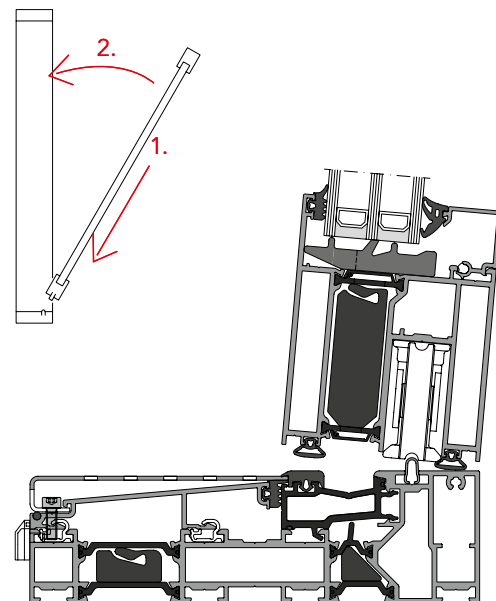
- Variant with variable **thermal insulation** (similar to RAICO FRAME⁺ series)

Good to know: All 6,500 mm frame profiles are in stock. Project or client-specific custom lengths can be ordered if required.

Installation with maximum comfort

Discover the convenience of the **carefully considered SLIFT system** during on-site assembly: In contrast to standard market solutions, the lift-and-slide sashes **require minimal effort** to mount yet achieve a **high level of precision**.

Conventional heavy glazed lift-and-slide sashes first need to be laboriously lifted diagonally upwards and threaded into a guide profile before being placed on the guide rail. SLIFT forgoes this arduous process with a **new, innovative solution**: We reversed the installation process to avoid the main issue of the heavy load. **The heavy glazed lift-and-slide sashes of the SLIFT 170 can easily be placed on the rollers at an angle and then conveniently swivelled upwards.** Thanks to the **two-part guide rail**, the lift-and-slide sash can be pushed onto the first, pre-assembled guide rail to enable the second guide rail to be **subsequently screwed on with ease**.

