

SCHÜCO



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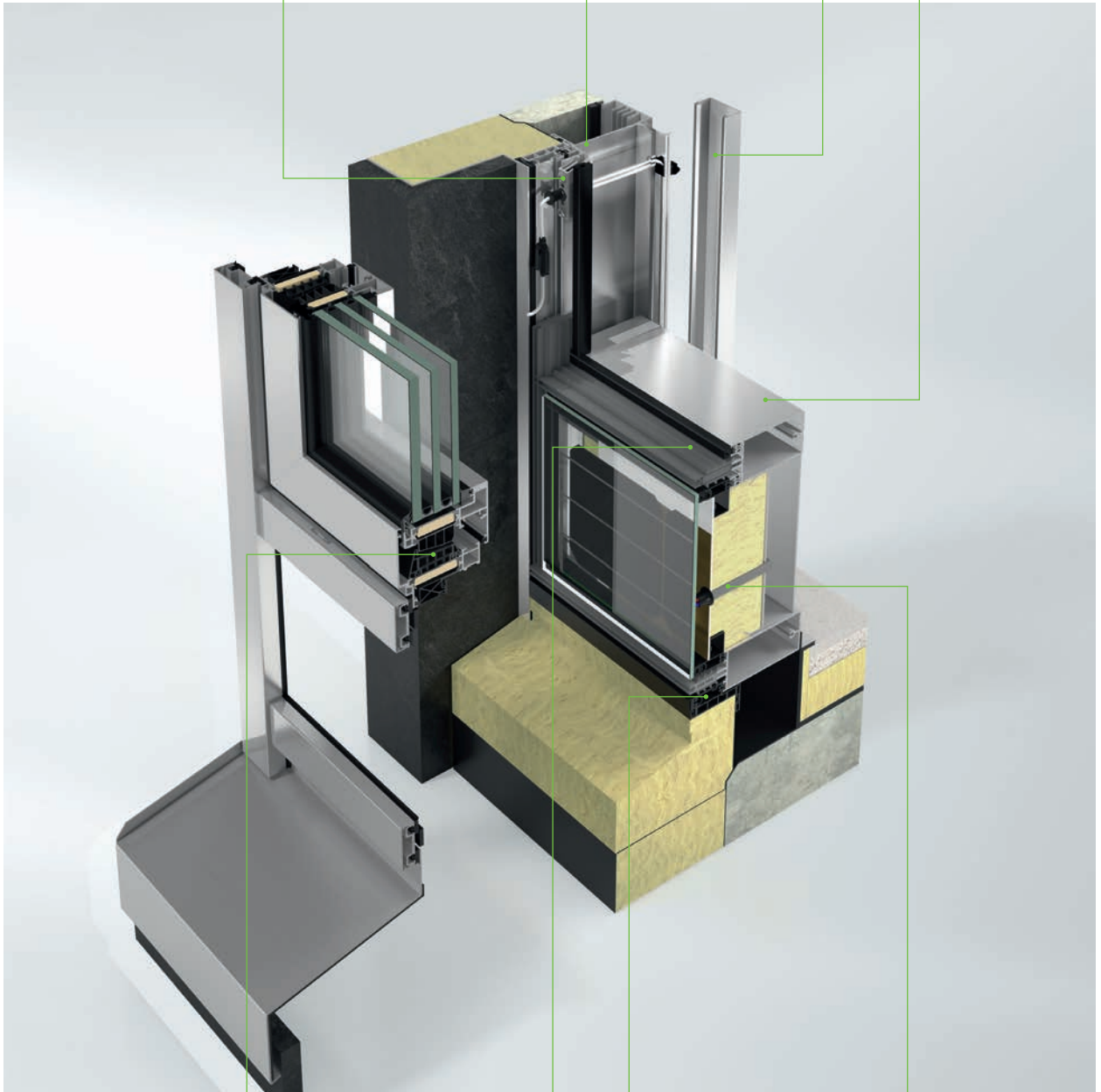
SCHÜCO FACADE SYSTEMS FWS  
ALUMINUM STICK CURTAIN WALL SYSTEM

Cable guide

Mullion profile

Aluminum cable guide system

Transom profile



Integration of insert units

SI isolator for increased thermal insulation

Continuous system for attachment to the building structure

Cable guide

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### **Schüco Facade Systems FWS – Architectural freedom in planning and execution**

Schüco has met the high requirements for aluminum facade systems with a new comprehensive platform concept for aluminum stick built facades – Schüco Facade Systems FWS (Facade Wall System).

