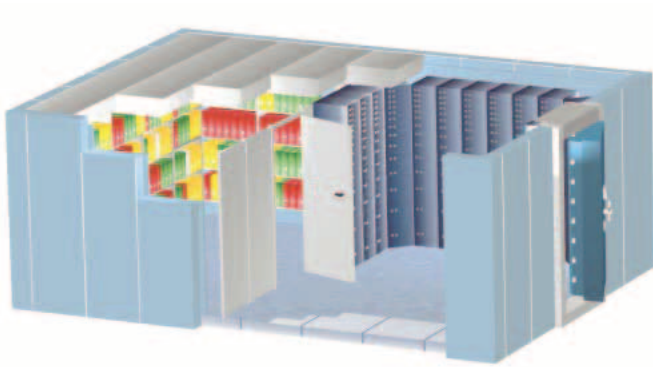


# Prefabricated Strongrooms Vault Doors and Archive Doors

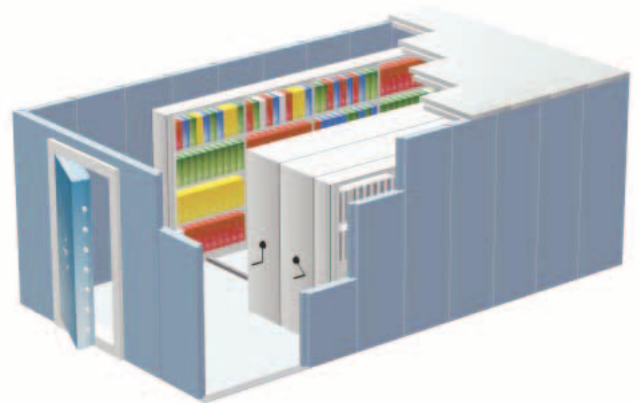
## PREFABRICATED STRONGROOMS

[www.kaso.fi/prefabricated strongrooms](http://www.kaso.fi/prefabricated-strongrooms)



## OTHER VAULTS/PREFABRICATED ARCHIVE STRONGROOMS

[www.kaso.fi/archive strongrooms](http://www.kaso.fi/archive-strongrooms)



## VAULT DOORS AND ARCHIVE DOORS

[www.kaso.fi/vault doors](http://www.kaso.fi/vault-doors) and [www.kaso.fi/archive doors](http://www.kaso.fi/archive-doors)



## DAY GATES

[www.kaso.fi/day gates](http://www.kaso.fi/day-gates)

## OTHER SECURITY PRODUCTS

- Eurosafes
- Office Safes
- Data Safes
- Safe Deposit Boxes
- Explosion Protection Grating
- Cashier's Boxes
- Clothes Cabinets

[www.kaso.fi/eurosafes](http://www.kaso.fi/eurosafes)  
[www.kaso.fi/office safes](http://www.kaso.fi/office-safes)  
[www.kaso.fi/data safes](http://www.kaso.fi/data-safes)  
[www.kaso.fi/safe deposit boxes](http://www.kaso.fi/safe-deposit-boxes)  
[www.kaso.fi/explosion protection grating](http://www.kaso.fi/explosion-protection-grating)  
[www.kaso.fi/cashier's boxes](http://www.kaso.fi/cashier's-boxes)  
[www.kaso.fi/clothes cabinets](http://www.kaso.fi/clothes-cabinets)

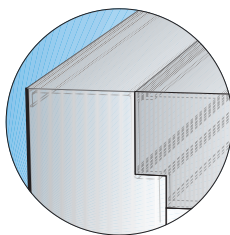
## PREFABRICATED STRONGROOMS

Officially Euro-tested (EN 1143-1) prefabricated strongrooms have replaced traditional pre-cast bank vault structures in banks and most companies wanting to ensure that their vault is completely burglar proof.

Kaso offers a range of prefabricated strongrooms for burglary protection (grades II...X), both for new vaults and to strengthen old ones.

Prefabricated strongrooms consist of steel panels containing different barrier materials depending on the grade of burglary protection.

The indented edges of the strongroom panels have been tack-welded or bolted in place to ensure the panel seams are well protected.



*Roof and wall panels are attached with indentations, making it extremely difficult to break the joint. The panels are secured by welding or by bolting where welding is not possible.*



*A partition wall is installed to separate the strongroom's customer area (safe deposit boxes) from the bank's vault.*

### PRODUCT RANGE

Panels with a burglary protection grade IX and X (EX) for highest security protection.

