

# Durable steel profiles

FOR SECURE BUILDINGS AND SAFER PEOPLE



**PROFILES THAT MEET  
HIGH DESIGN STANDARDS**

**THE STRENGTH AND BENEFITS OF STEEL**

**COMPONENTS THAT PROVIDE  
GREATER POSSIBILITIES**

 **STÅLPROFIL**



## NOD, Kista

NOD is an open public arena for companies. A place that brings together new ideas and activities and offers art, culture, science and new opportunities for collaboration. We supplied NOD with stainless steel profiles from three different profile systems: SP 976500, SP 956500 and SP 95000.

NOD has BREEAM Very Good environmental certification.



## We are steel profile experts

If you want to create secure buildings that make people safer in public settings, you're reading the right brochure. Our steel profiles are neither seen nor heard, but they can be found inside doors, entrances and glass partitions everywhere: shopping centers, hospitals, government buildings, soccer stadiums and office buildings, to mention just a few examples. Maybe you even passed one of our steel profiles today...





“We do not follow developments,  
we drive them!”

### **Impressively quick and reliable**

Stålprofil currently employs around 20 people who develop and supply secure, durable steel profiles for public settings worldwide – from embassies in China to Scandinavium in Gothenburg.

Thanks to our modern factory, our many years of experience and our solution-oriented approach, we can develop unique profiles that are tailored to your specific needs.





“Over the years we’ve conducted more than 300 fire tests.”

### **Stålprofil is the simple, easy choice**

Our steel profiles comply with stringent national and international standards for insulation and fire, burglar, bullet and blast resistance. We constantly test our steel profiles so you can always be confident that we know what we’re talking about.

We work with suppliers of fittings and glass, and have several qualified manufacturers who can supply finished partitions.



We are a quick, skilled and reliable supplier that always has a focus on customers.

Try us yourself and see; give us a call and we’ll help you with what you need!



# Steel profiles worldwide

From embassies in China and hospitals in Tallinn to soccer stadiums in Gothenburg and infrastructure projects in Malmö. We deliver safe, durable steel profiles to public settings all over the world. Whatever the project you're planning, we have the steel profiles you need to create safe, secure buildings.



## Nol Station, Ale

A commuter train station designed with few distinctive elements, partly for the sake of recognition, and also to make production of the building elements simple and practical.

Stainless steel profile systems from SP 95000 and SP 956500.



## The City Tunnel, Malmö

One of Sweden's biggest infrastructure projects. It has parallel tunnels 6 km long and a total of 17 km of railroad track. There are two new underground stations, Malmö C and Triangeln.

Stainless steel profile systems from SP 95000 and SP 9711000.



## Radiotherapy, Lund

New building at the Skåne University Hospital, designed according to the customer's wishes and standards for fire protection in accordance with the Swedish National Board of Housing, Building and Planning.

Steel profiles: SP35000 and SP79000.



## Forensic Psychiatry Center, Trelleborg

A central unit for forensic psychiatry in Skåne, whose main activity is so-called initial care. Education and research are also conducted here.

Steel profiles from systems SP 76500, SP 79000 and SP 9711000.



### Champalimaud foundation, Lisbon

A building built for cutting-edge research for better health. The steel profiles are designed to meet the standards for fire protection and appearance.

Stainless steel profiles from systems SP 976500, SP 979000 and SP 95000.



### North Estonia Medical Centre, Tallinn

One of Estonia's largest hospitals with around 4,000 employees. We delivered stylish, durable steel profiles that complied with fire protection standards. Stainless steel profiles from systems SP 95000, SP 976500, SP 979000 and SP 95000.



### IDEON Edison Park, Lund

A gathering place for innovative companies in the fields of medicine, chemistry, electronics and IT in an environment where peripheral services and various added value features are available. We supplied steel profiles from both SP 35000 and SP 76500.



### Park49, Gothenburg

A ten-story building in the center with a five-story wing on either side. Steel profiles are used in fire and burglary-rated partitions facing elevator landings, stairwells and garages: SP 35000, SP 76500 and SP 79000.



