

Security frame

Installation frames / Frames



Installation instructions

INSTALLATION BY
SPECIALIST PERSONNEL
Valid from 02.2015

E 647.2

Notes

These installation instructions describe how to install the EHRET security frames.

Carefully read through these installation instructions prior to commissioning. Observe the specified process steps and take into account the notes and recommendations given. Knowledge of and technically impeccable implementation of the given safety notes and warnings are prerequisites for safe and proper operation of the EHRET security frames. Insufficient knowledge at the time of commissioning and utilisation lead to the loss of any liability claims against EHRET GmbH.

These installation instructions are a component part of the product and are therefore always to be retained until the product is disposed of. These installation instructions are to be passed along in the event of the sale of this product.

These installation instructions are addressed to qualified specialist personnel. Qualified specialist personnel are persons who are familiar with the transport, set-up, installation, commissioning and operation of the product and who have appropriate qualifications for their work. Specialist personnel must know and observe the relevant standards and/or guidelines.

This product complies with the general rules of technology. Safety-conscious behaviour is necessary for commissioning the product safely. For this reason, observe the following notes.


Should any of the information in these installation instructions not be absolutely clear, it is essential that you contact the specialist personnel at EHRET GmbH, 77972 Mahlberg (Germany).

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Explanation of signs and symbols


Warning notes

 **DANGER**

▶ Designates an imminent danger that could lead to death or severe injuries if the respective precautionary measures are not implemented.

 **WARNING**

▶ Means that death, severe bodily injury or major property damage could occur if the respective precautionary measures are not implemented.


 **CAUTION**

▶ Means a possible danger that could lead to minor injuries or property damage if it is not avoided.

- ▶ Directives for action


Safety notes

- ▶ Only qualified specialist personnel may carry out installation and commissioning!

 **WARNING**

Incorrect installation could lead to severe injuries and/or damage to property.

- ▶ Follow all installation instructions.

 **WARNING**

- ▶ Take into account the following notes and warnings in order to avoid dangers and to protect the product.

- ▶ Observe the accident prevention regulations of the Accident Prevention & Insurance Association.
- ▶ Observe the rules of the road during transport.
- ▶ Make sure that the load is well-secured on the means of transport.
- ▶ Cordon off a generously large area around the installation site.
- ▶ Observe without limitation the regulations of the manufacturers of dowel and fitting materials.
- ▶ The mounting bases of the installation site are to be checked for load-bearing capacity prior to installation.
- ▶ In the event of uncertainties about the mounting bases, contact your responsible building experts.
- ▶ Check the product for damage prior to installation. Products requiring repair may not be used.

- ▶ No personnel or obstacles are permitted to be within the range of pivoting and/or travelling shutters while they are moving. Keep personnel and objects away until the shutters have reached their final position.
- ▶ Do not reach into moving parts or closing areas while shutters are opening or closing.
- ▶ Make sure that no articles of clothing or body parts are able to be caught by moving parts in the system.
- ▶ Ice could form on the product in the event of snowfall, sleet or icy rain. Do not operate equipment until the ice formation is no longer present, and switch automatic controls to manual.
- ▶ Make sure that the shutters are locked before any wind load occurs.
- ▶ The shutters may not be operated at wind speeds from 62 km/h (stormy wind).
- ▶ No additional loads such as persons or objects are permitted to have an effect on the shutters.
- ▶ Shutters are not intended to protect individuals from falls.

 WARNING**Danger of injury from the weight of the product!**

- ▶ Due to the weight of the products, transport and installation must be carried out by at least two individuals.

- ▶ Transport the product carefully in order to avoid damage.
- ▶ Take care to ensure that the product is not damaged when the packaging material is removed.

 WARNING**Danger of suffocation from packaging foil.**

- ▶ The packaging foil must be kept out of reach of children.
- ▶ Store the foil carefully until you turn it in for recycling.

- ▶ Turn the packaging materials in for recycling.

