PASSAGE

Remote smoke control damper

CE
1812

Rf-t

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V30-EN-A 02/2020

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Explanation of the abbreviations and pictograms

Wn = nominal width
Hn = nominal height
Sn = free air passage
E = integrity
I = thermal insulation
S = smoke leakage
60/120 = fire resistance time
Pa = pascal
o -> i = meets the criteria from the outside (o) to the inside (i)
i <-> o = fire side not important
AA = automatic activation
multi = multi compartment
ved = vertical duct
hod = horizontal duct
vew = vertical wall penetration
V = volt
W = watt
V AC = Volt alternating current
V DC = Volt direct current
E.TELE = power supply magnet
E.ALIM = power supply motor
Auto = automatic
Tele = remote controlled
Pnom = nominal capacity
Pmax = maximum capacity
DAS MOD = modular product
OP = option (delivered with the product)
KIT = kit (delivered separately for repair or upgrade)
PG = connection flange to the duct
GKB (type A) / GKF (type F): "GKB" stands for standard plasterboards (type A according to EN 520) while "GKF" plasterboards offer a higher fire resistance for a similar plate thickness (type F according to EN 520)
Cal-Sil = calcium silicate
ζ [-] = pressure loss coefficient
Q = air flow
ΔP = static pressure drop
v = air speed in the duct
Lwa = A-weighted sound power level
ME = motorised
H = habitat

	maximum design freedom for shafts due to absence of door or damper blade		optimal free air passage and minimal pressure loss
	infinitely adjustable net passage with reading of contacts		

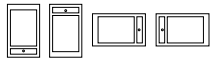
DECLARATION OF PERFORMANCE

CE_DoP_Rf-t_V30_EN - A-02/2020

1. Unique identification code of the product-type:	**PASSAGE**
2. Intended use/es:	Smoke evacuation shutter to be used in smoke control systems, in multi-compartment applications at fire temperatures, or in single-compartment applications.
3. Manufacturer:	Rf-Technologies NV, Lange Ambachtstraat 40, B-9860 Oosterzele
4. System/s of AVCP:	System 1
5. Harmonised standard / European Assessment Document; notified body / European Technical Assessment, Technical Assessment Body, notified body; certificate of constancy of performance:	EN 12101-8:2011, Efectis with identification number 1812;
6. Declared performance according to EN 12101-8:2011	(fire resistance according to EN 1366-10, classification according to EN 13501-4)

Essential characteristics					Performance
Range	Product	Shaft type	Shaft	Installation	Classification
300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Passage 60	Vertical / horizontal shaft	Promatect L500 ≥ 30 mm	1	EI 60 (v_{ed} h_{od} i ↔ o) S 1000 AA multi
			Geotec ≥ 30 mm	1	
		Vertical shaft	Masonry, concrete blocks, concrete ≥ 100 mm	1	EI 60 (v_{ed} i ↔ o) S 1000 AA multi
	Passage 120	Vertical / horizontal shaft	Promatect L500 ≥ 50 mm	1	EI 120 (v_{ed} h_{od} i ↔ o) S 1000 AA multi
			Geotec ≥ 45 mm	1	
		Vertical shaft	Masonry, concrete blocks, concrete ≥ 100 mm	1	EI 120 (v_{ed} i ↔ o) S 1000 AA multi

1 Type of installation: shaft-mounted 0/90°/180°/270°



Harmonised standard EN 12101-8:2011

Nominal activation conditions/sensitivity:	Pass - automatic activation
Response delay (response time): closure time	Pass - automatic activation
Operational reliability: cycling	300 cycles (no load)
Durability of response delay:	Pass
Durability of operational reliability:	Pass
Approved accessories	EASY-KAP PA mounting frame; with grill
High operational temperature (HOT 400/30):	NPD (no performance determined)

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:
Mathieu Steenland, Technical Manager

Oosterzele, 02/2020

Product presentation

Product presentation

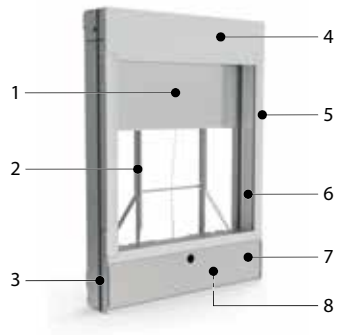
The PASSAGE is an innovative remote smoke control damper allowing complete freedom with regard to dimensions of smoke control shafts. The net passage is infinitely adjustable so that required flow rates and/or air speeds can be set as required at the yard. The PASSAGE is developed in compliance with the European product standard EN 12101-8 and tested with cover grille according to standard EN 1366-10. The product is fire resistant for 60 to 120 minutes and guarantees minimum pressure loss.

Smoke evacuation shutters and dampers are suitable for use in ventilating protected lobbies, venting to shafts either naturally or mechanically. They open to evacuate smoke in emergency situations whilst maintaining fire resistant integrity in standby position.

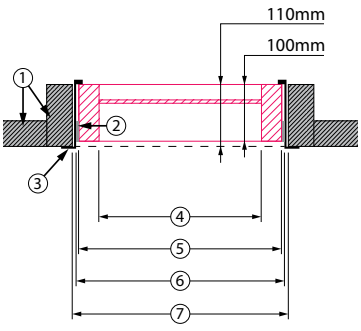
- ☑ optimal free air passage and minimal pressure loss
- ☑ maximum design freedom for shafts due to absence of door or damper blade
- ☑ infinitely adjustable net passage with reading of contacts
- ☑ superior air tightness (tested at 1000 Pa)
- ☑ large dimensions
- ☑ finished with grille or connection to galva duct

- ■ suitable for built-in and surface-mounted installation in a shaft
- ■ suitable for vertical or horizontal position
- ■ tested according to EN 1366-10 up to -1000 Pa
- ■ compliant with EN 12101-8
- ■ approved for installation in calcium-silicate, 'Staff' and concrete shafts
- ■ maintenance-free
- ■ for indoor use
- ■ installation at 0, 90, 180, 270°
- ■ option: connection flange PG30

1. Curtain
2. Reinforcement cross
3. Sealing strip
4. Top profile
5. Side profile
6. Cold sealing
7. Lower profile with access hatch for mechanism and connection compartment
8. product identification



Range and dimensions



1. Refractory material
2. Sealing
3. Mounting frame (optional)
4. Nominal dimensions shutter Wn x Hn
5. Overall (outside) dimensions of the shutter (Wn+70) x (Hn+290)mm
6. Built-in dimensions without mounting frame (Wn+80) x (Hn+300)mm
7. Built-in dimensions with mounting frame (Wn+90) x (Hn+310)mm

	≥	≤
(Wn x Hn) mm	300x300	450x600
	500x300	1100x900

Evolution - kits

	EASY-KAP PA	Mounting frame (delivered separately)
	KITS VD24-PA	Natural magnet 24 V DC
	KITS VD48-PA	Natural magnet 48 V DC
	KITS VM24-PA	Electromagnet 24 V DC
	KITS VM48-PA	Electromagnet 48 V DC
	KITS FDCU-PA	Limit switches 'open/closed'
	KITS FDCB-PA	Limit switches 'open/closed'

Storage and handling

Storage and handling

As this product is a safety element, it should be stored and handled with care.

