

*Vaults, professionally built.*



© Wertheim 03/2013

Prefabricated vaults

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### **General information**

Wertheim prefabricated vaults are produced in several security levels. The certificates, referring to countries, are acknowledged by insurance companies.

### **Quality**

The products have been tested by the laboratories VdS (Schadenverhütung GmbH) in Cologne, acknowledged all over Europe. The test was carried out following the European Standard EN1143-1 which is accepted by the European Insurance Committee CEA (Comité Européen des Assurances). The demand for quality of all prefabricated vaults is based on many years of experience in design and production. The quality control system of Wertheim documents the checks of our specialists and the final control before delivering the products.

### **Building and Assembling**

The vault is completed within 1 or 2 weeks, because there is no need to concrete during the installation. The prefabricated vault can be built as an independent room or in connection with an existing wall. Upon request, the inner and outer side of the vault can be covered by plaster walls, such as the electrical and alarm installation can be prepared.

### **Service**

The Wertheim-service-hotline: +43 (0)1 / 604 91 66 - 300 is manned around the clock, also on sundays and holidays. Wertheim offers competent information, short reaction time and well trained service technicians.

### **Prices**

The fabrication of a prefabricated vault is individual, due to customer- or construction requests. For detail information and quotation please contact our team.  
Tel.: +43 (0)1 / 604 91 66 - 200, e-mail: office@wertheim.at

### **Guarantee**

Wertheim guarantees a perfect function for the duration of 2 years (except electronic equipment). If the product should show a defect within this time, this is cleared free of charge.

### **Supplementary documents**

Instructions for use of vault doors

## Overview

Type	VdS grade ECBS res.grade	Sec. class VSÖ-VVO	Austria (with AC) insurance up to	Germany (with AC) insurance up to
EET 070	WG V	EN 5	EUR Mio. 0,50	EUR Mio. 0,50
FET 070	WG VI	EN 6	EUR Mio. 0,75	EUR Mio. 0,75
GET 100	WG VII	EN 7	EUR Mio. 1,00	EUR Mio. 1,00
HET 100	WG VIII	EN 8	EUR Mio. 1,50	EUR Mio. 1,50
HET 125	WG VIII	EN 8	EUR Mio. 1,50	EUR Mio. 1,50
HET 125 KB	WG VIII KB	EN 9	EUR Mio. 3,00	EUR Mio. 3,00
IET 125	WG IX	EN 9	EUR Mio. 3,00	EUR Mio. 3,00
IET 165	WG IX	EN 9	EUR Mio. 3,00	EUR Mio. 3,00
IET 125 KB	WG IX KB	EN 10	EUR Mio. 4,00	EUR Mio. 4,00
IET 165 KB	WG IX KB	EN 10	EUR Mio. 4,00	EUR Mio. 4,00
JET 150	WG X	EN 10	EUR Mio. 4,00	EUR Mio. 4,00
JET 195	WG X	EN 10	EUR Mio. 4,00	EUR Mio. 4,00
JET 150 KB	WG X KB	EN 11	EUR Mio. 5,00	EUR Mio. 5,00
JET 195 KB	WG X KB	EN 11	EUR Mio. 5,00	EUR Mio. 5,00
KET 200	WG XI	EN 11	EUR Mio. 5,00	EUR Mio. 5,00
KET 250	WG XI	EN 11	EUR Mio. 5,00	EUR Mio. 5,00
KET 200 KB	WG XI KB	EN 12	EUR Mio. 7,50	EUR Mio. 7,50
KET 250 KB	WG XI KB	EN 12	EUR Mio. 7,50	EUR Mio. 7,50
LET 250	WG XII	EN 12	EUR Mio. 7,50	EUR Mio. 7,50
LET 250 KB	WG XII KB	EN 13	EUR Mio. 10,00	EUR Mio. 10,00

KB = core drill protection  
AC = Alarm connection

Not specified Countries:  
classified according  
to the local insurance regulation





