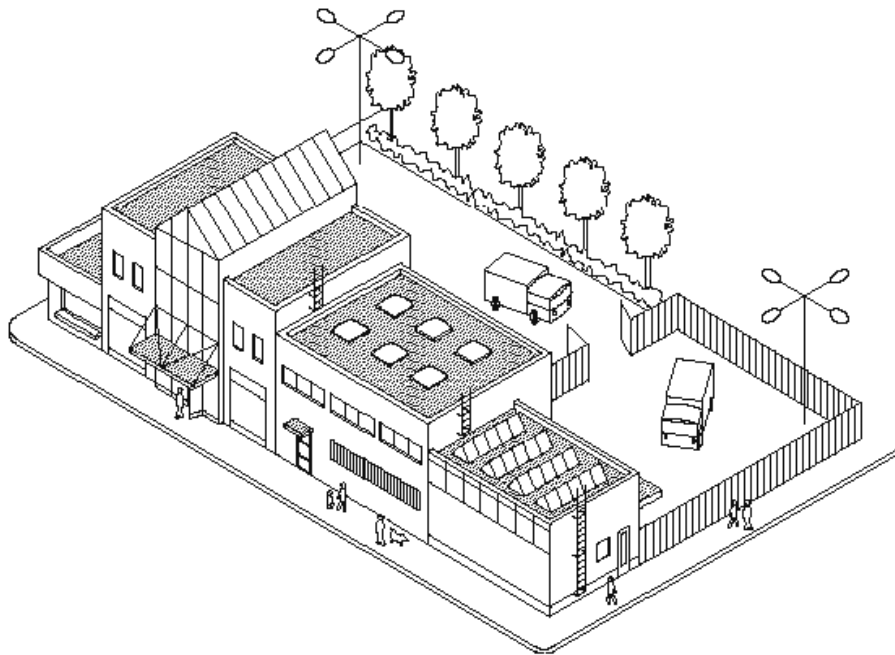




# Safety regulations for structural break-in protection 2

Safety Regulation S852, valid as of 1 April 2020



## 1. Break-in protection instructions - definitions

### Break-in

Forced entry into a locked and structurally protected space, used for storing or keeping property, by damaging the construction or the locks.

### Space used for storing or keeping the insured property (storage space)

Spaces in which the insured property is located. Storage spaces must be enclosed by fixed structures. Structures outside the building, such as balconies, canopies, porches, and loading bays, are not classed as storage spaces.

### Storage space - walls, floor, and roof

Structures surrounding the storage space, which may be either the external envelope of the building, or walls, floors or roofs enclosing other interior spaces.

### Façade windows

Façade windows refer to the windows on the side of the customer entrance to the building or commercial premises.

### Doors, windows, and other openings

Doors, windows and other openings in the walls, floor or roof of the storage space.

### Key

An identifier used to control the locking system of the premises or the door lock, which may be mechanical, electrical, or biometric.

### Lock

A device used for fixing, closing, or preventing use, which can be set to open only with the appropriate identifier or control device.

### Locking

Locks and their accompanying identifiers form a system which permits or limits the access of persons to the spaces and their movement within them.

## 2. Combating crime and the surroundings

Combating crime must be taken into account when designing a building and its surroundings. The opportunities for committing crime can be affected by designing safe, maintainable constructions and by taking care of their maintenance and repair.

The use of different areas and right of access to them can be shown by the design and implementation of the surroundings of the building. Areas that are used for

