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)

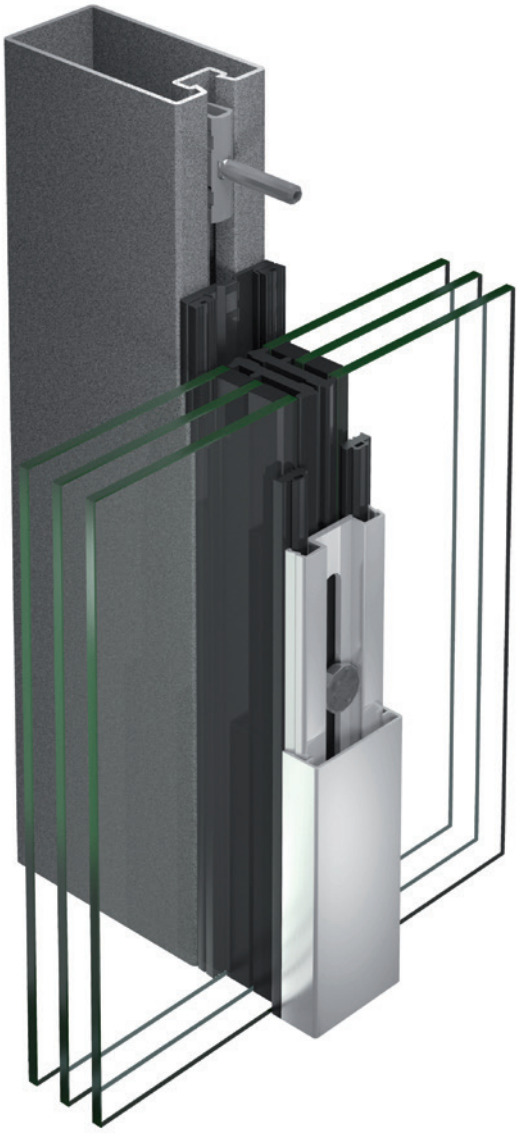
VISS Façade

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_f > 0.51 W/m²K
- Sound reduction Rw of 47 dB
- Watertightness class RE 1200
- Air permeability class AE
- Resistance to wind load class 2 kN/m²
- 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

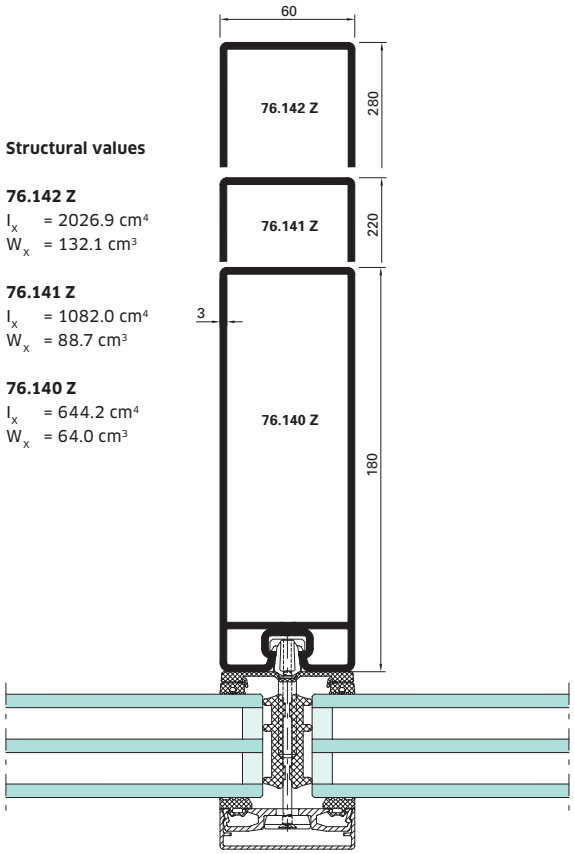
- Small edge radii
- Short delivery times as profiles can be obtained directly from the warehouse
- Efficient fabrication thanks to system profiles: complicated welding on of screw ports not required
- Reliable surface protection inside as well as outside through pre-galvanised profiles
- Low total weight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

Structural values

76.142 Z
I_x = 2026.9 cm⁴
W_x = 132.1 cm³

76.141 Z
I_x = 1082.0 cm⁴
W_x = 88.7 cm³

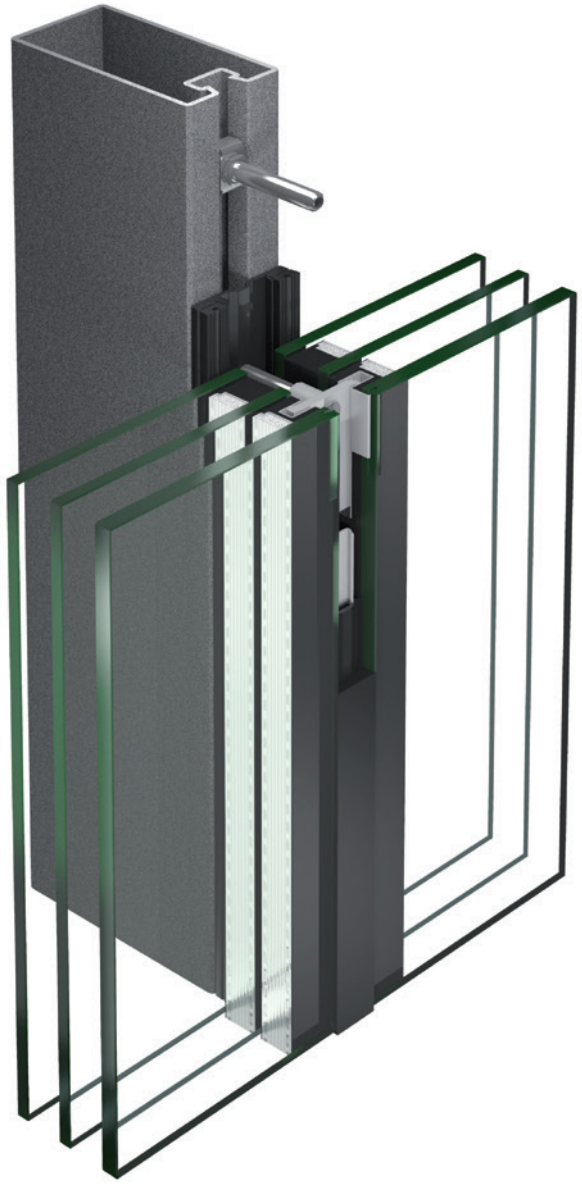
76.140 Z
I_x = 644.2 cm⁴
W_x = 64.0 cm³



VISS SG
All-glass façades

When building envelopes blend in with their surroundings

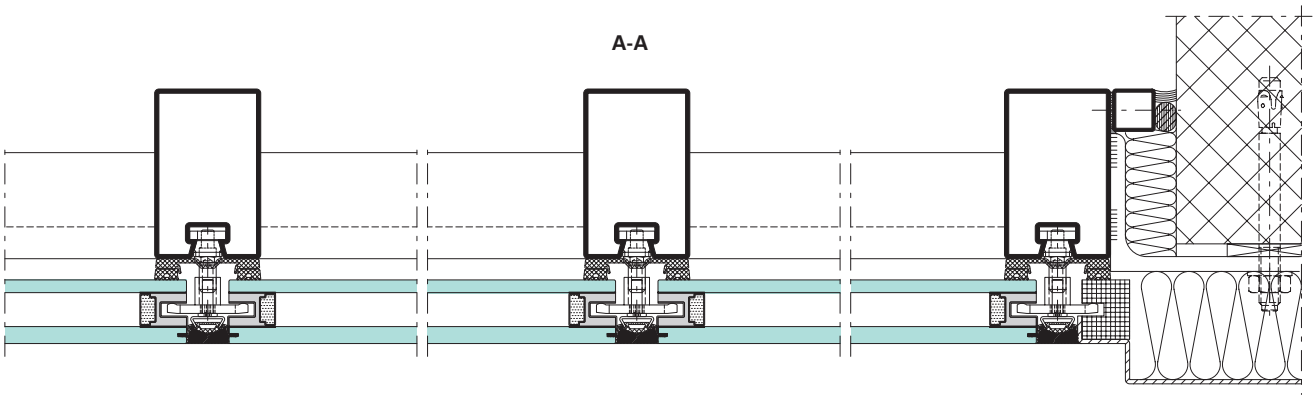
The idea of transparency in a building envelope that blends in with its surroundings can be realised harmoniously and aesthetically with an all-glass façade. The all-glass architecture creates a feeling of lightness and openness. Narrow internal sightlines and the simultaneous implementation of large-scale 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