### Gamla Ullevi, Gothenburg

Home arena for three Gothenburg soccer teams and the national arena for the Swedish women's national soccer team. Steel profile system: SP56500 in the 27 spectator boxes, restaurants, gyms and retail venues (2,500 m<sup>2</sup> retail space).

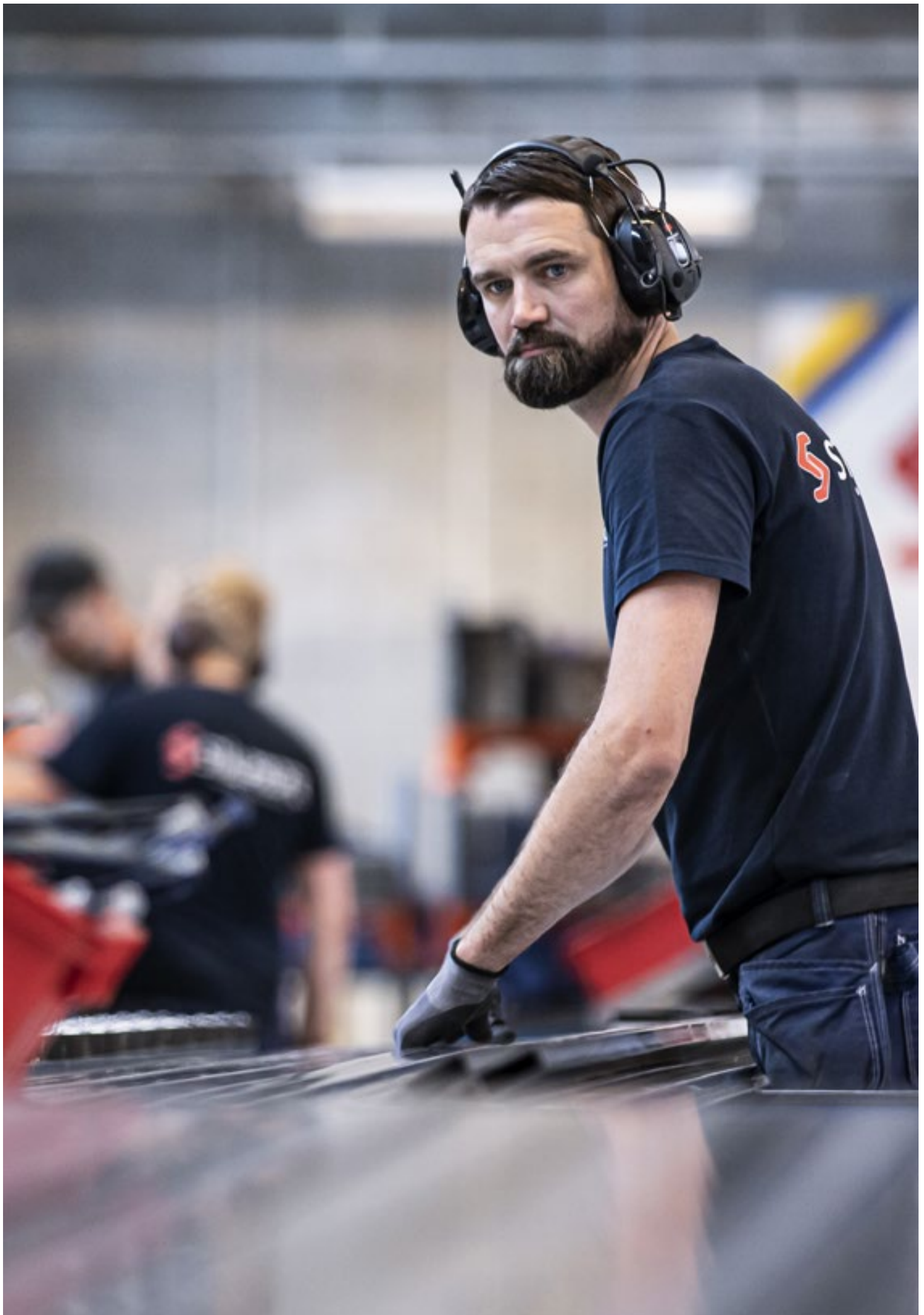


### Bilja, Sisjön

The world's largest all-Volvo facility and the first global pilot facility for Volvo Car Groups. For the entrance, we supplied steel profiles from systems SP 56500 and SP 35000, which were powder-lacquered in a selected color.

