

FUNCTIONS AND POSSIBILITIES

- Profiles for modular locks
- Finger trap gasket
- Arches and round windows
- U-value calculation
- Air permeability and watertightness
- Resistance to wind load
- Burglary resistance cl 1 - 3 SS 81 73 45
- Burglary resistance RC3 - RC5 ENV 1627
- Bullet resistance FB4NS - FB7NS EN1522

SYSTEM WITH THERMAL BRIDGE

Profile systems SP 56500 and SP 956500 with a thermal bridge are intended for wall, door, sliding door and entrance sections, for instance, where there are demands for insulation as well as resistance to wear and tear.

The thermal bridge core consist of a special quality water retarding and solid fibre wood. U-values have been calculated and tables for various types of glass, glass thicknesses and profile areas are available.

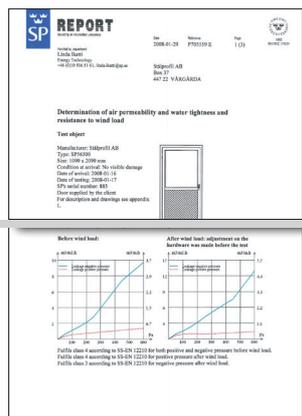
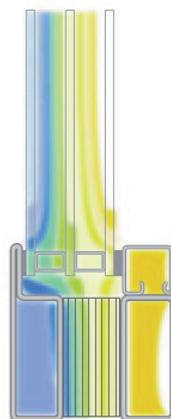
Profile share	U-value glass(midpoint), W/(m²K)			
	1.1	1.2	1.45	1.85
10%	1.4	1.5	1.8	2.1
20%	1.7	1.8	2.1	2.3
30%	1.9	2.0	2.4	2.4

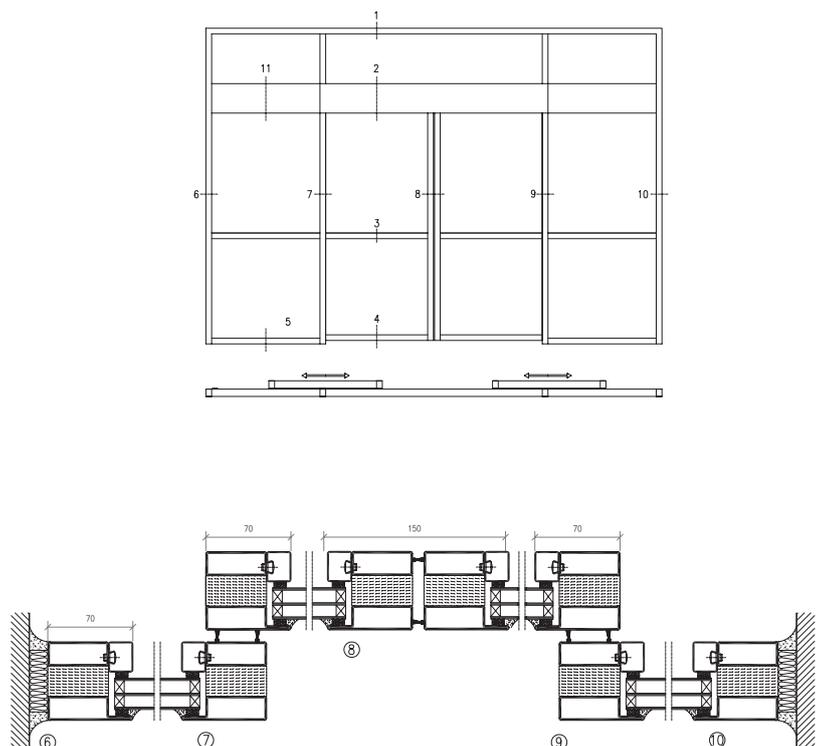
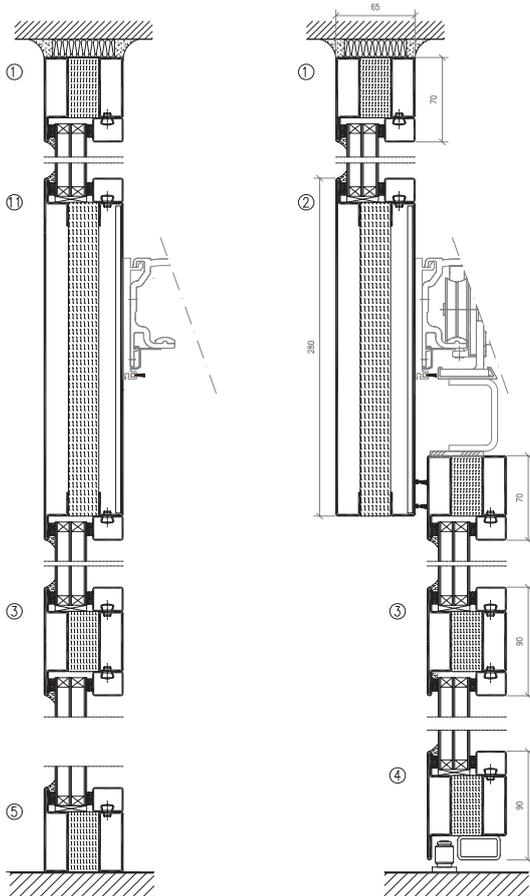
The profiles are specially designed with a track for the rubber gasket. Doors are tested up to class 4 for wind loads as per SS EN 12210, up to class 3A and 6B for watertightness as per SS EN 12208, and up to class 3 for resistance to wind load as per SS EN 12211.

