



# VISS Façades

Thermally insulated steel system for  
mullion/transom constructions

**JANSEN**





New exhibition hall (Kielce Trade Fairs), Kielce/PL  
(VISS façade and VISS roof glazing, Janisol 2 EI30, Folding doors)



# Load-bearing elements

## Convincing arguments

### VISS façade systems build on the benefits of steel

VISS, the fully insulated glazing bar system, is a thermally insulated steel system for mullion/transom constructions, the modular components of which can be used to construct any façade. In combination with profiles in different basic depths and/or internal reinforcement options, specific structural specifications can be met – the functional aspects are fulfilled by a wide range of accessories and infill units. Neither the aesthetics nor the homogeneous appearance of the façade structure are affected by this.

As a result, architects and developers are able to meet a range of thermal insulation, sound reduction and fire protection requirements while maintaining a uniform look. Fabricators benefit from the tried-and-tested application and simplified warehouse storage due to the small number of individual components.

Jansen offers various structural systems for calculating the dimensions of steel façades: freely suspended, clamped on one side or as continuous beams. Base, top and fixing plates for attachments to building structures can be welded in place easily and securely. Profiles with face widths of 50 and 60 mm and basic depths of up to 280 mm are ideal for room-side load-bearing structures. They can be welded on or pushed in. Push-in and clip-in connections mean that systematic pre-fabrication in the workshop is an option even for large-scale façades. With welded constructions, complex units and unusual shapes can be precision-manufactured. Both fabrication methods can also be combined.

The Jansen VISS façade systems are tested in accordance with the product standard EN 13830. On this basis, manufacturers can label façades with the CE mark which is required throughout the EU.



Fire station Champerret, Paris/FR  
(VISS façade, VISS Fire EI60)



# VISS façade Vertical glazing

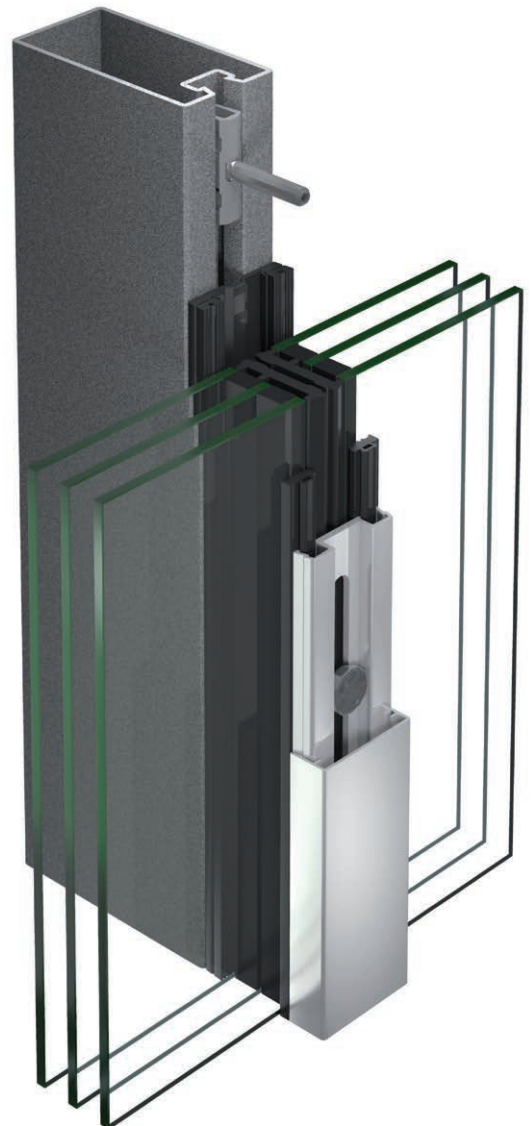


The combination of simple elegance, technical skill and economic efficiency

Whether a newbuild or a renovation project – for large and small construction projects. In accordance with structural requirements, pane sizes or the thicknesses of the infill units, the optimum components from a technical and economical perspective are selected from the modular system. The VISS façade is also available as a highly thermally insulated system with a corresponding passive house certification for newbuilds as well as renovations. Outer cover profiles are available in a range of depths and shapes. Infill unit thicknesses from 6 to 70 mm.

#### CE marking in accordance with EN 13830

- Thermal transmittance of  $U_i > 0.51 \text{ W/m}^2\text{K}$
- Sound reduction  $R_w$  of 47 dB
- Watertightness class RE 1200
- Air permeability class AE
- Resistance to wind load class 2  $\text{kN/m}^2$
- Impact resistance class E5/I5
- Prefabricated glazing suitable for safety barrier loading in accordance with DIN 18008-4 Category A and C22
- Passive house certificate







Cineplex, Baunatal/DE  
(VISS façade with high structural properties)



# VISS façades

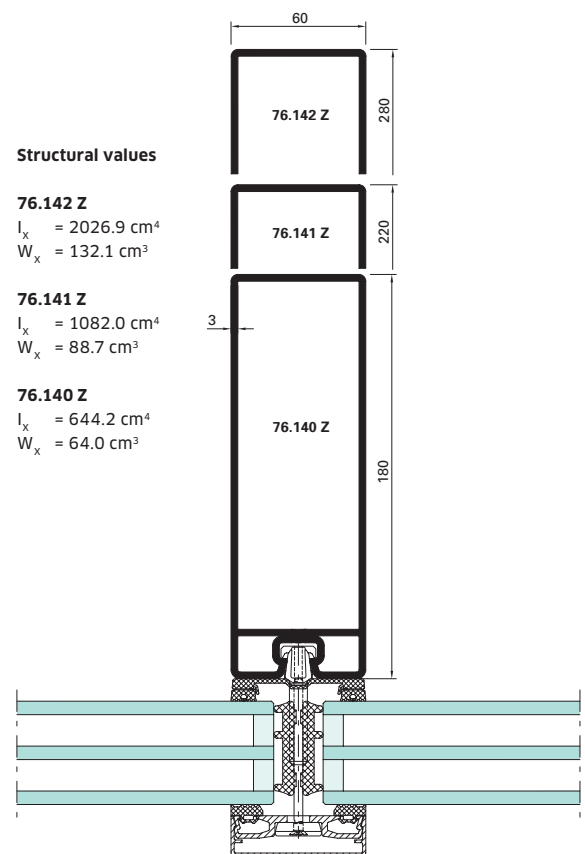
## Steel profiles with high structural properties

### Maximum load-bearing capacity with a minimal number of supporting units

Through the combination of new profile additions such as the VISS steel profiles, which have excellent structural properties, and the heavy-duty connecting spigot, Jansen is offering a refined complete solution for sophisticated façade constructions. The latter are characterised by large spans and heavy infill units. With them, we reduce architectural aesthetics, structural integrity and efficient fabrication to a common denominator.

#### Benefits

- Small edge radii
- Short delivery times as profiles can be obtained directly from the warehouse
- Efficient fabrication thanks to system profiles: complicated welding on of screw ports not required
- Reliable surface protection inside as well as outside through pre-galvanised profiles
- Low total weight compared to regular rectangular hollow profiles