See more references at [stalprofil.se](http://stalprofil.se)





# The advantages of steel profiles

Compared with many other construction materials, steel offers unbeatable stability and durability. Even with slim dimensions, steel constructions can manage long spans, which offers light constructions with low surface pressure. Our profile systems are based on profiles without loose glued or riveted sheet metal. The profiles are welded into complete systems with seams that lend strength to the construction.



## Eco-friendly & durable

Steel has several environmentally beneficial properties. The material has an extremely long life and, compared to many other materials, significantly better resistance to external influence.

Steel emits virtually no emissions to air, water or soil. It's also fully recyclable and can be reused over and over again with excellent energy efficiency and without any loss of quality.

## Rustproof

In environments with low air humidity, the risk of corrosion is practically nonexistent, regardless of choice of steel. In increasing humidity, if there is also airborne pollution, the risk of corrosion increases. Rusting can be effectively prevented through

painting or galvanization. Acid-proof stainless steel EN 1.4404 is alloyed with molybdenum for excellent resistance to general and spot corrosion.

## Economic

A favorable price level and low total cost of ownership are two major benefits of choosing steel over other materials. Building with steel saves enormous amounts of time and money, as pillars, beams and other structural elements are supplied to the site ready for erection. This makes construction easier to plan and execute. The durability of steel also impacts construction costs, because the material's strength and lifespan minimize maintenance and replacement costs.



### Minimized energy consumption

A growing focus on energy efficiency increases demands on materials, construction and insulation in glazed partitions. Our profile systems are available in numerous varieties where insulating material and the design minimize unnecessary energy consumption.

### Great freedom of surface treatment choices

Our profiles can be lacquered in any color from RAL or NCS palettes. Stainless steel profiles can also be used unlacquered, which results in a classic, attractive construction design.

### Perukmakaren Block, Gothenburg.

The Perukmakaren Block was built in the late 1960s as a retail and office building with a large integrated parking garage. In 2013 and 2014, the parking garage and facades were equipped with new entrances and stairwells. Our steel profiles have helped to cut energy consumption by half:

SP 95000, SP 956500, SP 957000, SP 976500, SP 979000, SP 96000 stainless steel in acid proof quality EN 1.4404.

The property is LEED-certified.

## Our four steel concepts

We have four overarching concepts to choose from: uninsulated steel profiles, insulated steel profiles (with broken thermal bridges), fire-insulated steel profiles, profiles for facades and stainless steel profiles. All are available in a variety of widths and profile depths with great customization options to help find a unique profile for your particular project. Visit our website at [www.stalprofil.se](http://www.stalprofil.se) to see the classifications and safety designations our various profiles are tested for. Get in touch, and we'll be happy to help you find what you need.



## SP 300 | Uninsulated steel profiles

Steel profile systems with uninsulated and fire-insulated steel profiles for glazed doors, sliding doors, wall and window partitions.

### In brief:

Module locks  
Narrow (20 mm) and wide profiles (130, 180 and 260 mm)  
Finger trap gasket  
Arches and round windows  
Available in bullet-resistant and burglar-resistant options  
Noise reduction  
Fire-resistance class: E 30 / E 60 / E 90 / E 120 – EW 30 / EW 60 – Incl. EI 60 with special restrictions according to type approval certificate.  
Smoke-tight integrity: Sa and S200  
Sliding door fire-resistance class: E 30/A 30/EI 30  
Burglar-resistance class: 1–3 in accordance with SS 817345 and RC2 in accordance with SS EN 1627  
Bullet-resistance class: C1–C5 SF

## SP 500 | Insulated steel profiles

Insulated steel profile systems with broken thermal bridges for glazed doors, sliding doors and wall partitions.