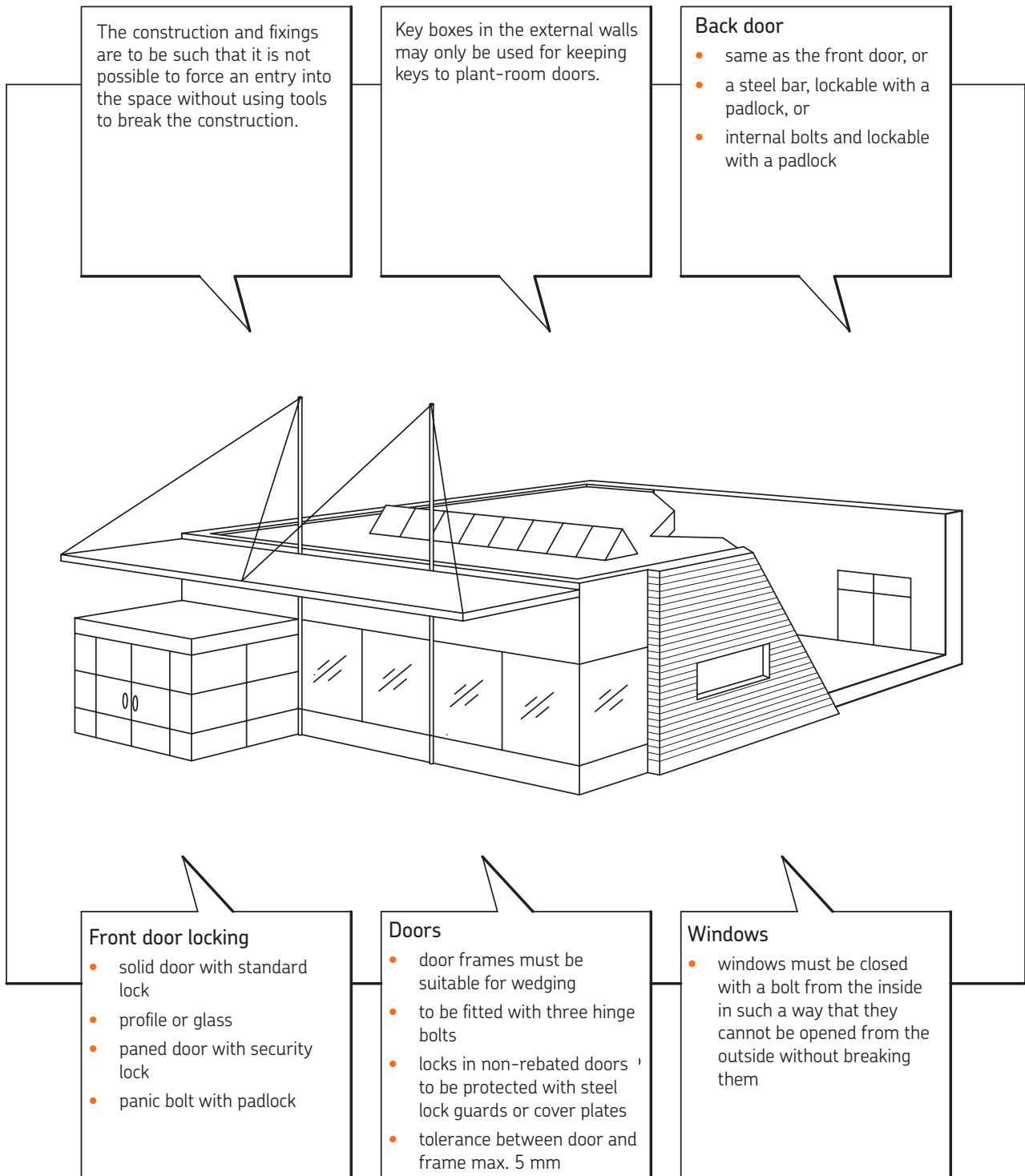
different purposes can be separated from each other by fences, bushes, clear signs, lighting, different surface finishes, or other architectural devices.

The placing of buildings and surface constructions should encourage natural monitoring. They should not act as visual obstructions to spotting persons moving about in the area. Natural monitoring means monitoring by company staff and observations by chance passers-by.

### 3. Requirements for structural protection

Here we give minimum requirements for structural protection for those fields of activity covered by Safety Regulations for Break-In Protection 2.

If property that departs from the activity class and is likely to be stolen is kept in the building or on the site, this property must be protected in accordance with the requirements of Safety Regulations for Structural Break-In Protection 3.