Aluminum stick built facade systems from Schüco offer a wide variety of technical and architectural options, which have been proven their worth worldwide over many years in the most diverse building envelope concepts. Through continual development and innovation, Schüco provides developers with tested and approved system components which ensure high degree of flexibility in the creation of future-proof building concepts. These include vertical facades with and without faceting, passive house applications, skylights, structural glazing and Panorama Design facades.

Today, modern, sustainable architecture is about much more than maximum energy efficiency through the best possible U Values. Contemporary aluminum facade systems feature a slim line appearance, high quality design and the perfect integration of functional units combined with optimum performance.

Schüco has satisfied these stringent requirements by creating a comprehensive platform concept for aluminum stick built facades: Schüco Facade Systems FWS. It offers architects a new dimension of design freedom combined with the best performance characteristics and cost-effective construction. Innovative production and installation solutions ensure that the work of glazing contractors is time and cost-efficient and offer proven system reliability.



### **Stick built facades**

Mullion/transom facades from Schüco combine economic viability, a high degree of prefabrication, maximum thermal insulation standards as well as far-reaching requirements in terms of sustainability to create a convincing ensemble.



### **Add-on constructions**

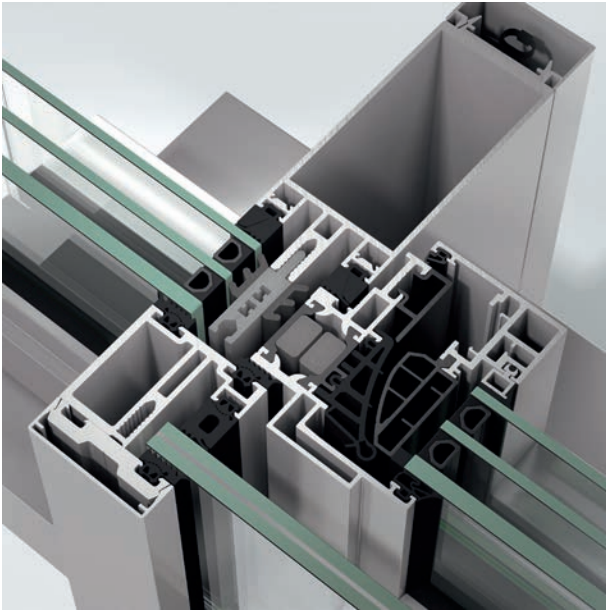
Impressive and service orientated architecture is often based on a contrasting selection of materials. Schüco steel and timber add-on construction for vertical facades, skylights and all-glass facades serve as a perfect example.



### **Structurally glazed facades**

An attractive appearance combined with technical innovations. Large-scale, all-glass facades can be achieved with the structurally glazed facades from Schüco. Available as thermally insulated and highly thermally insulated versions.

# SCHÜCO FWS 50 / FWS 60

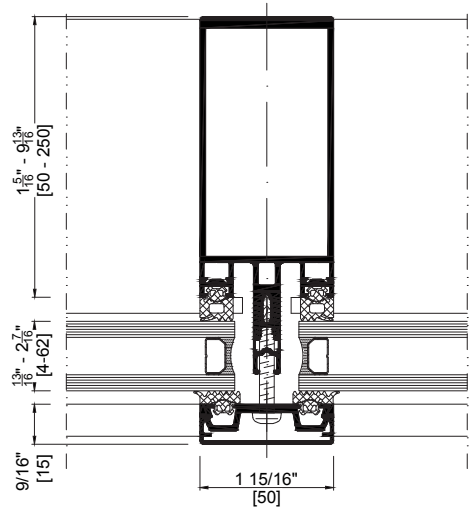


Schüco Facade System FWS 50

The Schüco Facade Systems FWS 50 / FWS 60 set a new standard for fabrication and energy efficiency. The focus of the new development of the tried-and-tested systems was particularly on the optimization of fabrication in the workshop and on the construction site. Newly prepared system components ensure much faster and more efficient fabrication and installation processes.