# VISS SG

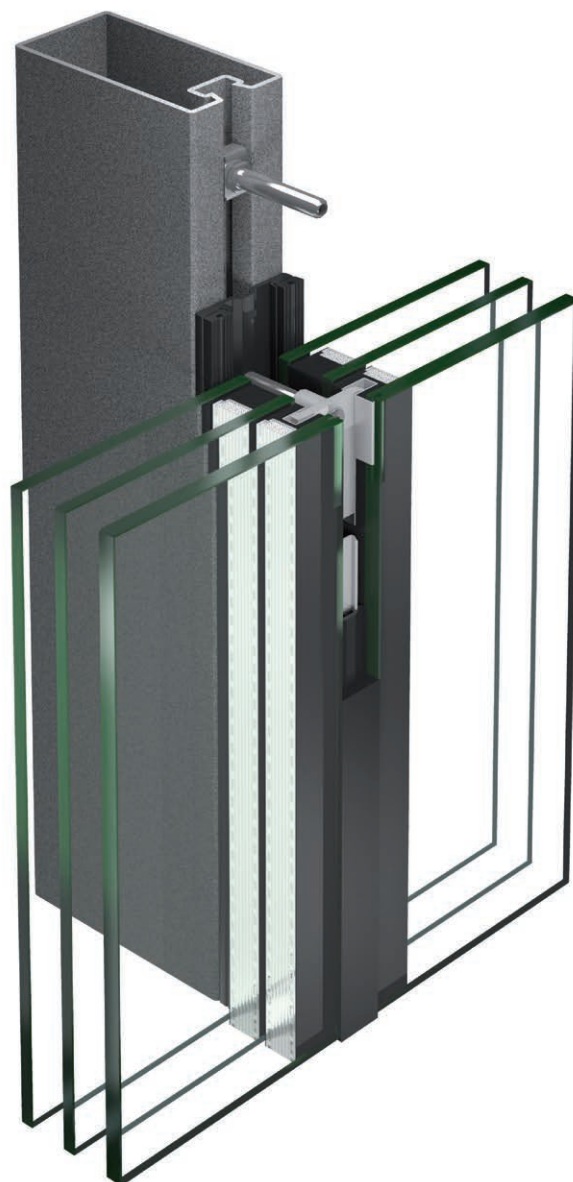
## All-glass façades

### When building envelopes blend in with their surroundings

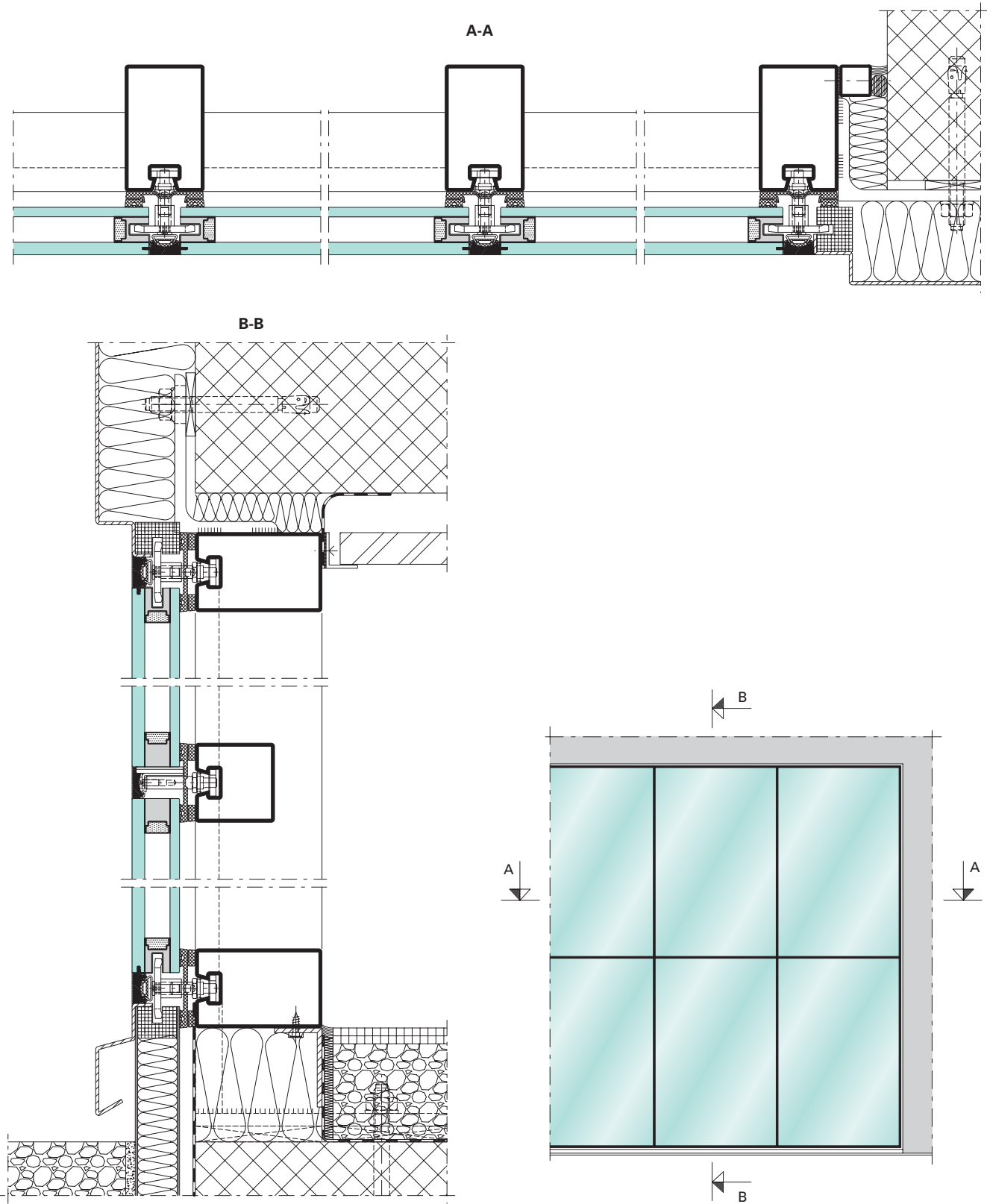
The idea of transparency in a building envelope that blends in with its surroundings can be realised harmoniously and aesthetically with an all-glass façade. The all-glass architecture creates a feeling of lightness and openness. Narrow internal sightlines and the simultaneous implementation of large-scale glass areas convey a generous sense of space. Steel and its outstanding structural properties allow developers and architects to turn their conception of all-glass façade solutions into a reality simply and economically. The VISS SG and VISS Semi SG systems can be combined with any VISS profile with face widths of 50 and 60 mm and with the VISS Basic solution which can be mounted on any support. Even roof glazing can be easily implemented in a structural glazing style using VISS SG. This provides a large variety of options with minimal additional components. Infill unit thicknesses from 30 to 70 mm. Glass areas of up to 2.5 x 5.0 m

#### CE marking in accordance with ETAG 002

- European Technical Approval ETA 13/0015
- Thermal transmittance of  $U_f > 0.56 \text{ W/m}^2\text{K}$
- Watertightness up to class R E1200
- Air permeability up to class AE
- Resistance to wind load up to class 2  $\text{kN/m}^2$
- Impact resistance up to class E5/I5
- Prefabricated glazing suitable for safety barrier loading in accordance with DIN 18008-4 Category A and C22



