



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 $t_p > 2 \text{ sec.}$

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



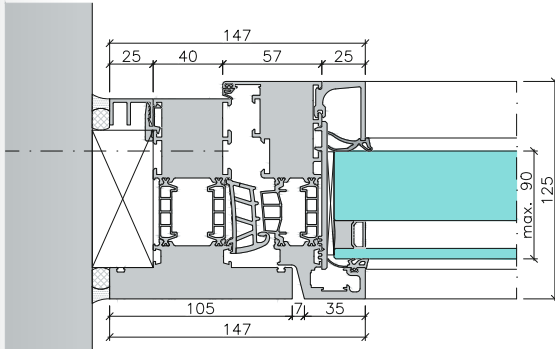
**Available as French
casement window**
(openable mullion)

Surface diversity

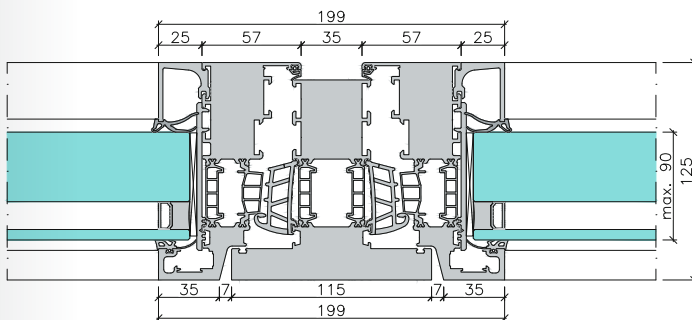
The profile surfaces can be individually adapted inside and outside to the design of the building. Powder-coated, anodised surfaces as well as over clad with timber, stainless steel, stone, bronze and other options.

Example of horizontal / vertical section

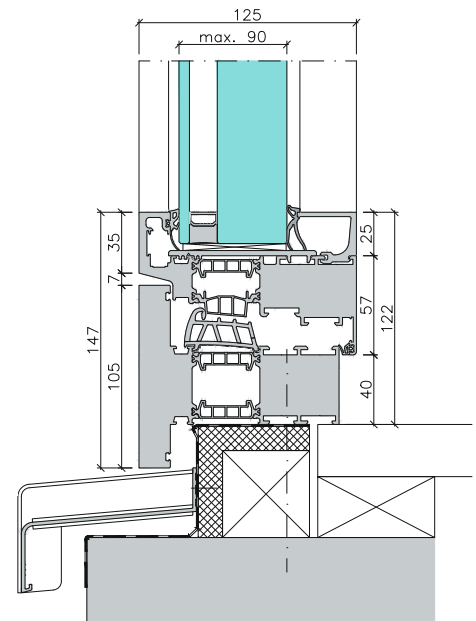
Standard inward opening window | SECURON®



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

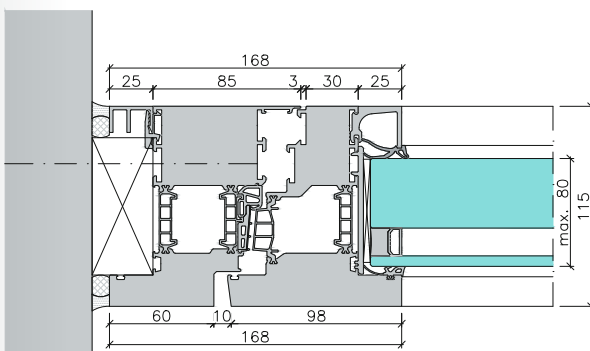


› **Horizontal section B - B**
(Mullion inward opening window, SECURON® mullion width 150 mm instead of 115 mm)

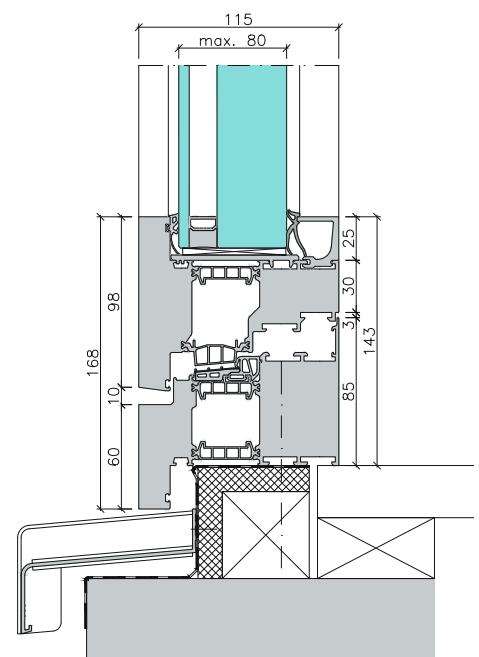


› **Vertikal section C - C**
(Parapet)

Outward opening window



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

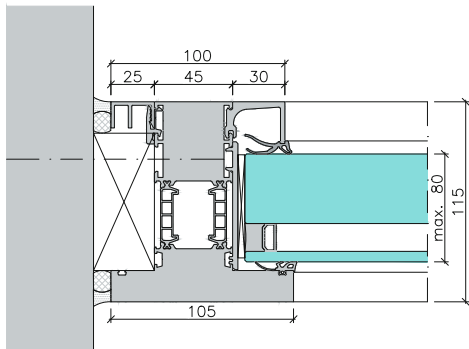


› **Vertikal section B - B**
(Parapet)

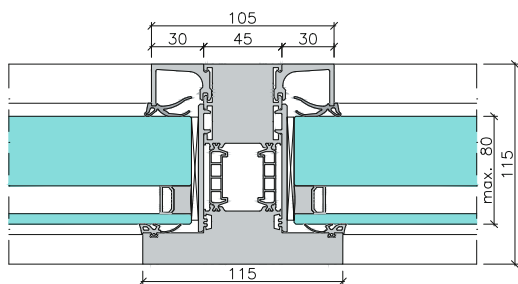


Example of horizontal / vertical section

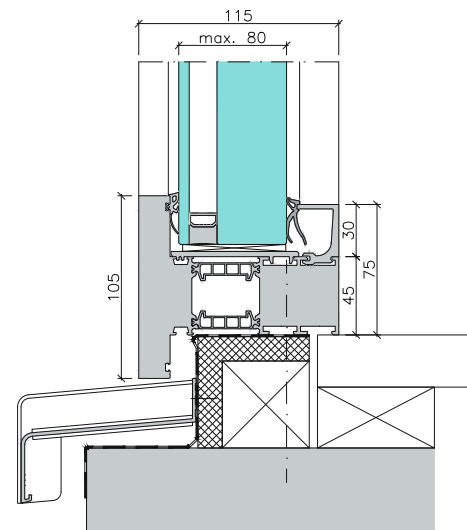
Fixed window



› **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.

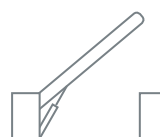
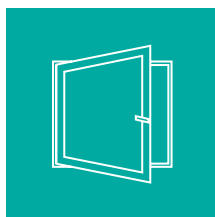
SYSTEM SÄLZER® – Systemized security



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 and www.schueco.com



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