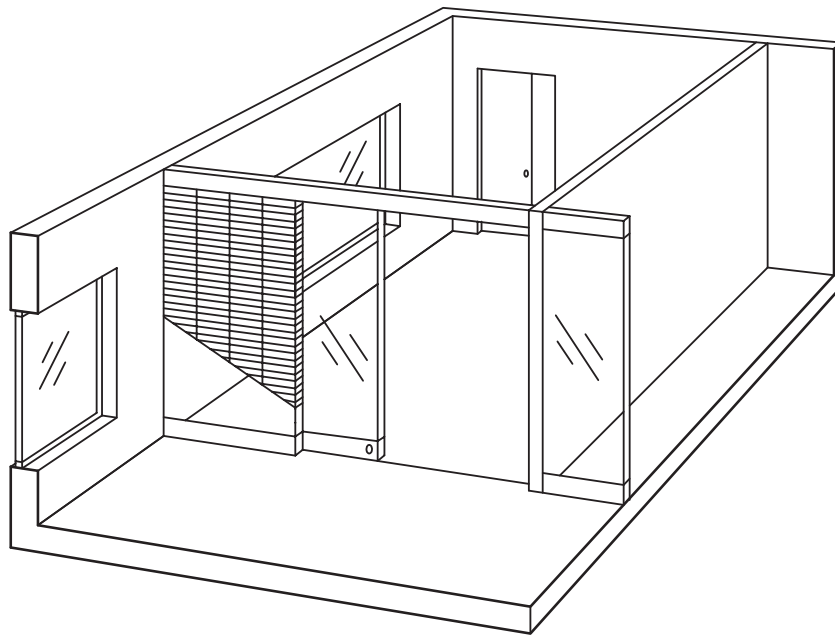
The construction and fixings are to be such that it is not possible to force an entry into the space without using tools to break the construction.

#### Back door lock

- solid door with standard lock
- profile or glass
- paned door with security lock
- panic bolt with padlock

#### Glass door locking

- security lock must be used



#### Partition walls

- approved anti burglar wall, Class 2
- light-weight partition walls to be reinforced with plywood or metal sheets

#### Fixed and moveable glass walls

- shock-resistant glass in Class P4A, or
- protected with a roller grille
- on the inside, Class 2
- on the outside, Class 3, or
- to be protected with steel grille

### 3.1 Walls, floor, and roof of storage places

The construction is to be of such strength and built in such a way that it is not possible to force an entry into the space without using tools to break the construction.

It must not be possible to remove the construction or any part of it from the outside without breaking it. A Class 2 anti-burglar wall must fulfil the above requirements. The construction of partition walls must extend from floor to ceiling. The top of a suspended ceiling may also be protected with a grille.

Light structures, such as partition walls made of gypsum building boards or lightweight aggregate blocks, must be reinforced either with 12 mm plywood or 1.0 mm sheet metal, on the side of the storage space up to the height of 4 m from the floor or other standing level.

- Glass structures, such as fixed or moveable glass walls, must be made of shock-resistant glass, at least in Category P4A or protected with a roller grille,
  - external glass protection, Class 3,
  - internal glass protection, Class 2, or
- a steel grille or steel mesh (Figures 1, 2 and 3).

FIGURE 1: STEEL GRILLE

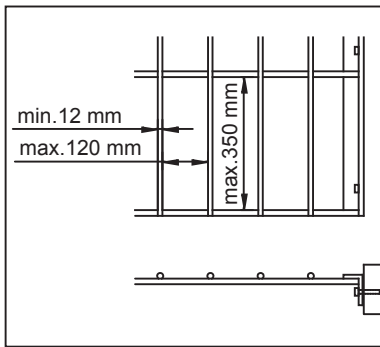


FIGURE 2: STEEL MESH

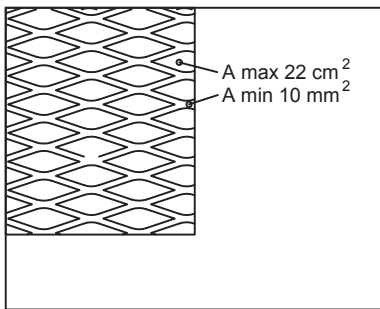
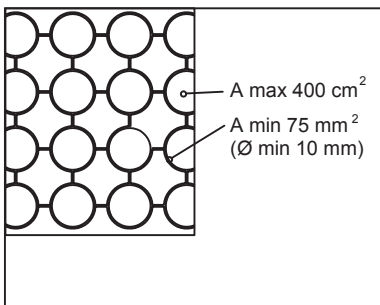


FIGURE 3: DECORATIVE STEEL GRILLE



### 3.2 Windows and openings

Window panes must be fixed and the windows closed in such a way that they cannot be opened or removed from the outside without breaking them.