EX = explosion test.

EH-220L / EN 1143-1 grade X (EX)  
• thickness 230 mm, weight 760 kg/m<sup>2</sup>

EH-200L / EN 1143-1 grade IX (EX)  
• thickness 185 mm, weight 610 kg/m<sup>2</sup>

The following panel options are intended for protecting banks and company valuables and strengthening old concrete bank vaults:

EH-70L / EN 1143-1 grade VII  
• thickness 120 mm, weight 360 kg/m<sup>2</sup>

EH-60L / EN 1143-1 grade VI  
• thickness 120 mm, weight 350 kg/m<sup>2</sup>

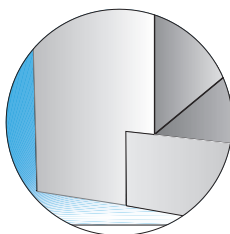
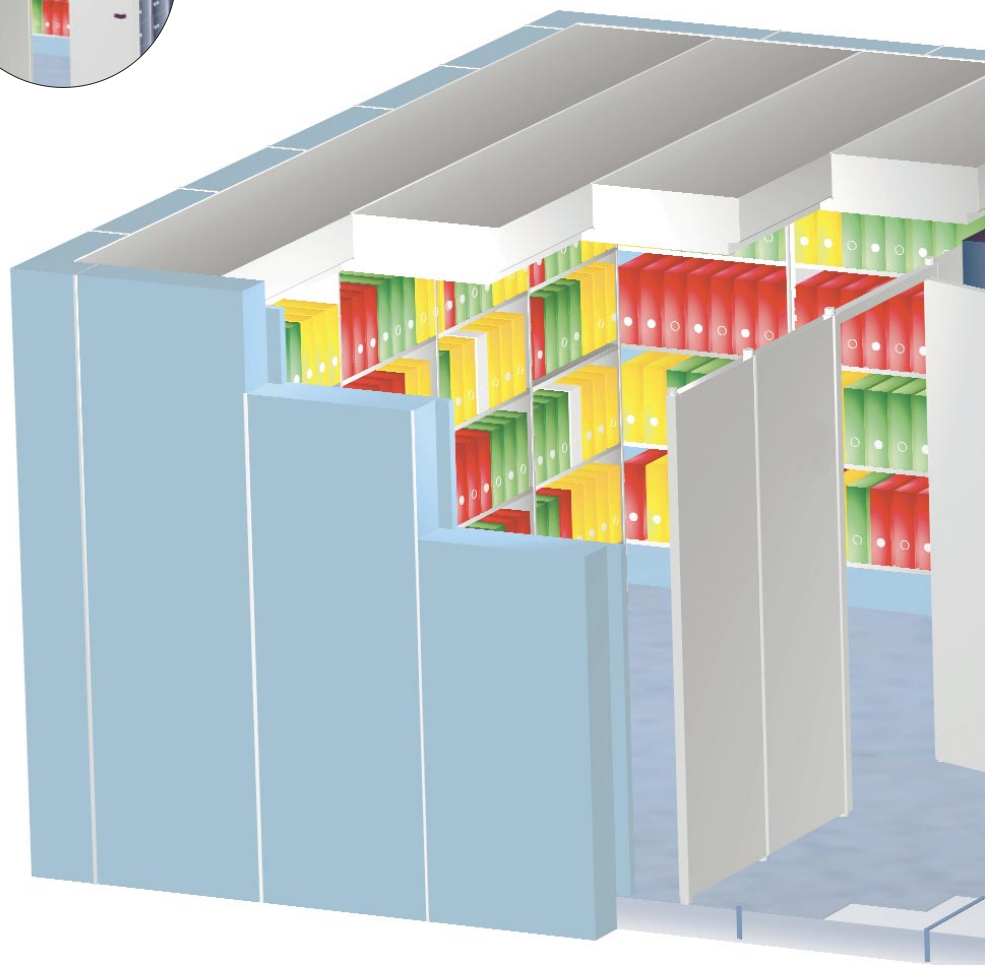
EH-50L / EN 1143-1 grade V  
• thickness 120 mm, weight 345 kg/m<sup>2</sup>