Example of VISS SG





# VISS Basic

## Vertical glazing

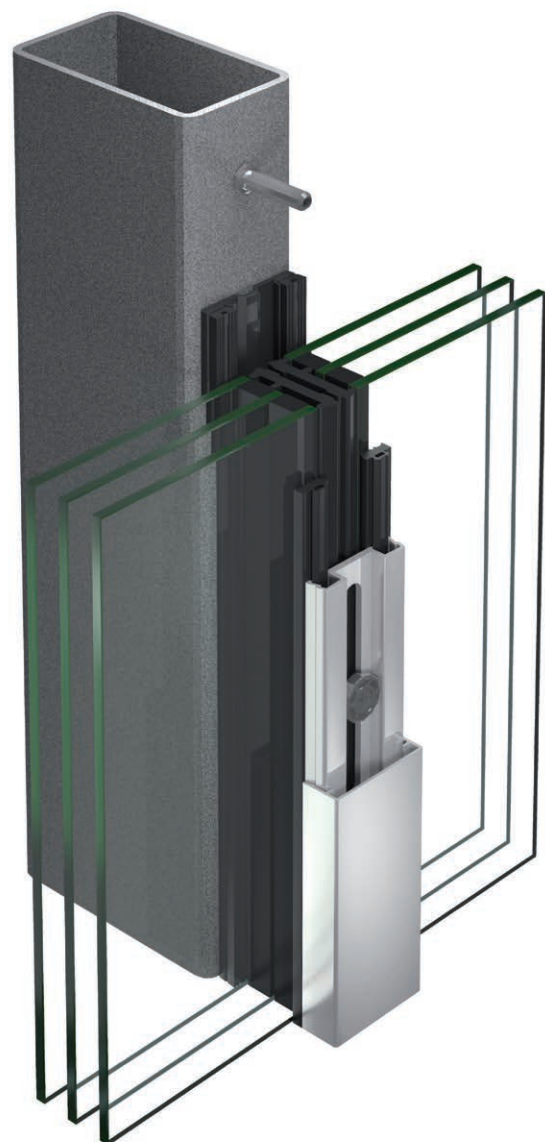


High degree of design freedom combined with the benefits of a system

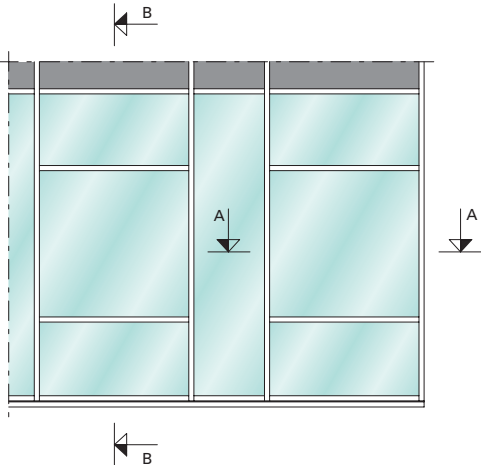
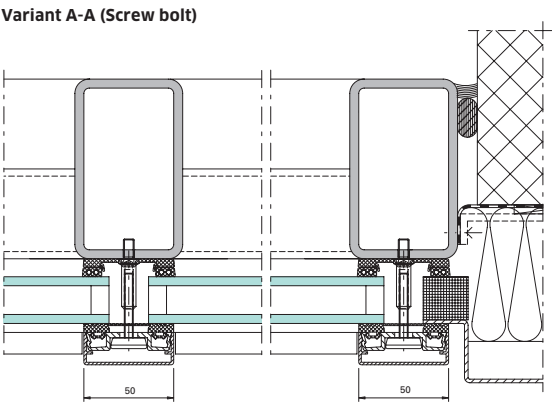
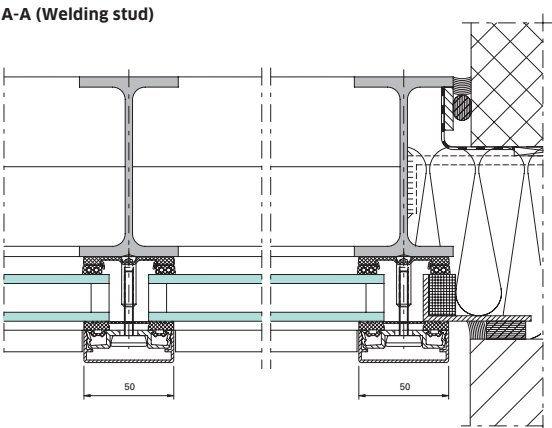
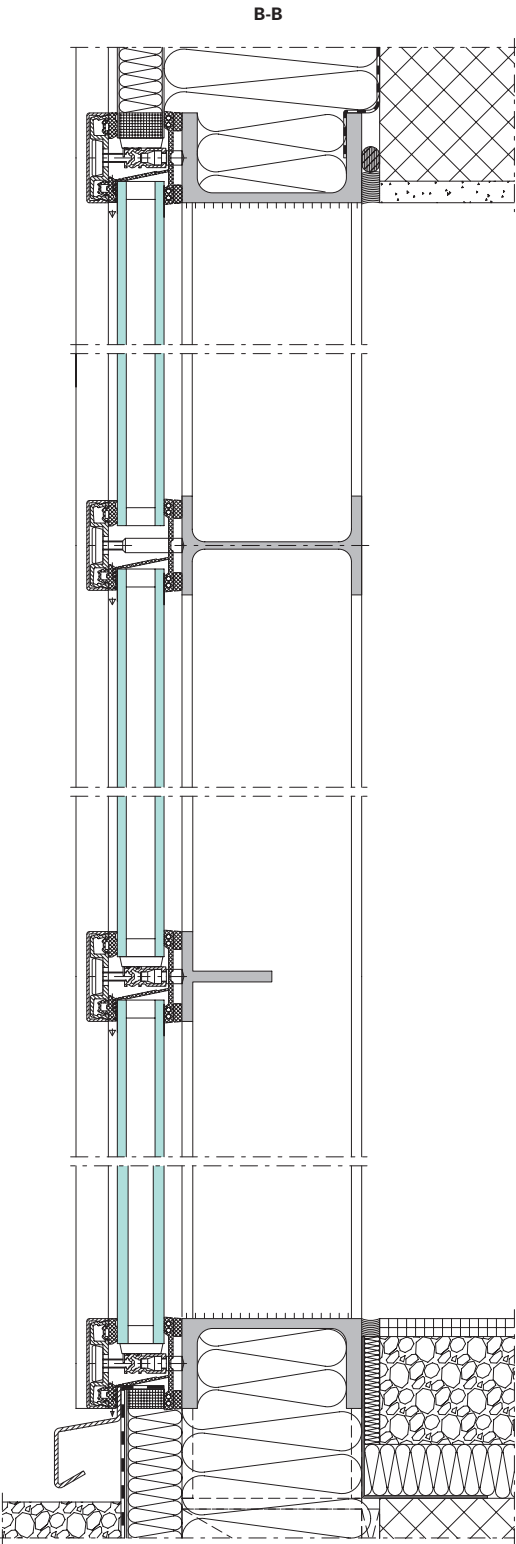
With VISS Basic, Jansen offers an economical and aesthetic system solution for façade constructions that can be mounted on any support. The system configuration is based on the proven VISS system. Implement façades with large spans and select the form of load-bearing structure according to architectural and structural requirements. Outer cover profiles are available in a range of depths and shapes. Infill unit thicknesses from 6 to 70 mm.

### CE marking in accordance with EN 13830

- Thermal transmittance of  $U_f > 0.53 \text{ W/m}^2\text{K}$
- Watertightness class RE 1200
- Air permeability class AE
- Resistance to wind load class 2  $\text{kN/m}^2$
- Impact resistance class E5/I5
- Prefabricated glazing suitable for safety barrier loading in accordance with DIN 18008-4 Category A and C22



Example of VISS Basic





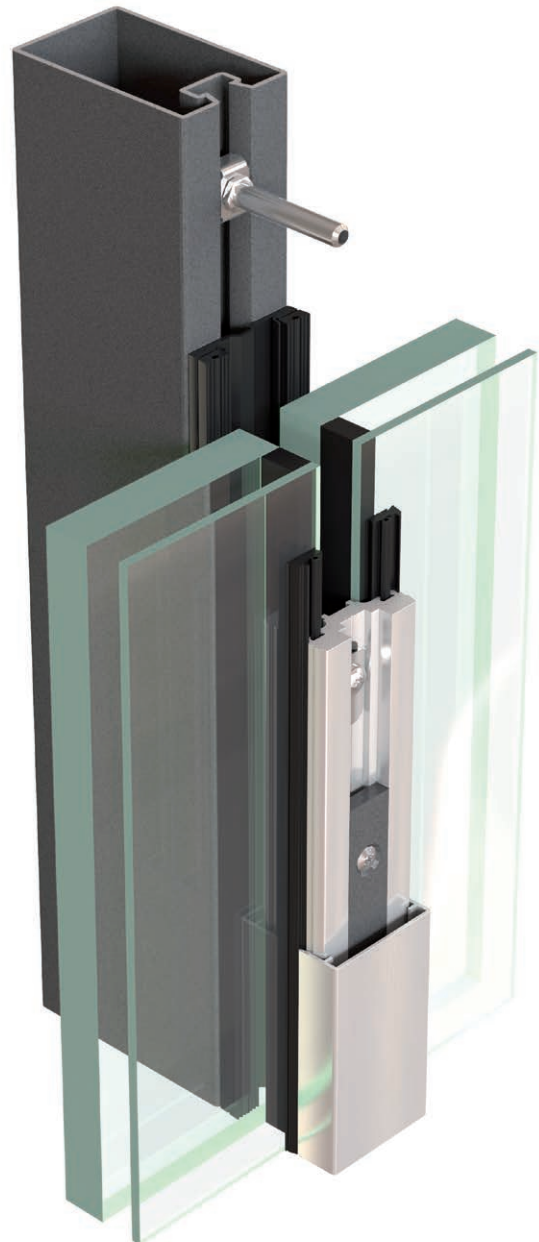
# VISS RC4 burglar resistance and break-out resistance



## Maximum building protection

For the protection of luxury properties, Jansen has brought a further development of the burglar-resistant RC3 system solution onto the market in the shape of VISS RC4. With only a few additional components, the tried-and-tested VISS RC3 system turns into a VISS RC4 system solution that meets increased security requirements. Visually identical to the standard VISS façade, the appearance of the VISS RC4 construction does not betray its burglar-resistant properties. This means that different project requirements can be implemented with a uniform appearance.