With the exception of the facade windows on the external wall of the building, the other windows and skylight windows must be of shock-resistant glass in Class P4A, or they must be protected with a fixed or locked

- a roller grille,
  - external glass protection, Class 3,
  - internal glass protection, Class 2,
- steel grille or steel mesh (Figures 1, 2 and 3), or hatch shutter.

Other openings, such as smoke and air intake vents, must be protected with a fixed or locked steel grille.

The protection requirement does not apply to a window or opening that is at a height of at least 4 m from the floor or other standing level.

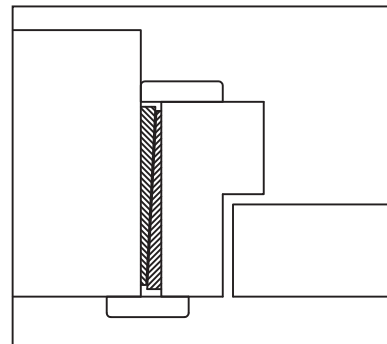
### 3.3 Doors, hinges, and frames

The construction of the door must be equivalent in strength to the wall structure.

The construction of the door must be as follows:

- The frame must be wedged into the structures at the locks and hinges (Figure 4).

FIGURE 4: FRAME WEDGING



- Hinge bolts are to be fitted on the hinge side of the frame at the hinges (Figures 5 and 6).
- The tolerance between the door and frame on the locking side may not exceed 5 mm (Figure 7).
- Locks in non-rebated doors to be protected with steel lock guards or cover plates (Figure 8).
- In a glazed door, the glass must be fixed in such a way that it cannot be removed from the outside without breaking it.