Avoid:

- any kind of impact or damage
- contact with water
- deformation of the casing

It is recommended:

- to unload in a dry area
- not to flip or roll the product to move it
- not to use the damper as a scaffold, working table, etc.
- not to store smaller dampers inside larger ones
- keep the damper blade rolled up until shortly before completion or to protect against possible damage from a plate or a technical/aesthetic grille
- do not handle the cable other than by the mechanism

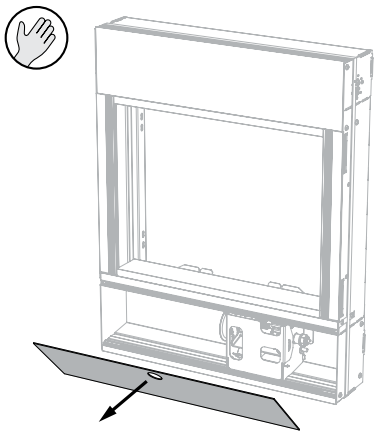
Installation

General points

- The installation must comply with the installation manual and the classification report.
- The installation of the shaft must comply with the classification report delivered by the shaft manufacturer.
- Axis orientation: see the declaration of performance.
- Avoid the obstruction of adjoining shafts.
- Verify if the blade can move freely.
- Rf-t smoke dampers may be applied to ducts that have been tested according to EN 1366-8 and EN 1366-9 as appropriate, constructed from similar materials with a fire resistance, thickness and density equal or superior to these of the tested materials.
  - ⚠ Caution: when fitting, the product should be handled with care and remain protected from any sealing products.
  - ⚠ Caution: before putting the installation into operation, clean off all the dust and dirt.
  - ⚠ Caution: bear in mind the blade's clearance inside the smoke evacuation duct.
  - ⚠ Caution: do not operate the curtain directly by hand.

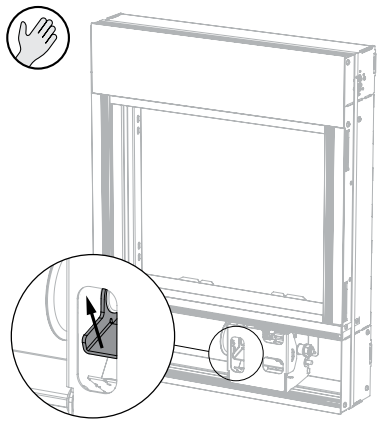
Operation: manual closing

1



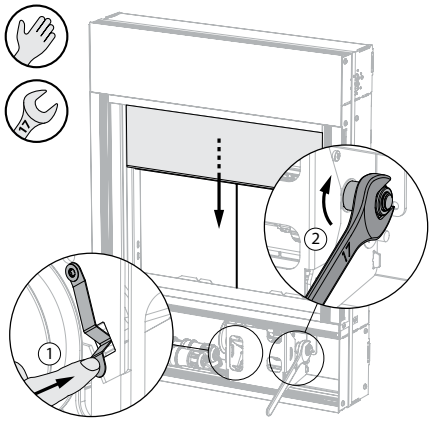
1. Open the access hatch in the lower profile of the PASSAGE to obtain access to the manual mechanism. Put the access hatch aside.

2



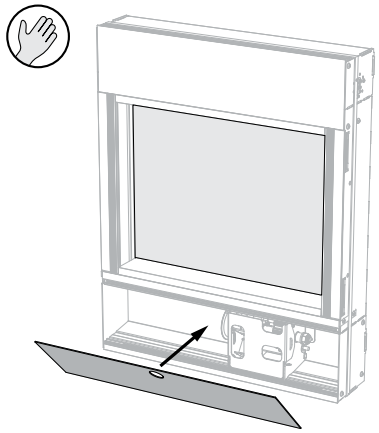
2. Push the lock up until the lock remains in the open position. In the event of a VM magnet, ensure that the magnet is live.

3



3. Place a ratchet wrench no. 17 on the nut. Press the safety spring while tensioning the curtain. Turn clockwise so that the curtain is pulled down.

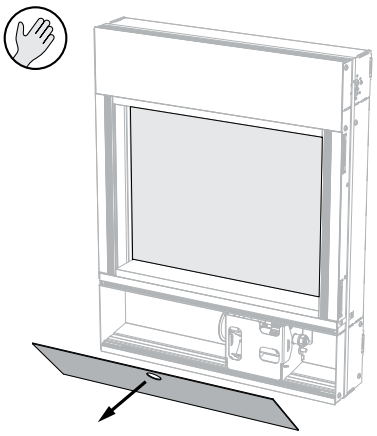
4



4. Place the access hatch back in the lower profile and close the unit.

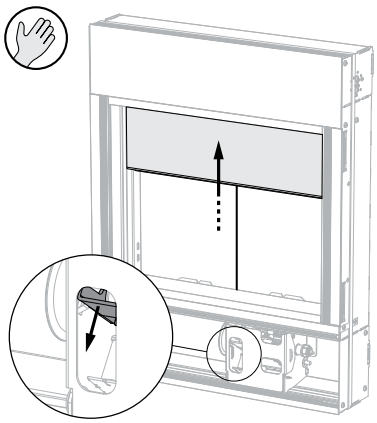
Operation: manual opening

1



1. Open the access hatch in the lower profile of the PASSAGE to obtain access to the manual mechanism. Put the access hatch aside.

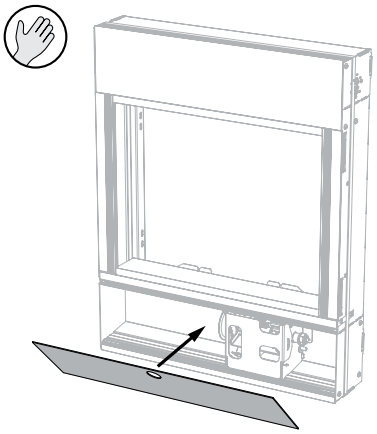
2



2. Pull the lock down to unlock the mechanism. The curtain opens.

⚠ Please note: the reel turns along.

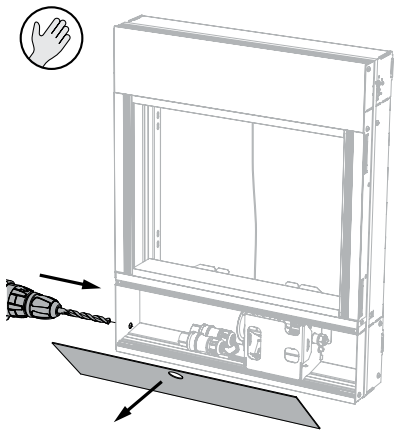
3



3. Place the access hatch back in the lower profile and close the unit.

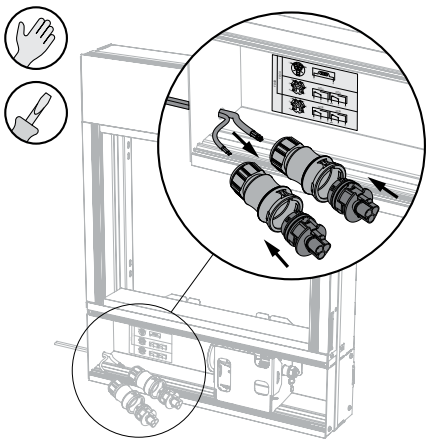
Electrical connection

1



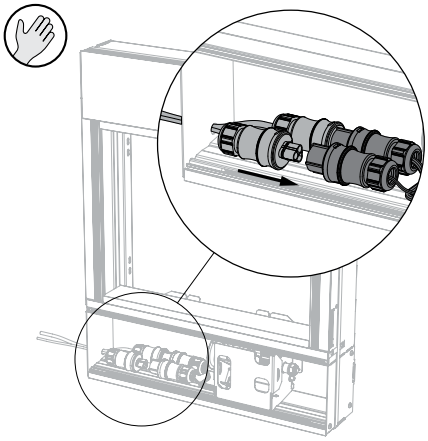
1. Before fitting the PASSAGE, open the access hatch and ensure the right bore in the side profile, bottom left, to provide a passage for the incoming cables.