EH-40L / EN 1143-1 grade IV  
• thickness 120 mm, weight 340 kg/m<sup>2</sup>

Banks and companies may use the following panel options to strengthen their archives:

EH-30L / EN 1143-1 grade III  
• thickness 120 mm, weight 335 kg/m<sup>2</sup>

EH-20L / EN 1143-1 grade II  
• thickness 120 mm, weight 185 kg/m<sup>2</sup>

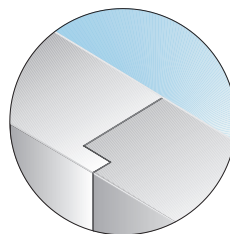


*A strongroom can be installed with a panelled floor or a 10 mm steel plate floor. Floor surface can be installed by the manufacturer or a local contractor.*

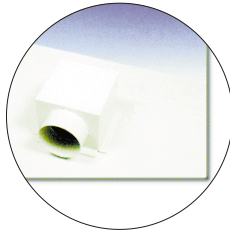
### VAULT DOORS

The vault door of a prefabricated strongroom must have same or higher burglary protection grade than the actual strongroom.

Vault doors are shown on pages 6 and 7 of this product sheet.



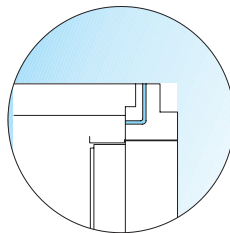
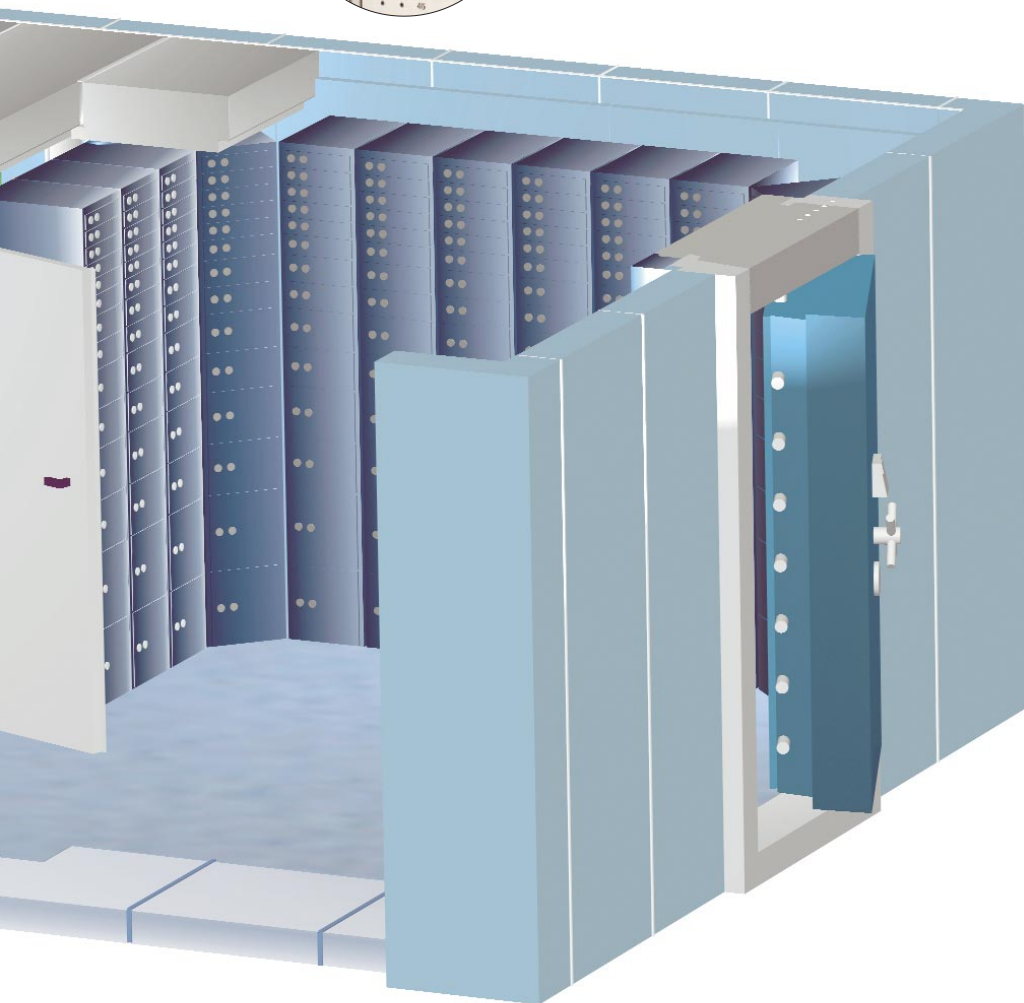
*Two wall panels are attached with an indentation, ensuring that inner and outer joints are on different levels. The panels are attached by welding or bolting, enabling installation in locations where welding is not possible.*



