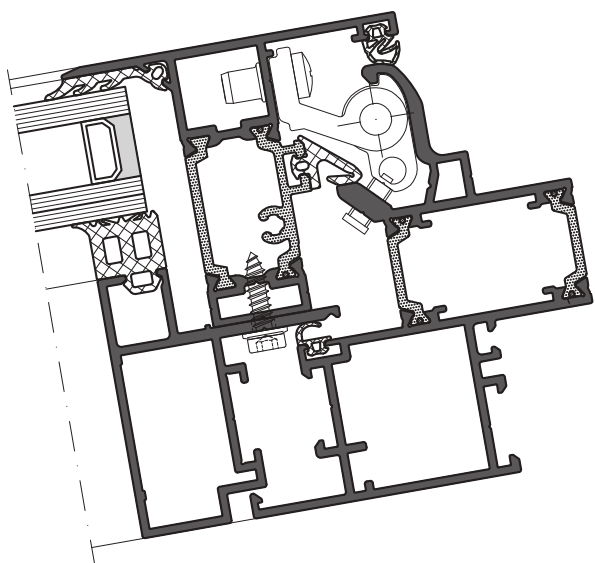


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|--|--|--|
| <p>WING Product range</p> | <p>Index Profiles Gaskets Accessories Fittings Tools</p> | <p>Product range</p> |
| | <p>Window sections</p> | <p>WING 105 DI Window sections</p> |
| <p>WING Rooflight window 105 DI</p> | <p>Assembly options</p> | <p>WING 105 DI Assembly options</p> |
| | <p>Window sections</p> | <p>50 SK / 50 A Window sections</p> |
| <p>WING Integration window 50 SK/50 A</p> | <p>Assembly options</p> | <p>50 SK / 50 A Assembly options</p> |
| <p>Technical information</p> | <p>Order forms Technical conditions General terms of sale</p> | <p>Technical information</p> |



■ **Slim window structure**

- Very compact construction.
- Only 37 mm offset between fixed and window glazing.
- Two-frame sash design without any visible screws or glazing beads on the outside.
- Completely concealed hinges mountable on any side.
- Possible as rooflight window, exit or natural smoke and heat exhaust ventilator.
- Various motor or manual drive systems available for any application.

■ **Flexible use for ventilation and smoke & heat control**

- Ideal for ventilation in glass roofs.
- Also tested as natural smoke and heat exhaust ventilator.
- Maximum aerodynamic efficiency due to a wide opening angle of max 65° (possible up to 90°) and sash surfaces up to 4 m².
- Possibility of big window dimensions (width up to 2,500 mm, height up to 2,500 mm, weight up to 165 kg).
- Three outer frame possibilities for any stick system integration.
- Infill thicknesses from 9 to 48 mm.

■ **Tested system solutions for glass roofs and rooflight window**

- WING 105 DI and THERM⁺ glazing systems are tested with 2° inclination.

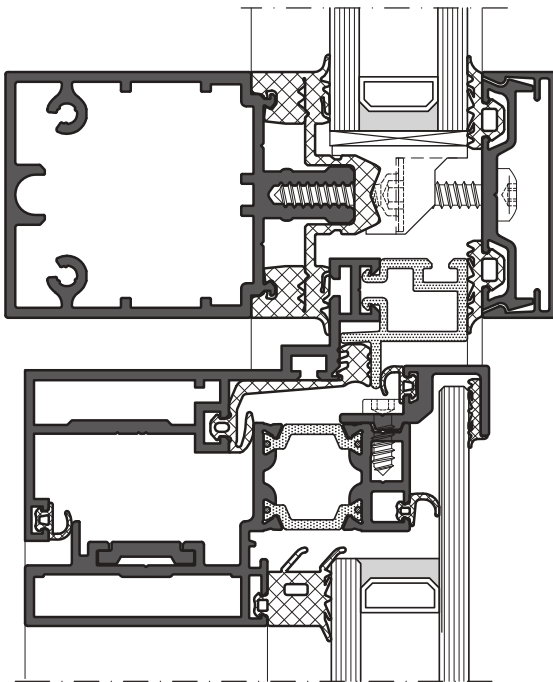
■ **Innovative drainage and tightness concept**

- Three drainage levels.
- Sash frame in two parts, features no glass bead or profile joint.
- Sash frame connected from inside with corner sheet.
- First drainage level on top of the medial gasket leads water back outside above the glazing of the rooflight.
- Special geometry of the profile for reliable drainage even in extremely shallow rooflight inclinations.

■ **Economic solution with maximum process reliability**

- Efficient self fabrication with system profiles.
- Optimum project planning and execution for any quantity of windows.
- Alternative supply of pre-assembled units.

