



Security doors

Enabling access – securing protection





Security doors that integrate functional diversity

Security doors are highly complex systems. As movable building components they have to keep up their vital multifunctionality in tough everyday use. Combined security for example forced entry and bullet resistance – in some critical applications even have to be extended by blast resistance and/or fire and smoke protection. Additionally, these special doors must be prepared to elegantly integrate automated fittings, access control units and escape door technology.

Each single door function is security-related and has to work reliably and durably as part of the overall door system. Security doors by SÄLZER offer functional diversity by being individually adaptable to a whole variety of single and combined threat scenarios. In order to meet the most diverse customer demands in operating comfort and style, multiple design options have been tested and approved.

As part of a consistently transparent interior building design, security doors frequently have to be coordinated with the slim looks of glazed façades and partition walls with minor security requirements. Inside the SYSTEM SÄLZER® it is possible to choose from a huge variety of designs, frame materials, coatings and coverings for aluminium, tubular steel frame and steel sheet constructed security doors.



Security doors by SÄLZER – security classes and ratings



› **Forced entry resistance**
up to class RC5 resp. RC6
(in steel)



› **Break out resistance***
up to class RC4, elements
tested on both sides



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



› **Blast resistance**
up to class EXR5-NS,
additionally tested with
100 kg, 200 kg and 500 kg
of explosives, also with long
pressure duration up to
4.500 ms (GSA2)



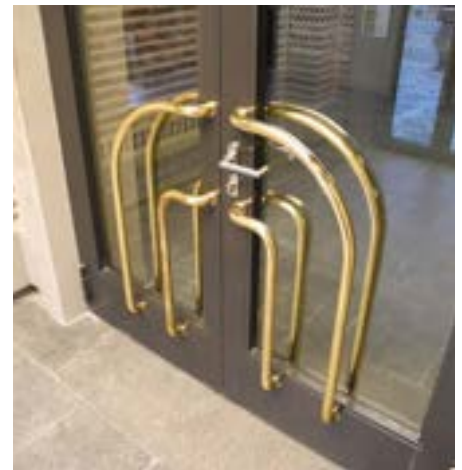
› **Fire and smoke protection****
up to class T90/EI90, S₂₀₀,
BS 476 Part 22, 120 min.



› **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.

** Approval in individual cases, based on positive test reports.



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.

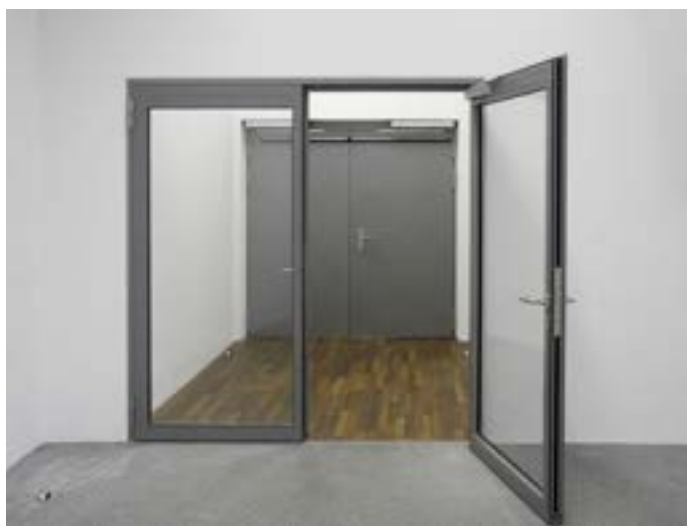
The security of all SÄLZER products is documented by certificates from accredited testing institutes, complemented by continuous internal and external quality controls. SÄLZER complies with the following recognized industrial standards:

- › 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

SÄLZER security doors – features and benefits

- › Combined forced entry and break out resistance*, bullet and blast resistance, protection against fire and smoke up to the highest security classes
- › Combinable and compatible with all products within the SYSTEM SÄLZER® (façades, windows, partition walls etc.)
- › Multitude of tested and certified design variations
- › Outstanding multi-awarded design
- › Door variations tested with a multitude of different lock types and fittings
- › Inward and outward opening door variations tested
- › Door automation e.g. door drive, motor lock, airlock control system
- › Excellent building physics characteristics e.g. in thermal insulation and sound reduction
- › Strong and robust longlife-design and low maintenance
- › Available in three different construction types as aluminium, tubular steel frame and steel sheet doors
- › Many optional extras
- › Comprehensive SÄLZER service und support from consulting and planning to production, assembly, service and maintenance

*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.



