



# SYSTEM SÄLZER® Series S6es – Aluminium window system

Combinable protection for highest security requirements

up to RC4   up to FB4-NS   up to EXR3, EPR4 and tested with up to 500 kg explosive charges



## Security Windows

Letting in daylight –  
locking out threats



## Aluminium window Series S6es – highest security and variety in design

The characteristic product features of the aluminium window of the SÄLZER Series S6es are elegance, design variety and combinable security against forced entry, bullets and explosion.

SÄLZER has tested many design variations: single and multiple window elements, as fixed field or with turn, tilt, tilt-turn or turn-tilt window hardware, with top and side lights.

Also tested as French window, as well as outward opening window with top or side hung wings in various resistance classes.

### Tested, certified and combinable security\*



#### › Forced entry resistance

According DIN EN 1627-1630  
**up to RC4.**

Also tested as French casement window and as outward opening top and side hung window tested  
**up to RC4.**

Model range SECURON® was tested even in the tilted window position  
**up to RC3.**

Glazing according to DIN EN 356  
**up to P6B.**



#### › Bullet resistance

According DIN EN 1522-1523  
**up to FB4-NS.**

Glazing according to DIN EN 1063  
**up to BR4-NS.**

Model range SECURON® protect in the closed window position also  
**up to FB4-NS.**



#### › Blast Resistance

According DIN EN 13121-1 **up to EPR4**, peak pressure 200 kPa, the duration of the positive phase is not allowed to be less than 20 ms.

According DIN EN 131213 **up to EXR3** (12 kg | 5.5 m).  
In open range tests: with explosive loads **up to 500 kg**, reflected pressure **up to 880 kPa**, reflected impulse **1.543 kPa-msec.**

**Industry-sector-specific tests** e.g. for the petrochemical industry, peak pressure  $p_{max} = 134 \text{ kPa}$ , pressure duration  $t_{+} > 2 \text{ sec.}$

Model range SECURON® was tested even in the tilted window position with a reflected pressure **of 87 kPa**, reflected impulse **of 537 kPa-msec.**

Glazing according to SÄLZER specification

#### **Classified:**

**GSA 2** (Protection Level "Very High")  
**ISO B** (Hazard Rating "No Hazard").

\*For higher security requirements please refer to Series S2es.

Aluminium windows of the Series S6es are fully compatible within the SYSTEM SÄLZER® (doors, facades, partition walls).

## Performance at a glance

› **Variably combinable protection** against forced entry, bullets and explosions.

› **Tested as a complete element** including glazing, hardware and wall connection in various design configurations.

› **The security components are invisibly integrated into the profile.**

The SÄLZER profile systems have been specially developed for combinable security requirements.

› **The profile face widths and depths** are the same irrespective of the selected security combination and security level. This ensures a uniform appearance within a building, even with a graduated security concept.

› **Infill thickness up to 90 mm (inward opening sash) and 80 mm (fixed window / outward opening sash)** with internally flush glazing beads.

› **No visible fixings to the glazing beads are required**, due to the profile geometry and the stable design (patent).

› **The glazing is designed to be pressure and impact resistant without the requirement of bonding** into either fixed or moving frames. This ensures natural glazing rebate ventilation, controlled water flow and, if necessary, simple glass replacement.

› **The window sash is secured with our patented multipoint locking mechanism SAELOX®**. In the closed position the sash and frame locking parts interlock in 2 areas into each other.

› **All SAELOX® locking parts, on the frame and on the sash, are securely fixed and interact with the window profiles** offering a greater resistance level for both forced entry and blast applications.

› **Electronic monitoring components** such as magnetic sensors or bolt switch contacts can be invisibly integrated.

› **Window with turn hardware tested** up to a sash weight of 350 kg and tilt-turn hardware tested up to 200 kg.