2



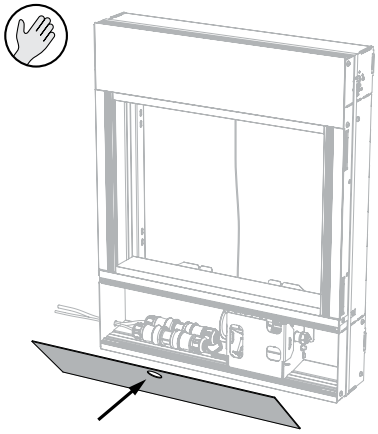
2. Guide the cables through the opening.
Connect the magnet and position switches with the supplied connectors according to the connection schedule in the connection compartment.

3



3. Couple the connectors.
Comply with the installation regulations set out in Article 6.1 of NF S 61-932.

4

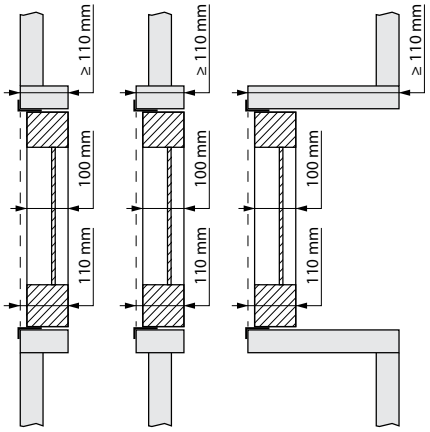


4. Position all cables in the connection compartment and close the access hatch.

Position in the shaft

The shutter is affixed to the smoke evacuation shaft through a sleeve. That sleeve can be installed either in the shaft, in the axis of the shaft or outside the shaft (or shaft extension).

1



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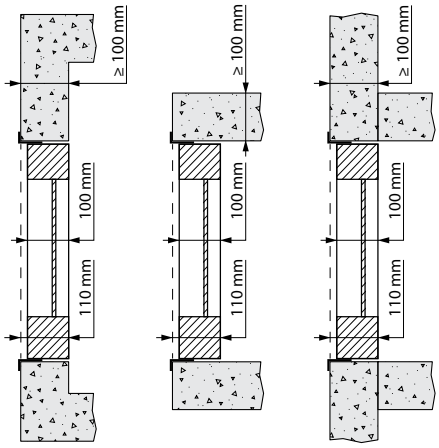

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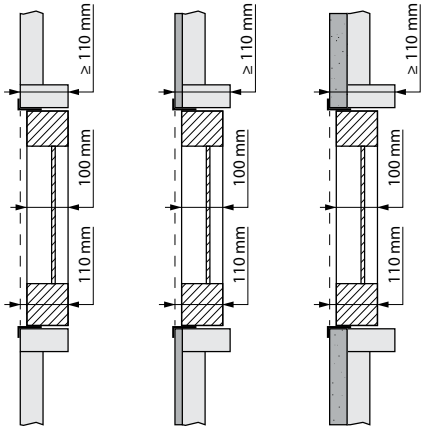

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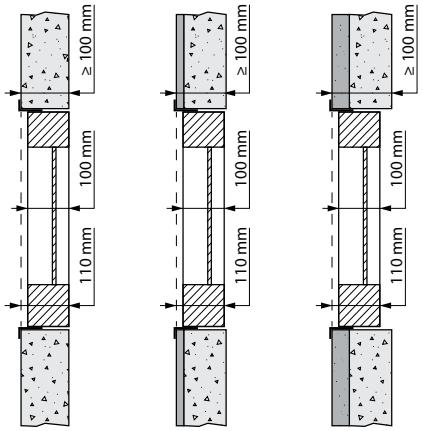

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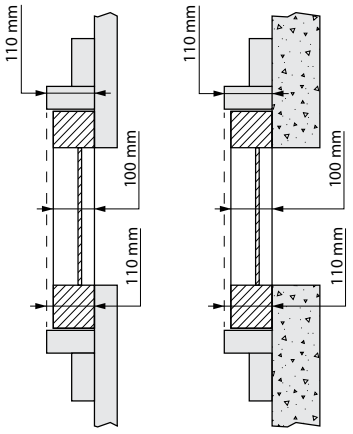
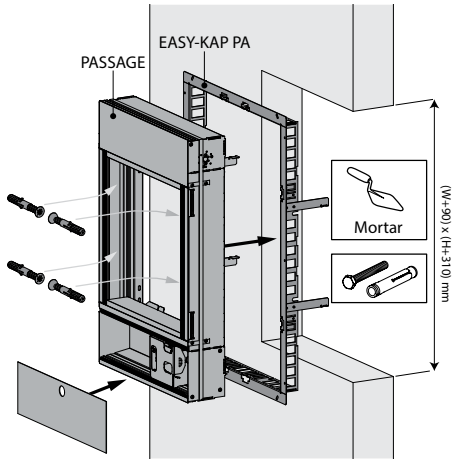


Installation into vertical concrete shaft with mounting frame

The product was tested and approved in:

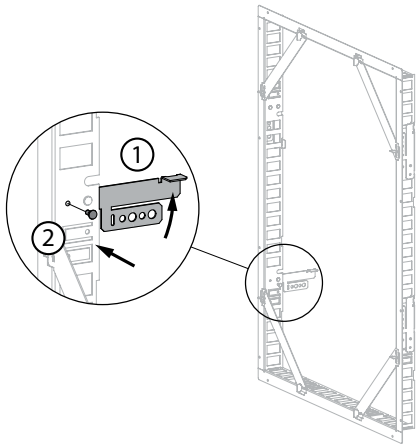
Product	Range	Shaft type		Classification
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical shaft	Masonry, concrete blocks, concrete ≥ 100 mm	EI 60 (v_{ed} i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical shaft	Masonry, concrete blocks, concrete ≥ 100 mm	EI 120 (v_{ed} i ↔ o) S 1000 AA multi

1



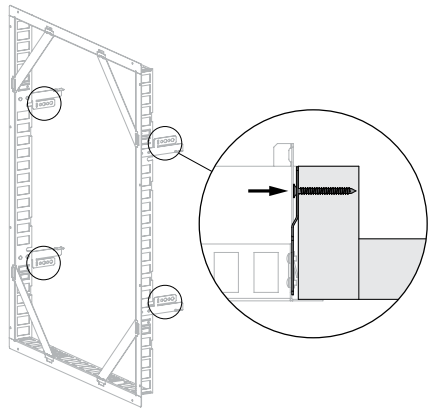
1. Make an opening with dimensions (Wn+90) x (Hn+310) mm.

2



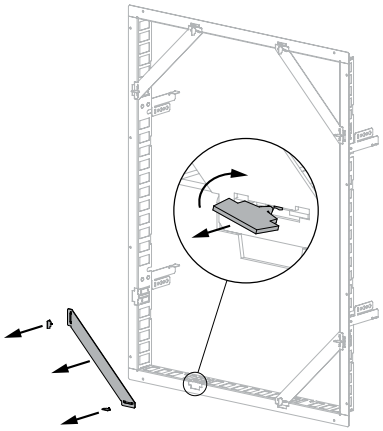
2. Turn the four fixing plates on the installation frame 90° to the open position and secure them with the supplied drive rivets.