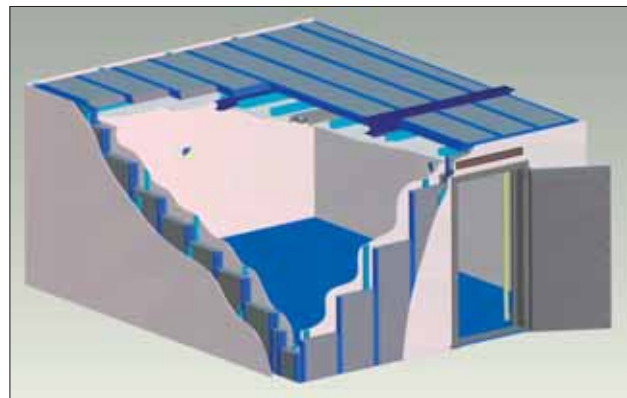
*Elements of prefabricated vault EET 070 with vault door EWT 085*



## Types

Type	VdS grade ECBS res.grade	Sec. class VSÖ/VVO	Wall thickness (mm)	Elements (mm)		Elements weight (kg/m <sup>2</sup> )	Fitting vault door
				length (max.)	width		
EET 070	WG V	EN 5	70	2900	550	220	EWT 085
FET 070	WG VI	EN 6	70	2900	550	225	FWT 085
GET 100	WG VII	EN 7	100	2900	550	315	GWT 150
HET 100	WG VIII	EN 8	100	2900	550	320	HWT 150
HET 125	WG VIII	EN 8	125	2900	550	380	HWT 150
HET 125 KB	WG VIII KB	EN 9	125	2900	550	390	HWT 150 KB
IET 125	WG IX	EN 9	125	2900	550	390	IWT 150
IET 165	WG IX	EN 9	165	2900	550	500	IWT 150
IET 125 KB	WG IX KB	EN 10	125	2900	550	405	IWT 150 KB
IET 165 KB	WG IX KB	EN 10	165	2900	550	510	IWT 150 KB
JET 150	WG X	EN 10	150	2900	600	470	JWT 220 KB
JET 195	WG X	EN 10	195	2900	600	590	JWT 220 KB
JET 150 KB	WG X KB	EN 11	150	2900	600	480	JWT 220 KB
JET 195 KB	WG X KB	EN 11	195	2900	600	600	JWT 220 KB
KET 200	WG XI	EN 11	200	2900	600	630	KWT 300 KB
KET 250	WG XI	EN 11	250	2900	600	740	KWT 300 KB
KET 200 KB	WG XI KB	EN 12	200	2900	600	640	KWT 300 KB
KET 250 KB	WG XI KB	EN 12	250	2900	600	750	KWT 300 KB
LET 250	WG XII	EN 12	250	2900	600	770	LWT 300 KB
LET 250 KB	WG XII KB	EN 13	250	2900	600	780	LWT 300 KB

KB = core drill protection



## Technical description

Wertheim modular vaults have been developed to equip already finalized buildings with strong rooms in standardized resistance grades according to EN 1134-1 and at the other hand to offer the possibility to demount the strong room and reerect the modular vault at another site.

All wall modules are made from a multiple bent steel sheet body, enforced with special armouring and filled with an extremely resistant cement based cast filling. This guarantees long lasting quality and no disposal problems after the regular use.

The vault is painted at the inner side, while outside the raw concrete is visible. All wall elements are prepared for locally done plaster wall cladding.

Wertheim modular vaults are characterized by an optimal price/performance ratio. This means, that the necessary burglary resistance, which is asked by EN 1143-1, is realized by highest quality cast materials combined with intelligent armouring systems resulting in thin wall thickness and relatively low weight. Competitive prices prove that.

Elements are built in widths from 100 mm, 150 mm, 200 mm, 250 mm, 550 mm and 600 mm. Larger widths are possible upon special request in 5 cm steps.

If the roof dimension exceeds the max. dimensions of the elements, steel girders are used to bear the load of the roof elements. The girders dimensions are dependent on the statical calculations.

To each resistance grade we supply a correlative vault door.

All elements are basic varnished and are painted after being welded.



*Electronically controlled safe deposit boxes in vault EET 070*

## **Completing equipment**

### **Inside panelling**

The walls which are not covered from the inner equipment (e.g. deposit boxes) are decorated with a plaster plate which is screwed at a grating. Smoothing and papering are done locally by others.

### **Ceiling**

The hanging plaster ceiling with the integrated illumination is mounted completely.

