



# Security facades

Transparent envelope – tough shell



Protecting lives and property. Worldwide.

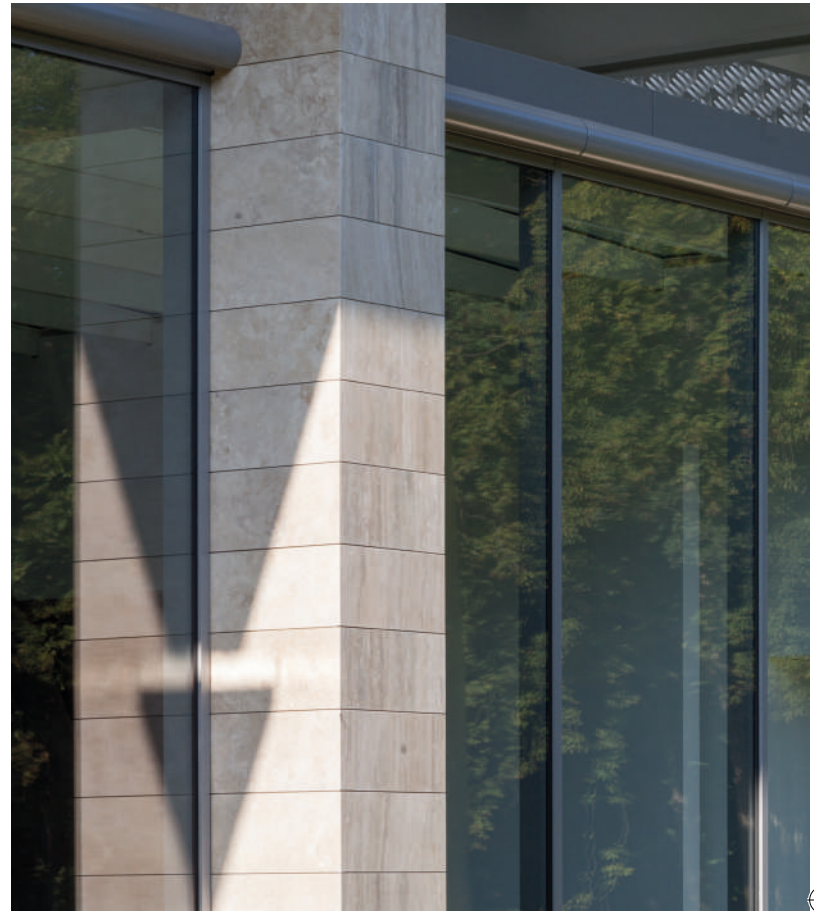
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## Security facades and partitions that combine protection and transparency

Thanks to SÄLZER's specially developed security facade, modern building envelopes composed largely of glass elements may easily be combined with differentiated security functions. The security facade by SÄLZER is a highly efficient complete solution as mullion-transom construction, available as single or double facade, as sloped roof construction or as skylight. It offers combined forced entry, bullet and blast resistance up to highest security classes. Narrow profiles and expansive glazing are joined together in one consistent design.

SÄLZER security facades have successfully run through numerous tests at independent national and international testing institutes with a variety of insert units and in different customer specific designs. Many expert opinions confirm the system's uncompromising security performance in each individual design. Integrated, holistic system development by SÄLZER enables the architect to realize unitary modern security facades and inner security partition walls that feature the same elegant design as standard facades.



### Security facades and partitions by SÄLZER – security classes and ratings



› **Forced entry resistance**  
classes up to RC5



› **Break out resistance\***  
up to class RC5, elements tested on both sides



› **Bullet resistance**  
ratings up to FB7-NS



› **Blast resistance**  
tested with 100 kg, 200 kg and 500 kg of explosives also with long pressure duration up to 200 ms (GSA2)



› **Fire and smoke protection**  
in various classes with use of Series SECUFIRE®



› **Frame materials**  
steel and aluminium

\*There are no specific testing regulations for break out resistant products. SÄLZER therefore tests both sides of their products according to the regulations for forced entry resistance as stated in DIN EN 1627-1630.



## Highest security standards – tested, certified and individually designed

Security is the uncompromising core requirement of all SÄLZER products. Not only the product itself is defined by differentiated protective aims, but also each single process step from initial design to the assembly on site.