SECURITY - BURGLARY RESISTANCE AND BULLET RESISTANCE

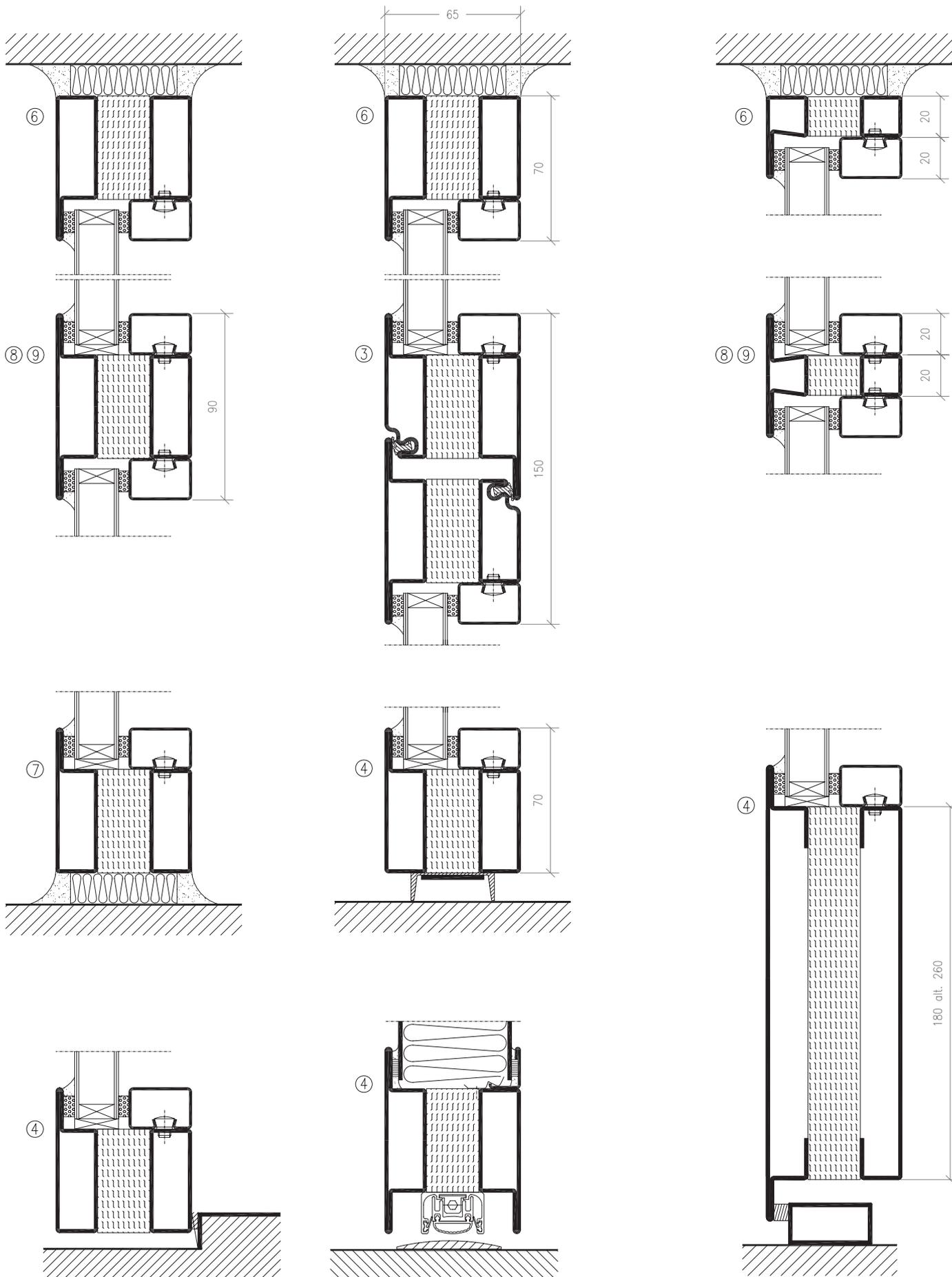
The profile depth can be varied and adapted for various glass thicknesses and various types of security glass in combination with insulated glass. SP 56500 is tested for burglary resistance up to class RC4 (RC5 filling only) according ENV 1627. SP 58000 (SP 35000 interior) is approved for burglary resistance up to class 3 as per SS 81 73 45. The profile systems SP 56500 - SP 512000 are also available with bullet resistance up to class FB7NS as per EN 1522.