FIGURE 5: INSTALLATION OF HINGE BOLTS

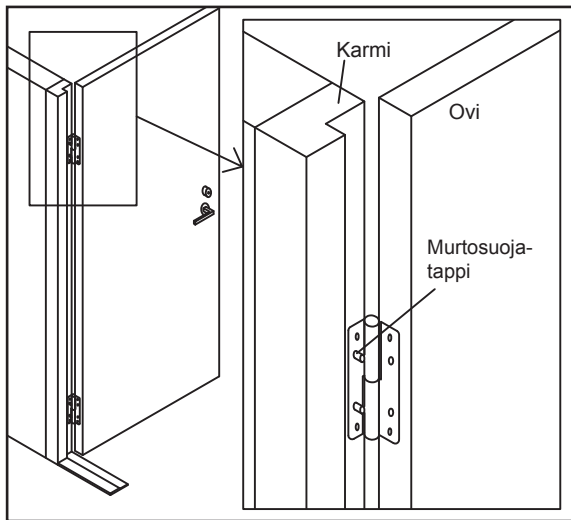


FIGURE 6: HINGE BOLTS

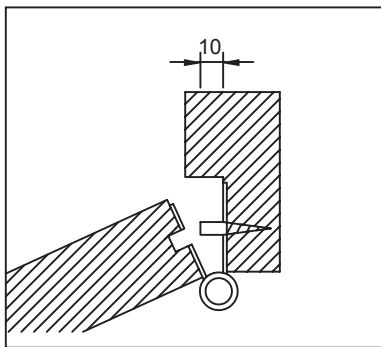


FIGURE 7: TOLERANCE BETWEEN DOOR AND FRAME

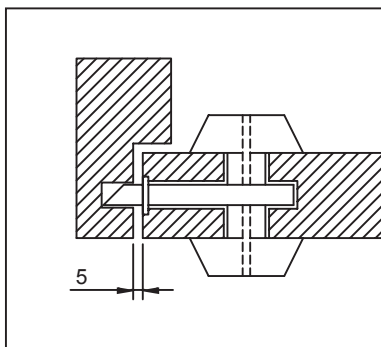
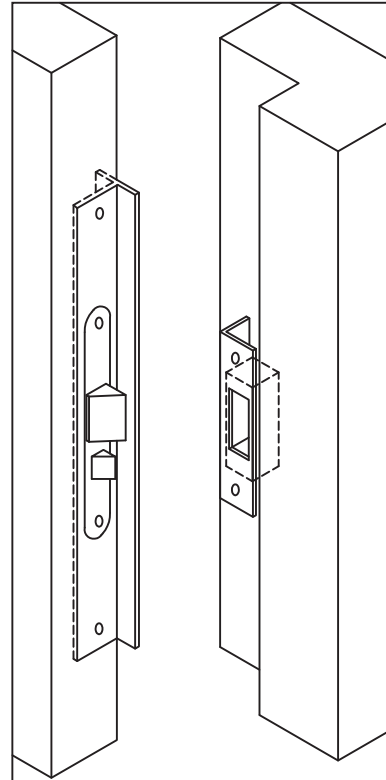


FIGURE 8: STEEL LOCK GUARD FOR NON-REBATED DOOR



Door glazing or glass in the immediate vicinity of doors (e.g. vestibules) must be made of shock-resistant glass or be protected with

- a roller grille,
  - external glass protection, Class 3,
  - internal glass protection, Class 2,
- a steel grille or steel mesh (Figures 1, 2 and 3).

A Class 2 anti-burglar door must fulfil the above requirements.

## 4 Locking

### 4.1 General

Doors which separate the space must be locked with EN standardized locks.

A Class 3 padlock may be used instead of a standard lock and a Class 4 padlock instead of a security lock.

When locking a door with padlocks, they must be:

- on the outside, at least Class 4 including fixings
- on the inside, at least Class 3 including fixings.

If there are not normally people in the space, the locks are to be double-locked and the panic bolt on double doors is to be locked. The lock is double-locked when the latch is immobilized in the locked position.

## 4.2 Locking of doors

Single-leaf doors (Figures 9a, 9b, and 10)

- The door must be locked with a standard lock and security lock, with the latches 40 cm apart.
- The distance between the latches of locks in glass doors may be more than 40 cm.

FIGURE 9A: SINGLE-LEAF SOLID DOOR

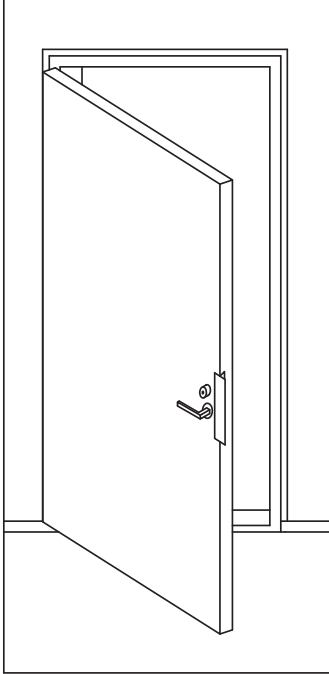


FIGURE 9B: SINGLE-LEAF PROFILE DOOR

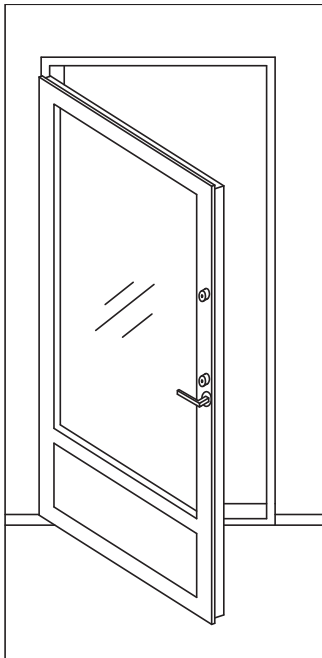
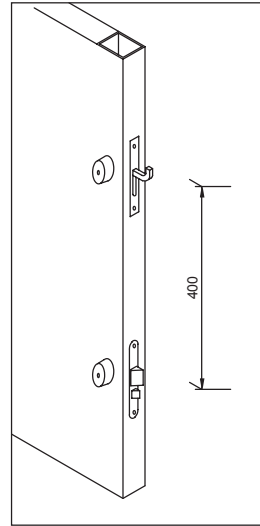


FIGURE 10: PROFILE DOOR WITH STANDARD AND SECURITY LOCKS



Double doors (Figures 11, 12, and 13)

- Double door active leaf to be locked as a single-leaf door. Inactive leaf to be closed with a panic bolt locked with a minimum Class 2 lock or in some other equivalent manner to prevent the panic bolt from being opened.
- Double doors may also be locked with a standard lock and a steel bar locked with a padlock or internal bolts and a padlock.