### **Lighting**

Build in illumination.

### **Electric installation**

The electric installation is carried out of the vault ready to be connected to the mains. The installation includes one light switch and one socket.

### **Alarm system**

The alarm installation contains the bases for the noise detector (on site) and the necessary cable pipes.

### **Outside panelling**

Plaster plates are screwed at a grating. Smoothing and papering are locally done by others.

### **Floor**

The floor is done locally by others. If there is no other wish from the customer, 5 mm layer thickness is prepared.



*Electronically controlled safe deposit boxes in vault EET 070*

*Electronically controlled safe deposit boxes in vault JET 195*



## Vault doors – Types

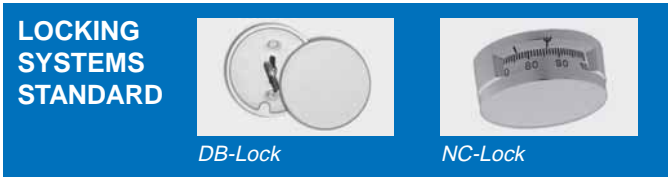
Type	VdS grade ECB S res.grade	Sec. class VSÖ/VVO	Inner (mm)		Door thickness (mm)	Weight (appr. kg)
			height	width		
EWT 085	WG V	EN 5	1960	910	160	880
FWT 085	WG VI	EN 6	1960	910	160	900
GWT 150	WG VII	EN 7	1960	910	225	1300
HWT 150	WG VIII	EN 8	1960	910	225	1400
HWT 150 KB	WG VIII KB	EN 9	1960	910	225	1410
IWT 150	WG IX	EN 9	1960	910	225	1410
IWT 150 KB	WG IX KB	EN 10	1960	910	225	1420
JWT 220 KB	WG X KB	EN 11	1960	910	285	2000
KWT 300 KB	WG XI KB	EN 12	1960	910	365	2715
LWT 300 KB	WG XII KB	EN 13	1960	910	365	2805
Service door	WG V-VIII KB	EN 5-9	1100	660	160-225	430-700

KB = core drill protection



*Vault door EWT 085*





## Vault doors – Locking systems

STANDARD Locking systems mechanical	EWT 085	FWT 085 GWT 150 HWT 150 HWT 150 KB IWT 150 IWT 150 KB JWT 220 KB	KWT 300 KB LWT 300 KB
1 doublebit lock	■	■	-
2 doublebit locks with key bearer	-	-	■
Three wheel - number combination lock	■	-	-
Four wheel - number combination lock	-	■	■
OPTIONAL Locking systems electronic	EWT 085	FWT 085 GWT 150 HWT 150 HWT 150 KB IWT 150 IWT 150 KB JWT 220 KB	KWT 300 KB LWT 300 KB
Paxos with keypad	<input type="checkbox"/>	-	-
Paxos with dialling knob	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paxos second lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paxos expansion timefunction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paxos module basis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paxos module timefunction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paxos module UPS-power supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paxos module authorisation disabling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paxos module locking unit (VdS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paxos module switching unit (VdS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<span style="color: red;">■</span> standard lock <input type="checkbox"/> option			max. 3 locks!

## Vault doors – standard locking systems

### Doublebitlock (key with 2 bits)

Adjustable high security doublebit lock with forced locking.

### Three wheel / Four wheel - number combination lock

Mechanical code lock, with three / four adjustable two-digit numbers, with 1.000.000 / 100.000.000 combinations.

## Optional locking equipments

Forced locking sequence, upper lock to be locked before locking the lower one.

Third lock with bolt work blocking, avoids unintended closing of the bolt work while the door is open.

Third lock with forced locking sequence, the third lock has to be unlocked at first and locked at last (in connection with a forced locking sequence of the two other locks).

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## Locking systems optional

### **Paxos**

An electronic, motor-driven codelock, which works in the boltwork as an alternative to the mechanical number combination lock. The high security lock is operated by the keypad or the dialling knob. The input and change of the opening code is easier and creates fewer errors than the mechanical number combination lock. Up to 26 users per lock as well as many further useful functions can be defined.

### **Paxos expansion timefunction**

The functions of the expansion timefunction agree with the combination module basis with the module timefunctions, but without exit of duress alarm. It is more favourable if only timefunctions are needed, but there is no possibility to connect further modules.