3



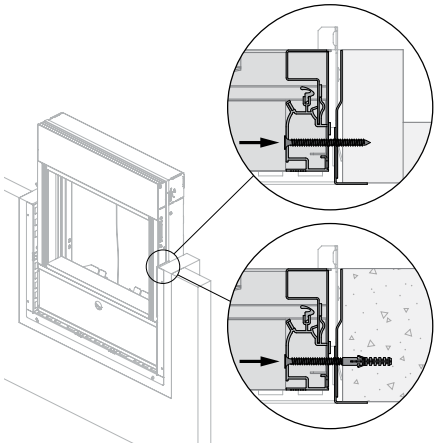
3. The installation frame must always be secured to the concrete shaft with screws and plugs. To this end, use Ø4 x minimal 30 mm, steel or stainless steel.
Fill up the opening of the installation frame with mortar. Ensure that the space between the installation frame and the opening is fully sealed with mortar.
The finished opening must have the same size as the mounting frame (Wn+80) x (Hn+300) mm.
The mortar must harden completely before the damper is fastened to the mounting frame.

4



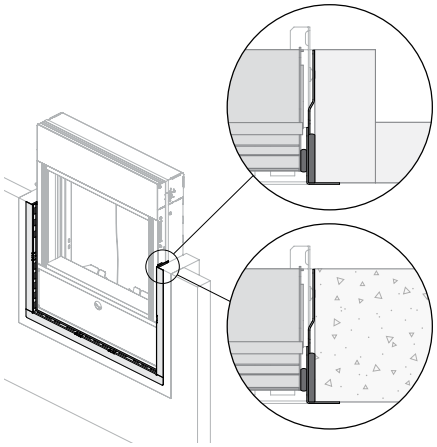
4. Remove the corner reinforcements by first turning the tabs until they break in order to be able to remove the reinforcement.

5



5. Place the hatch in the opening. Screw the hatch tight in both side profiles with the supplied screws Ø6 x 70 mm. Ensure that the hatch does not warp during fastening of the screws.

6



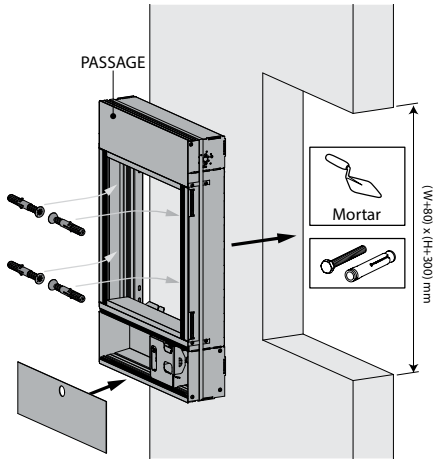
6. Seal the opening between the hatch and the shaft with fire-resistant one-component acrylic based mastic, fire class rating E (e.g. Promaseal-A).
Connect the mechanism according to the wiring diagram.
Check the mobility of the shutter.

Installation into vertical concrete shaft without mounting frame

The product was tested and approved in:

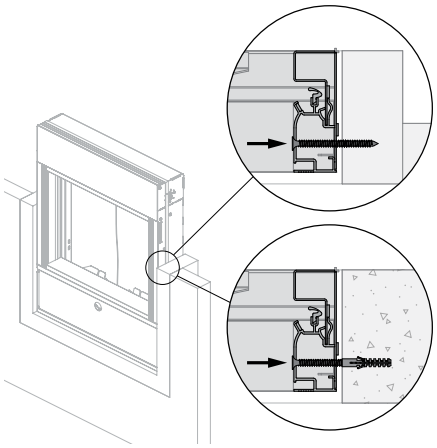
Product	Range	Shaft type		Classification
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical shaft	Masonry, concrete blocks, concrete ≥ 100 mm	EI 60 (v_{ed} i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical shaft	Masonry, concrete blocks, concrete ≥ 100 mm	EI 120 (v_{ed} i ↔ o) S 1000 AA multi

1



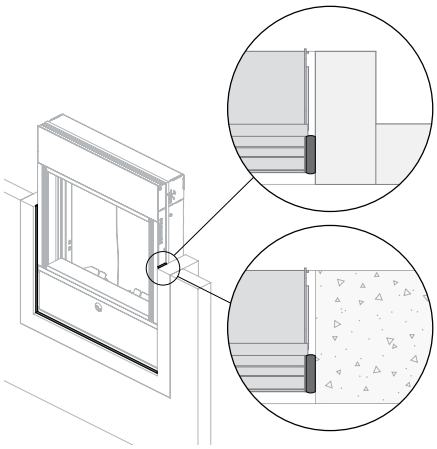
1. Make an opening with dimensions (Wn+20) x (Hn+20) mm. Open and position the shutter in the opening.

2



2. Place the hatch in the opening. Screw the hatch tight in both side profiles with the supplied screws Ø6 x 70 mm. Ensure that the hatch does not warp during fastening of the screws.

3



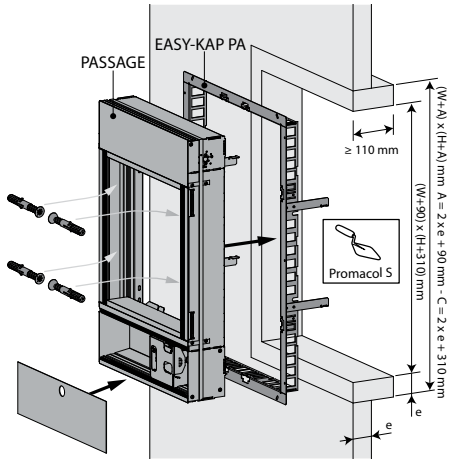
3. Seal the opening between the hatch and the shaft with fire-resistant one-component acrylic based mastic, fire class rating E (e.g. Promaseal-A).
Connect the mechanism according to the wiring diagram.
Check the mobility of the shutter.

Installation into horizontal or vertical shaft PROMATECT L500 with mounting frame

The product was tested and approved in:

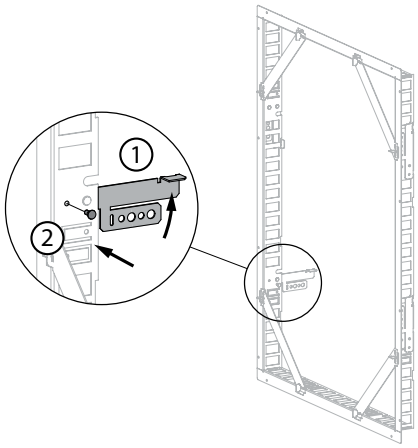
Product	Range	Shaft type		Classification
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Promatect L500 ≥ 30 mm	EI 60 (v_{ed} ho_d i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Promatect L500 ≥ 50 mm	EI 120 (v_{ed} ho_d i ↔ o) S 1000 AA multi

1



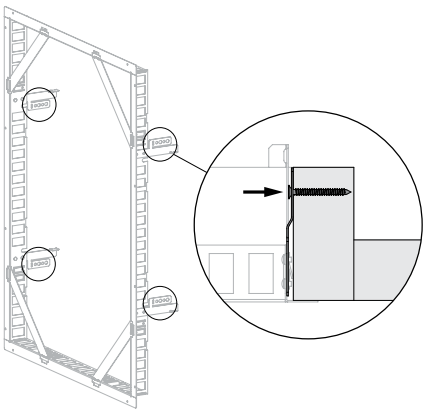
1. Make an opening with dimensions (Wn+A) x (Hn+C) mm.
A = 2 x thickness sleeve (e) + 90 mm.
C = 2 x thickness sleeve (e) + 310 mm.
Fit a sleeve of the same type and thickness of the duct (thickness e) of minimum 110 mm deep in the opening.
Assemble the sleeve with staples and affix the assembled sleeve to the shaft wall with glue Promacol S and screws Ø5 x 90 mm in steps of 200 mm.