The Schüco Facade Systems FWS 50 / FWS 60 provide architects with a diverse range of design options –including the passive house certified SI (Super Insulation) version– in the popular face widths. Thanks to the new range of glazing supports, very heavy panels are even easier to fabricate and will retain the same high level of load transfer.

The cable guidance systems guarantee the metal fabricator the safe integration of electrical components in the stick built facade. New system components streamline the fabrication processes on the construction site: for example, the innovative building attachment system that ensures reliable fabrication through the elimination of interfaces.



Schüco Facade System FWS 50

The Schüco Facade Systems FWS 50 / FWS 60 offer a high degree of flexibility and attractive design options for facades and skylight areas – including optimized fabrication and installation processes. A further benefit is that the facade guarantees the best thermal insulation values as a passive house certified SI system.

## Profile System

The mullion and transom profiles are available in incremental basic depths from 1-<sup>15</sup>/<sub>16</sub>" (50 mm) to 9-<sup>13</sup>/<sub>16</sub>" (250 mm). Special e-mullions and e-transoms are also available for concealed cabling in the facade.

## Award-winning System Sustainability

With the expansion of the facade range to include the Schüco Facade System FWS 50.SI, Schüco is once again meeting its ecological requirements for sustainable products. The system has been awarded the Silver "Cradle to Cradle Certified™" sustainability label.

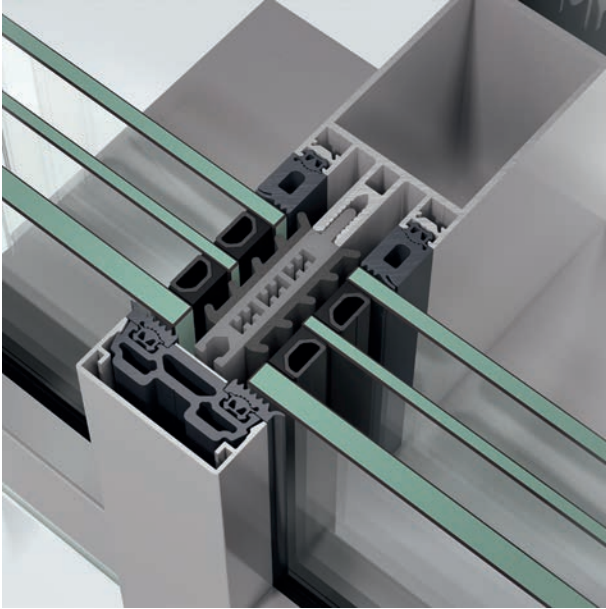
## PRODUCT BENEFITS

- Passive house certified SI system
- Wide selection of pressure plate profiles and facade cover caps
- High level of design freedom in the system range through the structural glazing design as a flush-fitted, all-glass facade or the semi-structural glazing facade with horizontal or vertical profile accentuation for the Schüco Facade Systems FWS 50 SG / FWS 60 SG
- Profile face widths of 1-15/16" (50 mm) and 2-3/8" (60 mm)
- Integration of diverse insert units: Schüco Window Systems (AWS), Schüco Door Systems (ADS) and Schüco Sliding Systems and Elements (ASS / ASE)
- New gazing supports for maximum weights and simple fabrication
- Prefabricated system components: Increased fabrication convenience, minimal sources of error and increased installation speed
- System components for wiring and cable feeds: simple and secure integration of motorized components such as automatic opening units or sun shading systems
- Continuous attachment to building structure for optimum foil guide: Clip-on function for simple profile installation, including color coding for correct positioning of the foil for attachment to the building structure
- Uniform gasket system for the entire system platform based on gasket heights of 3/8" (9 mm), 7/16" (11 mm) and 1/2" (13 mm) on the inside as well as 3/16" (5 mm) on the outside
- Glazing rebate reduction profiles and ventilated spandrel profiles with simple clip-on technology and a perfect seal for reliable and clean fabrication
- Main pressure plates all have the same contour including the insulation material required (standard, HI and SI): prepared solution for efficient fabrication with minimal preparation work