Aiming at designing the best possible security products, our experienced employees have thoroughly studied the specific demands of different groups of customers. Decades of project execution have taught us precisely to apply the right products and strategies to achieve your individual security targets – whether in protecting private residences, court houses, embassies, military property or security-sensitive industrial facilities.

The security of all SÄLZER products is documented by certificates from accredited testing institutes, complemented by continuous internal and external quality controls. SÄLZER complies with the following recognized industrial standards:

- › Certified quality according to ISO 9001
- › External quality control by (amongst others) PfB Rosenheim
- › ECOSYS Certification: Occupational security BS OHSAS.18001 / environmental protection ISO 14001
- › Registered at the association for the pre-qualification of building companies e.V., Reg.-No. 011.080020

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## SÄLZER security facade – advantages and features

- › Combined forced entry, bullet and blast resistance up to highest security classes
- › Tested from both sides for additional break out protection
- › Combinable with all products inside the SYSTEM SÄLZER® (doors, windows etc.)
- › Mullion-transom construction, available as single or double facade, as sloped roof construction or as skylight.
- › Wide facade grids and -heights for maximum light transmission by specially developed, highly rigid frame constructions capable of handling high glass element loads
- › Narrow face widths: 50 or 60 mm
- › Many different tested and certified design variations
- › Excellent heat insulation
- › Consistent look of the facade, independent of the specific protection level
- › Customized to your individual security demands and design preferences
- › Minimum maintenance requirements

» No visible differences compared to unsecured buildings. «



## Modular system construction – with highest proportion of glass

A major benefit of products and Series inside the SYSTEM SÄLZER® is their modularity and combinability. These features constitute the basis for a highly functional and individualized construction in the framework of a design either chosen by the architect and building owner or given by the design of existing constructions.

Features and benefits of SÄLZER security facades and -partition walls:

### › Individuality and consistency

The multi-variant product range of SÄLZER offers almost infinite design opportunities for planners and architects. A great variety of profile depths, cover shells, overlay profiles and coverings enable a consistent individual look. Highest functional security even in demanding operational environments is ensured by the compatibility of all SÄLZER products.

### › Individual surface designs

The surfaces of the profiles may individually be coordinated with the overall architectural design of the building. SÄLZER offers a choice of color coated and anodized profiles as well as shells and coverings in stainless steel, stone, bronze and many different types of wood. This extraordinarily rich choice enables a highly individualized design which even meets the strict requirements for listed buildings.

### › Creativity – tested and certified

All tested and certified products within the SYSTEM SÄLZER® (doors and windows, e.g. outward opening top hung windows or double doors) may flexibly be integrated at the same security class rating as the security facades and -partition walls.

### › Elegancy and high transparency

Despite its high security rating the SÄLZER security facade is characterized by very narrow face widths of the mullion and transom profiles, which have been specially designed to bear the high static loads of large-scale security glazing.

### › Compatibility and flexibility

Windows and doors from different series within the SYSTEM SÄLZER® are compatible with each other through their identical building depths. Functional flexibility within one design line is enabled by numerous available add-on elements such as blinds (inside and outside), fixed sun protection elements, mirror coated, colored, sanded and ornamental glass, panel inserts and many more opportunities in design and function.





## Reliable security – tested and certified

Forced entry, bullet and blast resistance or protection against fire and smoke – each of these vital security functions is connected with clearly defined national and international standards and requirements of special building regulations. In order to design, build and offer reliable security products for the building security market, SÄLZER meets these requirements in each and every detail.

By multi-certification of our products and the most comprehensive experience in testing and certification SÄLZER provides access to the complete scope of building security. This expertise enables us to offer you highly developed products with combined protection capabilities, in which the original design already incorporates the idea of integrated multi-functional security requirements. As a result you will get sophisticated, elegant security systems with almost invisible multi-functionality, designed and manufactured by a multi-certified security specialist.



SÄLZER security facades and partitions have been tested according to the following testing standards and regulations:

› **Forced entry resistance – tested and certified according to:**

- DIN EN 1627-1630

› **Break out resistance –**

There are no specific testing regulations for break out resistant products. SÄLZER therefore tests both sides of their products according to the regulations for forced entry resistance as stated in DIN EN 1627-1630.