Individual configuration – customized manufacturing

Optimal planning of a security door's design and function depends on many factors. Individual security requirements, national and customer specific regulations, local climate as well as the design and the character of the building itself have to be taken into account.

SÄLZER meets these diverse requirements with a modular system kit which enables architects and building owners to compose their ideal security door considering all aspects of security, building physics, design and comfort. Staying within the proven system world of SÄLZER they will always end up with a solution that is tested and certified and at the same time meets highest design standards.

Essential features of security doors by SÄLZER:

› **Individuality**

SÄLZER offers the optimal design for every style – either for modern, industrial or historical architecture. Security properties remain as defined, while the look of the security door may be adapted to the design of a listed building, to the tough environment of an industrial facility, detention facility or military property. It may also take on the more elegant design of representative projects such as embassies, administration buildings and private residences. Of course there are also barrier-free door variations available.

› **Creativity – tested and certified**

There are almost no limits to security door design: SÄLZER offers single and double hinged or sliding doors in aluminium and steel with top and side panels. The program is completed by a multitude of possible element shapes and designs e.g. with glazing or fillings with various materials, as well as integrated security grills and louvres. SÄLZER security doors are available as inward and outward opening elements. They can be used as airlock or escape way door with fittings according to DIN EN 179 or DIN EN 1125. They may also be operated with electrohydraulic or electromechanical drives.

› **Compatibility and consistent design**

The SYSTEM SÄLZER® stands for consistent design and conceptual fine tuning. Security doors by SÄLZER are available as stand alone door systems but may also be harmoniously integrated in SÄLZER security façades and partition walls.

› **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 claddings in stainless steel, stone, bronze and many different types of wood. This extraordinarily large choice enables a highly individualized security door design which even meets the strict requirements for listed buildings.

› **Longlife low-maintenance functionality**

Despite their high door leaf weight SÄLZER security doors open and close smoothly and are robust, longlife and low-maintenance systems. Different designs and variations of each Series have successfully run through many long-term performance tests with thousandfold repeated opening and closing circles. They are specially designed for high traffic environments in heavily frequented buildings.

» The combination of highest security, functionality and award winning design. «

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.



The SÄLZER security doors are tested according to the following international standards:

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

- DIN EN 1627-1630
- DIN EN 1143-1
- SD-STD-01.01 Rev.G

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

- DIN EN 1522-1523
- VPAM APR 2006
- UL 752
- SD-STD-01.01 Rev.G
- GOST R 51112-97
- AS/NZS 1170 2.2011
- STANAG 4569
- individual tests, e. g. with caliber .338 LapMag.

› **Fire and Smoke protection – tested and certified according to:**

- DIN EN 1363-1, 1363-2, 1634-1 in combination with DIN EN 14600 und 13501-2
- BS 476 Part 22
- AS 1530. 4-2014, AS 1905. 1-2015

› **Breakout 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. Additional tests according to the regulations for cell doors of Saxony-Anhalt as well as the regulations of the VfS Hamburg.

› **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 customer requirements e. g. with 500 kg explosives
- Tested according the requirements of the petro chemical industry (long duration pressure)
- NATO STANAG 2280
- ASTM F1642-04
- UFC 4-010-02
- GSA-TS01-2003 and ISO 16933

Individual design – standardized performance

Security doors 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 door which is precisely adapted to your demands in security, design, comfort and fittings.

