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# Security...

... has been in the focus of the third generation family business SÄLZER for almost five decades. Each single employee is devoted to the company and its products by their passion for building security concepts based on innovative system products – mainly doors, windows and façades which offer forced entry, bullet and blast resistance and protect against fire and smoke as well as unauthorized vehicle access.

Our fundamental principle ,protecting lives and property' is closely linked to uncompromising quality and creativity in development technology. This maxim is followed in our company and in the relationship with our clients day by day. Technological proof is delivered by more than 250 proprietary patents and about 950 test certificates for our products.

Today's increasingly complex threat scenarios with criminal or terroristic background demand an integrated planning using highly reliable, tested and certified products with multi-functional properties. A main part of our service and customer oriented philosophy therefore is to accompany our clients during each single step of their individual security project – from consulting, production and assembly to service after sales. SÄLZER even guides you through the process of the development, testing and approval of individual product designs with specific security ratings which do not yet exist in standard systems.

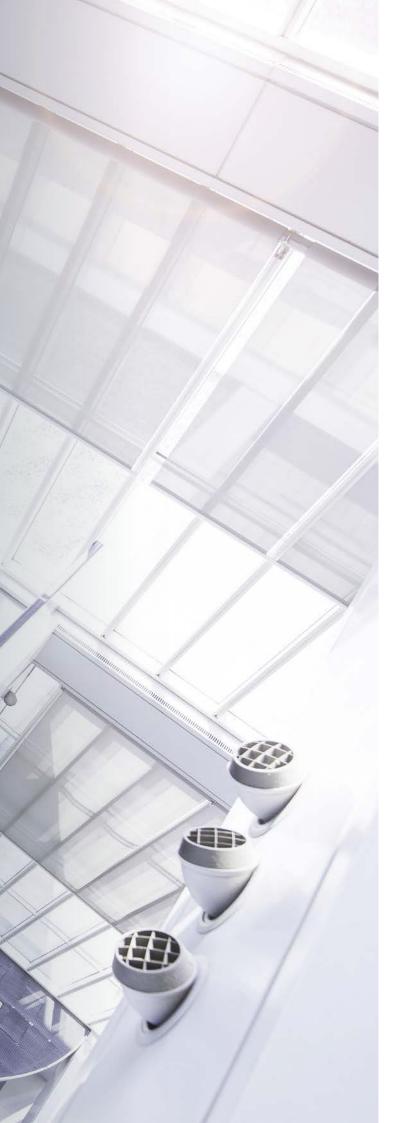
In 2018 SÄLZER became "part of Schüco". The company thus entered into a cooperation with Schüco International KG, a global leader in premium building system technology for windows, doors and façades. The opportunity to share the worldwide distribution network of Schüco will assist in an extension of SÄLZER's international activities. Our clients both at home and worldwide will benefit from this strong partnership, as service and support for our high security products will become even faster and more extensive.

Security happens, when thoughtful design, integral planning and careful execution interlock.



»www.saelzer-security.com







# **Project Security**

SÄLZER GmbH, Marburg

In principle, SÄLZER regards building security as a thoroughly planned and executed project focused on reliable protection against all potential threats. Today, SÄLZER delivers customer specifically designed doors, windows, façades, access barriers and even fully equipped guard houses to more than 90 countries around the world – including on site assembly and maintenance services!

Instead of receiving out-of-the-box products, clients of SÄLZER benefit from tailored security solutions that have been precisely adapted to their individual threat scenarios and comfort requirements in design, function and protective targets. Though highly individual in design and functional combination, system solutions by SÄLZER are always the result of intense research and development and numerous internal and official testing programmes according to European, American and multinational norms and standards (for ex. DIN, EN, ISO, UL, US-DOS, GOST). To round up the expertise, SÄLZER refers to a matchless experience from numerous demanding building security projects realized across the globe.

# SYSTEM SÄLZER® – Systemized security

## The SÄLZER series

High-level security in combination with slender frame construction and expansive glazing – SÄLZER series achieve this demanding goal by using custom developed profiles. Our proprietary designs are precisely adapted to the individual security classes by individual configuration of materials, structure, static layout, component connections and fittings. More than 250 patents and over 950 test certificates and expert opinions confirm our claim to sustainable security related reliability of our series.