- VISS RC4 can be combined with the existing VISS systems in the face widths of 50 and 60 mm
- Burglar and break-out resistance in accordance with EN 1627
- Thermal transmittance of  $U_f > 0.84 \text{ W/m}^2\text{K}$
- Watertightness class RE 1200
- Air permeability class AE
- Resistance to wind load class 2  $\text{kN/m}^2$
- Impact resistance class E5/I5
- VISS RC versions can be combined with the burglar-resistant profile solutions of the Janisol door and window systems
- Installation of double and triple glazing
- This is a project solution; test reports and fabrication information available on request



# VISS system

## Pivot door

### For greater generosity across the entire line

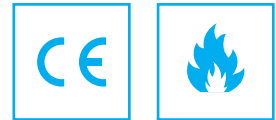
With the new VISS pivot door as a project-specific solution for floor-to-ceiling and module field doors, the generous lines of the VISS façade can now also be continued in access areas. With this development, Jansen is extending the design options for large-scale glass façades with the addition of both a visual and functional highlight.

- Large, thermally insulated pivot door for special applications and requirements (e.g. entrances to exhibition halls, atria, etc.)
- Appearance identical to the VISS façade construction
- Construction principle based on the tried-and-tested VISS façade doors
- Thermally insulated door rebate profiles available for glass thicknesses of 27 to 42 mm
- The VISS pivot door can be both outward and inward-opening, but can only be operated from the inside
- Dimension of the door and frame profiles can be freely selected or specified in accordance with the structural requirements
- Concealed espagnolette with lower and upper lock, integrated in the room-side door leaf profile
- Large selection of cover profiles allows diverse possibilities for design





# VISS Fire Fire-resistant façades



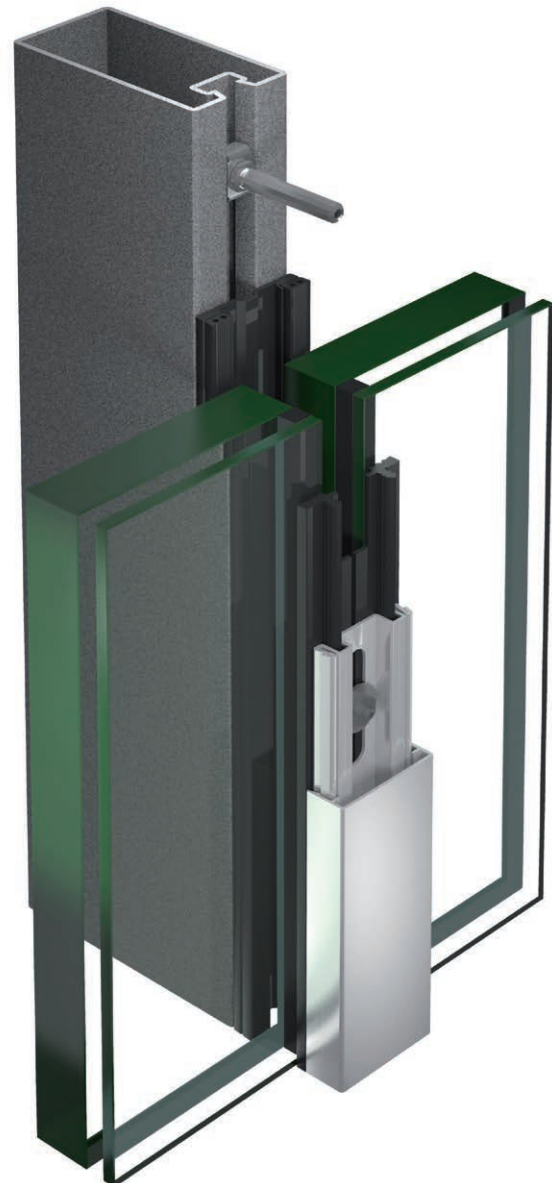
## No compromise on safety

For the sensitive area of fire protection, Jansen has developed the VISS Fire system – a modular façade construction for universal use. The system is suitable for vertical façades in all fire resistance classes for interior and exterior use (E30/60/90, EI30/60/90). All classes are also TRAV safety tested. VISS Fire has also been approved for use with Janisol 2 and Janisol C4 fire doors.

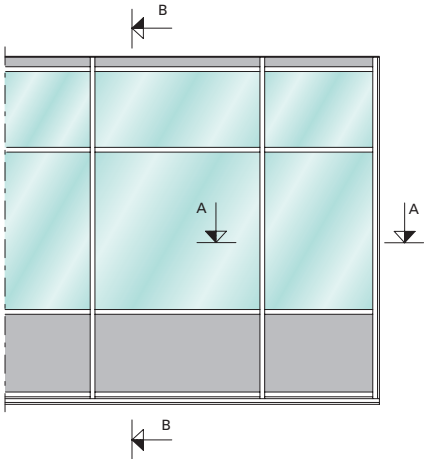
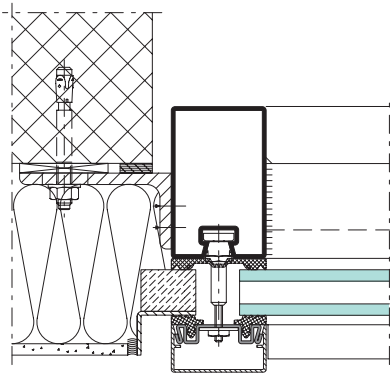
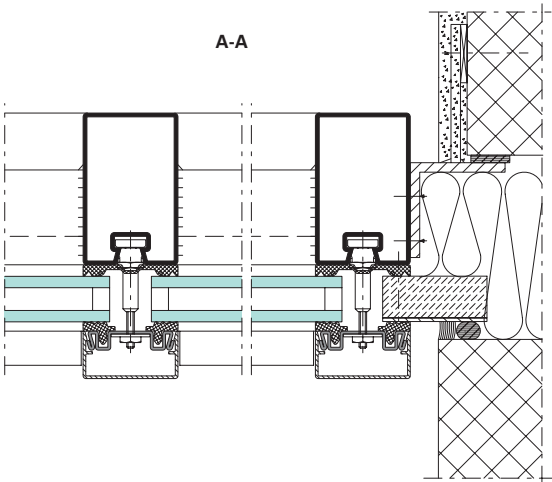
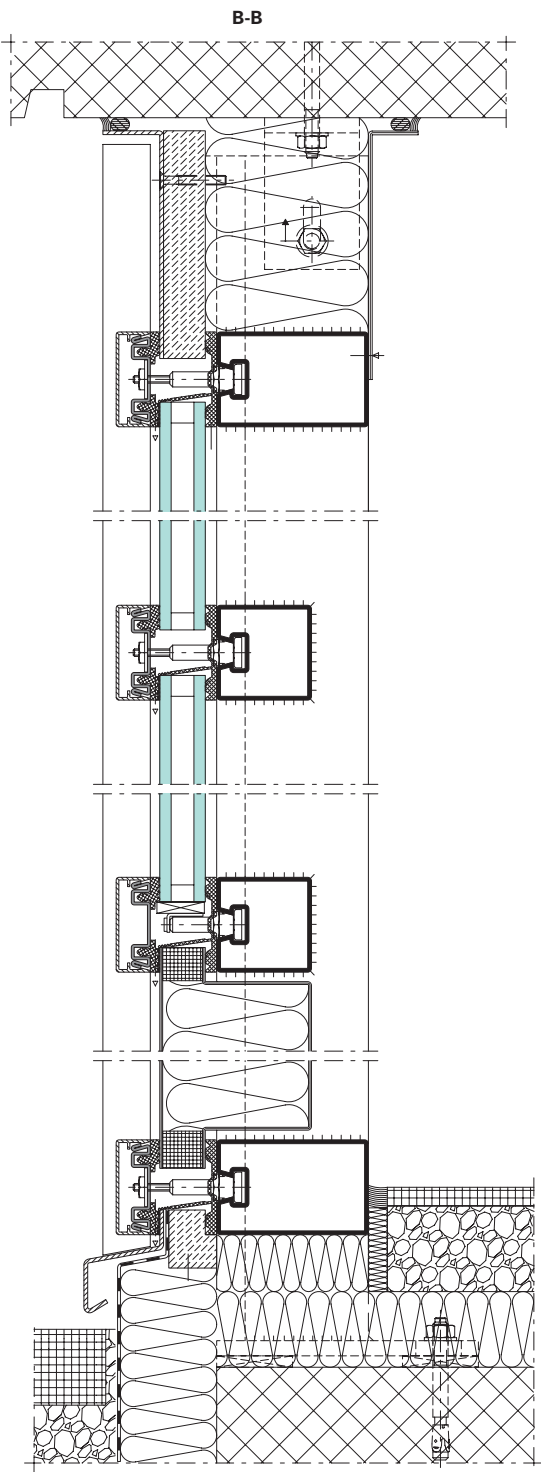
With a face width of 50 mm, fire protection requirements can be implemented discreetly and elegantly. Basic depths from 50 to 280 mm provide a whole range of structural solutions for creating storeys of up to 5000 mm in height and of unlimited width. The many alternatives give the developer the necessary freedom to create attractive large areas of glazing. The Delta and Linea load-bearing profiles can be used to make an elegant statement.