FIGURE 11: PROFILE DOOR

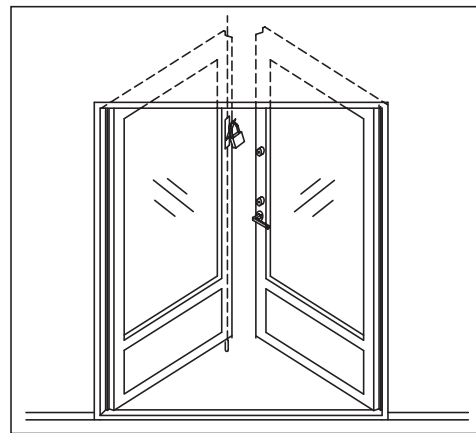


FIGURE 12: DOUBLE FLUSH DOOR

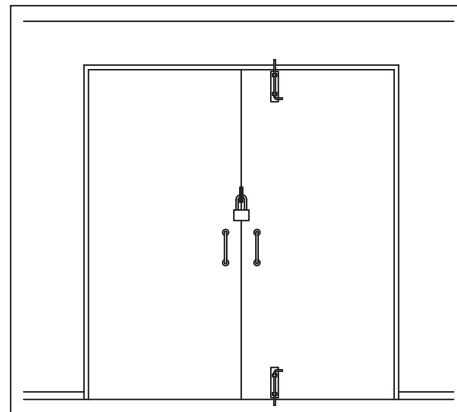
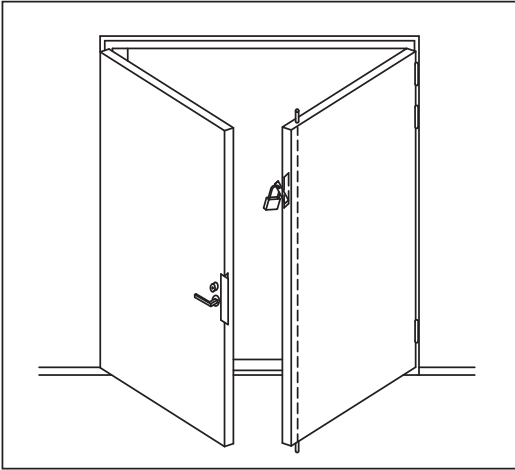


FIGURE 13: DOUBLE FLUSH DOOR



Up-and-over, folding, and sliding doors (Figures 14 and 15)

- The doors must be locked with two padlocks.

FIGURE 14: UP-AND-OVER DOOR

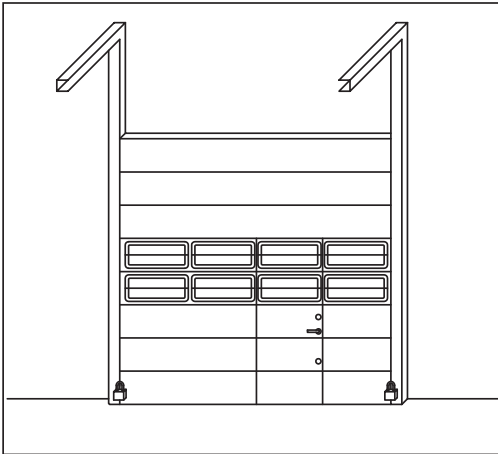
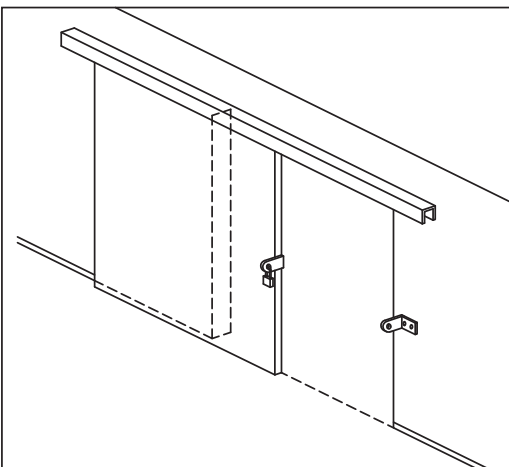