2



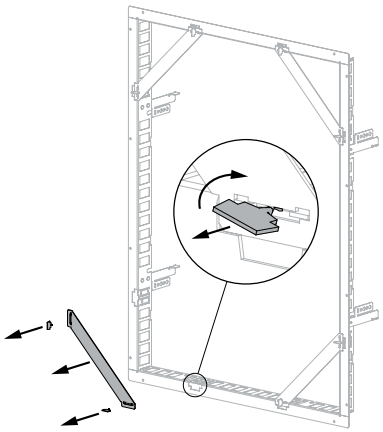
2. Turn the four fixing plates on the installation frame 90° to the open position and secure them with the supplied drive rivets.

3



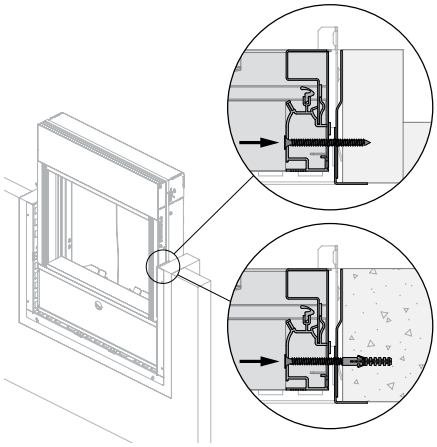
3. The installation frame must always be secured to the shaft with screws. To this end, use Ø4 x minimal 30 mm, steel or stainless steel.
Ensure that the space between the installation frame and the opening is fully sealed with Promacol S.

4



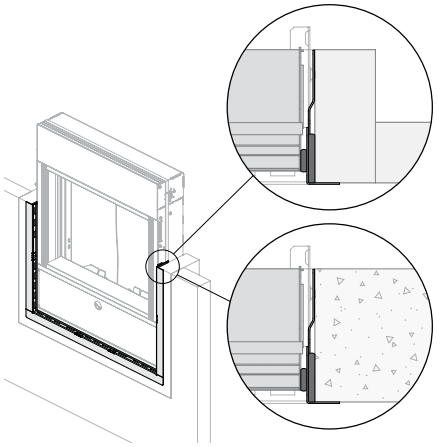
4. Remove the corner reinforcements by first turning the tabs until they break in order to be able to remove the reinforcement.

5



5. Place the hatch in the opening. Screw the hatch tight in both side profiles with the supplied screws Ø6 x 70 mm. Ensure that the hatch does not warp during fastening of the screws.

6



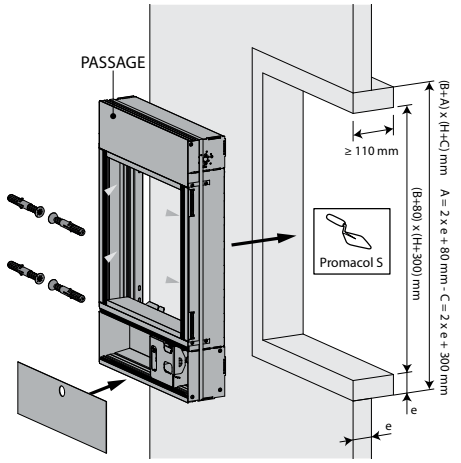
6. Seal the opening between the hatch and the shaft with Promaseal-A (Promat).
Connect the mechanism according to the wiring diagram.
Check the mobility of the shutter.

Installation into horizontal or vertical shaft PROMATECT L500 without mounting frame

The product was tested and approved in:

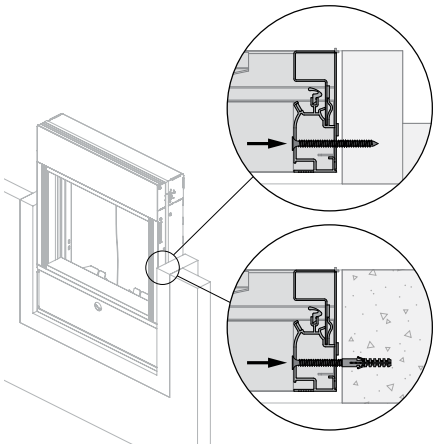
Product	Range	Shaft type		Classification
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Promatect L500 ≥ 30 mm	EI 60 (v_{ed} ho_d i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Promatect L500 ≥ 50 mm	EI 120 (v_{ed} ho_d i ↔ o) S 1000 AA multi

1



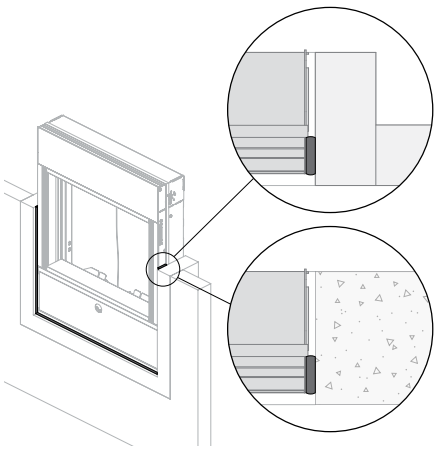
1. Make an opening with dimensions (Wn+A) x (Hn+C) mm.
A = 2 x thickness sleeve (e) + 80 mm.
C = 2 x thickness sleeve (e) + 300 mm.
Fit a sleeve of the same type and thickness of the duct (thickness e) of minimum 110 mm deep in the opening.
Assemble the sleeve with staples and affix the assembled sleeve to the shaft wall with glue Promacol S and screws Ø5 x 90 mm in steps of 200 mm.

2



2. Place the hatch in the opening. Screw the hatch tight in both side profiles with the supplied screws Ø6 x 70 mm. Ensure that the hatch does not warp during fastening of the screws.

3



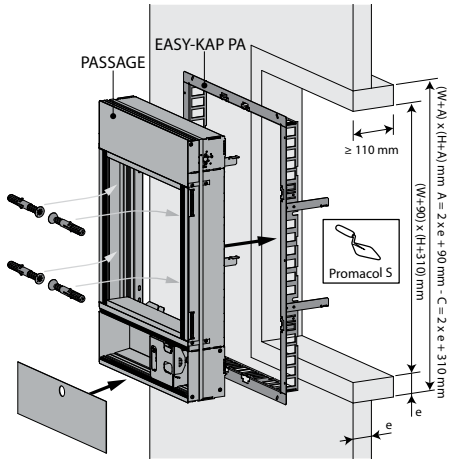
3. Seal the opening between the hatch and the shaft with Promaseal-A (Promat).
Connect the mechanism according to the wiring diagram.
Check the mobility of the shutter.