### Tested in accordance with EN 1364

- Fire protection classes E30 / E60 / E90 / EI30 / EI60 / EI90
- Successfully TRAV safety tested (German technical regulations for safety barrier glazing)
- Face width of 50 mm
- Thermal transmittance of  $U_f > 1.2 \text{ W/m}^2\text{K}$
- Basic depths of 50 - 280 mm
- Infill unit thicknesses of 5 - 70 mm
- Prefabricated glazing suitable for safety barrier loading in accordance with DIN 18008-4 Category A and C22



Example of VISS Fire









# VISS

## Roof glazing

### Variety of form for individual requirements

VISS roof glazing is characterised by generosity, planning reliability and ease of assembly. In the area of roof glazing, welded steel constructions demonstrate their strength to the full.

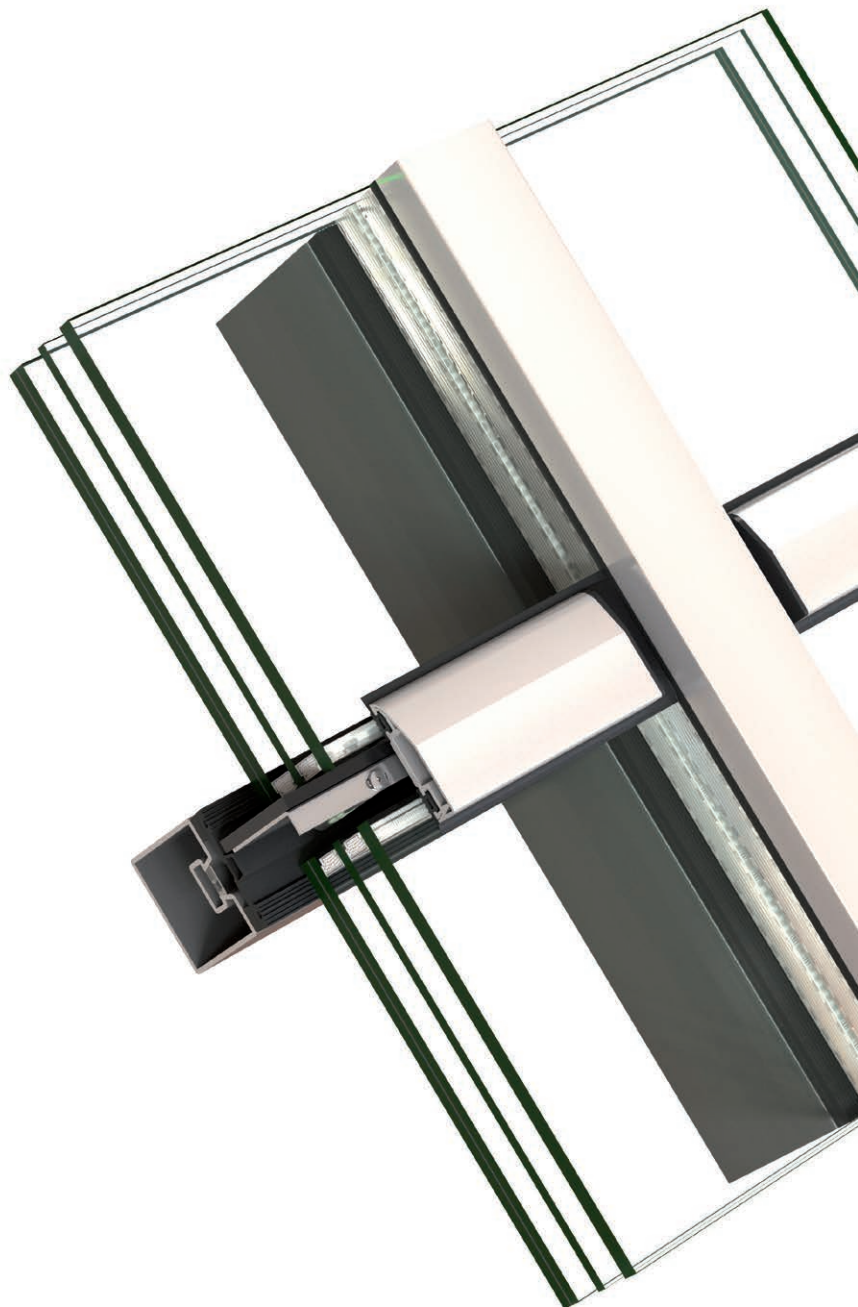
In this way, large skylights can also be created with slimline profiles and complex designs turned into reality.

In combination with the VISS façades, a harmonious transition is achieved that is technically reliable and sophisticated. Outer cover profiles are available in a range of depths and shapes. Infill unit thicknesses from 16 to 70 mm.