### Further special design options in high security classes

› Also tested: **French casement windows and as well as outward opening top hung and side hung windows up to RC4, FB4-NS and blast tested with an explosive charge up to 100 kg.**

› Windows of the **Series S6es SECURON®** are designed to be **forced entry resistant even in tilted window position up to RC3**. They are also **explosion resistant in tilted position up to an explosive charges of 100 kg**. Reinforced and tamper-resistant security interlocks as well as special security scissors were integrated to offer this additional security feature. SECURON® windows can be opened for night cooling or ventilation in tilted window position during the day without increasing the security risk – this ensures an energy-saving limiting the need for air conditioning of buildings.

› Also tested as **French window** and as well as **outward opening window with top or side hung wings up to RC4**.

› The fixed window can be constructed as **transaction window with integrated exchange drawer**. The complete element will be designed according the requirements of the customer, additional features like intercom systems, lighting, counters etc. are available.

› The model range **METAS®** (please ask for separate data sheet) is **especially developed for the demands of police, courts and prisons**. They offer both-way protection against forced entry and breakout attempts from the inside without using grilles and prevent against suicide attempts by the inmates.



## Building physics according to DIN EN 14351-1

Besides their high security SÄLZER security windows comply with all requirements in building physics according to DIN EN 14351 and are CE marked.



### Resistance against wind load

According to DIN EN 12210  
Depending on the type of window  
up to class C5, 2.000 Pa.



### Water tightness

According to DIN EN 12208  
Depending on the type of window  
up to class E900, 600 Pa



### Air permeability

According to DIN EN 12207  
Depending on the type of window  
up to level 4, 600 Pa.



### Impact resistance

According to DIN EN 13049  
Depending on the type of window  
up to level 5.



### Thermal insulation

According to DIN EN ISO 10077-2  
Depending on the type of window  
 $U_w = 1,4 - 1,7 \text{ W/m}^2\text{K}$  (double  
glazing).

$U_w = 0,8 - 1,5 \text{ W/m}^2\text{K}$  (triple  
glazing).



### Sound insulation

ISO 140-3  
Depending on the type of window  
up to  $R_w$  45 dB.



### Life cycle test

Level 3: 20.000 cycles  
with 350 kg sash weight.

## Custom-made design

The SÄLZER aluminium profile system permits individually designed construction according to client requirements. The planner, architect and building receive their tailor-made security window which also satisfy the most exacting demands in terms of design, comfort and functionality.

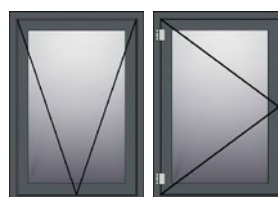
### Designbeispiele



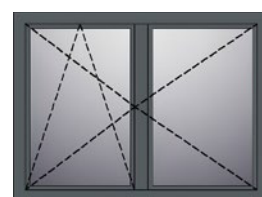
**Transaction window**  
with transaction drawer,  
intercoms and further  
equipment.



**Variety of tested design  
variations:** fixed window,  
available with turn, tilt or tilt-  
turn window hardware, with  
top and side lights  
optional: tested in tilted  
position up to **RC3**