CE EC Declaration of Conformity

(Original EC Declaration of Conformity)

In accordance with the Construction Products Directive 89/106/EEC

The manufacturer: EHRET GmbH
Aluminium shutters
Bahnhofstrasse 14-18
77972 Mahlberg, Germany

declares that the product: **EHRET security frame**

to which this guideline refers meets all the applicable requirements of the EC Directives specified above,

and that the following harmonised standards have been applied in full:

EN 13659:2004+A1:2008 Shutters – Performance requirements including safety

EN 1627:2011 – RC2 Pedestrian doorsets, windows, curtain walling, grilles and
+ **EN 1628:2011** shutters – Burglar resistance – Requirements and
+ **EN 1629:2011** classification
+ **EN 1630:2011**

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Name and address of the individual who is authorised to assemble the technical documentation:

Ralf Gielen
Head of Technology

Location: 77972 Mahlberg, Germany
Date: 01.11.2015



EHRET GmbH
Andreas Schnaase
Head of Sales



EHRET GmbH
Eberhard Schopferer
Management

Installation FAQs

Which parts have been delivered?

- Frame, 4-sided, including window sill, completely welded
- Sash, T-bead and rod lock pre-mounted
- The security frame is only available in the diagram 2 design, with model TIZO-S or TSW-S.

Which fitting materials are used?

- The fitting materials are not included in the scope of delivery!
- The selection of the fitting materials is based on the mounting bases on hand, the load-bearing capacities of which are to be checked before the installation. Observe without limitation the regulations of the manufacturers of dowel and fitting materials.



WARNING

Danger of injury/property damage caused by unsuitable fitting materials

- ▶ The fitting materials are to be selected in accordance with the load-bearing capacity of the mounting bases.

- The selection of the screws is based on the following table:

Area	Screws to be used
Steel frames	Size M6 × 40 mm or Ø 6.3 × 38 mm self-tapping screws
Concrete	Special size 6 × 80 mm screws for fastening without dowels
Wood or dowel fixing	Size Ø 6.3 × 100 mm

How is the security frame installed?

- The base on the site is checked with regard to the walls suitable for the installation in accordance with EN 1627:2011-09, Tables NA.2 to NA.4 (see chapter “Checking the base of the security frame”).
- The frame is pre-drilled at the fastening points with consideration to the maximum drilling and blocking distances as defined in DIN EN 1627.
- The frame is aligned and fastened in the reveal.

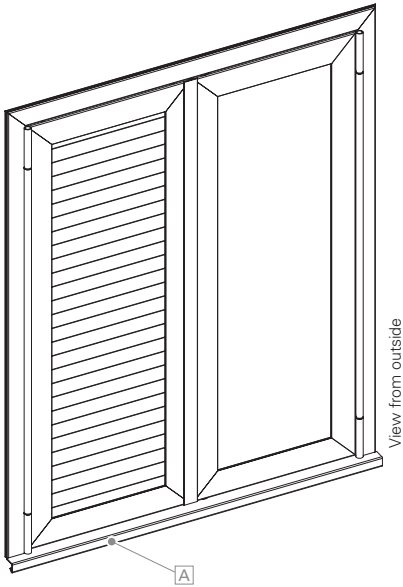
What is to be taken into account during the function check?

- The frame must be installed parallel and at a right angle in the reveal to ensure that the window shutters work perfectly.
- The sashes must open and close completely with ease.
- The rod lock must be able to lock the window shutters.

Scope of delivery

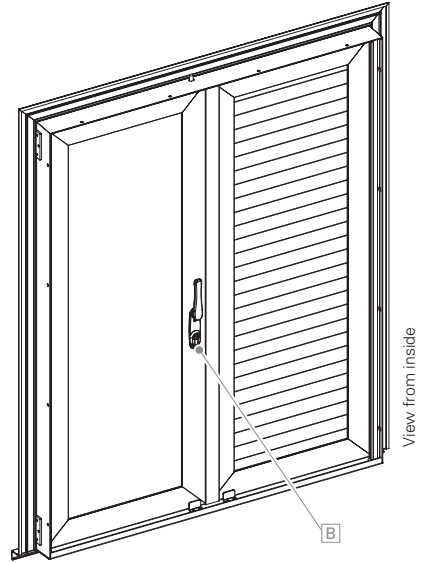
Security frame

Frame, 4-sided, including window sill,
completely welded,
T-bead and rod lock pre-mounted on sash



A Window sill, welded

Contained in the scope of delivery



B Rod lock, upwards and downwards locking

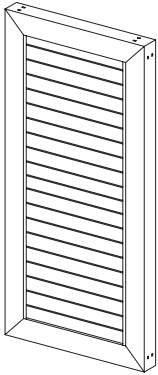
INFO

Replacing cylinder

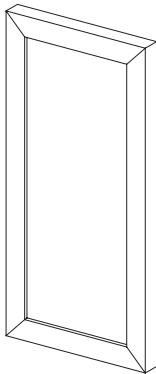
- ▶ If the original cylinder needs replacing, another cylinder of the type BKS 8900 SKG**27 N (half cylinder with drilling protection) must be used.