### **Paxos module basis**

The module basis includes the functions: duress alarm and event log output. It is the precondition for the further modules such as timefunctions, power supply and power supply with authorisation disabling.

#### **Duress alarm** (only effective with connection to the alarm system)

The triggering is made by entering a duress-code when opening the code lock.

#### **Event log**

Print of the last 870 events. These data are not cancelled after the print.

### **Paxos module timefunction**

Real time clock with calendar summer-/wintertime changeover (1 year in advance), 12 locking periods (holidays), fast locking time, 12 yearly locking periods (fix holidays), week program (up to 28 locking times per week), partial locking periods, locking period interruption. The precondition is the option module basis.

### **Paxos module UPS-power supply**

The module power supply provides the lock with current from an UPS, usually the lokal alarm system. A contact of sabotage, which is free of potential, opens, if the battery-cover of the input unit is opened. The precondition is the option module basis. 11-24 V DC 700 mA must be supplied.

### **Paxos module authorisation disabling**

The module authorisation disabling manages the activation of the keypad input unit. This can be done by keyswitch, modem, keypad, etc. The connection is sabotage controlled. The precondition is the option power supply.

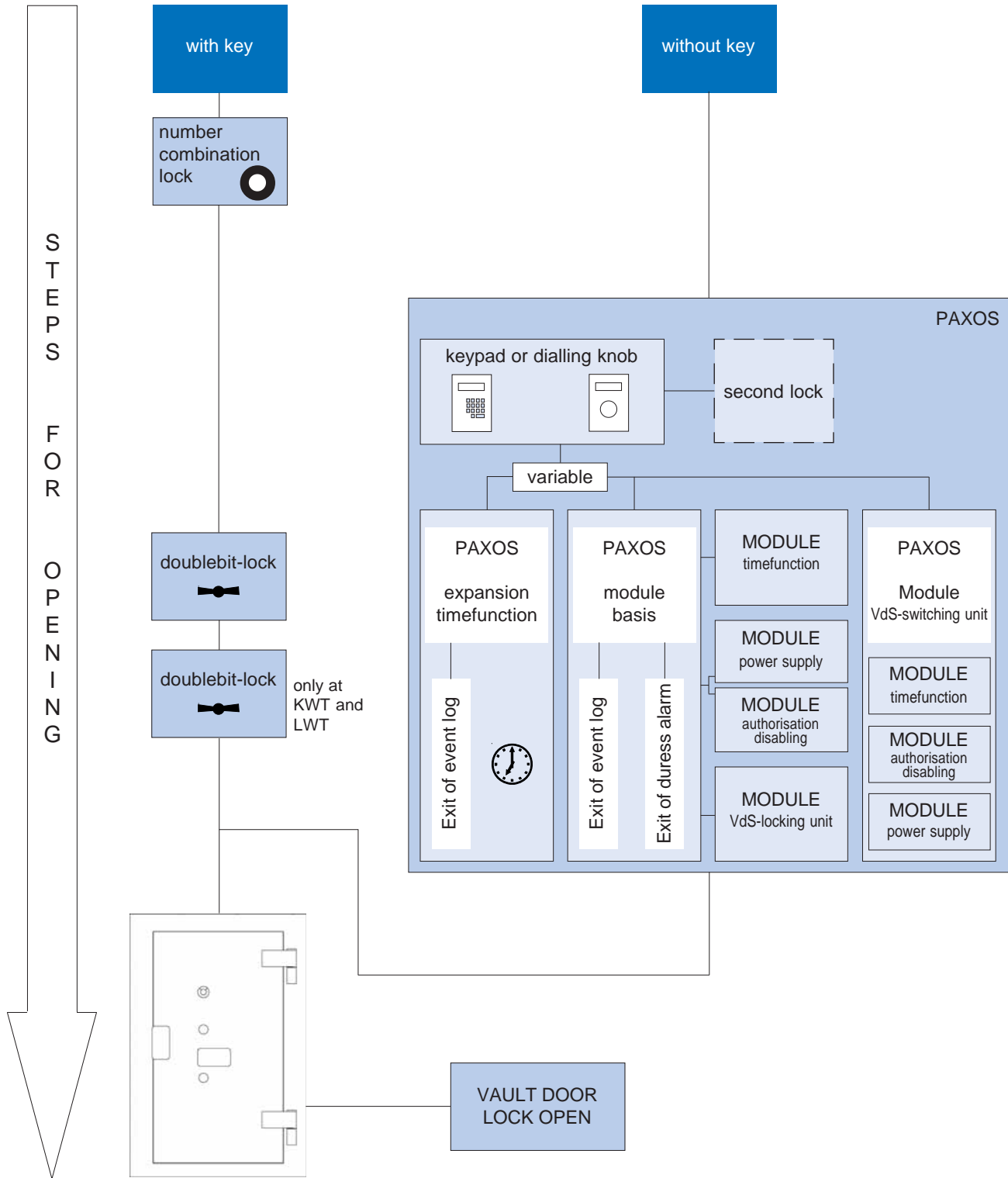
### **Paxos module locking unit (VdS)**

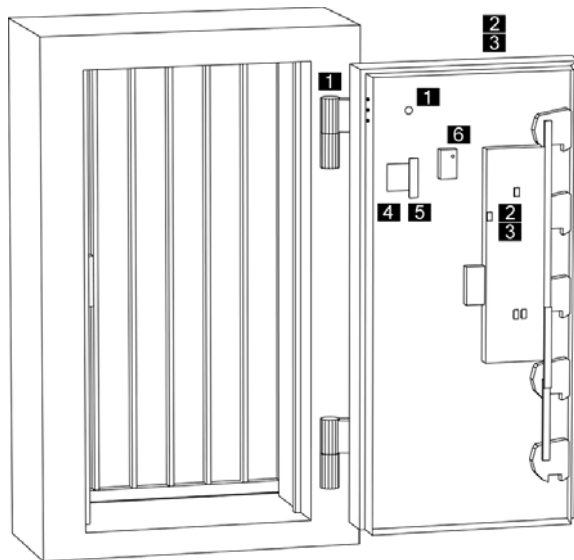
The module locking unit prevents an opening of the lock while the alarm system is activated and prevents an activation as long as the lock is open. The locking unit has to be supplied with power by the alarm system.