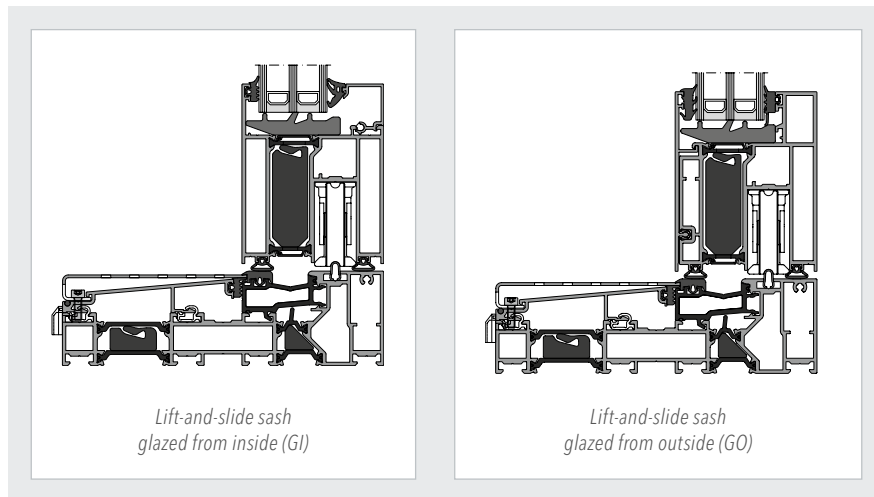


Installation of the lift and slide sash

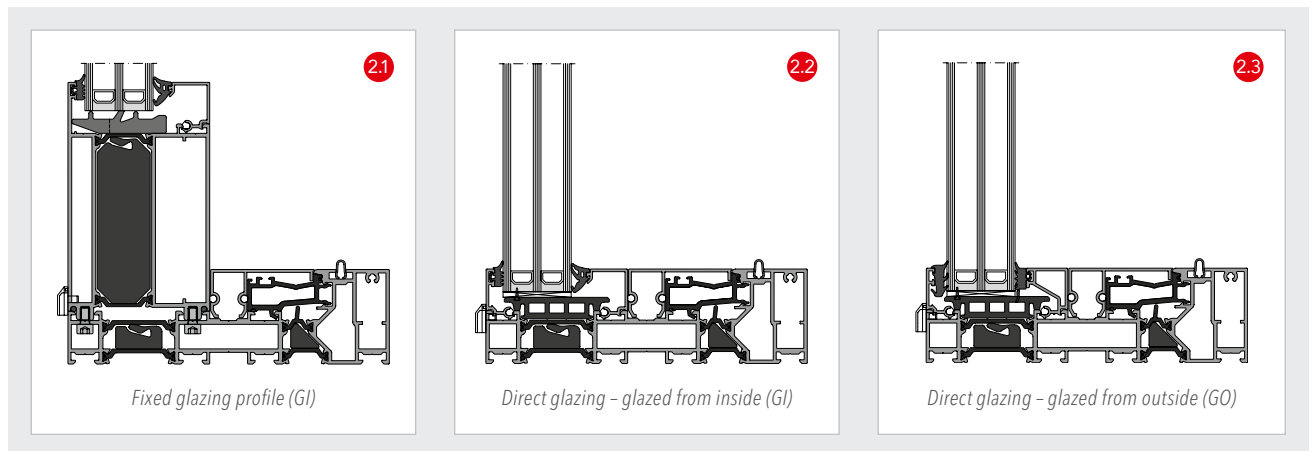
DESIGN BASICS

Glazing variants

Lift-and-slide sash ①

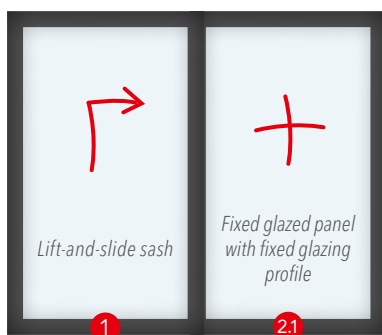


Fixed glazed panel

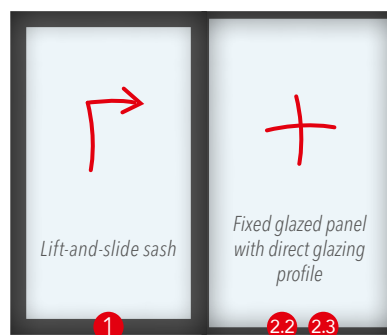


Component view

Scheme A



Scheme A+



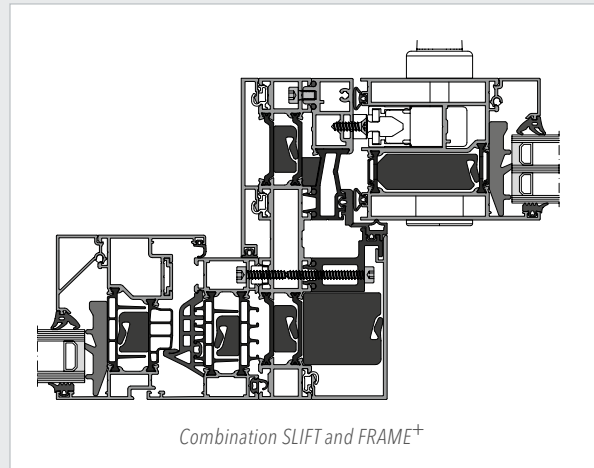
DESIGN BASICS

Optimal system integration

With SLIFT **everything is in harmony**: Our innovative lift-and-slide door system has been specifically developed to **perfectly harmonise** with our tried and tested RAICO window and façade systems:

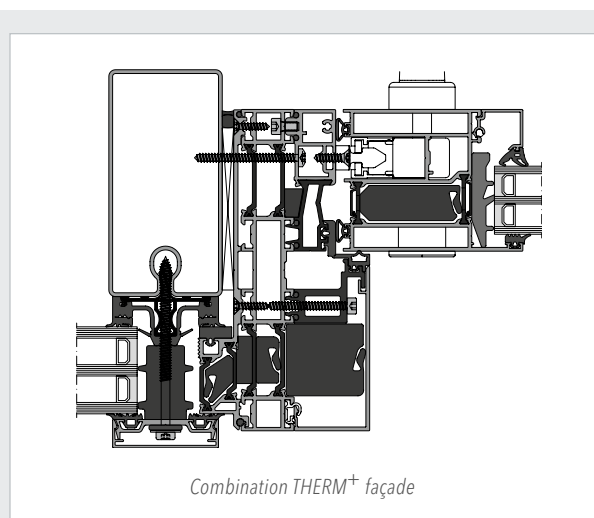
Perfectly compatible with FRAME⁺

- **SLIFT 170 is a lift-and-slide door system** developed with two tracks. Each track has a **basic depth of only 75 mm** with a narrow sealing space of only 20 mm between them.
- **Our FRAME⁺ elements can be circumferentially connected to the SLIFT system** – with aesthetically pleasing panelling as standard.
- Fixed glazed panels can also be **directly connected**.
- FRAME⁺ curtain wall profiles can be installed as transoms in fixed panel and lift-and-slide sashes.