Models

Stop diagram 2 only



TIZO-S



TSW-S

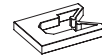
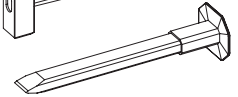
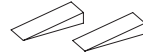
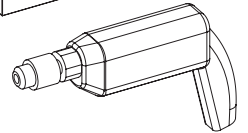
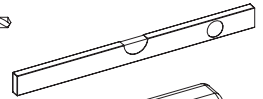
Tools required*

*Not included in the scope of delivery

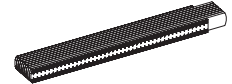
Masonry drill



Drill



Pressure-resistant support



Screws for fastening*

*Fitting material by the customer!

Area	Screws to be used
Steel frames	Size M6×40 mm or Ø6.3×38 mm self-tapping screws
Concrete	Special size 6×80 mm screws for fastening without dowels
Wood or dowel fixing	Size Ø 6.3×100 mm

2 Installation instructions

Preparation

⚠ WARNING

Danger of injury and property damage caused by unsuitable fitting materials

- ▶ Keep the fastening screws required in this chapter on hand (see page 9).

The fitting material is to be provided by the customer and is not included in the scope of delivery!

⚠ IMPORTANT

Correct installation

- ▶ Through submission of a mounting certification, evidence must be provided of correct installation in accordance with the assembly instructions from EHRET GmbH and under consideration of walls suitable for the installation, in accordance with EN 1627:2011-09, Tables NA.2 to NA.4.

Checking the base of the security frame

Excerpt from DIN EN 1627, Table NA.2

Classification of resistance classes between anti-intruder components and solid walls						
Resistance class of the component in accordance with DIN EN 1627	Surrounding walls					
	Masonry in accordance with DIN 1053-1				Reinforced concrete in accordance with DIN 1045	
	Wall thickness (without plaster) in mm	Compressive strength class of bricks	Gross density class of bricks	Mortar group	Nominal thickness in mm (min.)	Strength class (min.)
RC 1 RC 2	≥ 115	≥ 12	–	Min. MG II / DM	≥ 100	B15

Excerpt from DIN EN 1627, Table NA.3

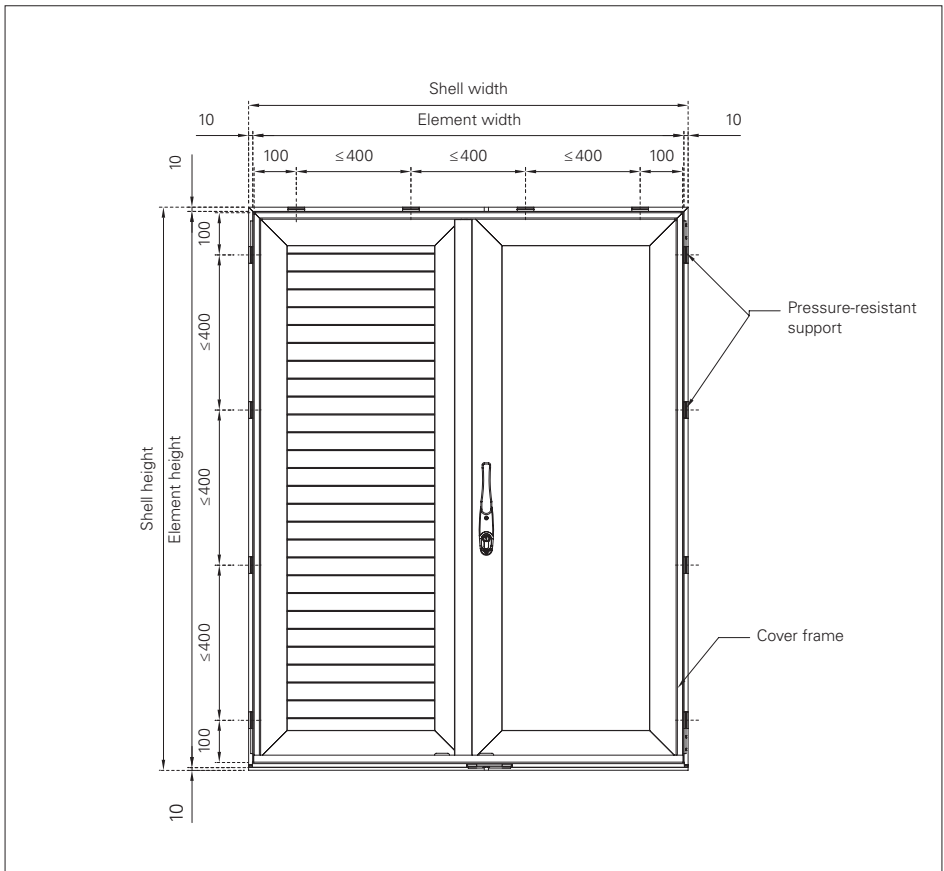
Classification of resistance classes between anti-intruder components and pervious concrete walls			
Pervious concrete wall			
Resistance class	Nominal thickness	Compressive strength of bricks	Design
RC 1 N RC 2 N	≥ 170	≥ 4	Cemented