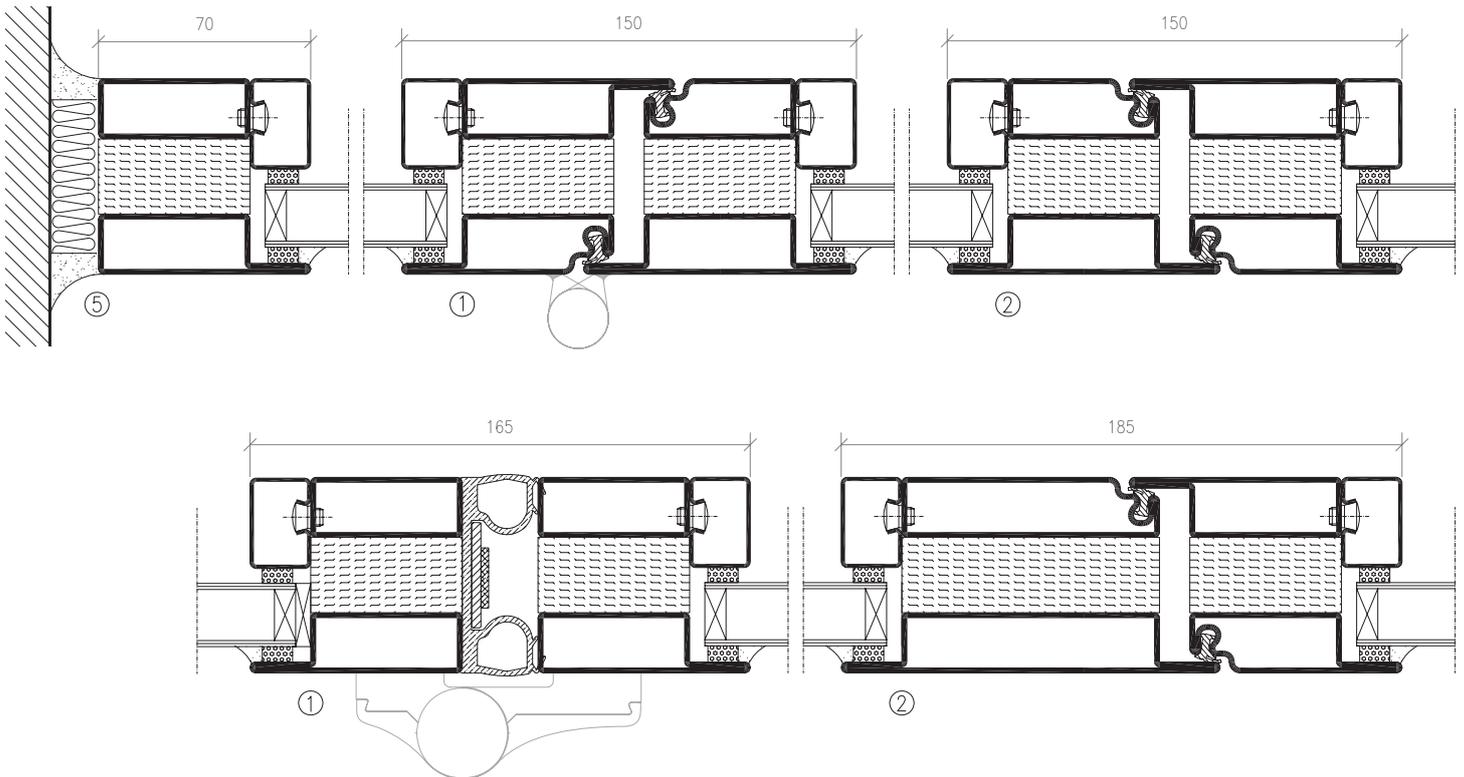
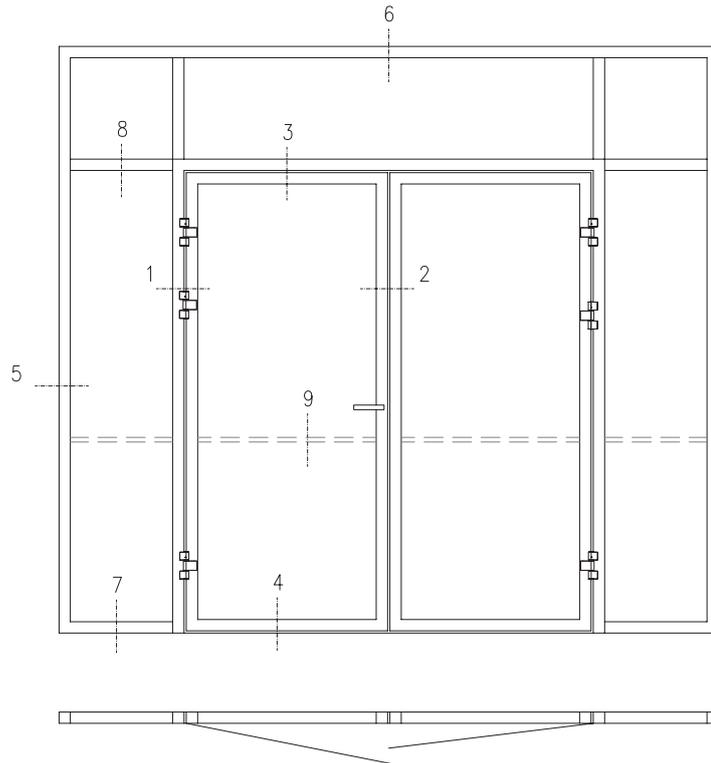
The systems have calculated U-values as well as are tested for airborne noise reduction at SP (Technical Research Institute of Sweden).