Installation into horizontal or vertical shaft GEOTEC with mounting frame

The product was tested and approved in:

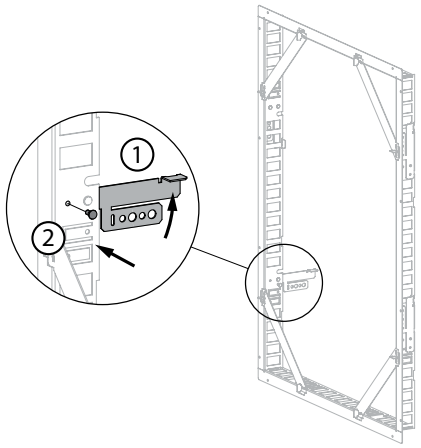
Product	Range	Shaft type		Classification
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Geotec ≥ 30 mm	EI 60 (v_{ed} ho_d i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Geotec ≥ 45 mm	EI 120 (v_{ed} ho_d i ↔ o) S 1000 AA multi

1



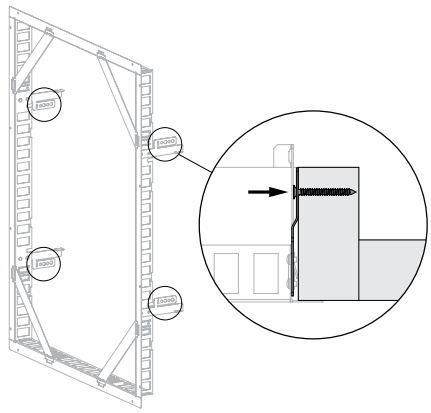
1. Make an opening with dimensions (Wn+A) x (Hn+C) mm.
A = 2 x thickness sleeve (e) + 90 mm.
C = 2 x thickness sleeve (e) + 310 mm.
Fit a sleeve of the same type and thickness of the duct (thickness e) of minimum 110 mm deep in the opening.
Secure the flange itself and to the shaft wall with glue GEOCOL (S) and screws Ø 5 x (2 x e) mm in 200 mm steps.
Seal the joints between uprights and cross pieces and between the lining and the wall with GEOCOL (S).

2



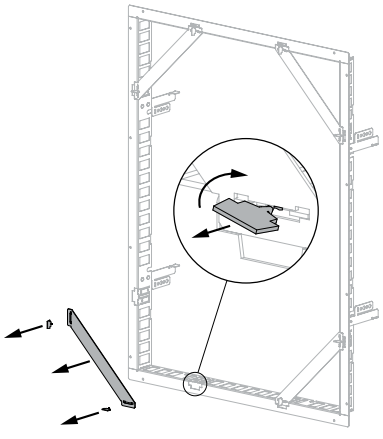
2. Turn the four fixing plates on the installation frame 90° to the open position and secure them with the supplied drive rivets.

3



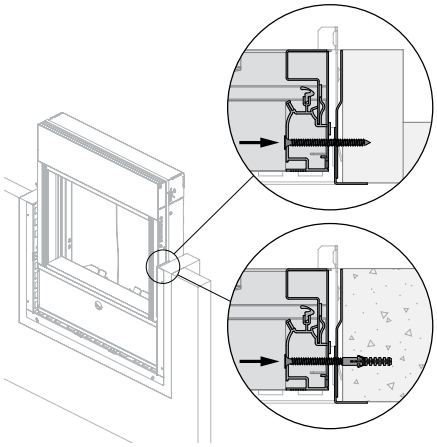
3. The installation frame must always be secured to the shaft with screws. To this end, use Ø4 x minimal 30 mm, steel or stainless steel.
Coat the edges of the opening with adhesive plaster type GEOCOL (S).
The finished opening must have the same size as the mounting frame (W+80) x (H+300) mm.

4



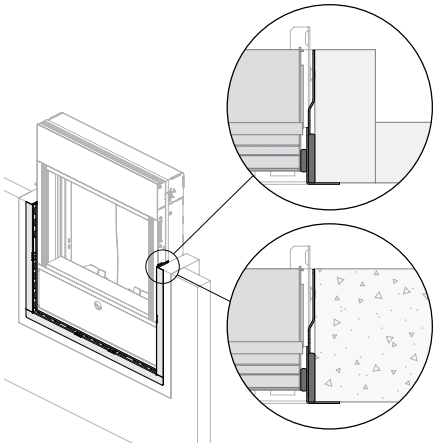
4. Remove the corner reinforcements by first turning the tabs until they break in order to be able to remove the reinforcement.

5



5. Place the hatch in the opening. Screw the hatch tight in both side profiles with the supplied screws Ø6 x 70 mm. Ensure that the hatch does not warp during fastening of the screws.

6



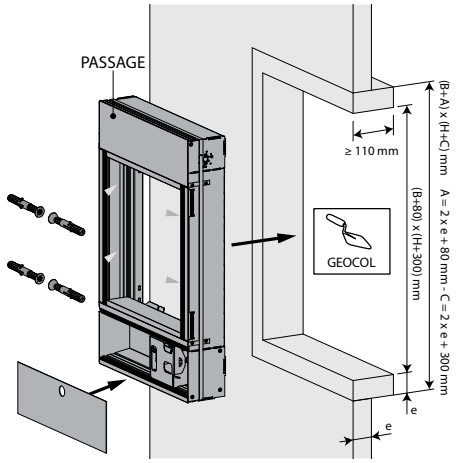
6. Seal the opening between the hatch and the shaft with fire-resistant one-component acrylic based mastic, fire class rating E (e.g. Promaseal-A).
Connect the mechanism according to the wiring diagram.
Check the mobility of the shutter.

Installation into horizontal or vertical shaft GEOTEC without mounting frame

The product was tested and approved in:

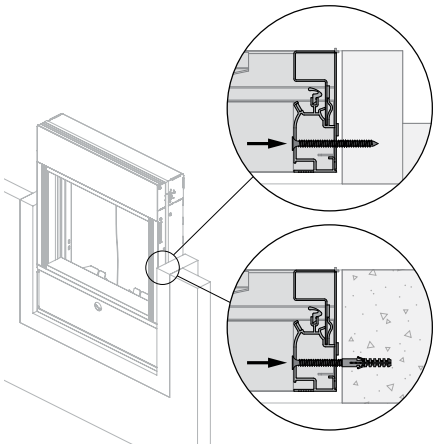
Product	Range	Shaft type		Classification
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Geotec ≥ 30 mm	EI 60 (v_{ed} ho_d i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Geotec ≥ 45 mm	EI 120 (v_{ed} ho_d i ↔ o) S 1000 AA multi

1



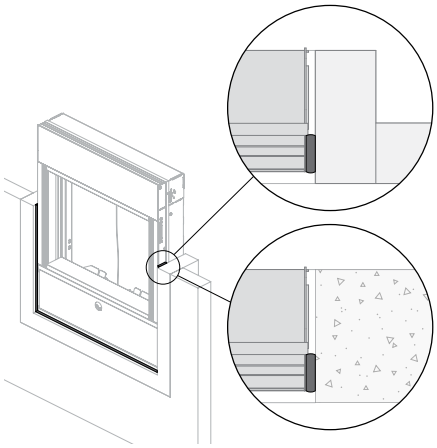
1. Make an opening with dimensions (Wn+A) x (Hn+C) mm.
A = 2 x thickness sleeve (e) + 80 mm.
C = 2 x thickness sleeve (e) + 300 mm.
Fit a sleeve of the same type and thickness of the duct (thickness e) of minimum 110 mm deep in the opening.
Secure the flange itself and to the shaft wall with glue GEOCOL (S) and screws Ø 5 x (2 x e) mm in 200 mm steps.
Seal the joints between uprights and cross pieces and between the lining and the wall with GEOCOL (S).

2



2. Place the hatch in the opening. Screw the hatch tight in both side profiles with the supplied screws Ø6 x 70 mm. Ensure that the hatch does not warp during fastening of the screws.