- CE marking in accordance with EN 1090 (EXC1 and EXC2) possible

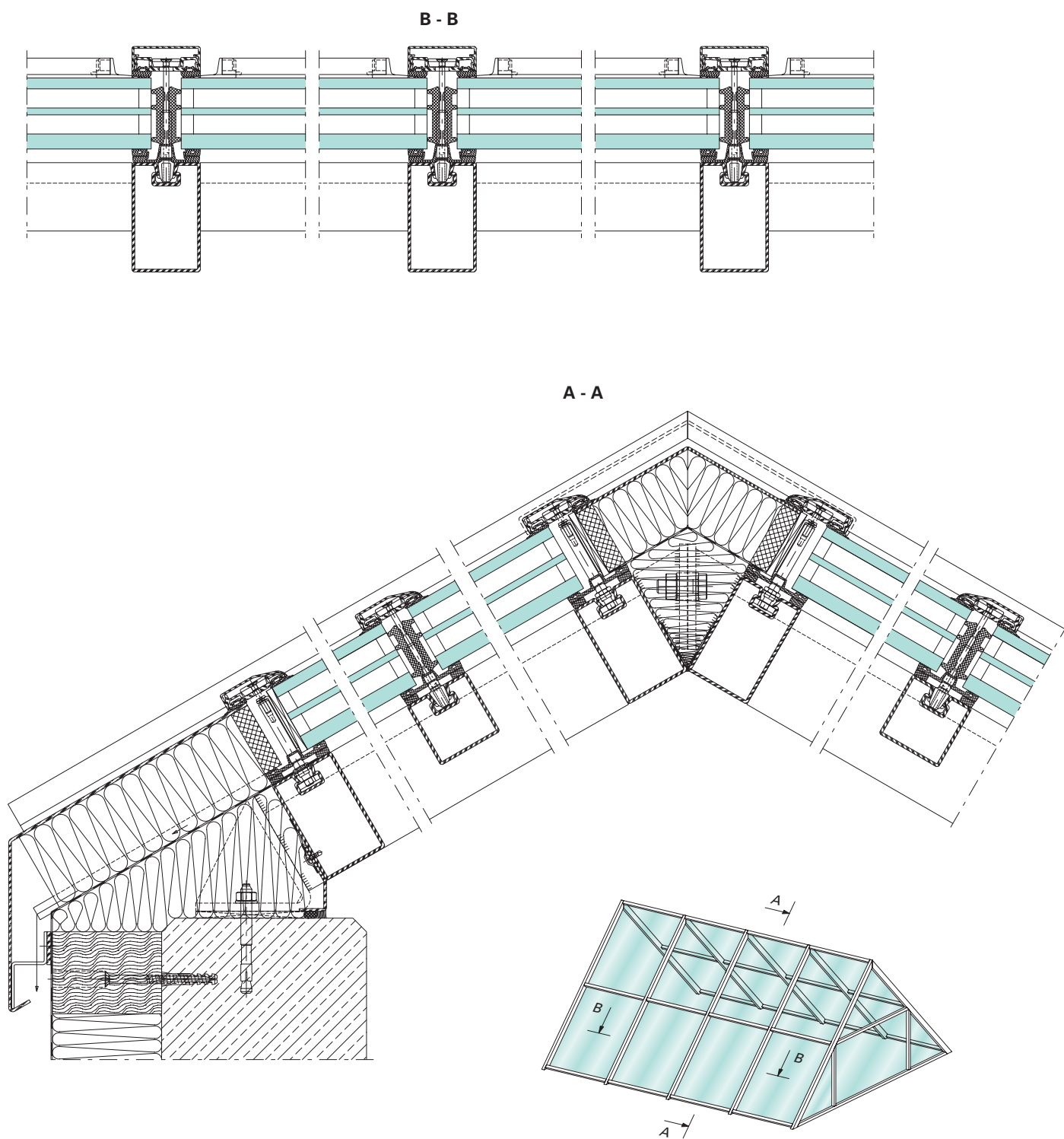
#### Performance values in accordance with EN 13830:

- Thermal transmittance of  $U_f > 0.51 \text{ W/m}^2\text{KK}$
- Watertightness class RE 1200
- Air permeability class AE 750 Pa
- Resistance to wind load class 2  $\text{kN/m}^2$
- Security testing at 3000 Pa
- Impact load security testing, CSTB 3228 requirements met





### Example of VISS roof glazing





Hotel Magyar Kiraly, Szekesfehrvar/HU  
(VISS roof glazing)





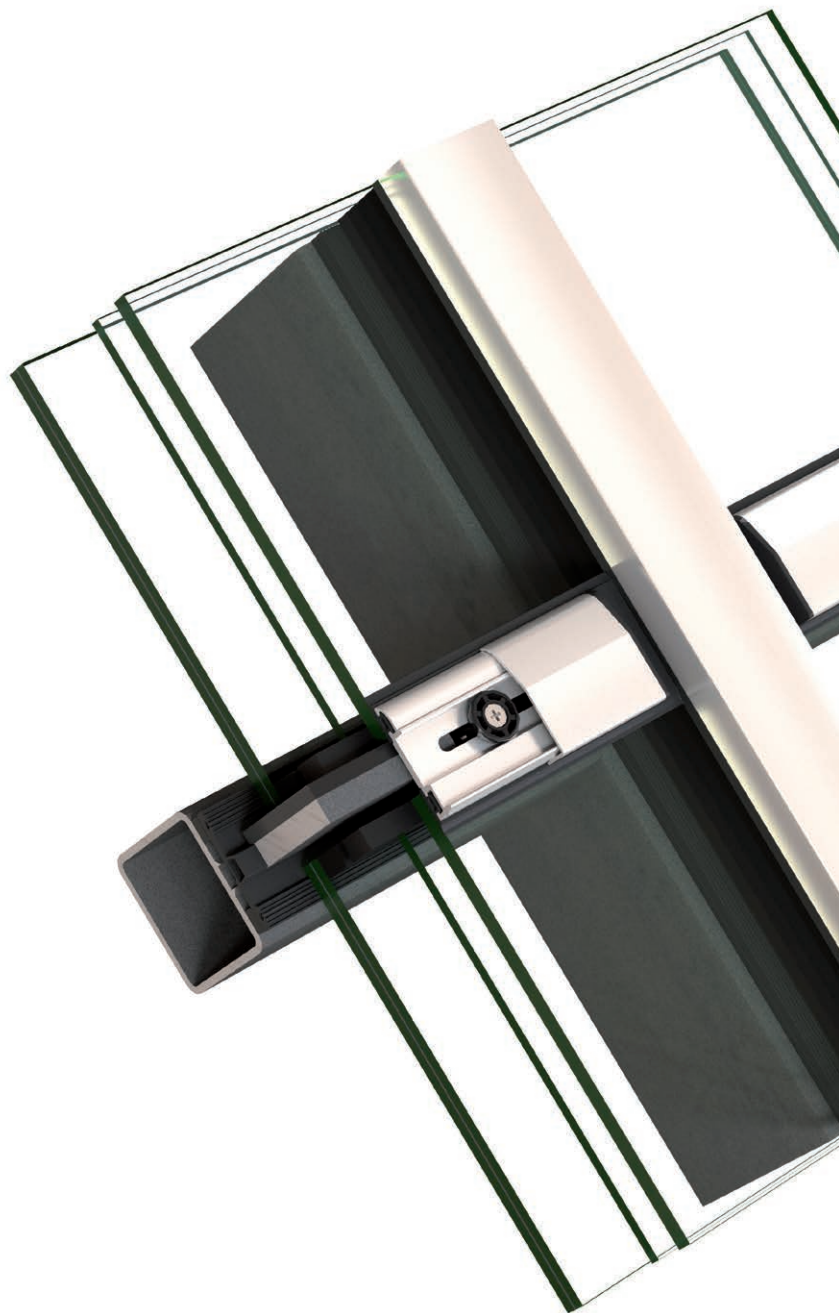
Schloss Novy Svetlov, Bojkovice/CZ  
(VISS roof glazing)

# VISS Basic Roof glazing

## The implementation of challenging skylight constructions with large spans

The aesthetic and economical superior system solution for roof constructions that can be mounted on any support. VISS Basic for roof glazing is a tried-and-tested system solution and enables use in metal and steel construction as well as freedom of choice in terms of load-bearing profile forms. Infill unit thicknesses from 16 to 70 mm.