### **Paxos module switching unit (VdS), block lock**

With this function the alarm system will be activated/deactivated after an identification. The lock opening happens in dependence of the condition of the alarm system. The switching unit has to be supplied with power by the alarm system.

# Function sketch





- 1 connection to the alarm system with cable run through the hinge
- 2 preparation to install a door monitoring system
- 3 switch-set for monitoring the door (optional)
- 4 basement for noise detector and cable connector
- 5 cable connector (optional)
- 6 Paxos module basis (optional)

## Vault doors – Security systems

Security systems	EWT 085 FWT 085 GWT 150 HWT 150 IWT 150	HWT 150 KB IWT 150 KB JWT 220 KB KWT 300 KB LWT 300 KB
Preparation for alarm connection	■	■
Preparation to install alarm detectors acc. to VdS-regulations	■	■
Switch-set for monitoring the door	□	□
Boltwork door protection	■	■
Drill and torch protection	■	■
Diamond core drill protection (KB)	-	■
<span style="color: white;">■</span> standard <span style="color: white;">□</span> option		

### Preparation for alarm connection

Cable run through the door-frame and the upper hinge into the boltwork-room, with a leader cable for help.

### Preparation to install alarm detectors according to VdS regulations

In the boltwork room basements for noise detectors and magnetic switches according to VdS regulations are prepared.

### Switch-set for monitoring the door

Set of VdS approved alarm switches and connectors, to enable a correct monitoring of the locking status of the door. The installation should be done by authorized alarm companies.

### Boltwork door protection

As a protection against manipulation and sabotage, the inner door cover is secured by the main locks of the vault door and by two locks.

### Drill and torch protection

The boltwork is protected by special layers against attacks with mechanical and thermic tools.

### Diamond core drill protection

The door is protected against attacks with crown drills.