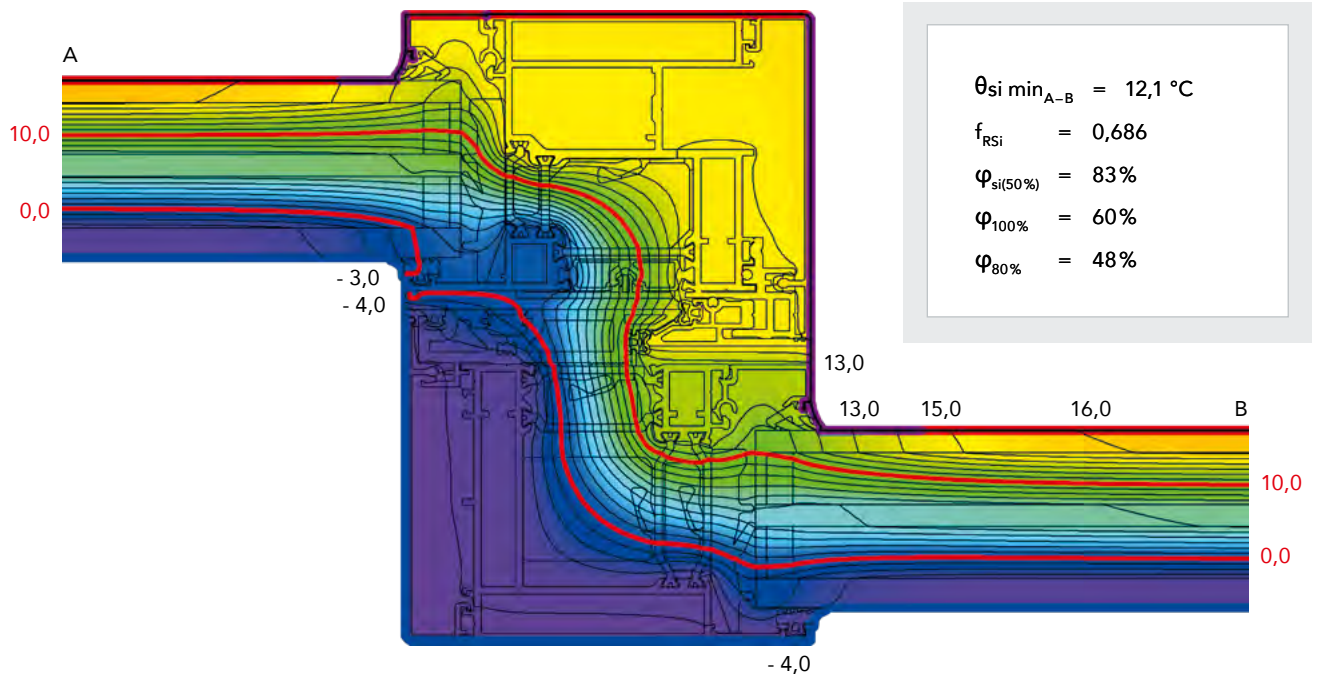
Easily integrated into THERM⁺ façades

- **Specially developed adapter frames** for fixing to the RAICO THERM⁺ façade facilitate stable and functional integration with narrow face widths – **technical perfection combined with architectural elegance**.



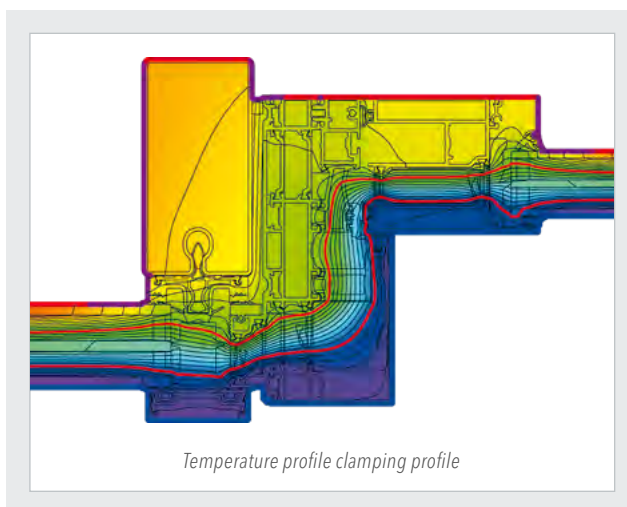
DESIGN BASICS

Surface temperatures & thermal insulation



- The double thermally separated mullion joint provides a number of **additional structural advantages**.
- **Ideal interaction** of geometric and material-related thermal bridges.

- The isotherms run parallel to the component surface due to the **double thermal separation** in the sashes.



"Bridging" the internal thermal separation and "over-insulating" the frame ensures the temperature lines are directed towards the glass level of the curtain wall construction in a controlled manner, creating a **clamping assembly that functions structurally**.