50 SK top-hung projecting window
Technology in detail



WING 50 SK-S one-piece

■ **Aesthetically, functional and safe**

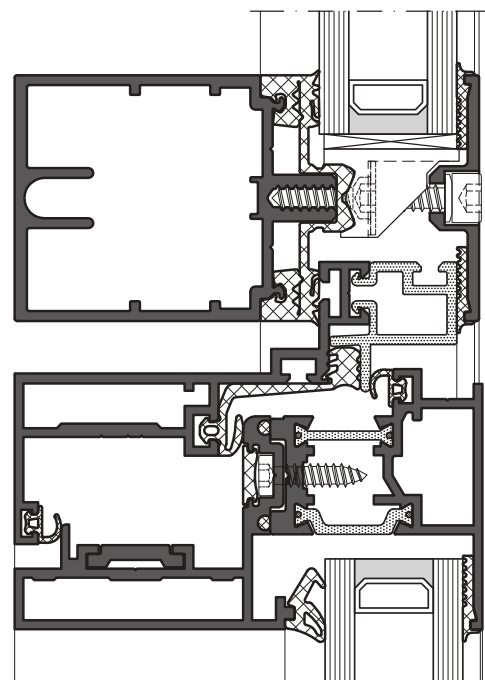
- Outward opening projecting window with stepped edge glazing, with or without statically adhesion.
- Economic alternative with standard glass and slim profile design.
- For big sized sashes with a weight up to 150 kg.
- Very slim design: inside 52 mm, outside 50 mm.
- Advantages in production and logistics due to SG bonding of WING 50 SK-S with split sash frame.
- Various motor drives and handles available.
- Available as system for self-fabrication or as assembled units.
- Implementable as a natural smoke and heat exhaust ventilator in large sizes, tested with a sash size up to 3.5 m² sash size.

■ **WING 50 SK-S with stepped edge glazing**

- Pure glass surface by using an innovative glazing technology.
- Advantages in logistics due to split sash frame: external bonding of stepped edge and internal production of sash frame.
- With or without statical adhesion.

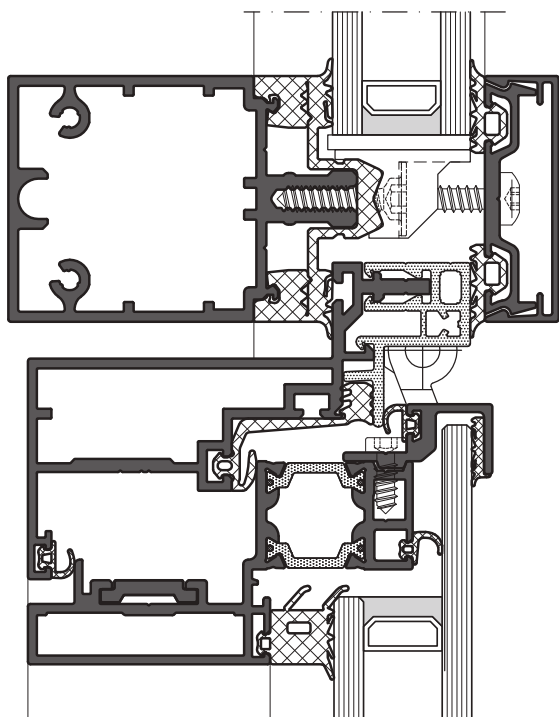
■ **WING 50 SK-R with standard glass**

- Special, extremely fine frame profile.
- Seamless sash frame with an offset of only 4 mm to the glass.
- No visible screws or glazing beads.
- Economic alternative with standard glass.



WING 50 SK-R standard glass

50 A Top-hung/side-hung/bottom-hung window
Technology in detail



WING 50 A-S one-piece

■ **Attractive and full of variabilities**

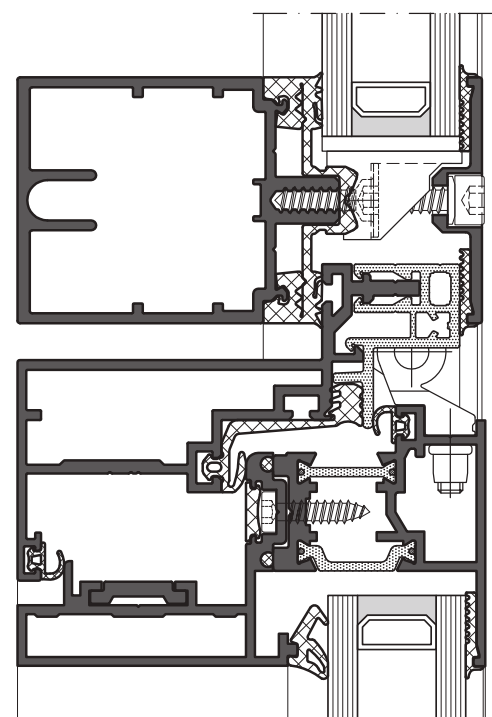
- Outward opening window in its most esthetic design with statically adhesion.
- Economic alternative with standard glass and slim profile design.
- Maximum airflow effect due to an opening angle of 60°.
- Concealed hinges, mountable on any side.
- Ideal for very large or very high sash formats.
- Various motor drives.
- Available as system for self-fabrication or as assembled units.
- Implementable as a natural smoke and heat exhaust ventilator in large sizes, tested with a sash size up to 5.2 m² sash size.