## Vault doors – Other equipment

Other equipment	EWT 085 FWT 085 GWT 150 HWT 150 IWT 150	HWT 150 KB IWT 150 KB JWT 220 KB KWT 300 KB LWT 300 KB
Surface primed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Artistic surface design	<input type="checkbox"/>	<input type="checkbox"/>
Door bumper	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fortifications square for door bumper wall assembling	<input type="checkbox"/>	<input type="checkbox"/>
Stainless steel entrance step	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Paxos protocol printer	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> standard <input type="checkbox"/> option		

### Surface primed

The door is puttied, smoothed and primed (RAL 7030 - stone grey), ready for the finish paint by others.

### Artistic surface design

An artist gives a special design according to customer wishes. Phased transitions, special shades and marbled appearances lead to the fascinating impression.

### Door bumper

The door bumper protects the door from damages by striking the wall. There is the possibility to assemble on the floor or on the wall (in this case an extra mounting unit is necessary).

### Stainless steel entrance step

Stainless steel entrance step in the wall zone below the door.

### Paxos protocol printer

It is a table printer with mains connection and interface cable, which is to be plugged at the module basis or the option expansion timefunctions. With the protocol printer the last 870 events can be printed. These datas won't be cancelled after printing.

## Day doors

Types	Gate swing door	Glass swing door
<b>Surface</b>		
Steel painted	<input checked="" type="checkbox"/>	-
Stainless	<input type="checkbox"/>	-
Full glass	-	<input checked="" type="checkbox"/>
Treated surface	-	<input type="checkbox"/>
<b>Locking systems</b>		
Main lock	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Counter lock	<input type="checkbox"/>	-
Electrical door opener	<input type="checkbox"/>	<input type="checkbox"/>
<b>Fittings</b>		
Outside button   Inside knob	-	<input checked="" type="checkbox"/>
Outside button   Inside button	-	<input type="checkbox"/>
<b>Other equipment</b>		
Hydraulic door closer	<input type="checkbox"/>	<input type="checkbox"/>
Frame	<input type="checkbox"/>	<input type="checkbox"/>

standard       option

## Locking systems

### Main lock

A traplock locks the door and a cylinder, which is lockable from both sides, opens the door.

### Counter lock

The counter lock must be unlocked before the main lock. A cylinder, which is lockable from both sides opens the door.

### Electrical door opener

The door is equipped with a holding current door opener with feedback contact. The release to open the door can be done with safe-control, with key or with another access control system (e.g. fingerprint-terminal). To open the door with the main lock is still possible.

## Other equipment

### Hydraulic door closer

With the hydraulic closing system the door closes automatically after each access.

### Frame

The door frame is necessary in case of an installation of the gate- or glass swing door at a non Wertheim vault door.

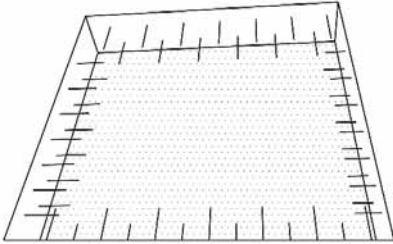
*Gate swing door painted with steel, with main lock, electrical door opener and hydraulic closing system.*



## Delivery- and installation information

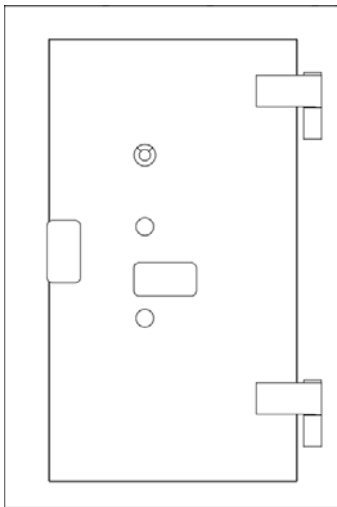
### Preparation - Building site

Before starting the assembling of the prefabricated vault the building site is inspected. Thereby the way and methods how to bring in the elements will be fixed. In case of new buildings the transport can be done per motor crane (if possible through the ceiling). There are different possibilities for each situation. Necessary load hooks are defined on site. Pay attention that the final niveau is defined per a horizontal level.



### IMPORTANT

The way of transportation has to resist the weight of the elements or the vault door.



Vault door completely fixed –  
boltwork, mechanical locks and mountings  
(electronical locks enclosed dismantled)



### IMPORTANT

After installation of the Paxos Electronic Lock it is forbidden to weld at the vault door.