### In brief:

Finger trap gasket  
Module lock profile 85 mm  
Narrow (20 mm) and wide profiles (130, 180 and 260 mm)  
30 mm doorframe profile  
Arches and round windows  
Noise reduction  
U-value down to 1.0 W/m<sup>2</sup> K  
Burglar resistance up to RC4 in accordance with SS EN 1627  
Bullet resistance up to FB6NS in accordance with SS EN 1522  
Blast resistance EXR 1–EXR 5 in accordance with SS EN 12123-2  
Rain and wind permeability class 3A / 6B (Door) 9A (Fixed window) in accordance with SS EN 12208  
Wind load class 3C in accordance with SS EN 12210  
Air permeability class 3 in accordance with SS EN 12207

## SP 700 | Fire-insulated steel profiles

Fire-insulated steel profile system with non-flammable insulated core approved for walls, doors, sliding doors and window partitions.

### In brief:

Finger trap gasket  
Module lock profile  
Narrow profiles & wide profiles  
30 mm doorframe profile  
Arches and round windows  
Noise reduction  
Fire-resistance class E30/E60 – EW30/EW60 – EI15/EI30/EI60/EI90/EI120 – A30/A60  
Smoke-tight integrity: Sa and S200  
Sliding door E30/EI30  
Burglar resistance up to RC4 SS EN 1627  
Bullet resistance up to FB6NS SS EN 1627



## SP 900 | Stainless steel profiles

All steel profile systems – SP 300, SP 500 and SP 700 – are offered in acid-proof stainless steel EN 1.4404 (ASTM 316L, SS 2348).

### Radiotherapy, Lund

Patients from all over southern Sweden receive treatment at the radiation therapy center at Skåne University Hospital. To meet rising needs, a new, modern building was erected for radiotherapy. It was designed according to the customer's wishes and the fire protection standards under Swedish National Board of Housing, Building and Planning construction regulations.

We delivered SP 35000 and SP 79000 steel profile systems.





## Components that create possibilities

Our steel profile systems are developed to meet the highest standards for design, safety and energy efficiency. For example, you can choose round profiles and we can use innovative solutions to adapt both profile width and depth to your preferences and project conditions.



### Module locks

When your project requires module locking, e.g. for burglar security, you can select profiles modified for module locks. These profiles were developed for lock cases with a 50 mm door depth and are suitable for doors that open inwards and outwards.

### Narrow and wide profiles

As a complement to our wide range of standard profiles, we also produce narrower and wider profiles when required. The narrower profiles only measure 20 mm, and are available in steel and stainless steel with broken thermal bridges and fire insulation. The wider profiles range from 120 to 260 mm and are also available in steel and stainless steel.

### Finger trap gasket

Are you planning to build a new school or preschool? Then finger pinch guards are a must. They are a practical solution that reduces the risk of pinch injuries. Finger pinch guards are integrated and used for both non-insulated and insulated profiles and are type-approved up to fire resistance class EI 60.

### Arches and round windows

If you are looking for doors and windows with soft, rounded shapes, there are many choices when you select our steel profiles. We can make arches, round windows and arched doors, with exactly the same characteristics as our other profiles, and which are naturally also type-approved by RISE.

## Glass, fittings and assembly

For the function and design of our steel profiles to meet their full potential, it's of course necessary for the structure in the surrounding area to be correctly dimensioned. It's also important that our steel profile systems are assembled by skilled persons according to the instructions and documentation.

We work with market-leading suppliers of glass and fittings and strongly recommend you engage one of our manufacturers.







## Fittings

In the case of fittings, our steel profiles are adapted for Scandinavian models, but also work well with fittings according to European standards. In addition to our own range, you can also choose fittings from the market's leading suppliers.

### Typical fittings:

- Door frame cable transfers
- Magnetic switches
- Striker/electric strikers
- Motorized locks
- Electric locks
- Door closers/automatic door mechanisms
- Lock cases
- Flush bolts
- Multipoint locks
- Espagnolettes
- Emergency evacuation fittings EN 179 and EN 1125
- Door handles and door pulls
- Access control systems
- Sliding door automation
- Automatic threshold seals

## Glass

It's important for us that the glass we use meets our requirements for climate, protection and security.