› **Bullet resistance – tested and certified according to:**

- DIN EN 1522-1523
- VPAM APR 2006
- UL 752\*
- GOST R 51112-97\*

\*On request

› **Blast resistance – tested and certified according to:**

- DIN EN 13123-2 + 13124-2 (open range test)
- DIN EN 13123-1 + 13124-1 (shock tube test)
- ISO 16933, ISO 16934, DIN EN 13541 (blast resistant glazing)
- Various tests according to customer requirements e.g. with 500 kg explosives
- Tested according to the requirements of the petro chemical industry (long duration pressure)
- ASTM F1642-04
- UFC 4-010-02
- GSA-TS01-2003 and ISO 16933

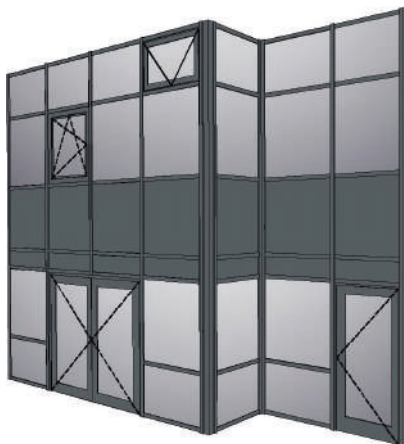
## Individual design – standardized performance

Security facades by SÄLZER are based on our highly developed proprietary profile systems. Functional security components have been integrated inside the profiles for an elegant slim design without visible outside reinforcements. This compact, integrated form of construction enables the design of "systemized unique items" on the basis of a flexible construction kit. As a customer, you receive a high performance security facade which is precisely adapted to your demands in security, design, comfort and fittings.

The planning of your security facade solution starts with your individual security requirements. You choose a security class according to the threat scenario, select a design (e.g. size, shape) and the special functionality of the facade.

SÄLZER will plan, produce and install your individual facade or partition wall according to your requirements – of course always in certified security.

### Design examples of SÄLZER security facades



› **Variety of tested design variations:**

Mullion-transom construction, available as single or double facade, as sloped roof construction or as skylight, with glass, aluminium panels or other infills.

Following elements can be integrated:

Single and multiple windows, available with turn, tilt, tilt-turn, turn-tilt window hardware, or with sliding elements or French casement windows, or with outward top or side hung window sash, optional with electric drive etc.

Single or double door, sliding elements in different design variations, e.g. glazed or with panels, as outside or inward opening door. Airlock door system with door control or escape doors with fittings according to DIN EN 179 or DIN EN 1125 can also be integrated etc.

### Building physics according to DIN EN 13830

Besides their high security function SÄLZER security facades and partition walls comply with all requirements in building physics according to DIN EN 13830 and are CE marked.



**Resistance against wind load**

Depending on the type  
up to 2.000/3.000 Pa



**Water tightness**

Depending on the type  
up to level RE1200



**Air permeability**

Depending on the type  
up to level AE



**Impact resistance**

Depending on the type  
up to level E5/I5



**Thermal insulation**

Depending on the type  
up to  $U_{cw}$  0,9 W/m<sup>2</sup>K



**Sound insulation**

Depending on type  
up to  $R_w$  46 dB

»For detailed informations regarding the tested classes and results please visit us online or refer to the respective specification sheets.

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# Security facades within SYSTEM SÄLZER® – product overview»



Aluminium facade Series S1es





## Concealed security

The SÄLZER security facade is a mullion-transom construction that has been tested in numerous customer specific design variations. It enables the perfect adaptation to building specific situations and architectural styles and offers the flexibility to integrate diverse security components into one consistent design.

On request SÄLZER also guides its clients through all procedures of testing and certifying customized solutions.

## SÄLZER Series S1es – framematerials and face widths:

### › S1es-50 AL

Frame material aluminium, face width: 50 mm; forced entry resistance\* up to RC4, bullet resistance up to FB4-NS, blast resistance tested with 100 kg, 200 kg and 500 kg of explosives(GSA2)

### › S1es-50 AS

Frame material steel-aluminium, face width: 50 mm; forced entry resistance\* up to RC4, bullet resistance up to FB4-NS, blast resistance tested with 100 kg, 200 kg and 500 kg of explosives (GSA2)

### › S1es-60 AL

Frame material aluminium, face width: 60 mm; forced entry resistance\* up to RC5, bullet resistance up to FB7-NS, blast resistance tested with up to 500 kg of explosives and tests with long pressure duration up to 200 ms (GSA2).