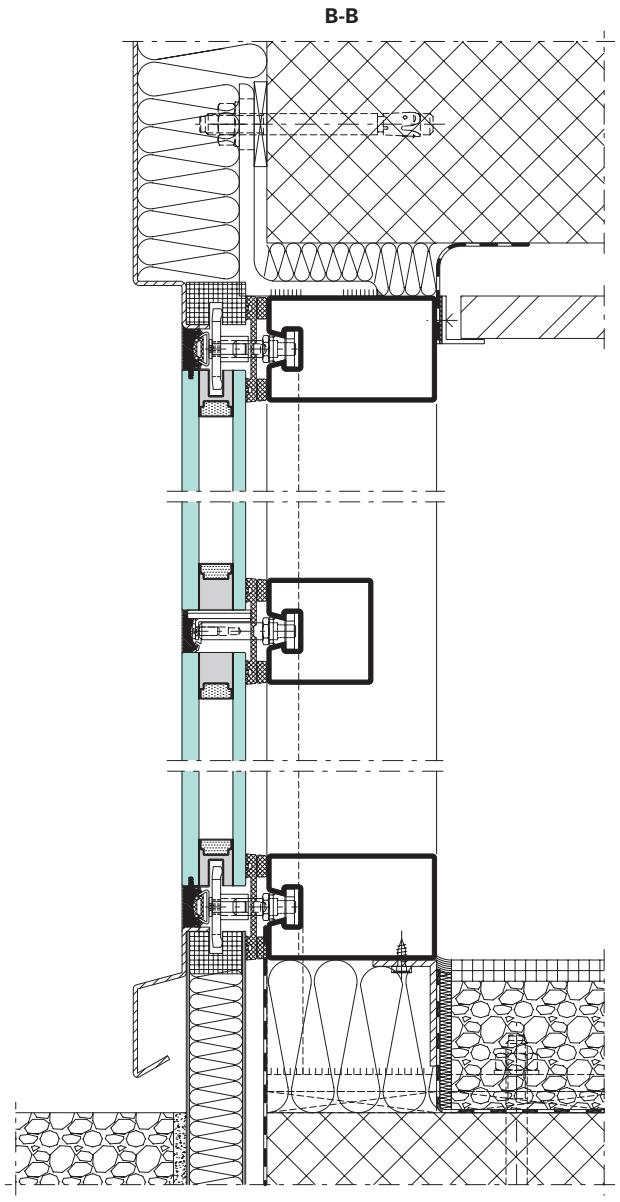


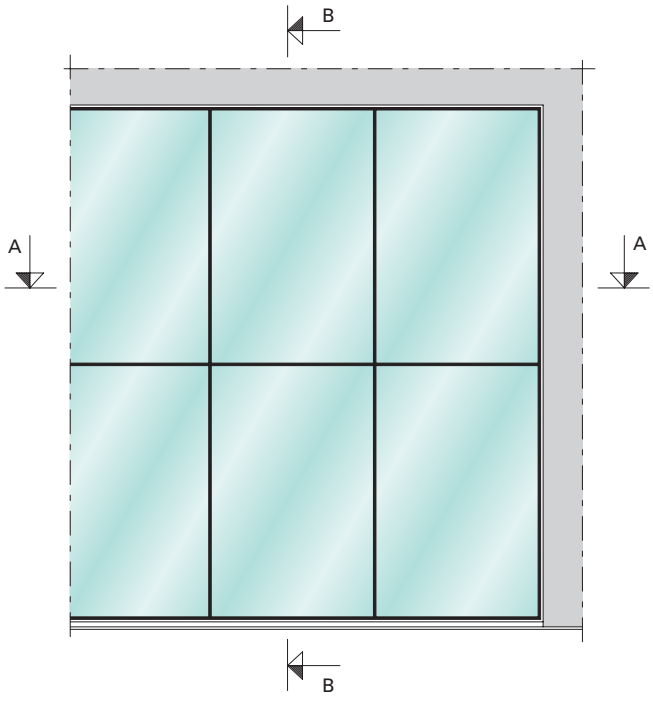
CE marking in accordance with ETAG 002

- European Technical Approval ETA 13/0015
- Thermal transmittance of U_f > 0.56 W/m²K
- Watertightness up to class R E1200
- Air permeability up to class AE
- Resistance to wind load up to class 2 kN/m²
- 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







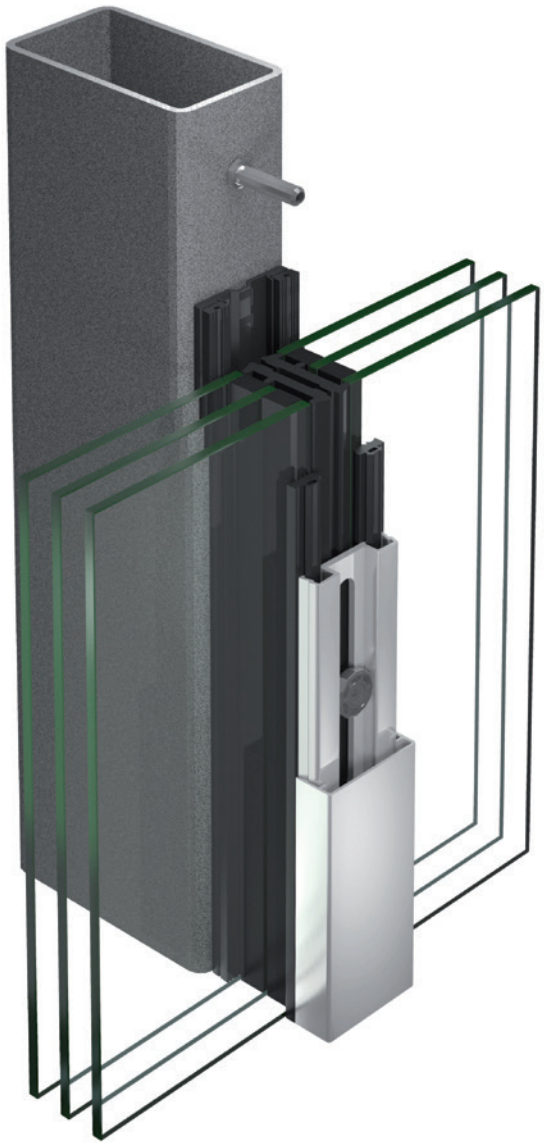
VISS Basic Façade

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.