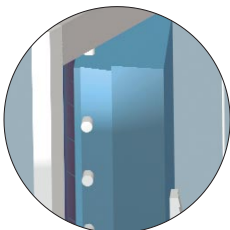
*Air conditioning is installed according to the customer's wishes. Ducts used are Z-shaped pipes 25 mm in diameter (every 50 mm). Holes are located inside the pictured air conditioning box.*



*KASO Safe Deposit Boxes available in three different models: SLK-70, SLK-80 and SLK-90. Boxes are available with one or two security keylocks or with electric locking option.*



*Vault door frame elements have 5 electricity and alarm cable ducts 25 mm in diameter, 50 mm centre to centre.*



*EH-220L strongrooms are fitted with HO-37 vault doors (SFS 5300/INSTA 610/2496 points) and EH-200L strongrooms with VD-25 (EN 1143-1 grade IX).*

## PLANNING SERVICE

We can offer, together with KASO dealers, the following service to customers, engineering offices and contractors:

- on-site estimates of prefabricated strongroom installation possibilities
- estimates of structural load bearing capacity
- strongroom planning assistance
- strongroom weight estimates
- cost estimates

The exterior measurements of Kaso prefabricated strongrooms can be entirely adjusted according to the customer's wishes. The price is based on the size of the strongroom and is not affected by whether the strongroom is standard sized or not.

## DELIVERY OPTIONS

It is possible to include in the delivery of prefabricated strongroom:

- support structures
- alarm wiring
- seismic detector base plates
- inner plates and floor carpet
- partition wall and door
- safe deposit boxes
- emergency door

## INSTALLATION

The strongrooms are delivered to the installation site in panels where they are quickly assembled for immediate use.

It is possible to transfer a prefabricated strongroom at a later date either to a different location in the same building or to a different building. In addition, the strongroom can be expanded and the vault door can be moved, etc.

The panels are attached by welding or bolting, enabling installation in locations where welding is not possible.

Installation by manufacturer ensures adequately tested burglary and fire protection standards.

## FLOOR STRUCTURE

Kaso prefabricated strongrooms are supplied with an panel floor, a 10 mm steel plate floor or without floor (grades II...VII), whenever applicable to the installation location.

The load bearing capacity of existing floors and the strongroom's location in a building are amongst the factors affecting the choice of floor.

## OTHER VAULTS / PREFABRICATED ARCHIVE STRONGROOMS

The new Kaso range of prefabricated strongrooms (EH-20L... EH-70L) sets a new standard in the construction of company archives and lighter strongrooms for non bank use.

During the construction of a panel archive or strongroom it receives a burglary protection in compliance with standards (EN 1143-1 grades II...VII).

Insurance companies require archives to be fire protected and burglary protection tested, which is not possible if the archive is made on-site and consists of various materials.

An archive made of panels can later be expanded, moved or dismantled and moved to another building. A tested archive made of panels can also retain a high repurchase value.

Panel options EH-20L...EH-70L are suitable for use as company valuable storage strongrooms as an alternative to safes, alongside archive uses.

The structures are suitable for many special uses such as money centres and money calculation and handling rooms in shops.

It is advisable to consult with both insurance company and the manufacturer to select the appropriate security alternative.

### PRODUCTS

The product range is as follows:  
(see also the previous page)

EH-20L / EN 1143-1 grade II  
 • thickness 120 mm, weight 185 kg/m<sup>2</sup>  
 • fire rating EI 120

EH-30L / EN 1143-1 grade III  
 • thickness 120 mm, weight 335 kg/m<sup>2</sup>  
 • fire rating EI 60/REI 60\*

EH-40L / EN 1143-1 grade IV  
 • thickness 120 mm, weight 340 kg/m<sup>2</sup>  
 • fire rating EI 60/REI 60\*

EH-50L / EN 1143-1 grade V  
 • thickness 120 mm, weight 345 kg/m<sup>2</sup>  
 • fire rating EI 60/REI 60\*

EH-60L / EN 1143-1 grade VI  
 • thickness 120 mm, weight 350 kg/m<sup>2</sup>  
 • fire rating EI 60/REI 60\*

EH-70L / EN 1143-1 grade VII  
 • thickness 120 mm, weight 360 kg/m<sup>2</sup>

\*fire rating EI 120/REI 120, with added exterior insulation  
(instructions from the manufacturer)

### CABLE DUCTS

The vault door's frame panels have 5 standard electricity and alarm cable ducts.