3



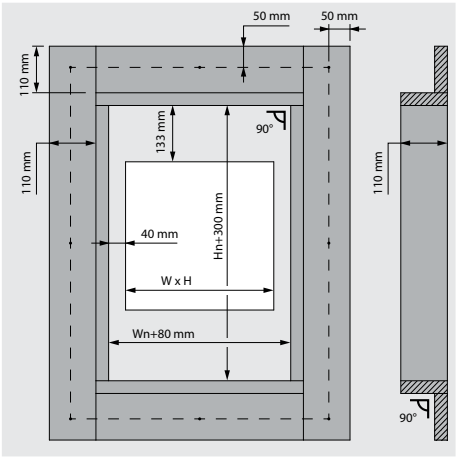
3. Seal the opening between the hatch and the shaft with fire-resistant one-component acrylic based mastic, fire class rating E(e.g. Promaseal-A).
Connect the mechanism according to the wiring diagram.
Check the mobility of the shutter.

Installation surface-mount on vertical and horizontal shafts without mounting frame

The product was tested and approved in:

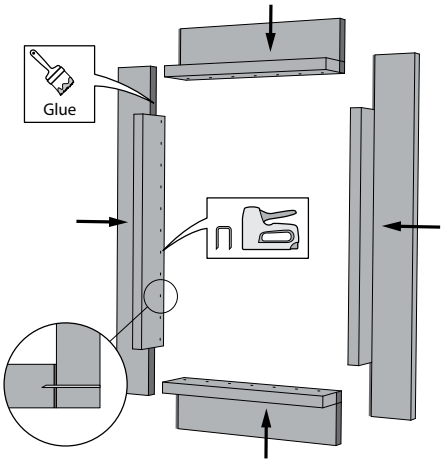
Product	Range	Wall type		Classification
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Promatect L500 ≥ 30 mm	EI 60 (v_{ed} ho_d i ↔ o) S 1000 AA multi
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Geotec ≥ 30 mm	EI 60 (v_{ed} ho_d i ↔ o) S 1000 AA multi
Passage 60	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical shaft	Masonry, concrete blocks, concrete ≥ 100 mm	EI 60 (v_{ed} i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Promatect L500 ≥ 50 mm	EI 120 (v_{ed} ho_d i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical / horizontal shaft	Geotec ≥ 45 mm	EI 120 (v_{ed} ho_d i ↔ o) S 1000 AA multi
Passage 120	300x300 mm ≤ PASSAGE ≤ 450x600 mm; 500x300 mm ≤ PASSAGE ≤ 1100x900 mm	Vertical shaft	Masonry, concrete blocks, concrete ≥ 100 mm	EI 120 (v_{ed} i ↔ o) S 1000 AA multi

1



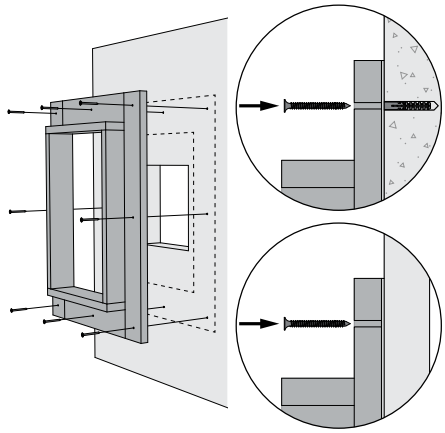
1. Make an opening with dimensions relative to W x H.
Provide a mounting sleeve made of shaft material around the shutter with inner dimensions: (Wn + 80) x (Hn + 300) mm and installation depth: 110 mm.

2



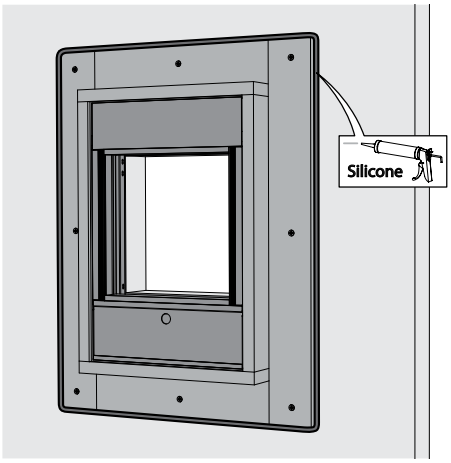
2. Make sure the sleeve parts are always mounted perpendicular to each other with ready-to-use glue without solvents.
Glue the different parts of the collar together with ready-to-use glue without solvents. For 30 mm thick plates: staple or screw the parts together.

3



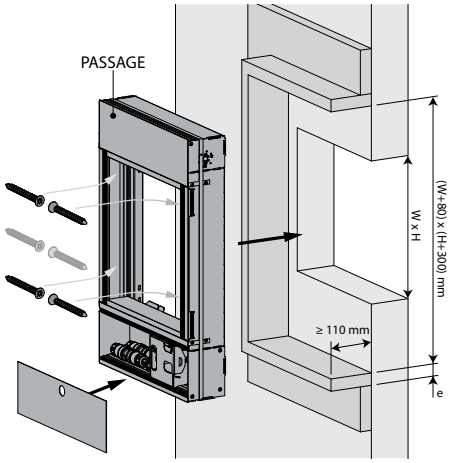
3. Provide screw holes in the mounting sleeve 50 mm from the outer edge, both in the corners and in the middle.
Place the mounting sleeve over the opening in the shaft and tighten. Ensure that the top side of the sleeves internal opening is mounted 133 mm from the top side of the opening in the shaft.

4



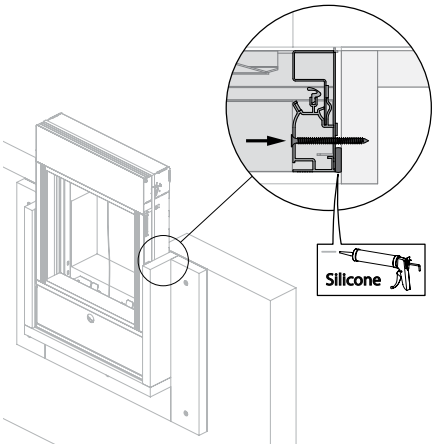
4. After mounting the sleeve, apply fire-resistant one-component acrylic based mastic, fire class rating E (e.g. Promaseal-A) around the frame for optimal sealing.

5



5. Place the hatch in the opening. Screw the hatch tight in both side profiles with the supplied screws Ø6 x 70 mm. Ensure that the hatch does not warp during fastening of the screws.

6

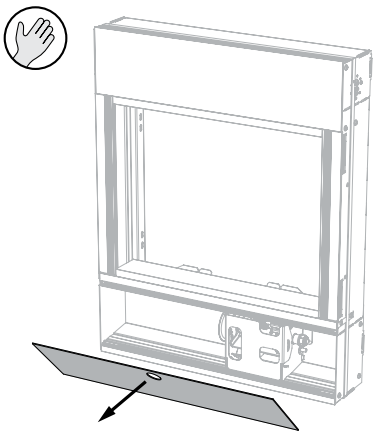


6. Seal the opening between the shutter and the mounting sleeve with fire-resistant one-component acrylic based mastic, fire class rating E (e.g. Promaseal-A).
Connect the mechanism according to the wiring diagram.
Check the mobility of the shutter.

The same principle applies to the installation of the PASSAGE in the floor.