The planning of your security door solution starts with your individual security requirements. You can choose the security level according your threat scenario and select the design, e.g. single or double door, hinged or sliding door and the hardware etc.

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

Design examples of SÄLZER security doors



› **Glazed double sliding door with side panels**, in aluminium or as steel tube construction, also available as steel plate door with glazing.



› **Glazed double hinged door with top and side panels**, in aluminium or as steel tube construction.



› **Double steel plate door** with glazing and glazed top and side panels.

Building physics according to DIN EN 14351-1

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



Resistance against wind load
Depending on the type of door
up to class C5, 2.000 Pa



Water tightness
Depending on the type of door
up to class E750



Air permeability
Depending on the type of door
up to level 4



Impact resistance
Depending on the type of door
up to level 5



Thermal insulation
Depending on the type of door
up to U_D 1,4 W/m²K



Sound insulation
Depending on the type of door
up to R_w 47 dB



Life cycle test
Depending on the type of door
up to 500.000 cycles with 350 kg
leaf weight

»The levels and results stated are exemplary for the SÄLZER Series S6es. For detailed informations regarding the tested classes and results please visit us online or refer to the respective specification sheets.



Security doors within SYSTEM SÄLZER® – **product overview**»



Aluminium doors Series S2es and S6es

Aluminium frames and extensive glazing: Series S2es and Series S6es

Security doors of the Series S2es and S6es are manufactured in an aluminium profile construction featuring constructive elegance and variety in design. Their slim appearance with extensive glazing is connected with extraordinary ratings in building physics, while combined security levels are possible with the profiles to meet individual threat scenarios.

Low-maintenance long-term functionality is achieved both by constructive rigidity and by special fitting technology. Security doors tailored to individual requirements may be adapted to the design of a listed building, to the tough environment of an industrial facility, detention facility or military property.

They may also take on the more elegant design of representative buildings such as embassies, administration buildings and private residences.

Both Series have been tested with the most common lock variations, amongst others with escape way locks according to DIN 179 and panic locks according to DIN 1125. Up to security class RC4 the doors have been tested in variations with extremely high door leaves and extensive security glazing. The systems also constructively provide the configuration with integrated motor drives, motor locks and airlock control units.

Series S2es and Series S6es: Security classes and certified functions

› **Forced entry**

In forced entry resistance the Series represent two different performance classes:

- Series S2es up to RC5
- Series S6es up to RC4

› **Bullet resistance**

Also in bullet resistance the Series represent two different performance classes:

- Series S2es for highest bullet resistance up to FB7-NS
- Series S6es for intermediate bullet resistance up to FB4-NS

› **Blast resistance**

Both Series offer security doors in the same graduated security classes:

- blast resistance up to EXR2 and additionally tested with different loads of explosives according to customer specifications (100 kg + 500 kg explosives), reflected pressure up to 790 kPa (7,9 bar)
- blast resistant either as inward or outward opening aluminium door

› **Advantage SÄLZER:**

Higher security classes in bullet resistance are achieved solely by applying higher profile depths and thicker fillings. By doing so, door elements of higher security levels retain their slim profile face widths.

Profile depth S2es 135 mm | filling thickness 97mm

Profile depth S6es 115 mm | filling thickness 80 mm

Security classes:



› For detailed informations please visit us online or refer to the specification sheets **aluminium door S2es** and **aluminium door S6es**





Security doors within SYSTEM SÄLZER® – **product overview»**



Maximum security with attractive design: Steel door Series S4

The highest level of security for reliable long-term use in demanding environments is provided by SÄLZER security doors of the Series S4 and S4H. The use of armour steel enables extensive door leaf sizes with reduced weight and low building depths. Combined with special fittings, long-term smooth operation is guaranteed despite the higher weights characteristic of high performance security doors.

Regarding the core requirements, the Series S4 stands for the highest level of combinable security in four categories, providing forced entry resistance up to RC4, bullet resistance up to FB7-NS, blast resistance with pressures up to 2.730 kPa/EXR5, tested with up to 500 kg explosives and extended exposure to pressures up to 4.500 m/sec. Protection against fire and smoke goes up to resistance classes/ ratings T90 (EI90), S₂₀₀.