TECHNICAL DATA	FWS 50		FWS 60	
Variants (Stick Curtain Wall, Skylight, Segmented)				
Max. Weight	FWS 50 FWS 50 SG	2006 lb (910 kg) 1433 lb (650 kg)	FWS 60 FWS 60 SG	2006 lb (910 kg) 1433 lb (650 kg)
Water Tightness	15 psf (720 Pa)		15 psf (720 Pa)	
Thermal Example*	FWS 50+ FWS 50.HI FWS 50.SI FWS 50.SI Green FWS 50 SG	0.40 Btu/hr-ft <sup>2</sup> /°F 0.38 Btu/hr-ft <sup>2</sup> /°F 0.37 Btu/hr-ft <sup>2</sup> /°F 0.35 Btu/hr-ft <sup>2</sup> /°F 0.38 Btu/hr-ft <sup>2</sup> /°F	FWS 60+ FWS 60.HI FWS 60.SI FWS 60.SI Green FWS 60 SG	0.38 Btu/hr-ft <sup>2</sup> /°F 0.37 Btu/hr-ft <sup>2</sup> /°F 0.36 Btu/hr-ft <sup>2</sup> /°F 0.34 Btu/hr-ft <sup>2</sup> /°F 0.39 Btu/hr-ft <sup>2</sup> /°F

\*Information based on NFRC standard test size with an aluminum spacer, IGU U-Value 0.29

# SCHÜCO FWS 50.SI GREEN

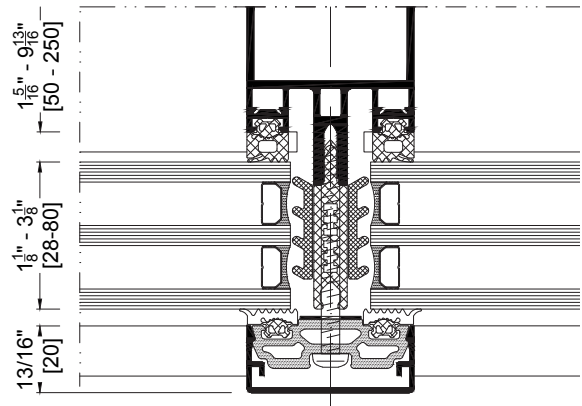


Schüco Facade System FWS 50.SI Green

Buildings consume about 40% of the energy generated worldwide. The construction and utilization of buildings are also the main cause of greenhouse gas emission. The building sector offers twice as much potential for cutting CO<sub>2</sub> emissions as the transport sector. Governments are responding with stricter regulations for the building sector, whilst clients and architects are therefore demanding new, ecologically sound products. Schüco is aware of its responsibility to the environment and for decades, has developed products and systems for the building envelope, which contribute to environmental and climate protection.

The enhancement of the Schüco Facade System FWS 50.SI Green integrates building components, such as gaskets and pressure plates with environmentally friendly raw materials and the same technical and structural properties as in the basic Schüco Facade System FWS 50.SI.

The SI (Super Insulation) versions of the FWS 50 and FWS 60 aluminum stick built constructions impress with their ground-breaking system details. Due to its outstanding thermal insulation, the system has been certified as a passive house certified standard.



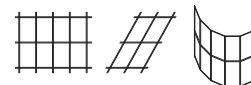
Horizontal Section of Schüco Facade System FWS 50.SI Green with PVC-U pressure plate

## PRODUCT BENEFITS

- Sustainability combined with maximum energy efficiency to passive house standard
- External and internal glazing gaskets and pressure plates made from glass fiber-reinforced plastic containing portions of renewable raw materials
- Fabrication identical to FWS 50.SI: efficient fabrication and installation without additional tools and machines
- Pressure plates made from glass fiber-reinforced plastic prepared with inserted gaskets and aluminum reflective tape
- Glass fiber-reinforced plastic pressure plate ensures optimum screw guide

## TECHNICAL DATA

Variants



Max. Weight	2006 lb (910 kg)
Water Tightness	15 psf (720 Pa)
Thermal Example*	0.17 Btu/hr-ft <sup>2</sup> -°F

\*Information based on NFRC standard test size with a TGI wave spacer, IGU U-Value 0.10