The SÄLZER product range is divided into six series with individually balanced security profiles and design priorities. Taken as a whole, this "SYSTEM SÄLZER®" enables customers and planners to configure almost any of our products with combined security features including forced entry, break out, bullet and blast resistance and in some cases also fire and smoke protection. Furthermore, we have focused on versatility in design, enabling precise adaptation of our security products to individual applications as well as modern and traditional architectural styles.



























Security façades and partition walls in the SÄLZER Series S1es represent our expertise in building security in one consistent complete system solution. Custom developed patented profiles with profile face widths as narrow as 50 resp. 60 mm have been tested to resist blast waves caused by up to 500kg of explosives. Forced entry, break out\*, bullet and blast resistance may easily be combined with a modern transparent façade design.

Designed as a mullion and transom construction in either aluminium or steel-aluminium, Series S1es façades may be realized in numerous tested design variants. They are also prepared to integrate different functional elements like doors and windows. On the technological basis of Series S1es, SÄLZER also offers customer and application specific solutions including testing and certification, resulting in individual security concepts totally in line with architecture and style.

#### **Security classes**



\*Tests from both faces of the mullion and transom construction ensures security against escape attempts from the inside (break out resistance) and also forced entry resistance.

# Security classes and design variants

- S1es-50 AL frame material aluminium, face width 50 mm: forced entry resistance up to RC3, bullet resistance up to FB4-NS; blast resistance tested, e.g. with 500kg explosives, GSA2
- S1es-60 AL frame material aluminium, face width 60 mm: forced entry resistance up to RC5 (face width in RC5: 73mm), bullet resistance up to FB7-NS; blast resistance tested, e.g. with 500kg explosives and proofs with long term pressure resistance up to 2.000ms, GSA2
- S1es-50 AS frame material steel-aluminium, face width 50 mm: forced entry resistance up to RC3, bullet resistance up to FB4-NS; blast resistance tested, e.g. with 500kg explosives, GSA2
- steel-aluminium, face width 60 mm: forced entry resistance up to RC5 (face width in RC5: 73mm), bullet resistance up to FB7-NS; blast resistance tested, e.g. with 500kg explosives and proofs with long term pressure resistance up to 2.000ms, GSA2





Uncompromisingly high security levels combined with the frame material aluminium define the development targets of the SÄLZER Series S2es. We achieved this goal by combining profiles of narrow face widths and higher depths with special inner reinforcements. They are strong and resistant enough to carry the high loads of expansive triple security insulation glass units with highest thermal insulation levels. Custom developed door fittings as well as tested component connections are designed to smoothly move and carry heavy element and door loads on a long-term low-maintenance basis.

Despite their high security class ratings, Series S2es security doors, windows and partitions feature an attractive design which may be individualized in many tested and approved variants - all with elegant profile views and glazing beads without additional screw fixings. The windows of Series S2es may optionally be equipped with our patented multipoint locking mechanism SAELOX®.

#### **Security classes**







### Security classes

- , forced entry resistance up to RC6
- bullet resistance up to FB7-NS
- blast resistance up to EXR3, additionally tested with 100kg, 250kg, 500kg explosives, shock tube tests with a positive peak pressures up to 200 kPa, and proofs with long term pressure resistance up to 2.000ms, GSA2



High-end security for special applications

Forced entry resistance and break-out protection, bullet and blast resistance as well as fire and smoke protection on the highest levels – the SÄLZER Series S4 offers freely combinable solutions for multi-functional security demands. Sturdy profiles of high depth made out of high strength steel sheets are combined with the most robust doors, frames and hinges for extreme weights and heavy multi-functional glazing units. Smooth operation, long-term low-maintenance use is guaranteed by extra strong fittings and hinges.

Five different model ranges within the SÄLZER Series S4 are tailored to special and extraordinary security requirements for the construction of windows, doors and partitions in banks and prisons.