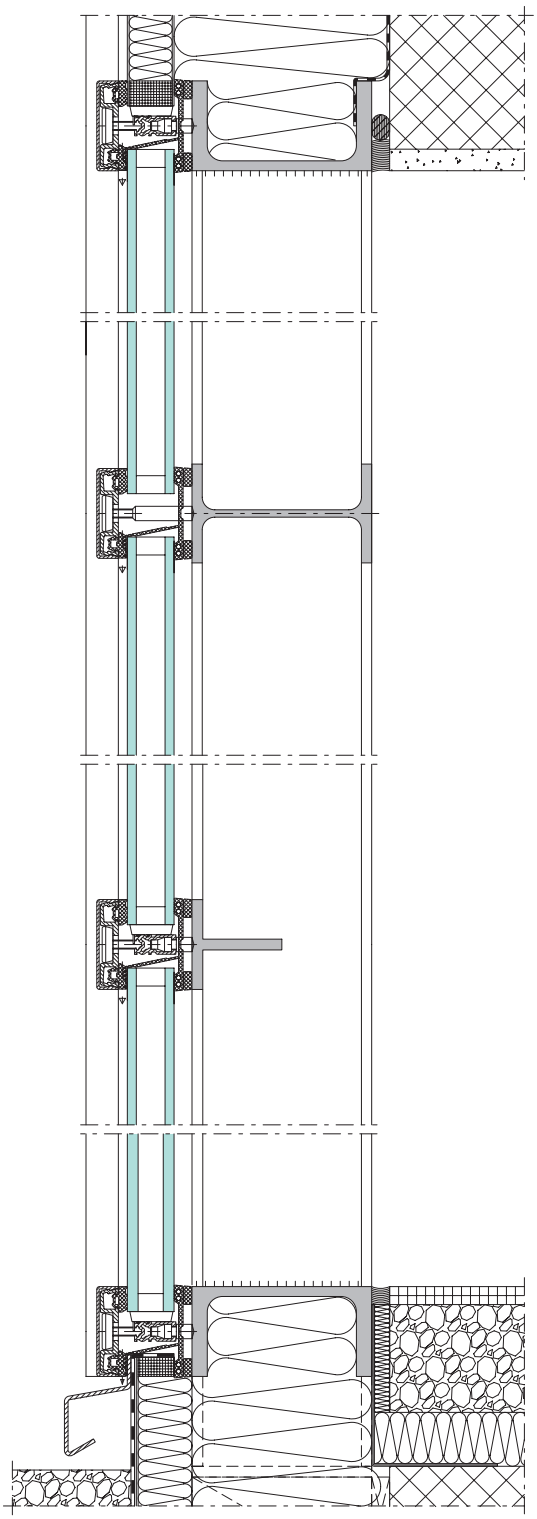
CE marking in accordance with EN 13830

- Thermal transmittance of U_f > 0.53 W/m²K
- Watertightness class RE 1200
- Air permeability class AE
- Resistance to wind load class 2 kN/m²
- Impact resistance class E5/I5
- Prefabricated glazing suitable for safety barrier loading in accordance with DIN 18008-4 Category A and C22

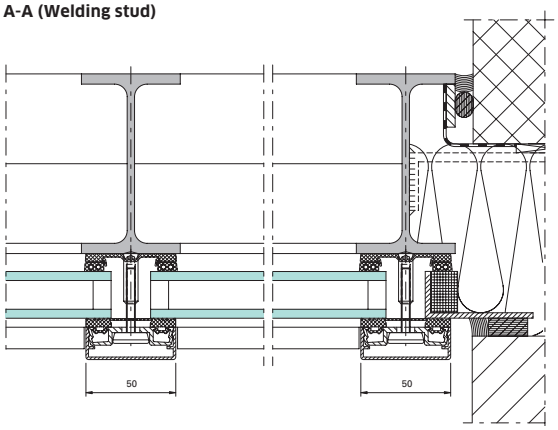


Example of VISS Basic

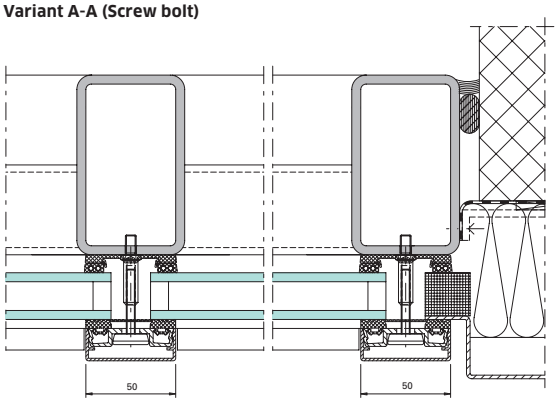
B-B

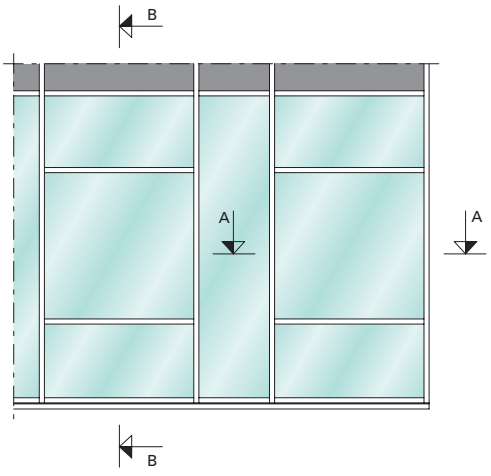


A-A (Welding stud)



Variant A-A (Screw bolt)