# SCHÜCO FWS 50 S



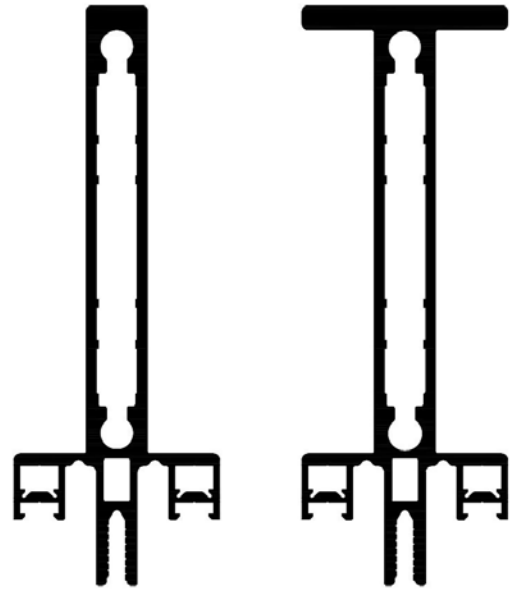
Schüco Facade System FWS 50 S in steel look

With its slim line load-bearing profiles, the thermally insulated Schüco Facade System FWS 50 S stick built construction lends a slender steel appearance to large profile facades as well as foyers and entrance halls.

A broad section of mullion and transom profiles as well as insert units enables a rich variety of solutions for different structural and design requirements.

Due to special profiles for top and bottom facade attachments, the Schüco Facade System FWS 50 S allows for the construction of very low floor levels and for continuous sealing of the building structure, as well as providing a secure fit for vapor barriers without the need of additional mechanical fixing.

The integration of diverse insert units is also possible and are available as block window, doors, skylight windows as well as facade fixing brackets.



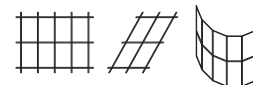
Horizontal section detail of Schüco Facade System FWS 50 S

## PRODUCT BENEFITS

- I- and T-shaped load-bearing profiles for particularly slender facades. Steel U-shaped pressure plates with visible screw fixings: emphasis on the technical character of the system
- Mullion/transom profiles can be selected in graduated dimensions from 4-<sup>15</sup>/<sub>16</sub>" (125 mm) to 9-<sup>13</sup>/<sub>16</sub>" (250 mm) according to structural requirements
- Base point sealing components for secure and efficient attachment to the building structure
- Special profiles for wall attachment, vapor barrier attachments and on-site substructure
- Unitized construction: installation of prefabricated units using assembly mullions

## TECHNICAL DATA

Variants



Max. Weight 2006 lb (910 kg)

Water Tightness 15 psf (720 Pa)

Thermal Example\* 0.17 Btu/hr-ft<sup>2</sup>-°F

\*Information based on NFRC standard test size with a TGI wave spacer, IGU U-Value 0.10

# SCHÜCO FWS 50 SG / FWS 60 SG



Schüco Facade System FWS 50 SG.SI with horizontal emphasis



Schüco Facade System FWS 60 SG.SI with wet sealed joint

Schüco Facade Systems FWS 50 SG / FWS 60 SG are elegant all-glass facades with low thermal transmitting to passive house standard as well as large units with the option of double or triple glazing. The system provides solutions for the building envelope, which are high-quality in terms of both architecture and technology.

The profiles that are only visible on the inside lend the external facade a flush-fitted all-glass look with slender joints. Highly thermal insulated isolators and triple insulating glass ensure very low values up to passive house standard.

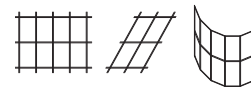
The system also allows the facade to be designed in a semi-structural glazing look. The Schüco AWS 114, AWS 114 SG, AWS 114.SI and AWS 114 SG.SI insert units fit seamlessly with the appearance of the all-glass facade. They can be operated manually or motorized with Schüco TipTronic outward opening projected top-hung windows or parallel-opening windows.

## PRODUCT BENEFITS

- High thermally insulated SI isolators for superior thermal insulation
- Specially developed, stainless steel spacers which can be processed by machine for airtight edge seal
- Three different designs for Schüco Facade Systems FWS 50 SG / FWS 60 SG: flush fitted dry glazing, U-shaped dry glazing and silicone wet seal glazing
- Structural glazing facade for double and triple glazing; glass thicknesses of 1-1/4" (32 mm) to 2-1/2" (64 mm); pane weights up to 1430 lb (650 kg) possible with cruciform glazing supports
- Plastic pocket profile for incremental mechanical fixing of the insulating glass unit to the load-bearing structure