Steel door series S4 -

maximum security with appealing design

#### **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 security as stated in DIN EN 1627-1630.

# Model ranges

- , **S4** security doors and gates
- , S4Z for doors in prisons and detention rooms
- > **S4W** for armoured strongroom doors
- > **S4H** for high-security steel doors
- > S4T for windows and doors to the requirements of the US-Department of states

## Security classes

- forced entry resistance up to RC6
- break out security up to RC4, elements tested on both sides
- » bullet resistance up to FB7-NS
- fire and smoke protection ratings up to T90/EI90, S200, and tests according to BS 476 Part 22, 120min
- blast resistance up to EXR5-NS, additionally tested with 100kg, 250kg, 500kg explosives, and proofs with long term pressure resistance up to 4.500ms, GSA2





Security, constructive elegance and variety in design characterize the aluminium profiles of SÄLZER Series S6es. It features, for instance, numerous tested and approved security window variants which may be realized as outward opening top-hung and side-hung window and also as french casement window.

Two special model ranges of the SÄLZER Series S6es feature additional functions besides protection in conventional security classes: the windows S6es SECURON® offer blast resistance and forced entry resistance up to RC3 in the tilted position, wheras windows of the S6es METAS® range have been designed especially for break out security and suicide prevention in prison and detention rooms.

Within the Series S6es, doors, windows and partitions may easily be combined in one uniform design featuring elegant lines and glazing beads without additional screw fixings. Another optional feature is SAELOX® – a patented multipoint locking mechanism.

#### **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 security as stated in DIN EN 1627-1630.

# Security classes and special model ranges

- $_{\rm >}$  forced entry resistance up to RC4
- bullet resistance up to FB4-NS
- blast resistance up to EXR3, additionally tested with 100kg, 250kg, 500kg explosives, shock tube tests with a positive peak pressures up to 200 kPa, and proofs with long term pressure resistance up to 2.000ms, GSA2
- SECURON® window, blast resistance and forced entry resistance up to RC3 in the tilted window position
- METAS® window, break out resistance and suicide prevention for prison and detention rooms up to RC4



SÄLZER Series SECUFIRE® is a strong, yet slender steel tubular frame construction which features elegant multi-functional combinations of forced entry/break out resistance, bullet and blast resistance with transparent fire and smoke protection. Even if composed to elements of highest security ratings for diverse threat scenarios, the many design variants of SECUFIRE® elements retain their elegant style with expansive glazing and narrow profiles.

In order to allow a precise adaptation to individual applications and styles, the Series SECUFIRE® is divided into different model ranges for security doors, windows and partitions.

#### **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 security as stated in DIN EN 1627-1630.

# Security classes

- forced entry resistance up to RC4
- break-out security up to RC4, elements tested on both sides
- bullet resistance up to FB7-NS
- fire and smoke protection ratings up to T90/EI90, S<sub>200</sub> (smoke)
- blast resistance tested, e.g. with 100kg, 500kg of explosives, GSA2





Security grills and ventilation/weather protection louvres of SÄLZER's Series OXIR® cover a wide variety of applications in passive building security. While security grills efficiently protect against forced entry, break-out and escape attempts from outside, the combinable ventilation/weather protection louvre add bullet resistance to these functions and enable weather protected building ventilation.

System products of Series OXIR® are main structural security measures for police stations, prisons, forensic clinics as well as all kinds of industrial facilities. Police and insurance companies also recommend them for private house applications and office buildings.

#### **Security classes**





# Security classes

forced entry resistance grills: according to VdS (German association of property insurers), classes B and RC4

louvres: up to RC5

bullet resistance louvre modules only, up to FB6-NS and according to the standards of the US-Dep. of State ratings 5 min. FE and 60 min.



For checkpoints and restricted access roads, SÄLZER has developed a modular and versatile system of guard houses, containers and booths. Guard house modules are freely selectable in number and may be individualized in functional interior design. Tested and certified security is ensured by an application specific choice of security rated windows, doors, roofs and façades for all relevant threat scenarios. Forced entry, bullet and blast resistance may be combined and configured gradually according to the desired security classes.