Drilling the fastening points

- ▶ Mark and drill the fastening points in the main frame.

When drilling the fastening points, observe the drilling and blocking distances as defined in DIN EN 1627.

Drilling and blocking distances in accordance with DIN EN 1627	
From frame corner to fastening point	100 mm
From window sill to fastening point	100 mm
Between other fastening points	≤400 mm



Installing the top security frame in the reveal

⚠ IMPORTANT

Pressure-resistant supports

In the event of break-in attempts using lever-type tools, the cover frame may be prevented from warping towards the structure by using pressure-resistant cushioning.

- ▶ Cushion the space around the screw connections from the frame to the structure using pressure-resistant supports.

NOTE

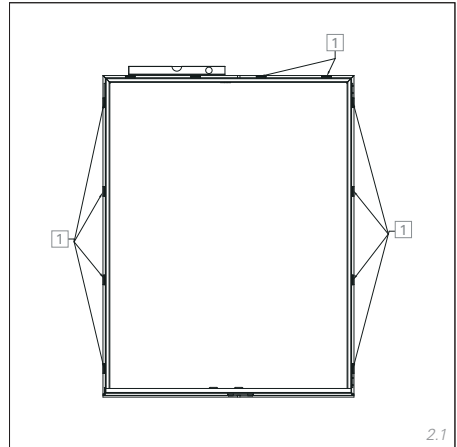
Locking rod recess

The locking rod of the rod lock protrudes above and below the main frame.

- ▶ Create a recess at the top in the reveal around the locking rod.

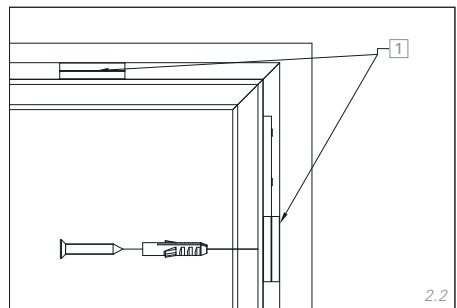
- ▶ Place the frame in the opening and align the height.
- ▶ Leave a gap on the left/right between the main frame and the masonry.

- ▶ Align the frame using a spirit level and wedge with pressure-resistant supports.



1 Pressure-resistant supports

- ▶ Drill the fastening holes at the top left and right in the reveal.
- ▶ Screw in the frame corners at the top left and right in the reveal.

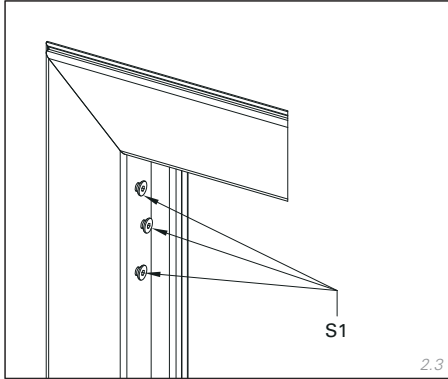


1 Pressure-resistant supports

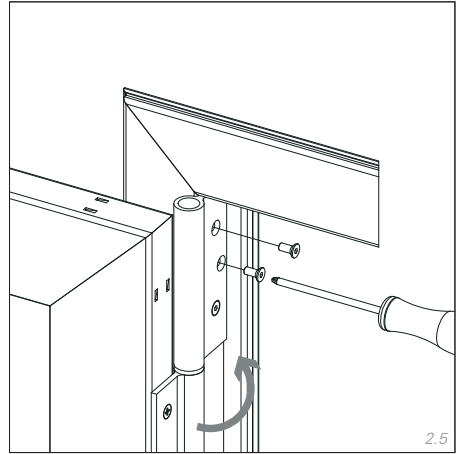
Installing the security sash

- ▶ Remove the hinge screws.