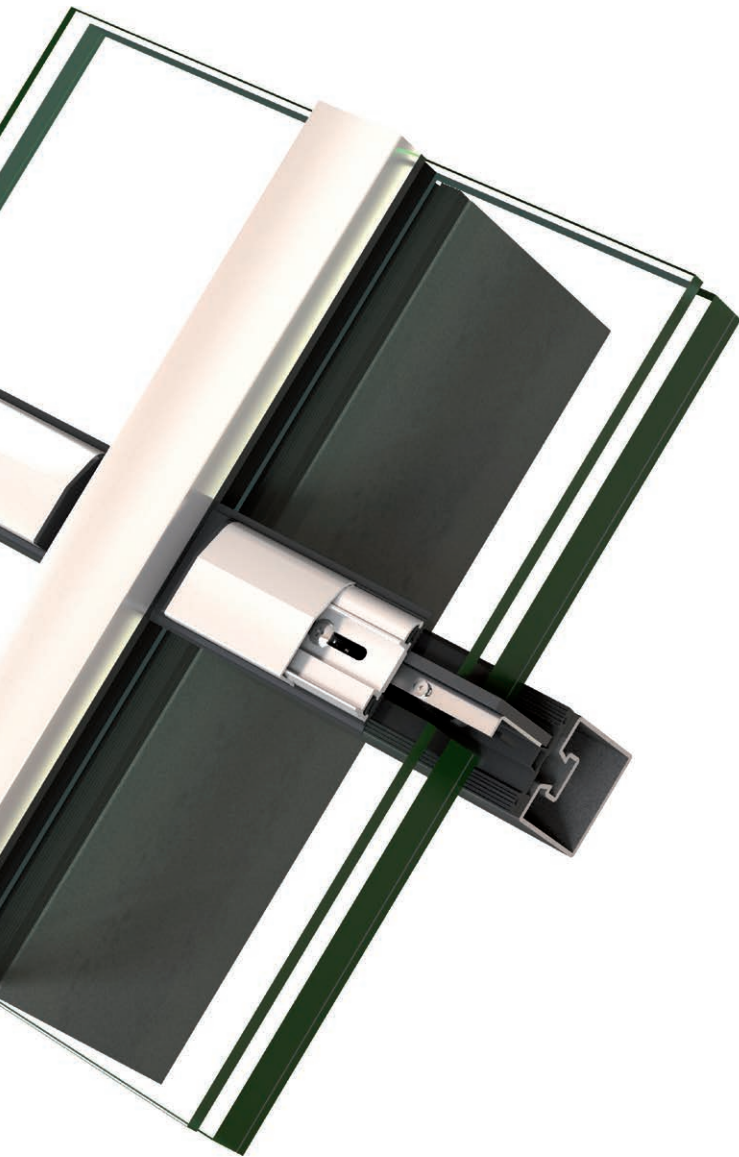
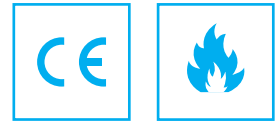
- Thermal transmittance of  $U_f > 0.81 \text{ W/m}^2$
- Watertightness class RE 1200
- Air permeability class AE
- Resistance to wind load class 2 kN/m<sup>2</sup>





# VISS Fire roof glazing

## Fire-resistant façades



### No compromise on safety

In order to expand the field of VISS roof glazing, Jansen has developed the system further to include fire protection and carried out tests in accordance with EN 1635-2. As the roof is not a harmonised building component, classification has been made based on EN 18380. The tests performed also take into consideration a residual bearing capacity of the roof; in this case fire resistance of 30, 45 and 60 minutes was verified. Depending on the construction type, it is possible to build roofs with a span of up to 4300 mm with a slimline face width of 50 mm. The developer can choose between three glass manufacturers. The VISS Fire roof glazing is suitable for infill unit thicknesses between 16 and 70 mm, and also allows for the construction of a roof that looks the same as the standard or Basic roof glazing system.

### Tested in accordance with EN 1364

- Fire protection classes RE30 / REI30 / REI45 / RE60 / REI60
- Face width of 50 mm
- Infill unit thicknesses of 16 - 70 mm
- Thermal transmittance of  $U_f > 1.3 \text{ W/m}^2\text{K}$



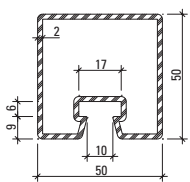


Acoustic tunnel, Warsaw/PL  
(VISS Basic roof glazing)

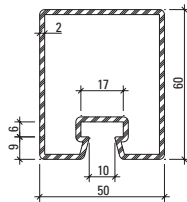


# Profile range

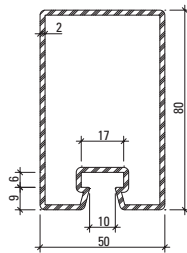
## Load-bearing profiles 50 mm



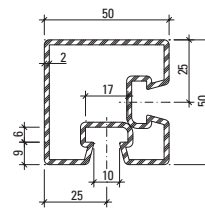
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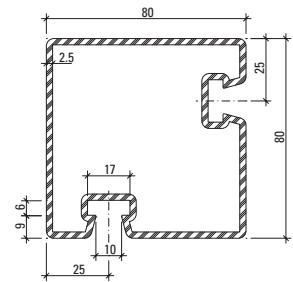
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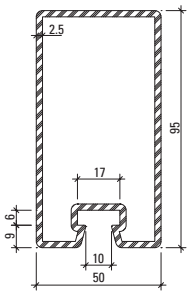
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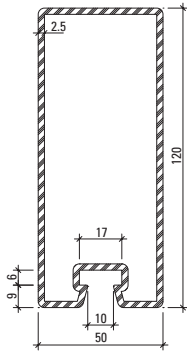
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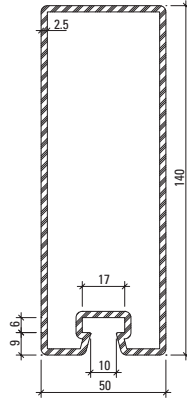
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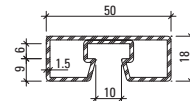
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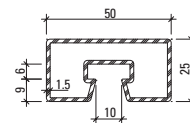
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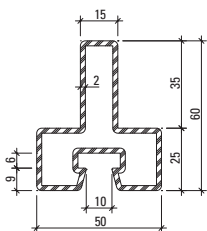
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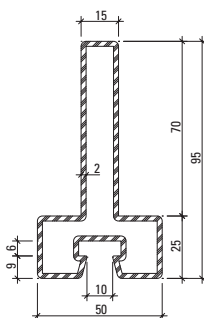
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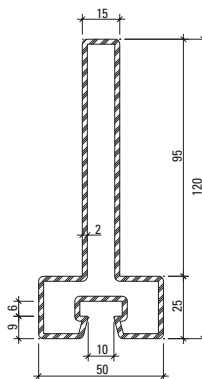
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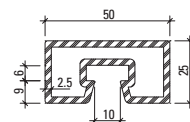
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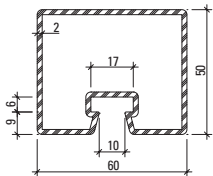
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Z = strip galvanised steel

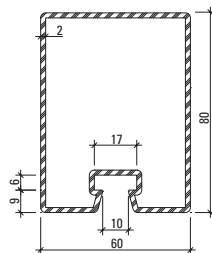


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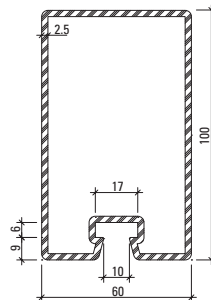
## Load-bearing profiles 60 mm



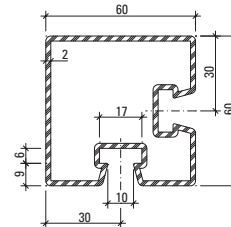
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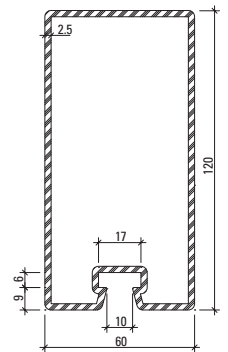
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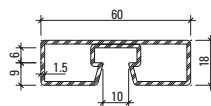
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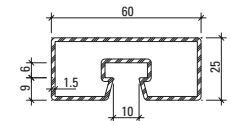
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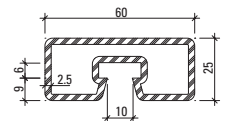
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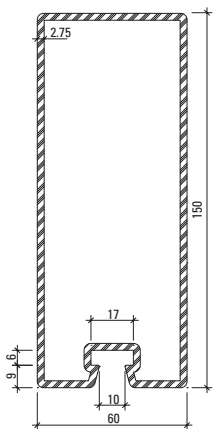
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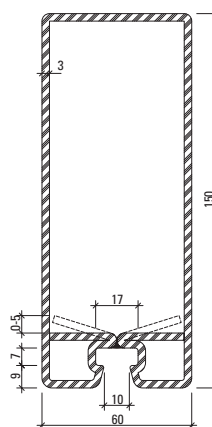
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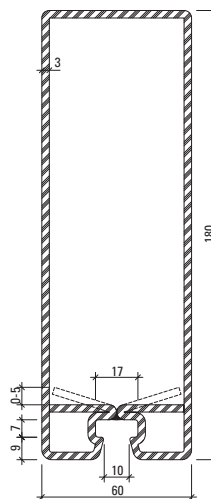
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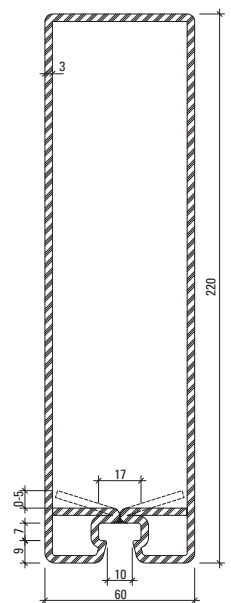
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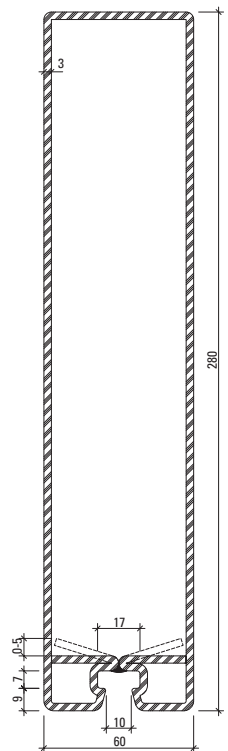
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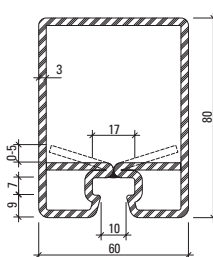
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76.141 Z