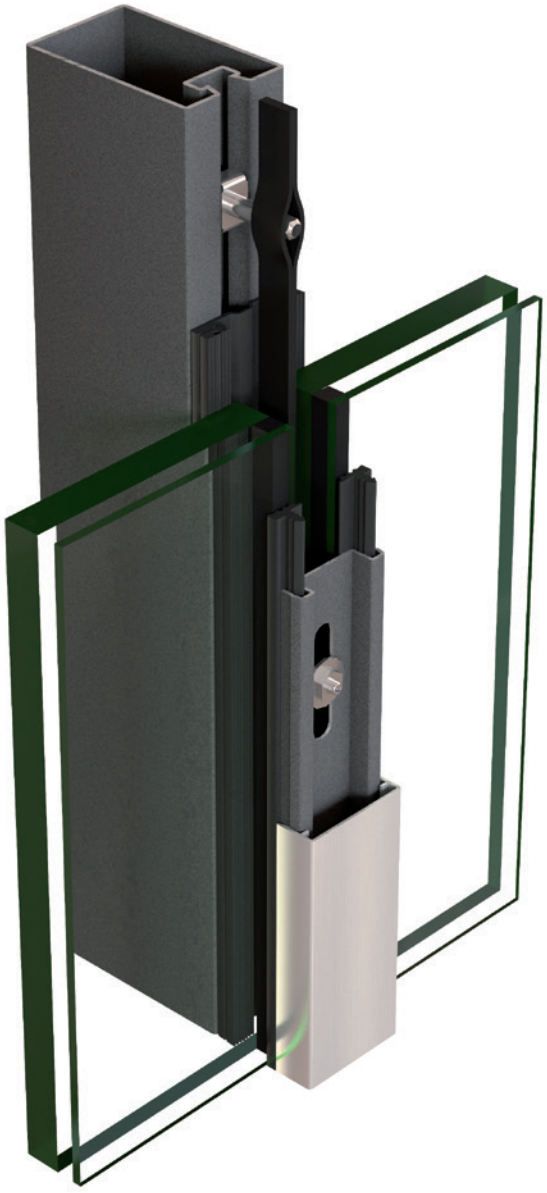




VISS Fire
Fire-resistant façades

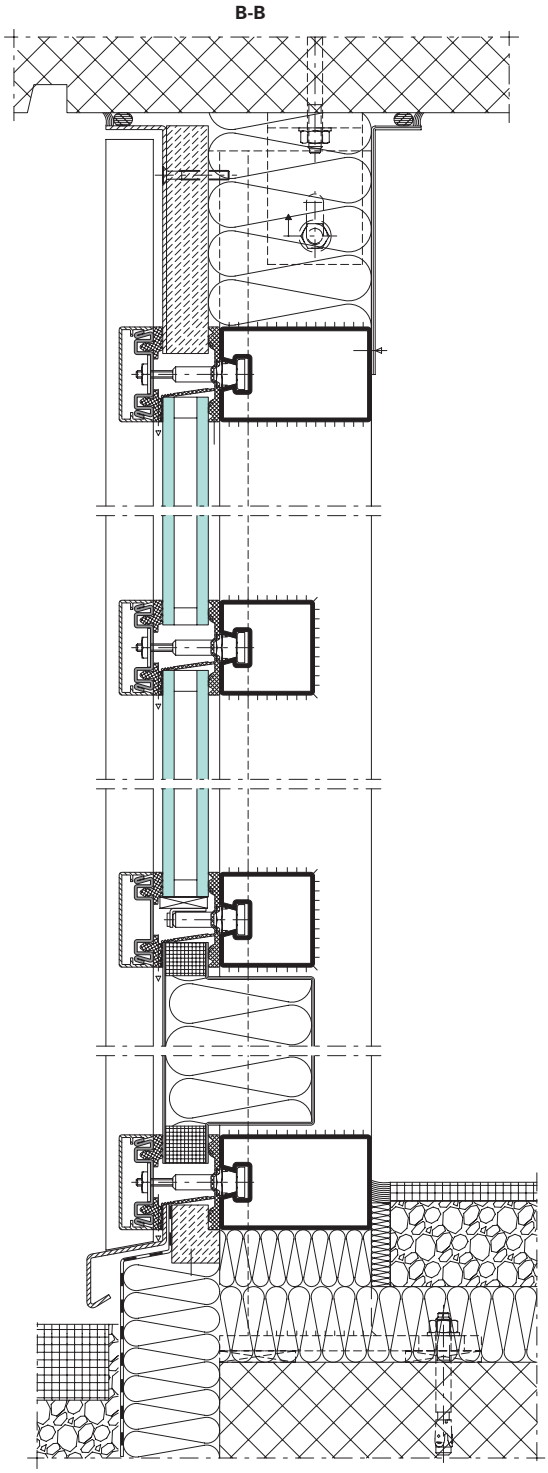
No compromise on safety

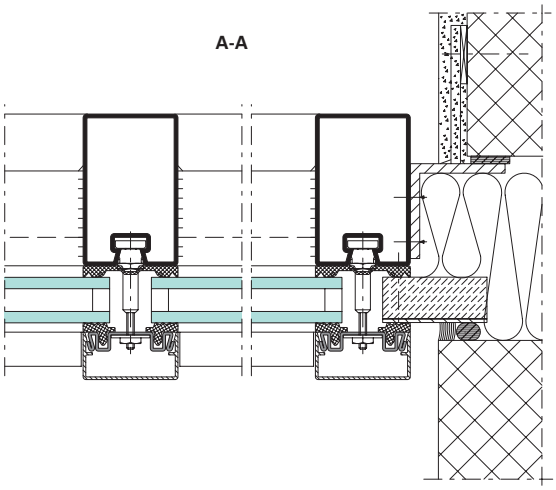
For the sensitive area of fire protection, Jansen has developed the VISS Fire system – a modular façade construction for universal use. The system is suitable for vertical façades in all fire resistance classes for interior and exterior use (E30/60/90, EI30/60/90). All classes are also TRAV safety tested. VISS Fire has also been approved for use with Janisol 2 and Janisol C4 fire doors.
With a face width of 50 and 60 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 Linea load-bearing profiles can be used to make an elegant statement.

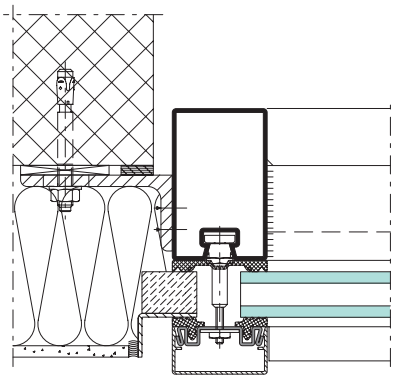


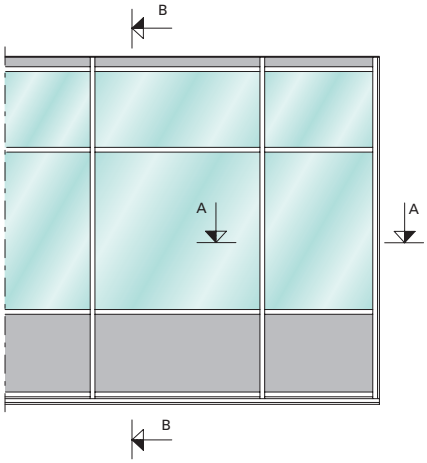
Tested in accordance with EN 1364
- Fire protection classes E30 / E60 / E90 / EI30 / EI60 / EI90
- Successfully TRAV safety tested (German technical regulations for safety barrier glazing)
- Face width of 50 and 60 mm
- Thermal transmittance of U_f > 1.2 W/m²K
- Basic depths of 50 - 280 mm
- Infill unit 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









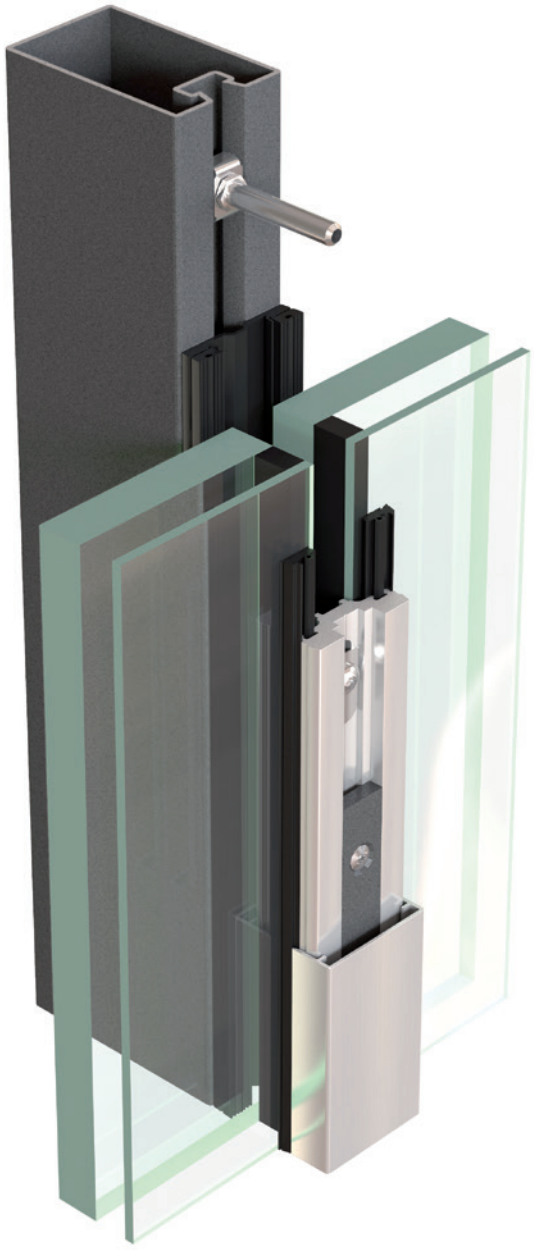
VISS RC2 / RC3 / RC4
Burglar resistance and break-out resistance

CE

Maximum building protection

For the protection of luxury properties, Jansen has brought a further development of the burglar-resistant RC2 and 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 RC 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 W/m²K
- Watertightness class RE 1200
- Air permeability class AE
- Resistance to wind load class 2 kN/m²
- 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



VISS
Side-hung door

The Jansen VISS façade is a unique system solution for large opening in façades. Floor-to-ceiling and module field doors can be installed with only a few additional components and the generous contour of the VISS façade. This solution offers architects and planners the benefits of maximum planning reliability and cost transparency.