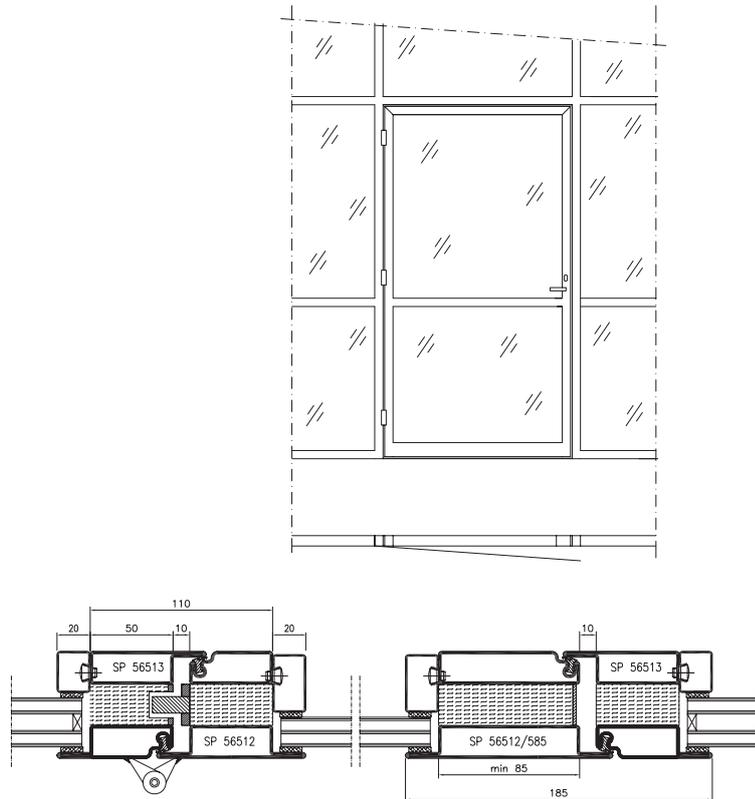
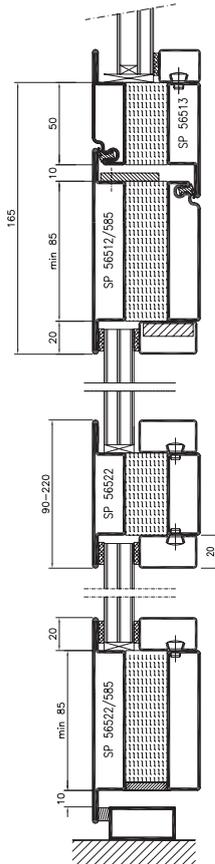