### AIR CONDITIONING

Air conditioning is carried out according to the air conditioning expert's instructions. Ducts are made with 25 mm Z pipes at 50 mm intervals.

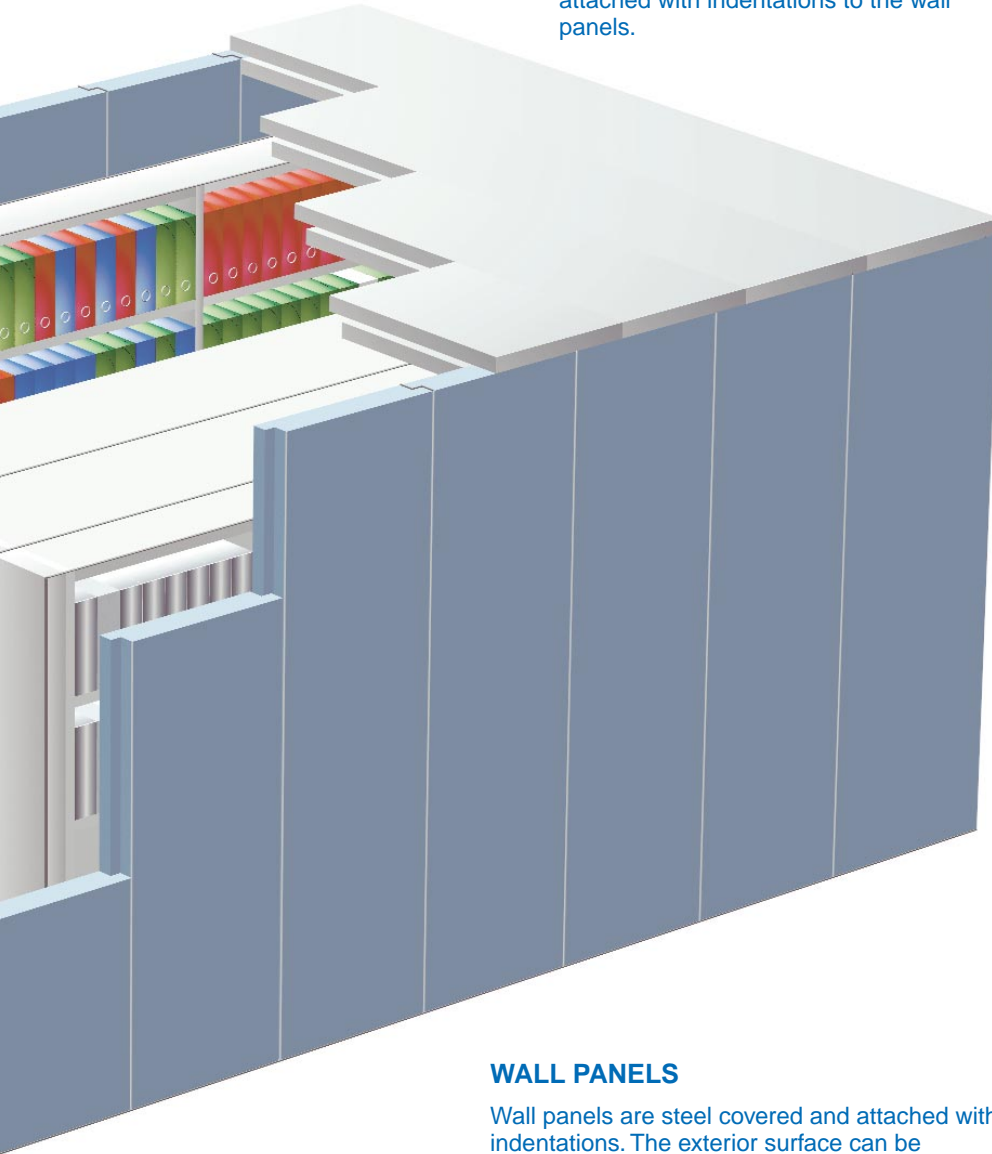


### DOOR

The door's burglary protection grade must be the same or higher than that of the wall. Door options are VD-25 (grade IX), VD-6 (grade VI), VD-5 (grade V) and VD-3 (grade III).