- Large-scale, thermally insulated side-hung doors in a single-leaf or double-leaf design (e.g. access to exhibition halls, atriums, etc.)
- They are identical in appearance to the VISS façade construction
- Thermally insulated door rebate profiles for glass thicknesses of 17 to 52 mm
- The VISS side-hung doors can be used as inwards-opening doors and are to be used from the inside
- The dimensions of the door and frame profiles can be freely chosen or can be determined in accordance with the structural requirements
- Concealed bar lock with a top and bottom locking mechanism, installed in the internal door leaf profile
- A large selection of cover profiles allows for a wide range of design options
- Product that can be provided with the CE label

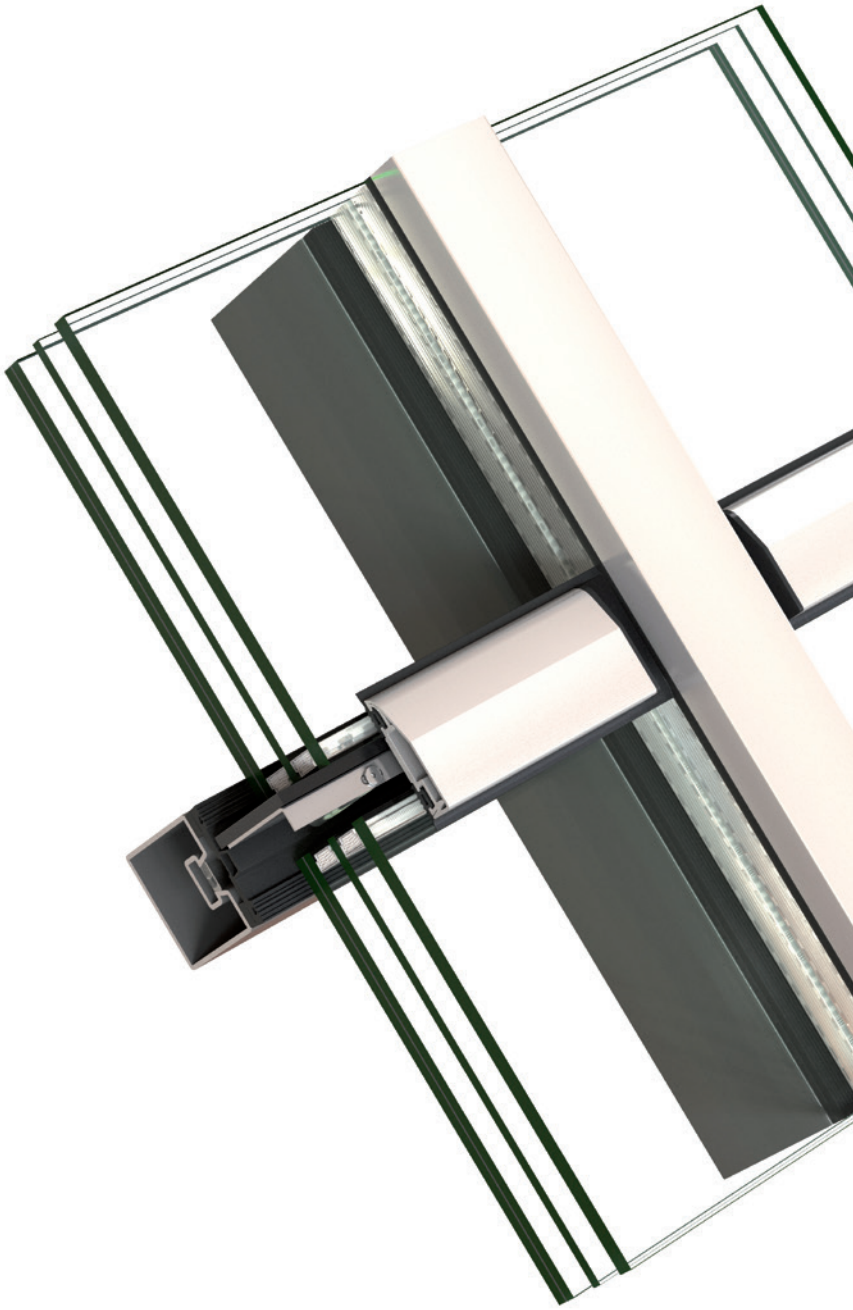
Education forum, Potsdam/DE
(VISS HI, VISS Fire)

VISS
Roof glazing

Variety of form for individual requirements

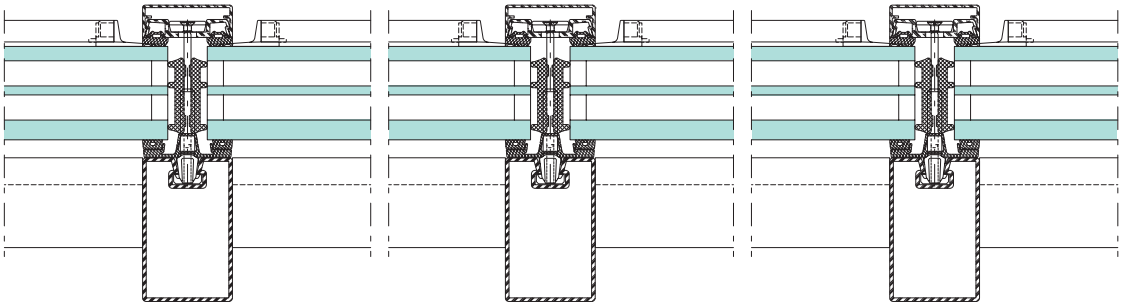
VISS roof glazing is characterised by generosity, planning reliability and ease of assembly. In the area of roof glazing, welded steel constructions demonstrate their strength to the full.
In this way, large skylights can also be created with slimline profiles and complex designs turned into reality.
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.

Performance values in accordance with EN 13830:
- Thermal transmittance of U_f > 0.51 W/m²KK
- Watertightness class RE 1200
- Air permeability class AE 750 Pa
- Resistance to wind load class 2 kN/m²
- Security testing at 3000 Pa
- Impact load security testing, CSTB 3228 requirements met