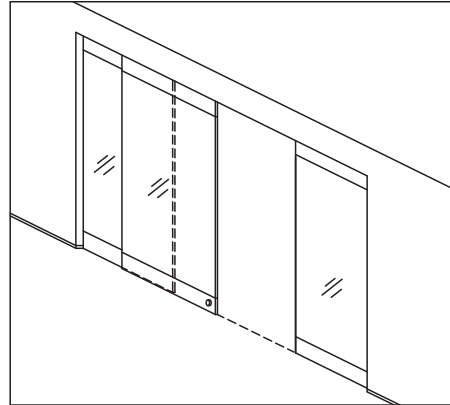
FIGURE 15: SLIDING DOOR



Moveable glass walls and sliding glass doors (Figure 16)

- The door is to be locked with two locks.
- The distance between the latches may be more than 40 cm.

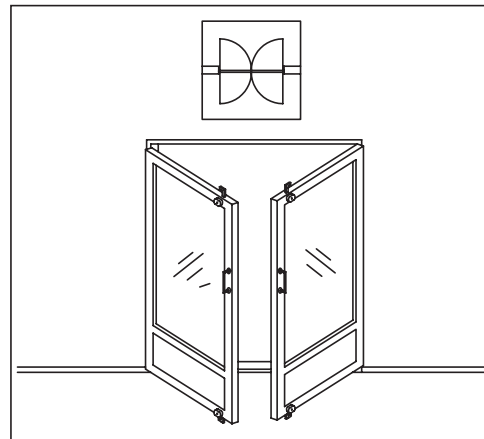
FIGURE 16: MOVEABLE GLASS WALL, SLIDING GLASS DOOR



Double-swing doors (Figure 17)

- Locking as for double doors, or
- both leaves to be locked with security locks, top and bottom, or
- one leaf to be locked with security locks, top and bottom, with the other leaf locked to it as a single leaf door.

FIGURE 17: DOUBLE SWING DOOR



### 4.3 Locking of grilles

Standard grilles and roller grilles are to be locked with two locks, the same way as up-and-over and folding doors.

## 5 Key safety

The company or organization must have a person responsible for locking, whose tasks include the maintenance of the users' key instructions and user induction.

- Their tasks also include:
- maintenance of the key registry,
- supervising the handover, returns, and loans of keys,
- rekeying, and ordering additional keys.

The keys must be stored in the manner specified in the key safety instructions, and they may not be labelled so that they can be associated with the building or site.

Key boxes embedded in the external walls may only be used for keeping separate keys to electrical, telephone, and other plant-room doors. The master key should never be stored in such key boxes.

If a key is lost or comes into the unauthorized possession of an outsider, it should immediately be ascertained whether the key may be misused. In the case of immediate risk of loss or damage, steps must be taken to prevent further damages and the insurance company must be contacted.

## 6 Technical specifications

### Door lock

Door lock with locking plate fitted integrally on a door, tested to SFS-EN standard no. 12209 into Class 3 and to SFS standard no. 7020 either into Class 1 or 2 (Figure 18).

### Safety lock

Door lock with locking plate fitted integrally on a door, tested to SFS-EN standard no. 12209 into Class 5 and to SFS standard no. 7020 either into Class 3 or 4. (Figure 19).

### Lock slide

The moving part of the lock that locks the door against the locking plate on the door frame.

### Locking plate

An integrally fitted lock part that is fastened with screws on the frame.

### Steel lock guards or cover plate

Non-rebated door must be equipped with a steel or brass T-profile with a length of at least 30 cm and a thickness of 3 mm (Figure 8).

### Tolerance between door and frame

The gap between door and frame at the lock/striking plate (Figure 7).

### Hinge bolt (anti-jemmy bolt)

Bolt made of steel with a diameter of at least 6 mm and a projection of at least 12 mm. It may be part of the hinge or fixed to the frame through the hinge (Figures 5 and 6).