## ROOF PANELS

Roof panels are always part of the same construction as wall panels. They are attached with indentations to the wall panels.



## WALL PANELS

Wall panels are steel covered and attached with indentations. The exterior surface can be painted or plated according to the instructions, further improving the element's fire rating.

## FLOOR

The strongroom can be delivered floorless or with a steel plate or panel floor. Kaso Oy gives case-specific floor recommendations.

## DOORS

Doors used are Euro tested VD-3, VD-5, VD-6 and VD-25 archive and vault doors:

- EH-20L: VD-3 (EN 1143-1 grade III)
- EH-30L: VD-3 (EN 1143-1 grade III)
- EH-40L: VD-5 (EN 1143-1 grade V)
- EH-50L: VD-5 (EN 1143-1 grade V)
- EH-60L: VD-6 (EN 1143-1 grade VI)
- EH-70L: VD-25 (EN 1143-1 grade IX (EX))

Archive and vault doors are shown on pages 6 and 7 of this RT product sheet.

## PLANNING SERVICE

We can offer, together with KASO dealers, the following service to customers, engineering offices and contractors:

- on-site estimates of prefabricated strongroom installation possibilities
- estimates of structural load bearing capacity
- strongroom planning assistance
- strongroom weight assessment
- cost assessments

The exterior measurements of Kaso prefabricated strongrooms can be entirely adjusted according to the customer's wishes. The price is based on the size of the strongroom and is not affected by whether the strongroom is standard sized or not.

## DELIVERY OPTIONS

It is possible to include in the delivery of prefabricated strongroom:

- support structures
- alarm wiring
- seismic detector base plates
- inner plates and floor carpet
- partition wall and door
- safe deposit boxes
- emergency door

## INSTALLATION

To enable fast, inexpensive installation this should be carried out by the manufacturer.

The strongroom can be delivered and installed ready to weld or bolt together. See page No 3 under Installation.

## FLOOR STRUCTURE

The strongroom can be installed floorless or a 10 mm steel plate can be installed as a floor. On special request, the strongroom can be installed with floor panels.

## VAULT DOORS

### According to the INSTA 610 standard (SFS 5300)

- HO-37, 2496/547 points



### According to the Euro standard (EN 1143-1)

- VD-25, grade IX (EX)
- VD-6, grade VI
- VD-5, grade V



#### HO-37

HO-37 vault door has been tested according to the Nordic burglary standard INSTA 610. In Finland, the burglary protection standard is published by the Finnish Standards Association as SFS 5300. The door's protection value points are 2496/547 and fire rating EI 120. The HO-37 vault door is suitable for use with a EN 1143-1 grade X (EX) strongroom (EH-220L).

#### Standard equipment

- 2 Euro-Novum 2374 keylocks
- 2 explosion protection locks
- 2 lock micro switches
- bolt micro switch
- alarm wiring
- 9 movable locking bolts
- fixed back bolt bank
- door stopper

#### Optional equipment

- day gate
- electronic Paxos Compact locking system to replace key locks
- mechanical number code lock to replace key lock
- mechanical time lock
- flat sill

#### Weight

- 1800 kg

#### VD-25

VD-25 has been tested in compliance with the new Euro standard EN 1143-1 as grade IX (EX). The door has been explosion tested (EX). The VD-25 vault door is suitable for use in strongrooms up to grade IX .

#### Standard equipment

- 2 Mauer 70011 key locks
- 2 lock micro switches
- bolt micro switch
- alarm wiring
- 10 movable locking bolts
- fixed back bolt bank
- flat sill
- door stopper

#### Optional equipment

- day gate
- electronic Paxos Compact locking system to replace key locks
- mechanical number code lock to replace key lock
- mechanical time lock
- flat sill
- explosion protection locks

#### Weight

- 1800 kg

#### VD-5 and VD-6

VD-5 and VD-6 are tested in compliance with the new Euro standard EN 1143-1 as grades V and VI. The doors can be used on their own, installed into concrete wall or as part of prefabricated strongrooms EH-40L (VD-5), EH-50L (VD-5) and EH-60L (VD-6). The doors' fire rating is EI 120.