## TECHNICAL DATA

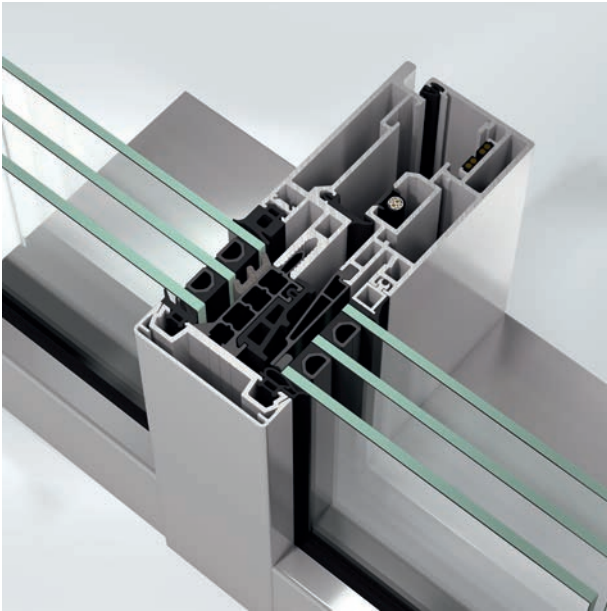
Variants



Max. Weight	1433 lb (650 kg)
Water Tightness	15 psf (720 Pa)
Thermal Example*	0.33 Btu/hr-ft <sup>2</sup> -°F

\*Information based on NFRC standard test size with a stainless steel spacer, IGU U-Value 0.26

# SCHÜCO FWS 60 CV

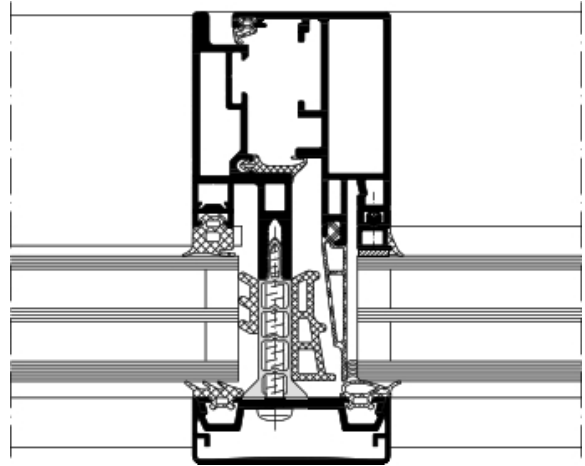


Schüco Facade System FWS 60 CV as classic ribbon window

In recent years, ever-increasing demands for sound and thermal insulation have led to more solid window profiles. It seemed that technical requirements could not be combined with a consistently elegant frame system. With the Schüco Facade System FWS 60 CV (Concealed Vent), Schüco has now found a solution for ribbon windows that combines the narrowest face widths with maximum functionality and the best possible thermal insulation.

The Schüco Facade System FWS 60 CV harmoniously combines slim line face widths with a high degree of functionality and optimum thermal insulation. With a face width of just 2- $\frac{3}{8}$ " (60 mm), opening units and fixed lites are indistinguishable from the outside. On the flush, closed inside, only a slender shadow gap and the window handle betray the presence of the window vents.

The system achieves maximum facade transparency with floor-to-ceiling tilt/turn and side-hung casement vents with unit heights up to 126" (3200 mm). Structurally reinforced units as well as top lites and bottom lites which can be placed anywhere, provide additional design freedom.



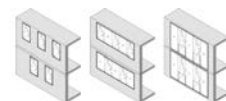
Horizontal section detail of the Schüco Facade System FWS 60 CV.HI

## PRODUCT BENEFITS

- Slender profiles with an identical external appearance of the vents and fixed fields
- Fusion of vent and load-bearing structure: additional insert outer frame not required
- Vent and outer frame flush-fitted on the inside with minimal shadow gap
- Inward casement and turn/tilt window with Schüco AvanTec SimplySmart fitting possible
- Can be used for classic, story-height ribbon windows
- Proportion of glass allows for large weights with the most slender profile dimensions

## TECHNICAL DATA

Variants



Max. Weight	350 lb (160 kg)
Water Tightness	15 psf (720 Pa)
AAMA Rating	CW PG-40 at 9'-2" height CW PG-35 at 10'-6" height