### › S1es-60 AS

Frame material aluminium, face width: 60 mm; forced entry resistance\* up to RC5, bullet resistance up to FB7-NS, blast resistance tested with up to 500 kg of explosives and tests with long pressure duration up to 200 ms (GSA2).

\*Tested from both sides for additional break out resistance

»For detailed informations please visit us online or refer to the specification sheet **Aluminium facade S1es**



» Security facades by SÄLZER enable modern transparent architecture even in combination with highest security demands and individual designs. «

### Security classes:



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### For highest protection inside the building

Inner security partition walls that may be customized according to specific security demands, offering transparent solutions for a modern high-class interior design. Modular system for individualized partition wall configuration with functional elements such as security windows and doors, transaction drawers and counters. The partition walls offer unobtrusive security and are available in a variety of material and surfaces, they also can be over clad with timber, stainless steel, stone, bronze and other options.

Partition walls, material aluminium:

- › Series S1es, Series S6es, Series 2es

Partition walls, material steel:

- › Series SECUFIRE® , Series S4

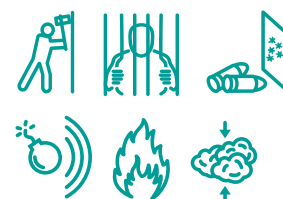


## Security partition walls (various Series)

»For detailed informations please visit us online or refer to the specification sheet **Security partition walls**

Combined protection against forced entry, bullets and blast. For the production of partition walls all SÄLZER Series can be used. If additional protection against fire/smoke is needed, we recommend the Series SECUFIRE® (steel frame).

### Security classes:



## International requirements – global references

Security is a matter of trust. SÄLZER therefore treats information on the customized security concepts and product solutions of their customers with utmost discretion. Deliberately not including specific details like project names, individual threat scenarios, security classes and building locations, we refer to the projects listed below as a selection of our worldwide references. All projects mentioned have been executed according to standards and regulations valid on site and in the home country as well as to customer specific requirements in design, function and comfort.

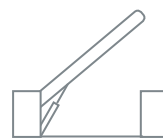
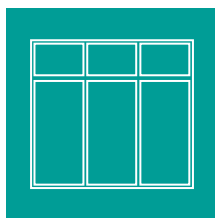
- › **Building security for embassies and administration buildings of international organizations:** security windows, doors and integral security concepts for diplomatic representation buildings in foreign countries for the states of Germany, USA, Great Britain, Turkey, New Zealand as well as for the UN.
- › **Project specific special security solutions:** Visa security cash points/bank counters; mobile and stationary guard houses in modular container design, fully equipped with e.g. x-ray machines; fully armoured outer building shells (facades, windows, doors, skylight constructions); bullet resistant and blast resistant partition walls for temporary building security.
- › **Private residences:** multi-functional security windows, -doors and -facades that comply with modern building physics and the building owners' personal protective goals; elements with expansive glazing; individualized profile surfaces in color and material; multiple shapes, designs and fitting variations.
- › **Industrial security solutions:** e.g. special security door systems for refinery plants in the Middle East; blast resistant control stations for petrochemical production plants.
- › **Special products and security concepts for the police, detention facilities and military properties:** security windows and doors for detention rooms featuring forced entry/outbreak resistance, anti-vandalism and anti-self-injury functions; entry ports with airlocks and vehicle lock for prisons; panic rooms for private clients and international organizations operating in crisis regions; security barriers for military properties for example in Afghanistan.

# Security systems for highest expectations – SYSTEM SÄLZER



As part of the Schüco Group with over 6,330 employees worldwide, SÄLZER GmbH is at the very cutting-edge of high-security technology. Our customers worldwide know that they can rely on our high-security windows, doors and façades. These offer combined protection against forced entry, bullet penetration and explosions, especially in the highest security classes. Our primary mission in everything we do is the protection of human life and values.

For more information, visit: [www.saelzer-security.com](http://www.saelzer-security.com) and [www.schueco.com](http://www.schueco.com)



SÄLZER GmbH  
Dietrich-Bonhoeffer-Str. 1-3  
35037 Marburg, Germany

Switchboard: +49 (0) 6421 938 100  
Sales: +49 (0) 6421 938 127  
Fax: +49 (0) 6421 938 190  
E-Mail: [info@saelzer-security.com](mailto:info@saelzer-security.com)

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