### For the best climate, glass must:

- allow in daylight and provide visibility
- protect against the elements
- create a comfortable indoor climate
- optimize energy consumption and environmental impact
- reduce noise and annoying sounds

### For best protection, glass must:

- provide effective protection against burglary, bullets and blast
- combine open architecture and generous light transmission with effective fire protection
- slow the spread of fire and smoke generation
- extend evacuation time in the event of a fire or emergency

### For best safety, glass must:

- be located to limit the risk of injury
- be clearly marked where it might be confused with doors
- be toughened or laminated where necessary to minimize the risk of cuts
- be designed to limit the risk of falling through the glass



## There are many good reasons to choose steel profiles

You can learn more about these reasons here. Do you get confused by all the different type-approvals, numbers and abbreviations? Relax. We've tried to avoid bewildering details, but because documented security is all important to us, you can find more information on our website or contact us for further explanation. Our steel profiles comply with the highest national and international standards in respect of fire safety, smoke-tight integrity and burglar, bullet and blast resistance. We'll be happy to help you find the best profile – the one that makes all the difference when you need it.





Visit [stalprofil.se](http://stalprofil.se) to download drawing tips, outline drawings and profile cross section – free to use!

## Fire protection

Buildings are divided into fire cells in order to prevent the spread of fire and smoke. Doors and wall partitions inside fire compartment boundaries must be type-approved. This means their manufacture must be inspected by a third party and that they must be tested and approved by a certified fire laboratory. The high temperature properties of steel make it excellent for fire protection and our fire-rated profile systems have type-approval certificates for signage from fire resistance class E 30 up to EI120. When you select a type-approved partition, you can be sure it has the correct dimensions, approved material selections, and has been assembled correctly.

### Fire resistance classes in a nutshell:

**Fire resistance class E:** gas-tight integrity, smoke/fire isolation, no requirement for heat radiation or thermal insulation.

**Fire resistance class EW:** gas-tight integrity, smoke/fire isolation, limited heat radiation (may not exceed 15 kW/m<sup>2</sup>)

**Fire resistance class EI:** gas-tight integrity and isolation – stops heat spreading.

## Smoke-tight integrity

We have steel profiles that have been developed, tested and approved for different smoke-tight integrity classifications. This means the spread of smoke and toxic gases is prevented or delayed. In 2013, a new smoke-tight integrity standard was introduced in Swedish Board of Housing, Building and Planning BBR 19, which means that door areas next to e.g. stairwells and other evacuation routes must be tested and approved according to EN standards.

## Burglar resistance

Our burglar-resistant steel profiles undergo continual testing and we have many different type-approval certificates issued by RISE. With these profiles, a break-in can be delayed and

prevented, by making both walls, floors and ceilings difficult to break through without using the noisiest methods to force entry. We also have burglary-rated glass partitions able to create open, safe and bright spaces without compromising on security.

## Bullet resistance

Our profiles meet national and international bullet resistance standards and regulations. Profiles, glass and fittings are subject to high standards. We carry out tests at our factory in Uddevalla and we also test the components and structures that may constitute weak points such as glass attachment points, corner joints, thresholds and door jambs, hinges, and lock cases with cylinders.

## Blast resistance

Our profile systems are resistant to wear and external influence. In environments with explicit safety requirements such as in the petrochemical industry, government buildings, embassies or high-speed railroad tunnels, we can supply blast-resistant steel profiles that meet comprehensive protection standards.

## Noise reduction

The choice of glass and profile type has a high impact on the spread of unwanted noise and disrupting sounds. We have complete solutions for a good sound climate.

## Evacuation

When an emergency strikes, it's crucial that a property can be evacuated quickly and without panic. Smoke-tight integrity prevents the spread of smoke while glass surfaces allow light in to make exits easier to find. The right fire protection quickly provides more time for evacuation. We can also modify the dimensions of openings for differing safety standards.



Hi!

Please give me a call if you have any questions about different protection levels and type-approval certificates.

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