**Outward opening top hung  
or side hung window,**  
optionally with electrical  
drive



**Available as French  
casement window**  
(openable mullion)

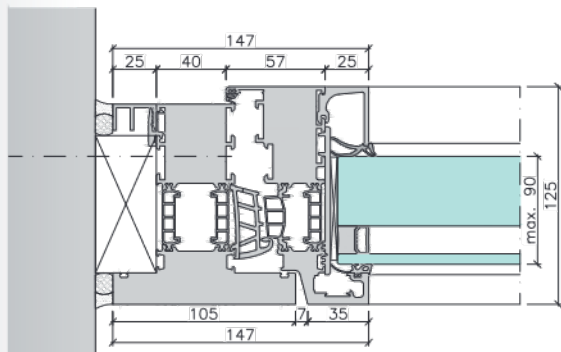


### Surface diversity

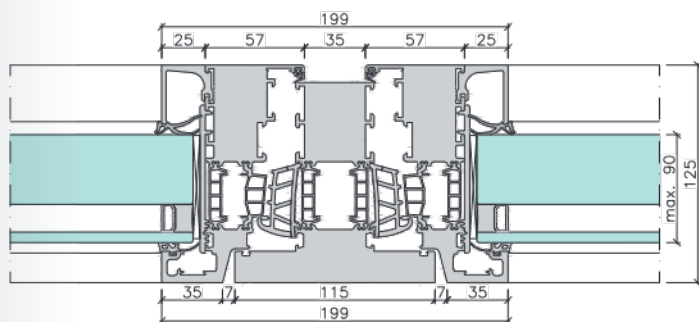
The profile surfaces can be individually adapted inside and outside to the design of the building. Powder-coated, anodised surfaces as well as over clad with timber, stainless steel, stone, bronze and other options.

## Example of horizontal / vertical section

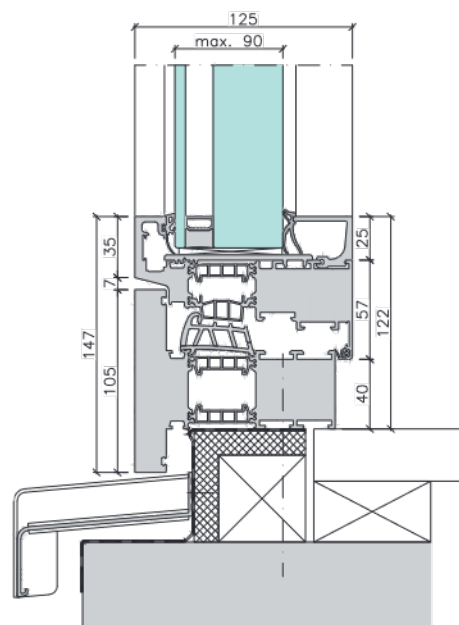
### Standard inward opening window | SECURON®



› **Horizontal section A - A**  
(Wall connection)

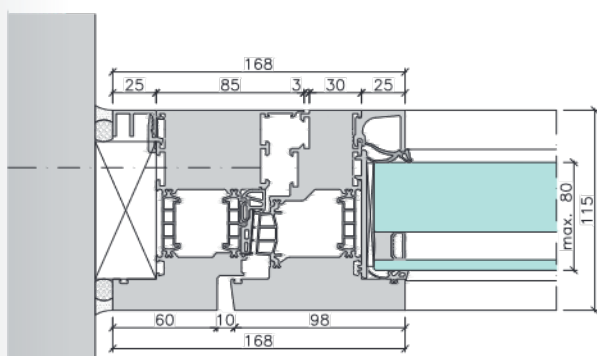


› **Horizontal section B - B**  
(Mullion inward opening window, SECURON® mullion width 150 mm instead of 115 mm)

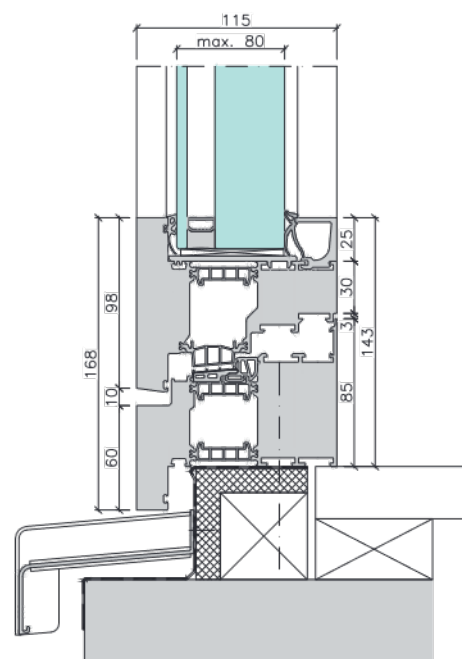


› **Vertikal section C - C**  
(Parapet)

### Outward opening window



› **Horizontal section A - A**  
(Wall connection)