The SÄLZER Series S4 security doors have been tested with the most common lock variations, amongst others with escape way locks according to DIN 179 and panic locks according to DIN 1125. Up to security class RC4 the doors may be equipped with extensive glazing and ventilation louvres. Series S4 doors also constructively provide the configuration with integrated motor drives, motor locks and airlock control units. All multi-function features are harmoniously integrated into the overall design, which may also be individually modified and adapted to the individual architecture and style by choosing between numerous different surface coatings and coverings in diverse materials.

»For detailed informations please visit us online or refer to the specification sheet **steel door S4**



The SÄLZER Series S4 has been awarded the German Design Award 2018.

Security classes:





Security doors within SYSTEM SÄLZER® – product overview»



High security steel door Series S4HS

»For detailed informations please visit us online or refer to the specification sheet **high security steel door S4HS**

Steel door Series S4HS – additional forced entry resistance up to class RC6

In case there is a demand for even higher forced entry resistance, SÄLZER provides its clients with their most powerful security door in the range. Series S4HS has been tested according to the highest protection class within the European standard for forced entry resistance RC6. All other combinable security features are identical with Series S4 doors: bullet resistance up to FB7-NS, blast wave resistance with pressures up to 2.730 kPa/EXR5, tested with explosives up to 500 kg and tested with long duration of pressure up to 4.500 m/sec. Protection against fire and smoke goes up to resistance classes T90 (EI90), S₂₀₀°.

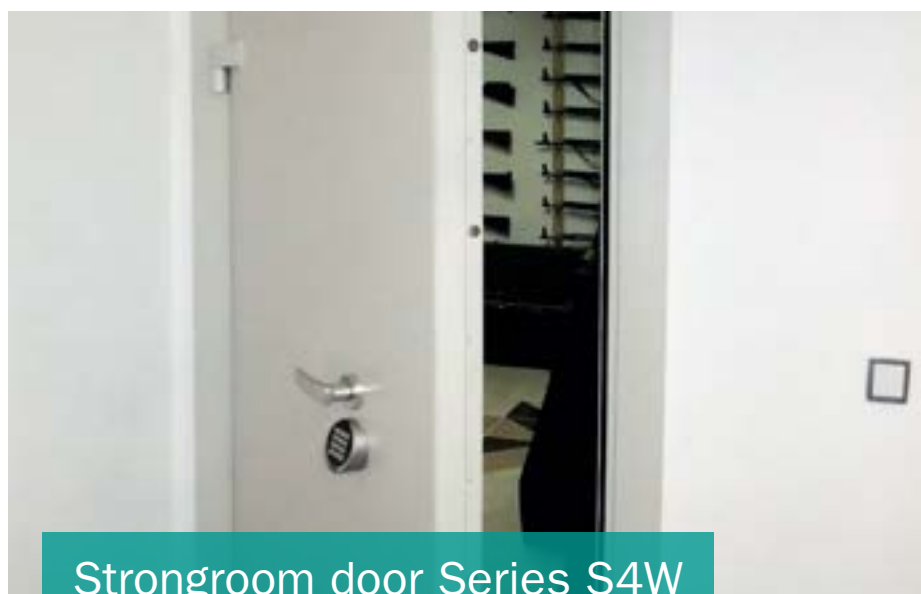
Security classes:



Strongroom and armoury doors Series S4W

Strongroom and armoury doors of the SÄLZER Series S4W are specially designed to prevent violent entry into any kind of rooms.

The doors of the Series S4W are tested according to two different standards, either according to DIN EN 1627-1630 as single and double door in resistance class RC6 or according to DIN EN 1143-1 in resistance level 0 and 1 (single door). The second performance fulfills the tighten regulation of the German firearms law.