STRUCTURAL ATTACHMENTS & MOUNTING

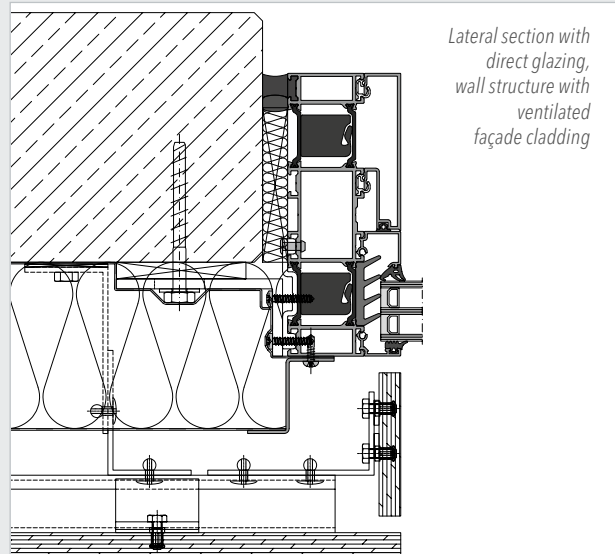
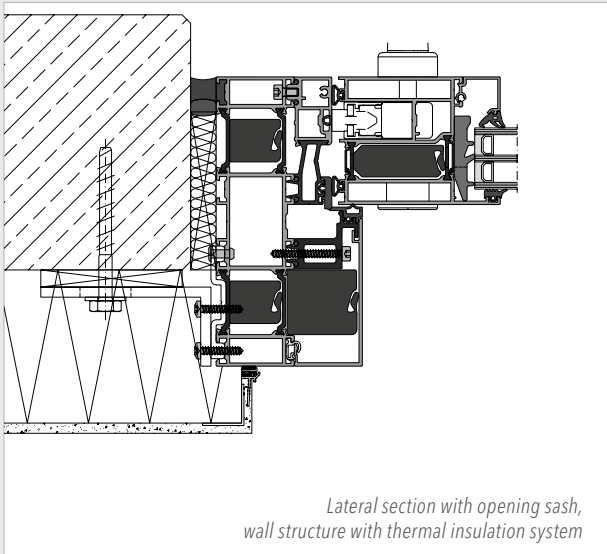
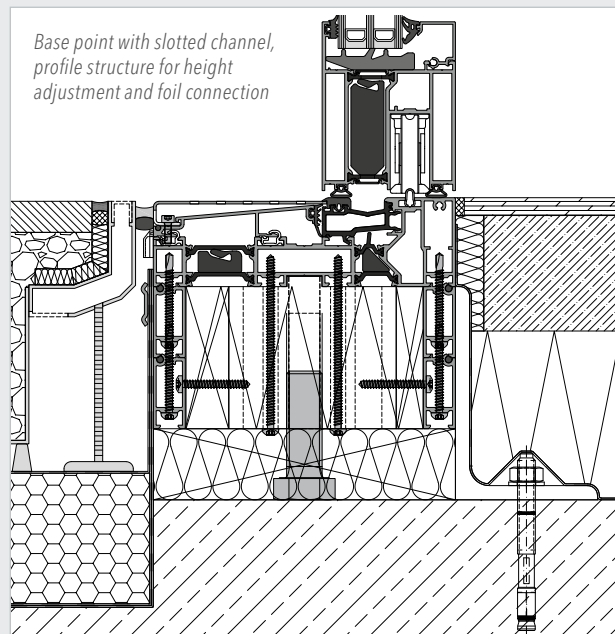
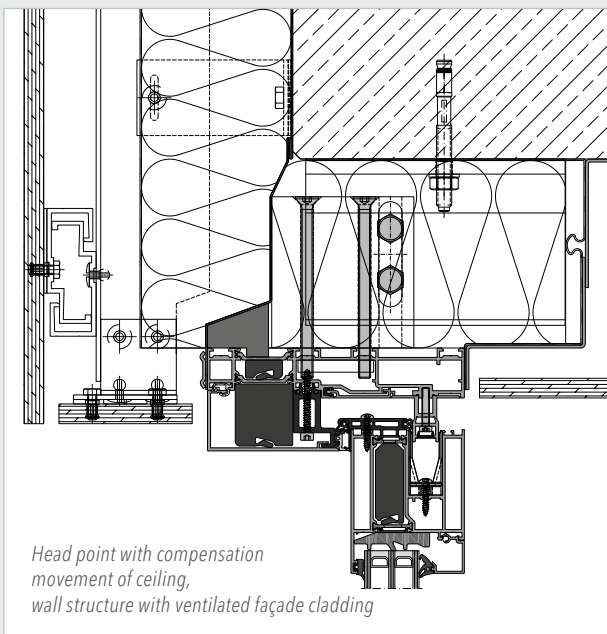
A carefully considered concept

Precise like clockwork: SLIFT 170 can be easily integrated into the structural circumstances of a building, both for façade integration and for mounting in different structural openings.

In addition to the range of available frame profiles, **additional profiles** to provide the following functions also feature in the **RAICO product range**:

- Circumferential widening of the frame profiles
- Adjustment possibilities at the base point
- Absorption of structural movements in the ceiling area
- Connection of sealing foils and also liquid seals in the base area

These installation circumstances have also been **thermally and structurally tested**. RAICO provides all assemblers with the relevant documentation.



PRODUCTION-OPTIMISED VS. STANDARD

Comparison & application areas

Unsure whether to use production-optimised profiles or standard profiles?