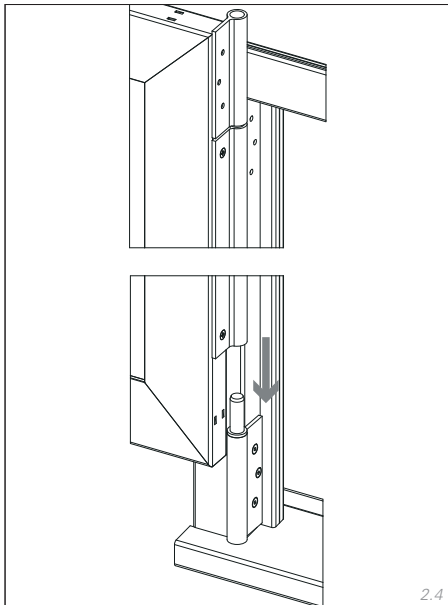
Ensure that excessive pressure is not exerted on the counter plate, as the attached plate may come away from the frame.



- ▶ Swivel in the hinge and screw onto the frame.

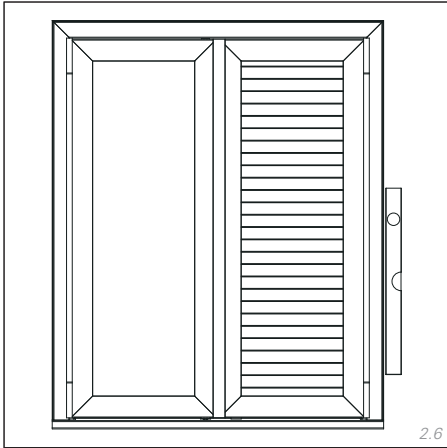


- ▶ Place the sash on the lower hinge.

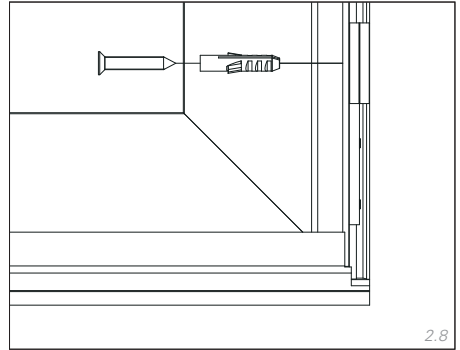


Fastening the security frame at the bottom

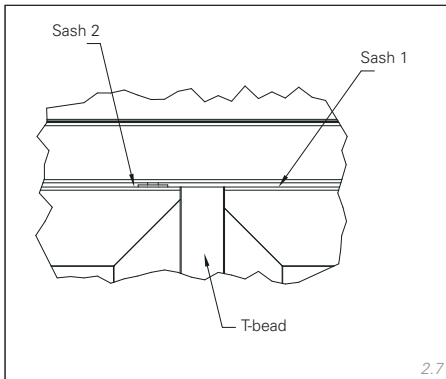
- ▶ Check the alignment of the frame profiles using a spirit level.



- ▶ Drill the fastening holes at the bottom left and right in the reveal.
- ▶ Screw in the frame corners at the bottom left and right in the reveal.



- ▶ Align the sashes parallel to one another.
- ▶ Align the T-bead so that it is flat with the opposite sash when closed.



Function check

- ▶ Open the sash fully and close it again.

The sash cannot open/close completely, grinds on the window sill or the T-bead is not flat when closed.

- ▶ Loosen the screws on the bottom left and right and adjust the alignment of the frame, sash and T-bead.

-
- ▶ Check that the rod lock functions correctly.

If the function check is successful

- ▶ Drill all other fastening holes in the reveal and screw in the security frame in accordance with DIN EN 1627.

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