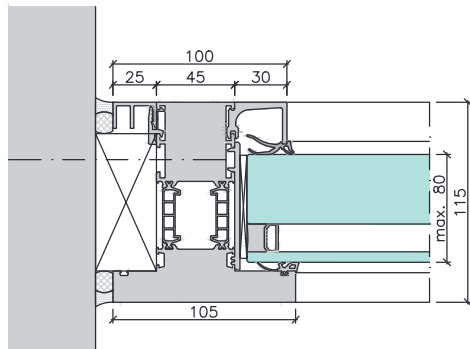


› **Vertikal section B - B**  
(Parapet)

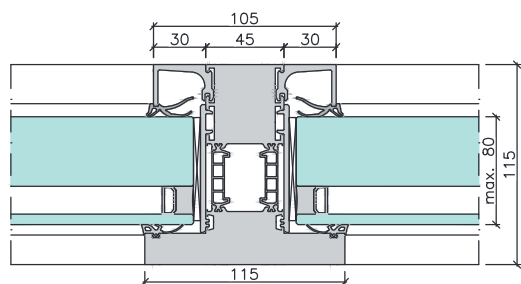


## Example of horizontal / vertical section

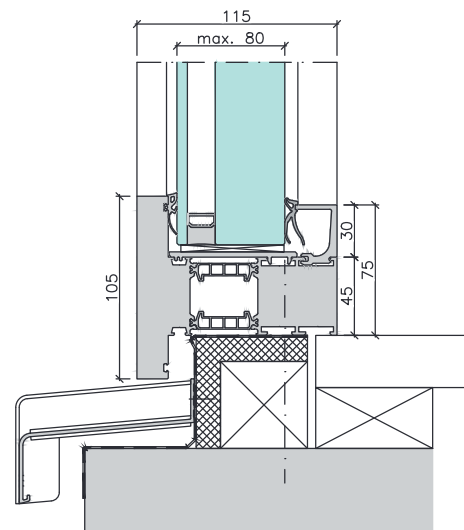
### Fixed window



› **Horizontal section A - A**  
(Wall connection - fixed field)



› **Horizontal section B - B**  
(Mullion)



› **Vertikal section C - C**  
(Parapet)



### Profil depth, profile face width and infill thickness

#### › Profile depth

|                                |        |
|--------------------------------|--------|
| Window frame, mullion, transom | 115 mm |
| Window sash (inward opening)   | 125 mm |
| Window sash (outward opening)  | 115 mm |

#### › Infill thickness

|                        |       |
|------------------------|-------|
| Sash (inward opening)  | 90 mm |
| Fixed window           | 80 mm |
| Sash (outward opening) | 80 mm |

#### › Profile face width

|                                 | Inward opening sash | SECURON® | Outward opening sash |
|---------------------------------|---------------------|----------|----------------------|
| Window frame, below             | 105 mm              | 105 mm   | 60 mm                |
| Window frame, above and lateral | 65 mm               | 80 mm    | 60 mm                |
| Mullion/transom                 | 80 mm               | 105 mm   | —                    |
| Window sash                     | 35 mm               | 35 mm    | 98 mm                |
| French door                     | 35 mm               | 35 mm    | —                    |

The inward opening window sash is the standard design.

Other profile face width are possible.

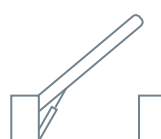
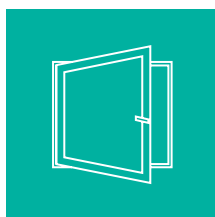
# SYSTEM SÄLZER® – Systemized security



For more than 50 years, SÄLZER GmbH, based in Marburg, has specialized in innovative high-security solutions, which have been sold and distributed worldwide to more than 90 countries. Our team of over 130 specialists design and produce high-security windows, doors, facades, and guard houses to meet the unique functional and aesthetic needs of our customers. Multi-certified and comprehensively tested, the SÄLZER System assures combined protection against forced entry, break out, bullets, explosion, fire, and smoke. Each security solution is individually developed to the highest security and resistance classes to meet the respective protection requirements. Public, industrial, and residential building owners worldwide benefit from a wide range of networkable and combinable products of all security levels.

In 2018, SÄLZER became “Part of Schüco”. Based in Bielefeld, the Schüco Group develops and sells system solutions for windows, doors and facades.

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



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