Strongroom door Series S4W

»For detailed informations please visit us online or refer to the specification sheet **strongroom door S4W**

Security classes:





Prison and detention room door S4Z

»For detailed informations please visit us online or refer to the specification sheet **prison and detention room door S4Z**

Cell doors Serie S4Z

The security steel door Series S4Z was specially designed by SÄLZER for the use in police stations, courts, prisons and forensic hospitals. The Series S4Z offers combined protection against break out, vandalism and suicide attempts. The door was tested up to resistance level RC4 and was also tested according to the guidelines for cell doors by Saxony-Anhalt as well as the directive of VfS Hamburg.

Security classes:



Series S4T – US-DoS approved

»For detailed informations please visit us online or refer to the specification sheet **security door for the US-Department of State S4T**

Security classes:



Series S4T – Security for US-properties in foreign countries

The steel doors of the Series S4T have been tested according the requirements and specifications of the US Department of State (DoS). They offer customized forced entry and bullet resistance for US-properties abroad.

Theses special security steel doors have been tested according to DoS-Standard SD-STD-01.01 REV.G. They are available in levels from 5 min. FE up to 60 min. FE/BR. Together with the windows and louvres tested by the same standard they are applied in (CAC) guard houses that have been exclusively certified for US properties.



Security doors within SYSTEM SÄLZER® – **product overview**»



Steel frame door SECUFIRE®

»For detailed informations please visit us online or refer to the specification sheet **steel frame door SECUFIRE®**

Protecting lives with security and design:
Series SECUFIRE®

SECUFIRE® by SÄLZER – this Series stands for multi-functional doors, that due to their tubular steel frame construction feature narrow profile widths and extensive glass elements. The Series incorporates multi-functionality, security against fire and smoke, forced entry and break out* resistance as well as bullet and blast resistance in a modern, elegant design.

Security doors of the SECUFIRE® Series have been tested with the most common lock variations, amongst others with escape way locks according to DIN 179 and panic locks according to DIN 1125. Forced entry resistance goes up to security class RC4, and fire security in T90/EI90 is also included among the combinable security functions. SECUFIRE® doors also constructively provide the configuration with integrated motor drives, motor locks and airlock control units.

In order to allow a precise adaptation to individual applications and styles, the Series SECUFIRE® is divided into four different model ranges:

- › SECUFIRE® S (profile depth 83 mm)
- › SECUFIRE® U (profile depth 75 mm)
- › SECUFIRE® F (profile depth 70mm)
- › SECUFIRE® P (profile depth 65 mm)



The SÄLZER Series SECUFIRE® has been awarded with the Security Essen Innovation Award in gold.

Security classes:



*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.

» Highly developed special doors, which have been perfectly adapted to individual security demands in functionality, comfort and design. «

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 (façades, windows, doors, skylight constructions); bullet resistant and blast resistant partition walls for temporary building security.
- › **Private residences:** multi-functional security windows, -doors and -façades 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.

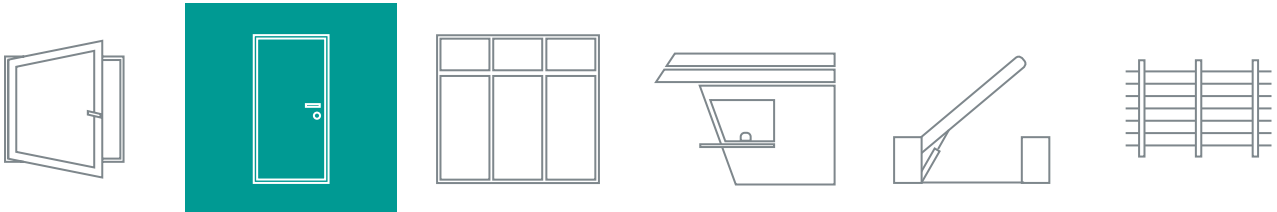
SYSTEM SÄLZER® – Systemized security



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, breakout, 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.

Further information is available at: www.saelzer-security.com and www.schueco.com



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