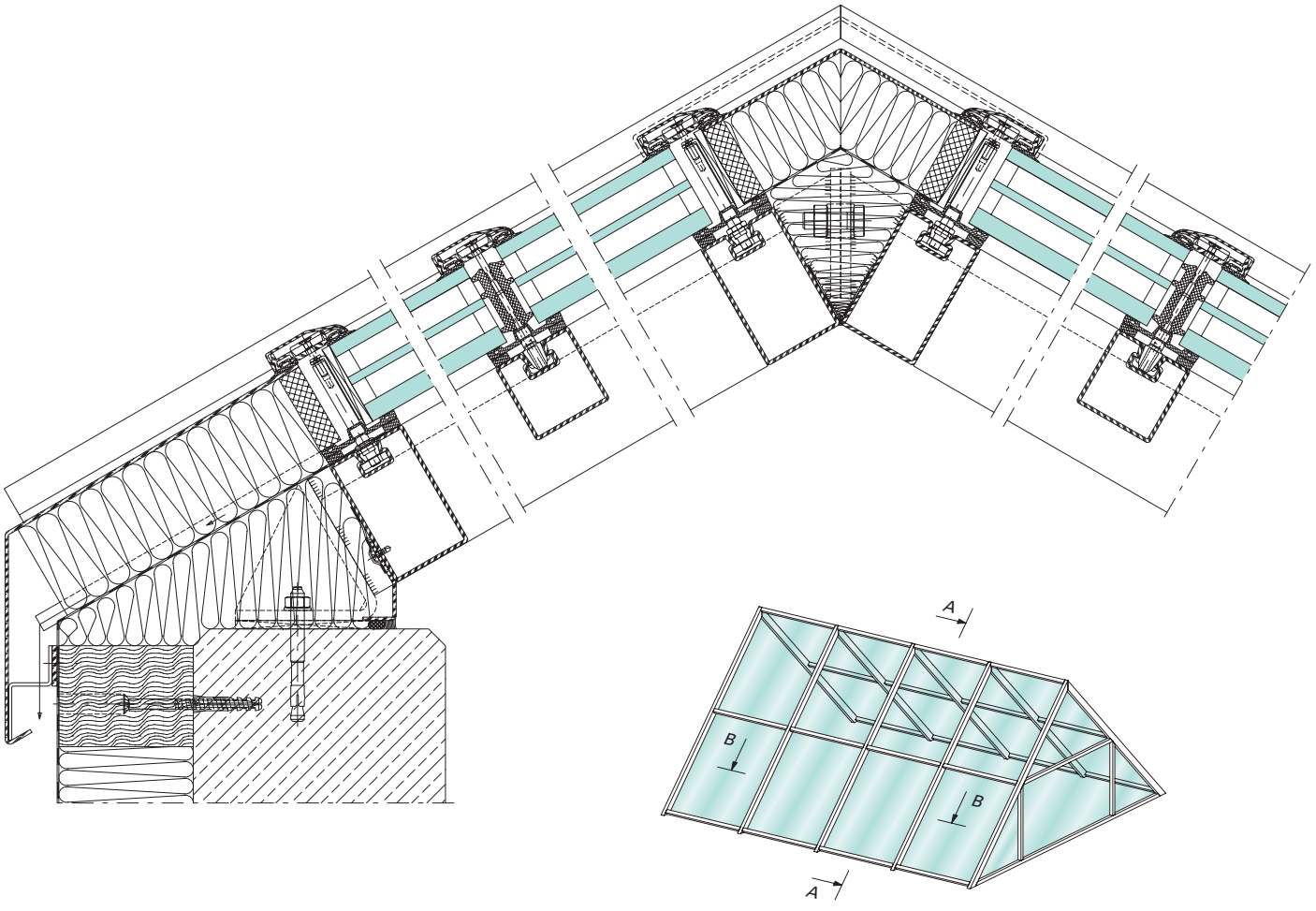


Example of VISS roof glazing

B - B



A - A



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

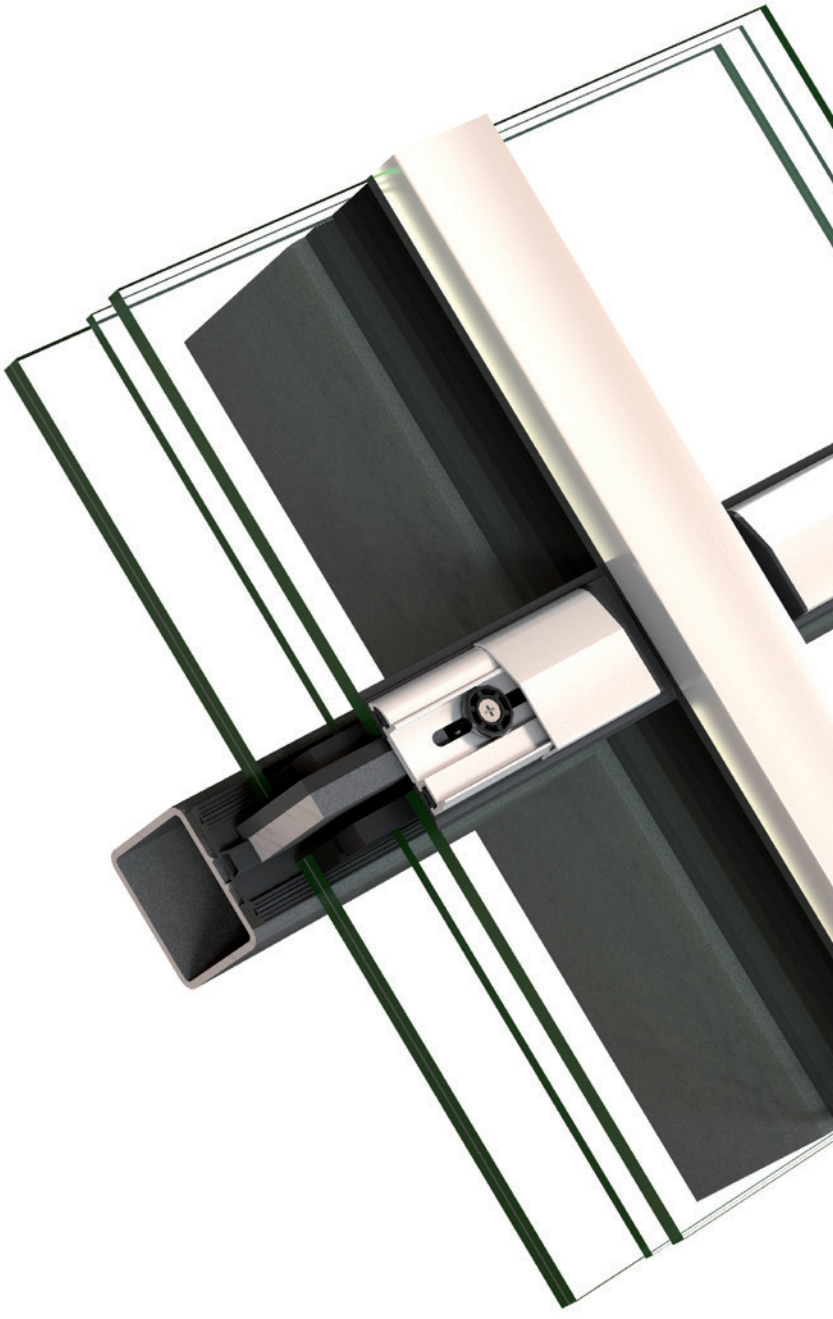
Schloss Novy Svetlov, Bojkovice/CZ
(VISS roof glazing)