#### Standard equipment

- VD-5: 2 Mauer 70076 key locks
- VD-6: 2 Mauer 70011 key locks
- 7 movable locking bolts
- fixed back bolt bank
- flat sill
- door stopper

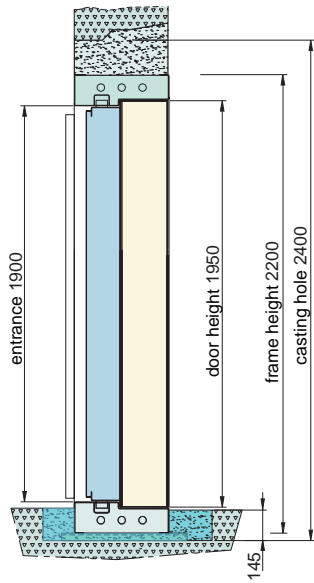
#### Optional equipment

- day gate
- electronic Paxos Compact locking mechanism
- mechanical number code lock
- explosion protection locks
- lock micro switches
- bolt micro switch
- alarm wiring
- special frame, depth 200...350 mm

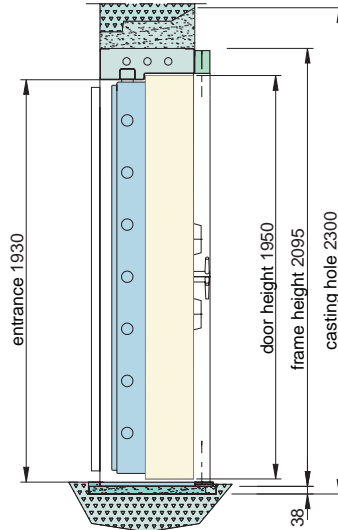
#### Weight

- VD-5 700 kg and VD-6 800 kg

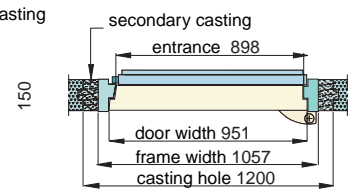
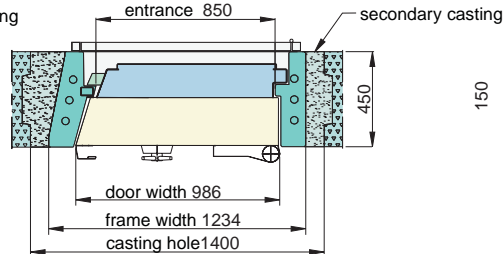
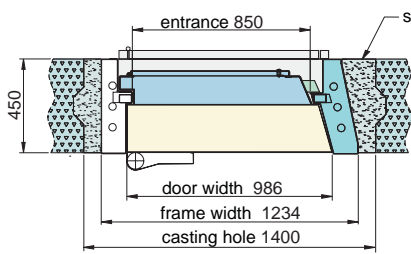
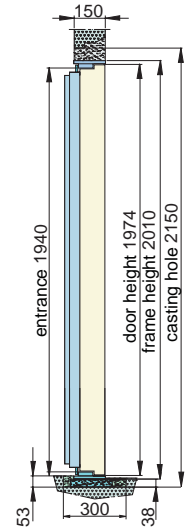
**VAULT DOOR HO-37**