SLIFT helps you decide! Please find a brief overview of the **possibilities and advantages** for your individual project requirements below.

PRODUCTION-OPTIMISED

Advantages of production-optimised profiles:

The production-optimised SLIFT option provides our customers the ideal construction-friendly solution, especially for larger quantities:

- **Less parts = less processing**
- **Increase in construction productivity = quicker handling**
- **Noticeably improved total cost situation**

Both the **upper and lower frame profiles** are available as production-optimised profiles. In addition to the **integration of several profiles into one component** in the production-optimised version, the **weights** and **panel surface** are also **significantly reduced**.

A reduced number of screw joints, pre-assembled sealing cords and the overall use of fewer components significantly **minimises both machining times** on the machining centre and **manufacturing times in production**. This does not lead to any flexibility being sacrificed, as the frame profiles can also be butt jointed in length.

STANDARD

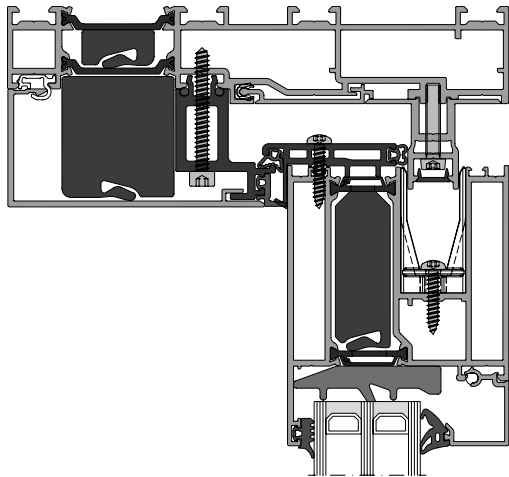
Advantages of standard profiles:

The advantages of the standard system particularly come into play in customised solutions:

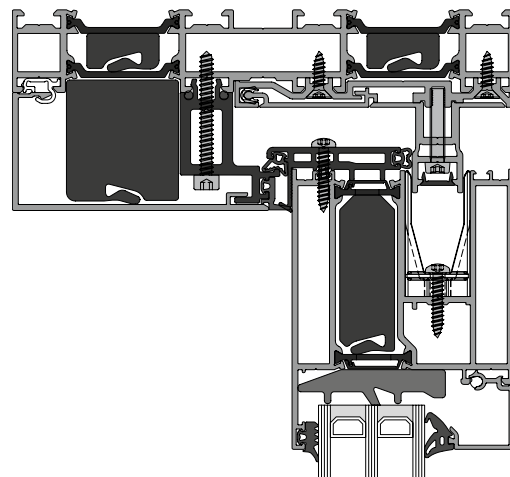
- **Highly adaptable = ideal for individual solutions**
- **Material-optimised construction:**
Available with the same circumferential frame profile and with a longitudinal joint via system accessories.

Selecting a standard profile ensures the ideal solution, especially in the case of **smaller quantities** or **inconvenient cutting optimisation**. Special configurations such as G+ or three-track variants are only available with standard profiles.

Comparison of production-optimised and standard upper frame profiles:



Production-optimised lift-and-slide sash



Standard lift-and-slide sash

The following table provides an overview of the applications of the individual profiles:

	Production-optimised	Standard
Scheme A / A+	X	X
Scheme C / C+	X	X
Scheme K / K+	X	X
Scheme G+		X
Mitred corner joint		X
Butted corner joint	X	X
Longitudinal joint of the frame profiles	X	X
Customised lengths adapted to the property	X	X

Technical data

CE performance characteristics*

	SLIFT 170
Air permeability	Class 4
Wind resistance	Class B4/C4
Water penetration	Class E 750
Long-term functionality	Class 2
Operating forces	Class 1
Sound insulation	R_w up to 44 dB
Thermal insulation	U_w Value $\geq 0,85$ W/(m ² K)

* The maximum values of the test samples are provided as values, these may vary depending on the configuration and size.

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