VISS Basic
Roof glazing

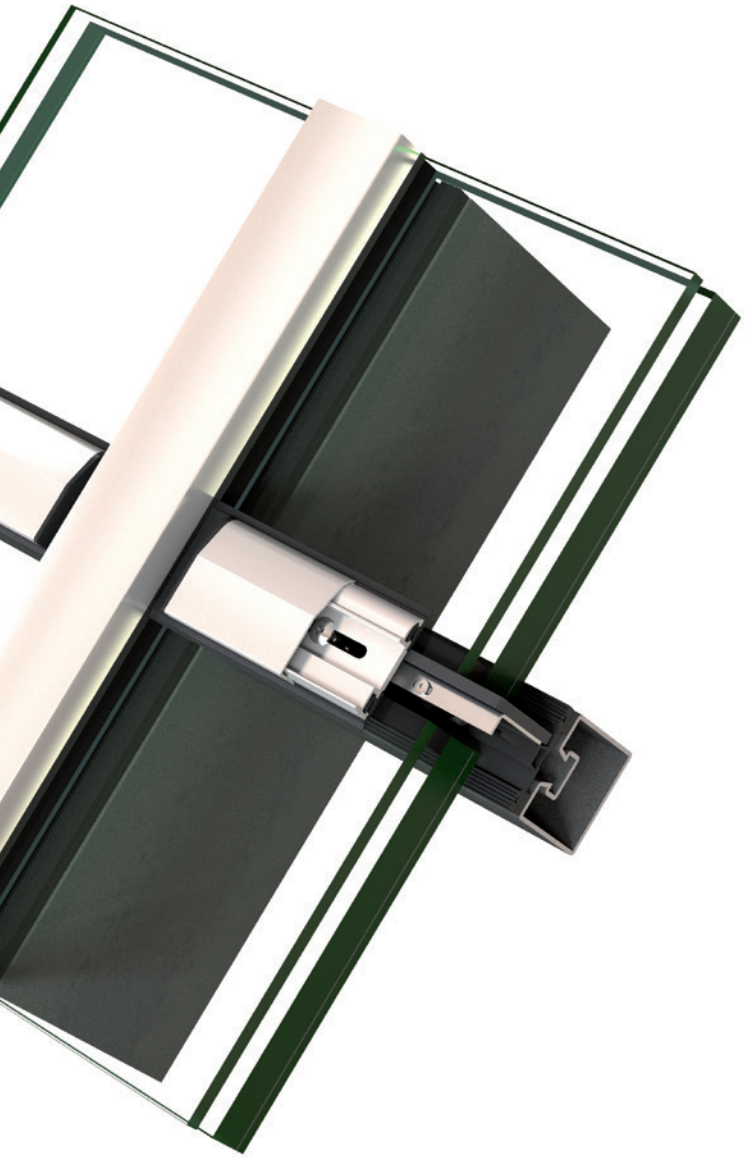
The implementation of challenging skylight constructions with large spans

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 W/m²
- Watertightness class RE 1200
- Air permeability class AE
- Resistance to wind load class 2 kN/m²



VISS Fire
Roof glazing



No compromise on safety

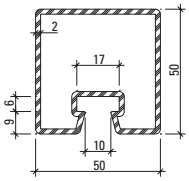
The wealth of options offered by VISS Fire roof glazing was tested by Jansen on the basis of a variety of fire tests. As the roof is a non-harmonised building element, classification was carried out in accordance with EN 13830. The tests carried out also take into account the residual strength of the roof, with 30, 45 and 60 minutes of fire resistance being recorded in this context.
Depending on the construction type, span widths of up to 4300 mm can be realised with a face width of 50 mm. Planners have the choice of a wide range of different glass types from multiple manufacturers. VISS Fire roof glazing is suitable for filling element thicknesses from 16 to 70 mm and allows for roofs to be constructed with the same visual appearance as standard and basic roof glazing systems.

Tested in accordance with EN 1364
- Fire protection classes: RE30 / REI30 / REI45 / RE60 / REI60
- Face width: 50 mm
- Filling element thicknesses: 16–70 mm
- Heat transfer coefficient U_f > 1.3W/m²K

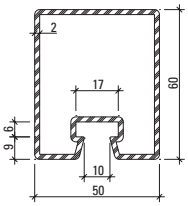
Performance data in accordance with EN 13830:
Performance data in accordance with EN 13830:
- Heat transfer coefficient U_f > 0.51W/m²K
- Tightness against heavy rain class: RE 1200
- Air permeability class: AE 750 Pa
- Safety test at 3000 Pa
- Impact load safety test CSTB 3228 fulfilled
- Resistance to wind load class: 2 kN/m²

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

Profile range
Load-bearing profiles 50 mm



76.694
76.694 Z



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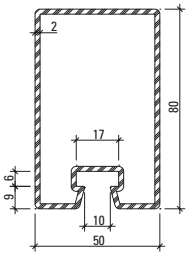
76.671 Z



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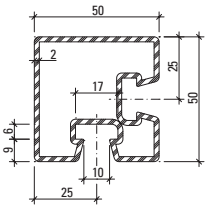
76.696 Z



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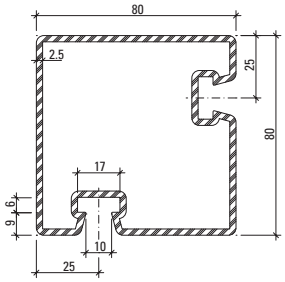

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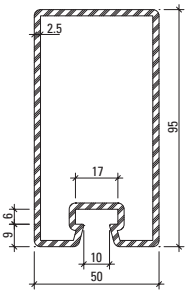

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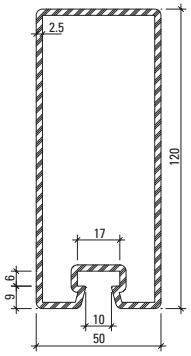
76.697 Z



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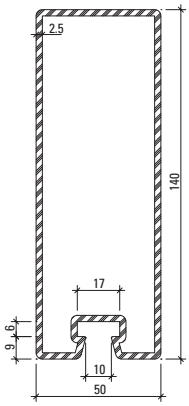
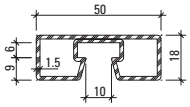
76.679 Z



76.666
76.666 Z



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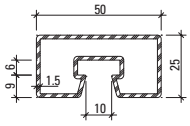

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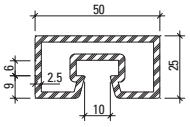

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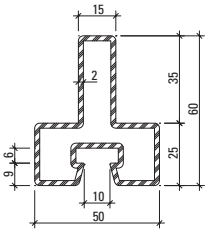

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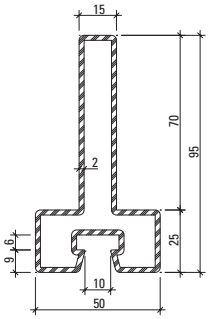

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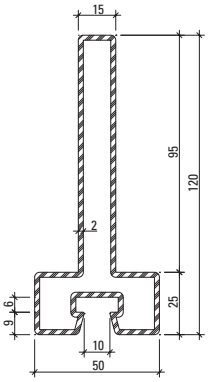
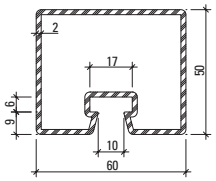


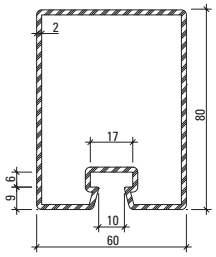
76.116

Z = strip galvanised steel

Profile range
Load-bearing profiles 60 mm



76.695
76.695 Z



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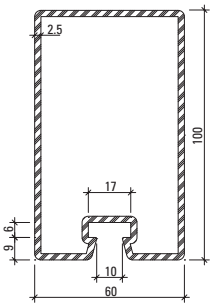

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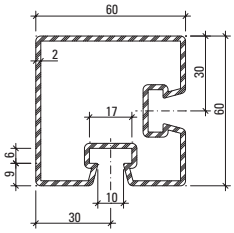

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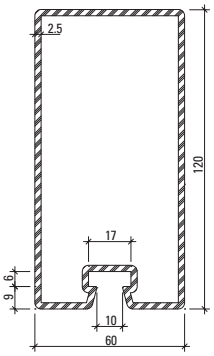

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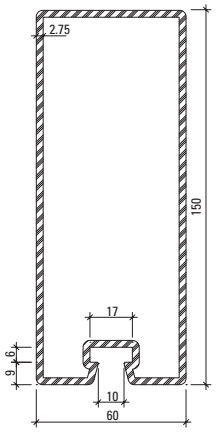