	Vers. 1	Skala 1:3	Rit.Nr. 3-565-SDD-LR0
	Titel SP 56500 / SP 956500		





	Vers. 1	Skala 1:2,5	Rit.Nr. 3-565-DD-LR0
	Titel SP 56500 / SP 956500		



Extract from principle construction for burglary resistance class 4 as per ENV 1627. Reports including detail drawings with system information, reinforcements, suggested choice of hardware, etc, are made available to fabricators of sections in Stålsprofil system.

Stålsprofil sections could be made burglary resistant according to various national and international standards and regulations. Our profile systems already have a high resistance to external wear and tear and can, with some reinforcement, comply with comprehensive security requirement standards.

BURGLARY RESISTANCE AS PER ENV 1627

Profile system SP 56500 is tested according ENV 1628 - ENV 1630 and approved up to RC 4 in accordance with ENV 1627 (up to RC 5 for sections with filling). Stålsprofil has technical approvals as issued by SITAC, which means these sections can be labelled as verified in accordance with set requirements. Sections with fire and burglary resistance in combination can also be labelled with, for instance, EI 60 and RC 4.

BURGLARY RESISTANCE AS PER SS 81 73 45

Doors in profile system SP 35000 and SP 58000 are tested and approved up to burglary resistance class 3 according SS 81 73 45.

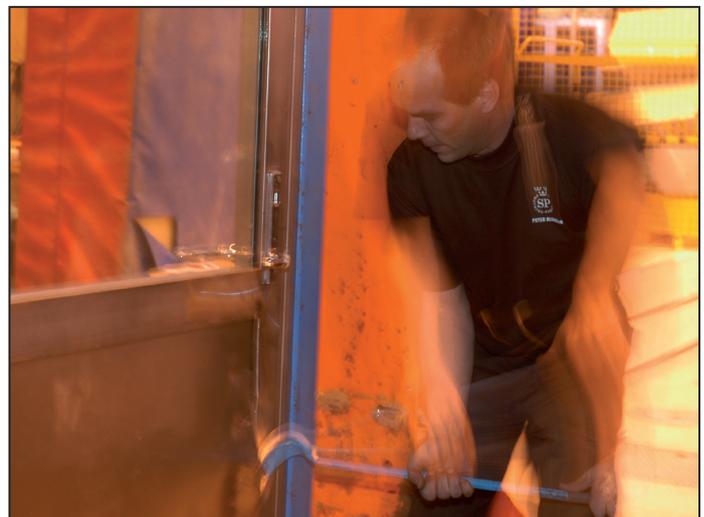
BURGLARY RESISTANCE AS PER SSF 200:4

In the Swedish Theft Prevention Association's publication SSF 200:4 is a table comparing SS 81 73 45 and ENV 1627. SSF 200:4 permits different options for fulfilling SSF's requirements for resistance up to SK 3.