■ **WING 50 A-S with stepped edge glazing**

- Pure glass surface by using an innovative glazing technology.
- Advantages in logistics due to split sash frame: external bonding of stepped edge and internal production of sash frame.
- With or without statical adhesion.

■ **WING 50 A-R with standard glass**

- Special, extremely fine frame profile.
- Seamless sash frame with an offset of only 4 mm to the glass.
- No visible screws or glazing beads.
- Economic alternative with standard glass.



WING 50 A-R standard glass

WING 105 DI / WING 50 SK/50 A

Quality in detail

■ **WING – reliability assured by tested quality**

- Extensive product tests with excellent results confirm the high quality in practical applications of the WING window systems.

■ **Technical data – Approvals**

according to EN 14351-1 smoke and heat control systems

| | WING 105 DI rooflight window | WING 50 SK Insertion window | WING 50 A Insertion window |
|---|---|---|--|
| Technical data | | | |
| Max. width | 2,500 mm | 2,700 mm | 2,700 mm |
| Max. height | 2,500 mm | 2,700 mm | 2,500 mm |
| Max. sash weight | 165 kg (110 kg side-hung) | 180 kg | 150 kg (60 kg side-hung) |
| Opening angle | 65° (90°) | 20°/30°/45°/50° | 60° |
| Infill thickness | 9 to 48 mm | 24 to 46 mm | 24 to 46 mm |
| Approvals / CE-labelling based on product standard for window EN 14351-1 | | | |
| Wind resistance | Class C4 | Class C4 | Class C4 |
| Air permeability | Class 4 | Class 4 | Class 4 |
| Water tightness | E 1500 | E 1800 | E 1800 |
| Airborne sound insulation | – | $R_w(C;C_{tr}) = 43(-1;5)$ dB | $R_w(C;C_{tr}) = 43(-1;5)$ dB |
| Burglar resistance | – | WK2 | WK2 |
| Continuous-operational testing | – | Class 2 | Class 2 |
| Thermal insulation | $U_f = 2.7$ W/(m ² K) to 3.2 W/(m ² K) | – | – |

■ **Efficient ventilation and smoke evacuation in curtain wall and glass roof**

- Efficient ventilation and smoke evacuation due to wide opening angles of 60° in the curtain wall and up to 90° in glass roofs.
- WING 50 A and WING 50 SK either with standard sealed units or structural stepped edge glazing.
- Various outward opening types available opening outwards (Top-hung / side-hung / bottomhung in curtain wall and roof).
- Large window formats possible, up to 3.5 m² in the curtain wall and 4 m² in the glass roof.
- System motor drives for highest performance.
- Available as system for selffabrication or as pre-assembled units.

■ **Technical data – single flaps**

according to EN 12101-2 smoke and heat control systems

| | NRWG WING 50 A | | NRWG WING 50 SK | NRWG WING 105 DI |
|---------------------|--------------------|---------------------|---------------------|---|
| Opening | Bottom / Top-hung | Side-hung | Top-hung projecting | Bottom-hung |
| Position | 90° | 90° | 90° | 25 to 60° |
| Max. width | 2,700 mm | 1,400 mm | 2,700 mm | 2,500 mm |
| Max. height | 2,500 mm | 2,400 mm | 2,700 mm | 2,500 mm |
| Max. sash dimension | 3.5 m ² | 1.89 m ² | 3.5 m ² | 4 m ² (position 25 to 30°) 3.75 m ² (position 30 to 60°) |
| Max. sash weight | 150 kg | 60 kg | 136 kg | 165 kg |
| Max. opening angle | 60° | 60° | 50° | 65° (90°) |

■ **Technical data – single flap double**

according to EN 12101-2 smoke and heat control systems

| | NRWG WING 105 DI | | |
|-------------------------|---------------------|---------------------|---------------------|
| Opening | Bottom / Top-hung | | |
| Installation conditions | Roof / Barrel roof | Roof / Barrel roof | Saddleback roof |
| Position | 2 to 15° | 16 to 30° | 2 to 30° |
| max. width* | 2,500 mm | 2,500 mm | 2,500 mm |
| max. height* | 5,000 mm | 2,500 mm | 5,000 mm |
| Max. sash dimension** | 4 m ² | 4 m ² | 4 m ² |
| Max. A _v * | 7.35 m ² | 5.76 m ² | 7.35 m ² |
| Max. sash weight** | 165 kg | 165 kg | 165 kg |
| Max. opening angle | 65° (90°) | 65° (90°) | 65° (90°) |

* Specifications refer to the complete element (two-fold single flap)

** Specifications refer to the wing of the single flap