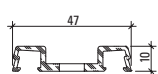
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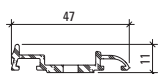
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# Cover sections

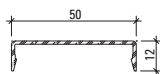
## 50 mm



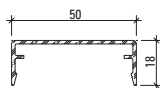
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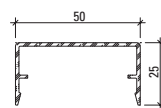
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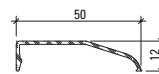
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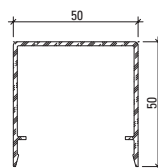
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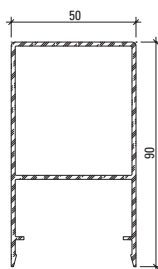
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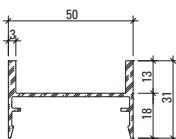
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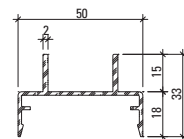
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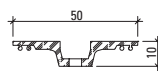
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407.900



407.911

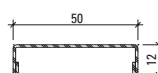


407.821

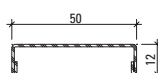


407.823

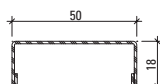
### Stainless steel cover sections



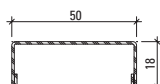
400.860



400.862



400.861

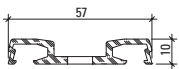


400.863

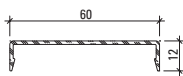


# Cover sections

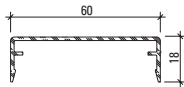
## 60 mm



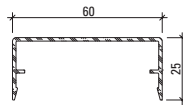
407.802



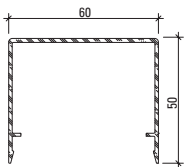
407.865



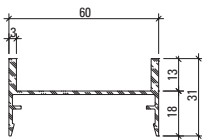
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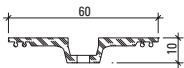
407.867



407.868



407.901



407.822



407.823



# Performance characteristics

## VISS façades



### CE marking

Curtain wall façade tested to EN 13830.



### Thermal transmittance

The profile combinations were calculated according to EN ISO 10077-2. The product achieves  $U_f > 0.56 \text{ W/m}^2\text{K}$ .



### Air permeability

Air permeability tested to EN 12153.  
The product achieves Class AE.



### Bullet resistance

Bullet resistance tested to EN 1522/1523.  
The product achieves Class FB4 NS.



### Watertightness

Watertightness tested to EN 12155.  
The product achieves Class RE 1200.



### Burglar resistance

Burglar resistance tested to EN 1627.  
The product achieves Class RC2/RC3/RC4.



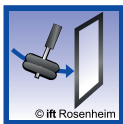
### Resistance to wind load

Resistance to wind load tested to EN 12179:  
- Permissible wind load 2000 Pa  
- Safety load 3000 Pa



### TRAV safety tested

The product has been tested in accordance with the German TRAV regulations (technical regulations for the use of safety barrier glazing) and meets the requirements of category A.



### Impact resistance

Impact resistance tested to EN 14019.  
The product achieves Class E5 / I5.



### CWCT test

Tested to the requirements of CWCT:  
- Air permeability/watertightness: PASS  
- Permissible wind load 2400 Pa  
- Safety load 3600 Pa



### Sound reduction

Sound reduction tested to EN ISO 140-3.  
The product achieves  $R_w = 47 \text{ dB}$ .

# Certification programmes for sustainable building

Contemporary architecture is committed to sustainability. It is not only for public buildings that the requirements in terms of ecological standards have increased considerably in recent years. The sustained building trend is also increasingly finding expression in relation to newbuilds, residential properties and renovations.

The focus is on efficiency and awareness in the use of natural resources. Today binding evidence of the environmental compatibility of a building is already being requested in many project specifications. In particular, the extraction of raw materials, transport, manufacturing, fabrication, usage phase and recycling of a product are considered.

The eco-friendliness of a building is examined on the basis of different certification programmes. Together with ecological aspects, in most cases the topic of sustainability is also evaluated in respect of sociocultural and economic requirements.

- Minergie-Standard (Switzerland)
- Quality Seal of the German Sustainable Building Council (DGNB)
- BREEAM (Building Research Establishment Environmental Assessment Method)
- LEED (Leadership in Energy and Environmental Design)
- Klimaschutz und Energieeffizienz Schweiz (Certificate from the Energy Agency of the Swiss Private Sector)

## **Timeless steel - sustainable use for generations**

Steel offers an extraordinarily high recycling potential and its lifespan is unsurpassed in comparison to alternative materials. Windows, doors and façades made from steel and stainless steel fulfil these requirements in peerless fashion and therefore guarantee sustainable construction and ecological use of buildings.

## **For increased sustainability with a profile: Environmental Product Declarations (EPDs)**

With its profile systems, Jansen makes a substantial contribution to the successful certification of a building. The evidence provided for the adherence to ecological guidelines can be used by the fabricator as the basis for obtaining their own manufacturer EPDs.

## **Environmental Product Declarations for steel/stainless steel profile systems**

With window, door and façade profiles made from steel and stainless steel, Jansen provides for the sustainable design, installation, and, in particular, use of buildings. As a manufacturer of complete steel profile systems, Jansen makes industry-specific Environmental Product Declarations in accordance with ISO 14025 and EN 15804 for windows, doors and façades available to the fabricator.

The EPDs can be obtained quickly and easily from the ift test institute in Rosenheim, Germany.







# System versatility: for every application



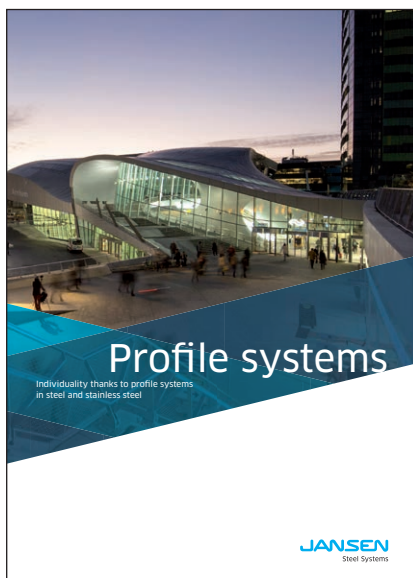
**Non-insulated profile systems  
made from steel and stainless steel**



**Smoke and fire doors and glazing**



**Thermally insulated profile systems  
made from steel and stainless steel**



**Individuality thanks to profile systems  
in steel and stainless steel**

You can find further brochures and  
documentation in our download centre  
at [jansen.com](http://jansen.com).



Jansen AG

**Steel Systems**

Industriestrasse 34  
9463 Oberriet  
Schweiz  
[jansen.com](http://jansen.com)

**JANSEN**