GLASS AND HARDWARE

Special considerations for glass and hardware when planning burglary resistant door sections, e.g., prescription of MPL. For structures as per ENV 1627, the glass should comply with the minimum requirement as per EN 356, e.g. glass of at least class P6B for sections rated RC 4.

Note: standards for burglary resistance refer mainly to door sections.



BULLET RESISTANCE

Stålprofil systems have been tested and approved for bullet resistance in accordance with national and international standards. As per SS EN 1522 we have compliance approval up to class FB7NS. NS means that the structure showed no sign of shattering after testing.

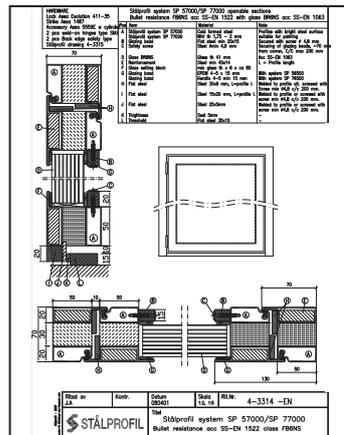
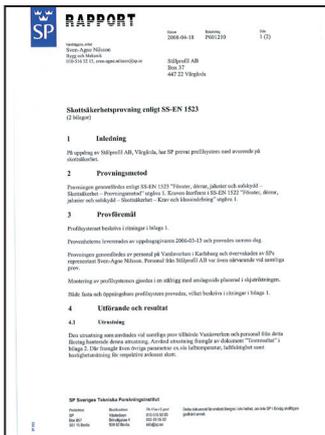
Wall and door sections are tested and comply with the requirements set out in the standards SS EN 1522 and SS EN 1523. This means that we have tested fixed and openable sections at various angles and at points where there is a risk of weakness in structures, e.g. glass installation, corner joints, threshold and door sills, hinges and cylinder lock cases, etc. Below is a table of classes and types of ammunition for each class as per SS EN 1522.

Glass should comply with bullet resistance as per SS EN 1063 class BR1NS - BR7NS. Fittings must be tested or be shown to provide similar resistance.

Tests have also been performed in accordance with UL 752 (2006) level III.

FIRE AND BULLET RESISTANCE IN COMBINATION

Sections can be labelled for each bullet resistance classes in accordance with Stålprofil's type approval certificates issued by SITAC. Sections can also be produced as a type-approved product and be labelled as being both fire- and bullet resistant in combination.



EXTRACT FROM EN 1522

Class	Type of weapon	Calibre	Bullet		Test condition	
			Type	Mass g	Test range m	Bullet velocity m/s
FB4	hand gun	.357 Mag.	FJ(1)/CB/SC	10,2 ± 0,1	5 ± 0,5	430 ± 10
	hand gun (see note)	.44 Rem Mag.	FJ(2)/FN/SC	15,6 ± 0,1	5 ± 0,5	440 ± 10
FB6	rifle	5,56 x 45 *	FJ(2)/PB/SCP ¹	4,0 ± 0,1	10 ± 0,5	950 ± 10
	rifle (see note)	7,62 x 51	FJ(1)/PB/SC	9,5 ± 0,1	10 ± 0,5	830 ± 10
FB7	rifle	7,62 x 51 **	FJ(2)/PB/HC1	9,8 ± 0,1	10 ± 0,5	820 ± 10

- CB coned bullet
- FJ full metal jacket bullet
- FN flat nosed bullet
- HC1 steel hard core, mass (3,7 ± 0,1) g hardness more than 63 HRC
- PB pointed bullet
- SC soft core (lead)
- SCP1 soft core (lead) with steel penetrator (type SS109)

- FJ(1) = full steel jacket (plated)
- FJ(2) = full copper alloy jacket

* To achieve the stated values for [5.56 x 45], the recommended barrel twist length = (178 ± 10) mm
 ** To achieve the stated values for Class FB7, the recommended barrel twist length = (254 ± 10) mm

NOTE To be classified FB4 or FB6 the specimen shall be tested with both calibres listed