Guard houses and booths by SÄLZER are easily adaptable to the constructive demands of specific climates and different types of electrical supply. Modules are prepared for turnkey installation, ready-to-use within 1 to 7 days after the foundation has been laid. Their compact dimensions ensure easy and economic shipping to worldwide operation sites.

#### **Security classes**







### Security classes and standards

- Combined security according to EU-standards: forced entry resistance classes up to RC5, bullet resistance ratings up to FB7-NS and blast resistance up to 3.57 bar
- Certification according to US Dept. of State: SD-STD-01.01. Rev G in classes 5 FE and 15 FE/BR for the entire guard hous
- Nato STANAG 2280-Certification: modules tested with artillery and mortar shells, classes C4/C5; suitable for application in crisis areas





Recent attack scenarios have tragically revealed the urgent necessity to integrate the security of access roads to buildings and public areas in any effective security concept. To prevent violent penetration of access areas by all kinds of vehicles, SÄLZER offers a wide range of security barriers, drop arm barriers and bollards.

All our systems for perimeter security not only offer certified functionality but also convince in their customized design with a trouble-free, low-maintenance long-term use. The latest SÄLZER development in this product category is a mobile barrier system for perimeter security which may be installed temporarily in the course of public events.

#### **Security classes**



# Security classes and standards

Barriers, drop arm barriers and bollards by SÄLZER are available according to the following standards: PAS68, US-Dep. of State SD-STD-02.01 incorporated in the standard ASTM F2656-07 (up to level K12 or M50)

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# Our performance – your benefits

7 reasons why you should work with SÄLZER:

#### 1. Tested and certified:

Our customers rely on the protection of our products in case of emergency. Through our extensive internal and external tests we ensure the reliability of our products. SÄLZER has more than 500 test certificates from approved test institutes.

#### 2. Combined protection against different threats

SÄLZER products offer protection against different threats in one product.

#### 3. Comprehensive product range, made in Germany

SÄLZER offers the complete range of products for building security: starting with the protection of the driveway for example by drop arm barriers, to guard houses, doors, windows, facades, grills and internal partition walls.

#### 4. Individuality is our standard

Each product is customized planned, manufactured and installed. Customers from all over the world rely on security concepts from SÄLZER.

#### 5. Our service: from consulting up to maintenance

Our service includes consulting, planning, production, professional installation and maintenance.

#### 6. Worldwide project experience

We have many years of experience in implementing complex projects. The projects differ in respective to the used products, order quantity, application as well as the place of installation.

#### 7. Our employees

The SÄLZER core competence is the production of innovative products in the highest security levels. The personal and professional competence of our employees is a key success factor for our company, therefore we train and educate our employees.

# 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 variants.
- **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



> SYSTEM SÄLZER® – The security system for windows, doors and façades

Owned by the third generation of the SÄLZER family and with over 100 employees, SÄLZER GmbH in Marburg develops and sells concepts that protect against forced entry, bullets, explosions, fire and smoke. In addition to windows, doors and façades in the highest security and resistance classes, the company also supplies gates, barriers, grilles, retractable bollards for perimeter security, as well as guard houses. SÄLZER supports public authorities and private building owners in Germany and worldwide with a wide range of products that can be networked and combined at all security levels. Our customers benefit from individual consultation and planning meetings as well as digital planning support in the form of AutoCAD files and specification texts.

For more information visit www.saelzer-security.com

### schüco

Schüco - System solutions for windows, doors and façades

Based in Bielefeld, the Schüco Group develops and sells system solutions for windows, doors and façades. With 5400 employees worldwide, the company strives to be the industry leader in terms of technology and service today and in the future. In addition to innovative products for residential and commercial build-ings, the building envelope specialist offers consultation and digital solutions for all phases of a building project – from the initial idea through to design, fabrication and installation. 12,000 fabricators, developers, architects and investors around the world work together with Schüco. The company is active in more than 80 countries and achieved a turnover of 1.670 billion euros in 2018.

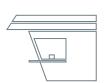
For more information visit www.schueco.com













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