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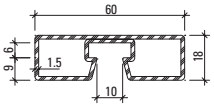
76.667 Z



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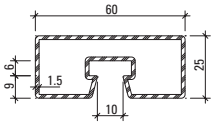

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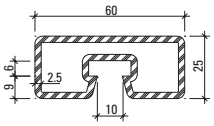

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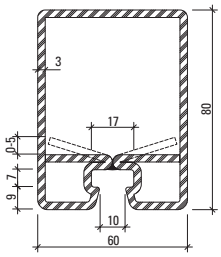

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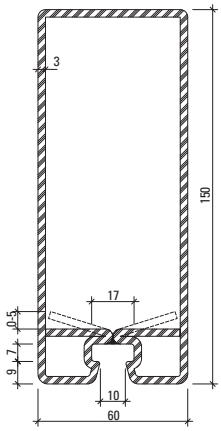

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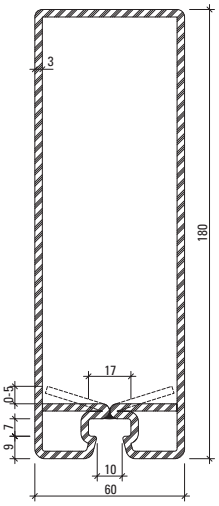
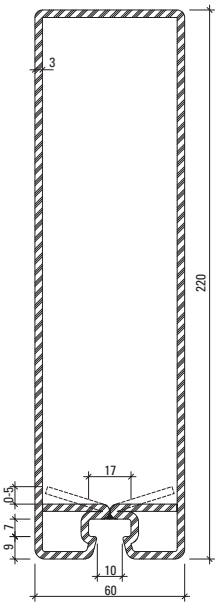
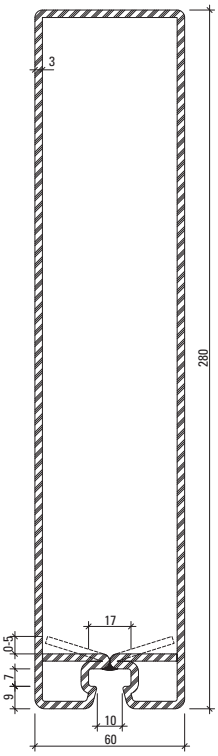


76.140 Z

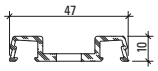


76.141 Z



76.142 Z

Cover sections
50 mm



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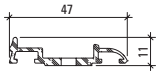

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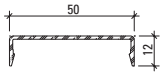

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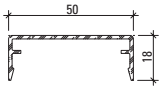

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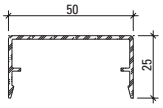

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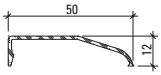

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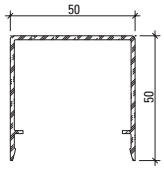

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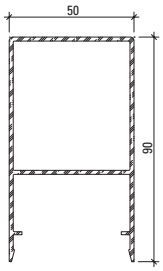

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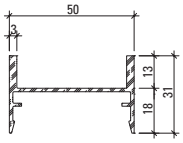

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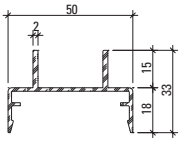

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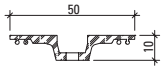
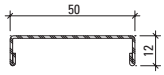


407.821

407.823

Stainless steel cover sections



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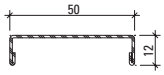

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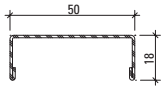

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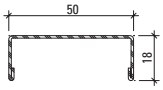
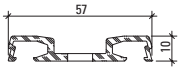


400.863

Cover sections
60 mm



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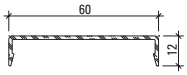

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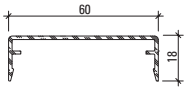

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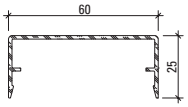

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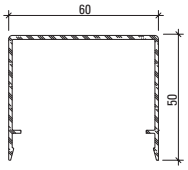

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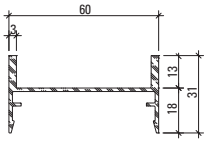

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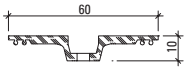


407.822

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 W/m²K.

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

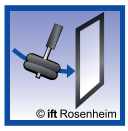
Bullet resistance
Bullet resistance tested to EN 1522/1523.
The product achieves Class FB4 NS.

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 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)

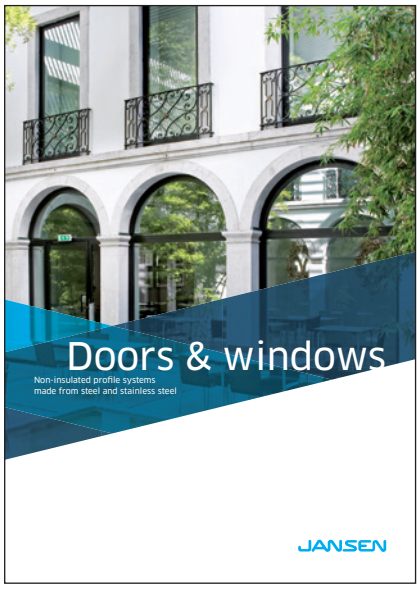
Timeless steel - sustainable use for generations
Steel offers an extraordinarily high recycling potential and its lifespan is unsurpassed in comparison to alternative materials. Windows, doors and façades made from steel and stainless steel fulfil these requirements in peerless fashion and therefore 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.

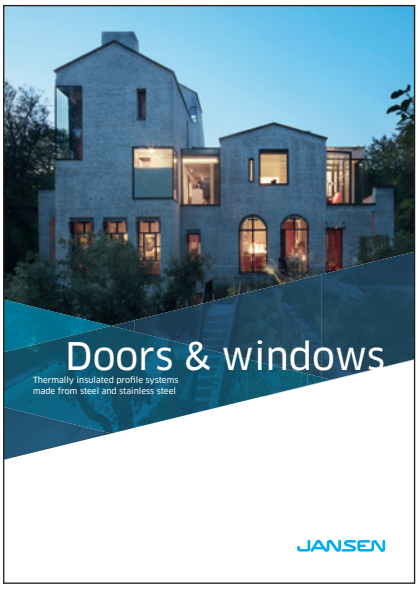
Kongresshalle am Zoo, Leipzig/DE
VISS façade / VISS Fire façade F90 / Janisol / Janisol Primo

System versatility: for every application

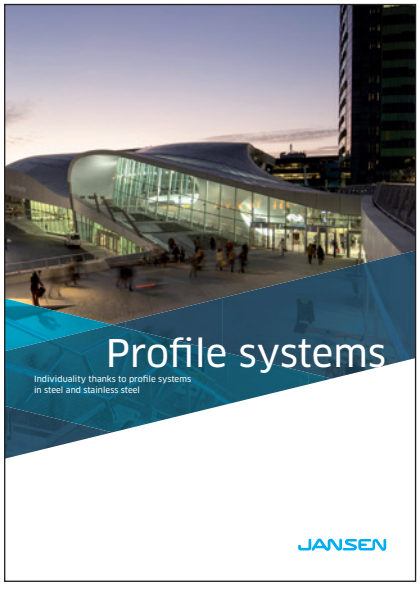


Non-insulated profile systems made from steel and stainless steel

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.

K1016983 I Steel Systems I 06.2021 I Subject to change

Jansen AG

Steel Systems
Industriestrasse 34
9463 Oberriet
Schweiz
jansen.com