**VAULT DOOR VD-25**



**VAULT DOORS VD-5 and VD-6**



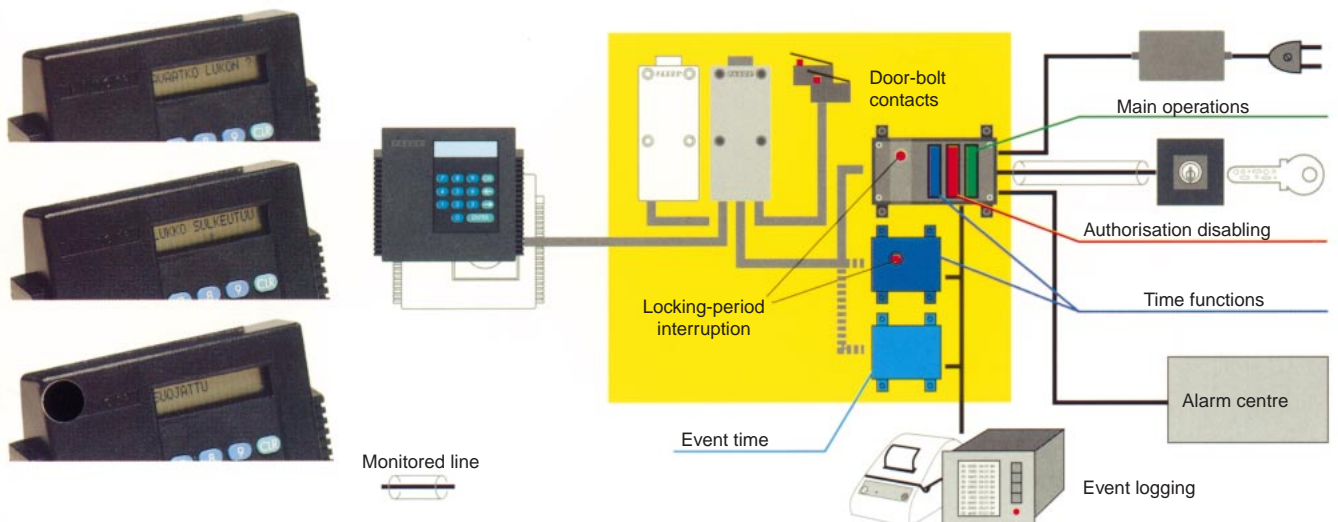
**PAXOS LOCKING SYSTEM**

**Paxos basic equipment**

- code lock
- motor bolt
- adjustable bolt throw
- full system redundancy
- input unit

- mounting bracket
- plug cabling
- authorisation codes
- master code
- opening delay

- monitoring of the door-open period
- audit trail
- manipulation blocking
- sabotage monitoring
- voltage monitoring



# Prefabricated Strongrooms Vault Doors and Archive Doors

## VD-3

VD-3 is a burglary tested (EN 1143-1 grade III) archive door which replaces generally used untested archive doors and archive fire doors.

It is intended to be used in EH-20L and EH-30 L prefabricated strongrooms and has an EI 120 fire rating. The door can be used if necessary also in an archive cast on-site by casting it afterwards.

### Standard equipment

- Mauer 70076 key lock
- 7 lock bolts

### Optional equipment

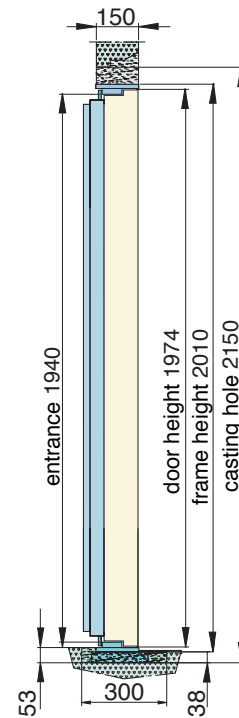
- VD-3 door is available with two locks
- electronic Paxos Compact locking system
- another key lock
- SECU E4000 electronic push button lock
- mechanical number code lock
- alarm wiring
- lock micro switch
- day gate
- special frame, depth 200...350 mm
- bolt micro switch

### Weight

- 450 kg



## VD-3 /VD-A



## VD-A

VD-A is a non-burglary tested archive door with an EI 120 fire rating. It has the added benefit of better burglary protection when compared with a fire door, due to numerous locking bolts (7) and a possibility of installing a variety of locks. In addition, thanks to its pleasing aesthetic qualities it can also be installed in offices where the look of a fire door does not match the rest of furnishings.

### Standard equipment

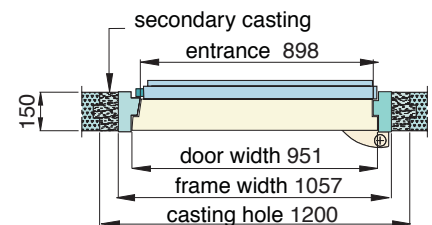
- Mauer 70091 key lock
- 7 locking bolts

### Optional equipment

- mechanical number code lock replacing key lock
- SECU E2000 electronic push button lock replacing key lock
- day gate

### Weight

- 320 kg



All measurements in the drawings are in mm.

**KASO®**

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