### Padlock

Padlocks are tested to SFS-EN standard no. 12320 and SFS standard no. 7020 and listed by FK 1) into Class 1, 2, 3, or 4.

### Padlock fixings

Parts made of steel for the purpose of fixing padlocks, installed into the frames and door by welding or using screw or bolt fixings in such a way that they cannot be removed from the outside without breaking them.

### Steel bar

Locking device made of steel pipe profile or flat steel and fitted with padlock fixings for doors, double doors, or shield plates. The bar must be attached or locked at both ends into a wall or frame. The bar can be made of steel pipe profile of at least 50x30x3 mm<sup>3</sup> or flat steel of at least 12x50 mm<sup>2</sup>.

### Panic bolt

A bolt that closes the inactive leaf of a door and can be opened from the inside with a lever.

### Shock-resistant glass

Glass that has been tested to SFS-EN standard no. 356 into Classes P1A-P5A

### High-impact glass

Glass that has been tested to SFS-EN standard no. 356 into Classes P6B-P8B

### Roller grille

Grille that has been tested to SFS-ENV standard no. 1627 and listed by FK 1) into Classes 2-6.

### Window shutter

- on the inside, 12 mm plywood or 1.5 mm sheet metal
- on the outside, 18 mm plywood or 2.5 mm sheet metal

### Hatch shutter

18 mm plywood or 2.5 mm sheet metal

### Steel grilles

- A welded grille in which the steel cross-sectional area is at least 110 mm<sup>2</sup> (round bar  $\varnothing$  12 mm) and the space between steel parts is no more than 120 mm and the span 350 mm (Figure 1).
- A sliding lattice grille is a folding steel grille listed by FK.
- A decorative steel grille is a welded steel grille with a steel cross-sectional area of at least 75 mm<sup>2</sup> (round bar  $\varnothing$  10 mm) and an opening size of no more than 400 cm<sup>2</sup> (Figure 3).

### Steel mesh

A mesh attached by welding into a steel frame with a cross-sectional area of at least 10 mm<sup>2</sup> and an opening size of no more than 22 cm<sup>2</sup> (Figure 2).

### High-impact door

Door that has been tested to SFS-ENV standard no. 1627 into Classes 2-6

### High-impact wall

Wall structure that has been tested to SSF norm no. 1047 into Classes 1-3 or to SFS-ENV standard no. 1627 into Classes 2-4.



FIGURE 18: DOOR LOCK

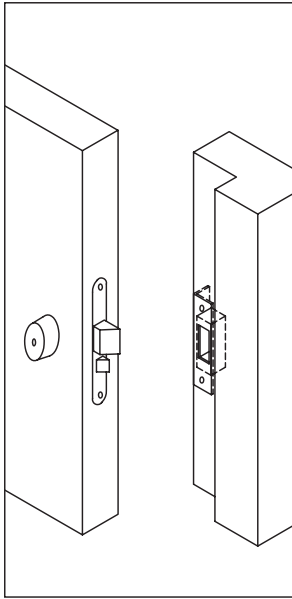
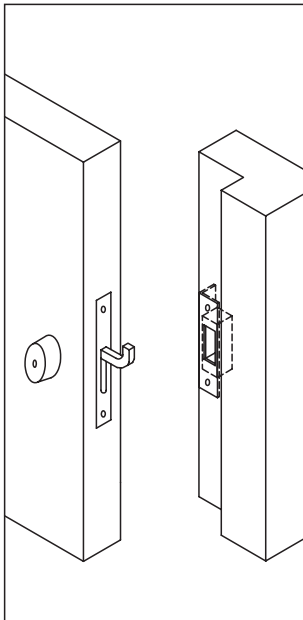


FIGURE 19: SAFETY LOCK



## 7 Tested products

A separate list of locks, protective devices, and protective materials can be found at: [www.vahingontorjunta.fi/luettelot](http://www.vahingontorjunta.fi/luettelot).

Pohjola Insurance Ltd, Business ID: 1458359-3

Helsinki, Gebhardinaukio 1, 00013 OP, Finland

Domicile: Helsinki, main line of business: non-life insurance companies

Regulatory authority: Financial Supervisory Authority, [finanssivalvonta.fi/en](https://finanssivalvonta.fi/en)