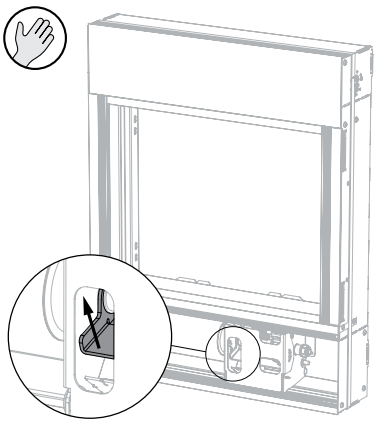
Control: set up net passage

1



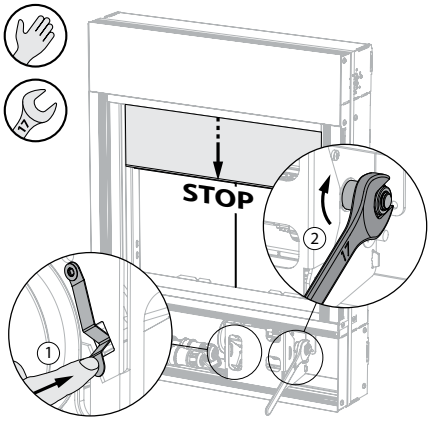
1. Open the access hatch in the lower profile of the PASSAGE to obtain access to the manual mechanism. Put the access hatch aside.
Leave the curtain at the very top rolled up in an open position.

2



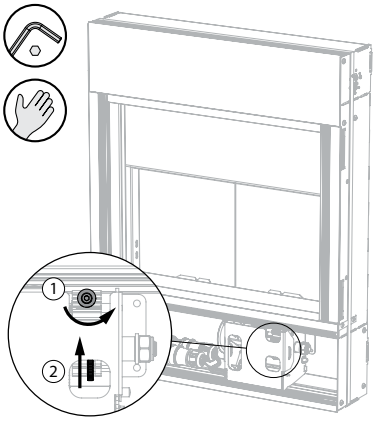
2. Push the lock up until the lock remains in the open position. In the event of a VM magnet, ensure that the magnet is live.

3



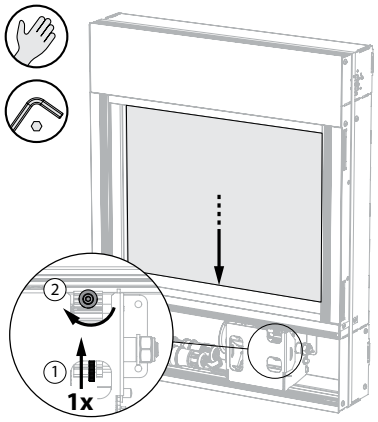
3. Place a ratchet wrench no. 17 on the nut. Press the safety spring while tensioning the curtain. Turn clockwise so that the curtain is pulled down.
Close the curtain to the required height.

4



4. Unscrew the upper screw of the position switch with a hex key.
Use the roller to move the position switch against the locking disk so that the latter is fully pushed in and makes contact.
Tip: use a multimeter to read the position switch via the connector.

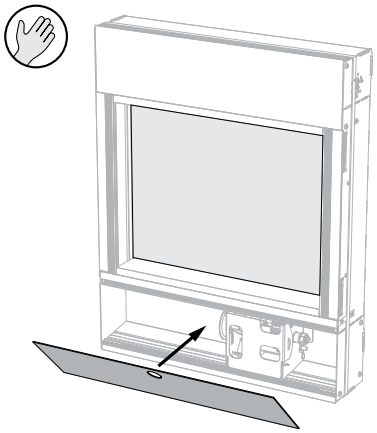
5



5. Close the curtain completely by means of a ratchet wrench no. 17.
Use the roller to move the position switch an other round to the left and lock the top screw again.

⚠ Please note : Make sure that both the screw and the roller are tight so the position switch can no longer move.

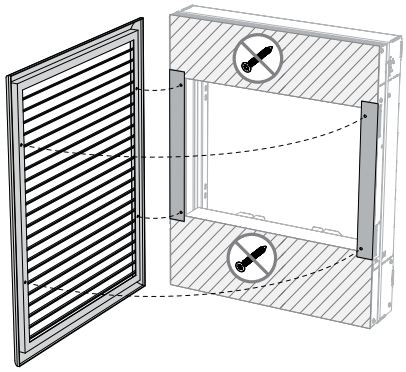
6



6. Place the access hatch back in the lower profile and close the unit.

Finishing with grill

1



1. Secure in the lateral posts of the PASSAGE through the pre-drilled holes in the grid.

Maintenance

- No specific maintenance required.
- Schedule at least two running visual checks each year.
- Remove dust and all other particles before start-up.
- Follow the local maintenance regulations (i.e. BS9999 Annex V; NF S 61-933) and EN13306.

Operation and mechanisms

VA PA MEC Remote controlled unlocking by a magnet.

Remote controlled unlocking by an electric impulse (VD) or by interruption (VM) of the magnet's power supply.

Options - at the time of order

VD24-PA	Natural magnet 24 V DC
VD48-PA	Natural magnet 48 V DC
VM24-PA	Electromagnet 24 V DC
VM48-PA	Electromagnet 48 V DC
FDCU-PA	Limit switch 'open/closed'
FDCB-PA	Auxiliary limit switch 'open/closed'

Unlocking

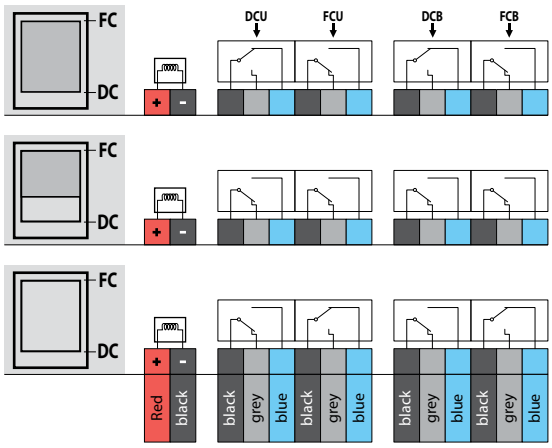
- **manual unlocking**: see chapter "Installation"
- **automatic unlocking**: n/a
- **remote unlocking**: by electrical impulse (VD) or interruption (VM) of current to the magnet.

Resetting

- **manual resetting**: see chapter "Installation"

Electrical connection

VA PA MEC



DCU : Primary switch closed position smoke evacuation shutter
FCU : Primary switch open position smoke evacuation shutter
DCB : Secondary switch closed position smoke evacuation shutter
FCB : Secondary switch open position smoke evacuation shutter

MEC	Nominal voltage motor	Nominal voltage magnet	Power consumption (stand-by)	Power consumption (operating)	Standard switches	Protection class
VA PA MEC	N/A	24/48 V DC	VM: 1,5W / VD: -	VM: - / VD: 3,5W	1mA...6A, DC 5V...AC 250V	IP 42

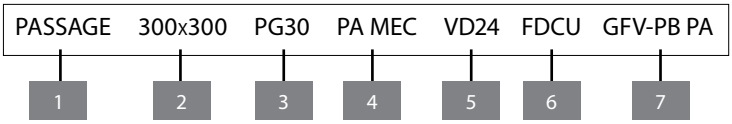
Weights

Hn\Wn [mm]		300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
300	kg	8,8	9,5	10,3	11,6	12,8	13,6	14,4	15,2	16,0	17,0	17,8	18,6	19,4	20,3	21,1	21,9	22,9
350	kg	9,0	9,8	10,6	12,0	13,1	13,9	14,8	15,6	16,4	17,4	18,2	19,0	19,8	20,7	21,5	22,3	23,3
400	kg	9,3	10,1	10,8	12,3	13,5	14,3	15,2	16,0	16,8	17,8	18,6	19,4	20,2	21,1	21,9	22,7	23,8
450	kg	9,6	10,5	11,3	12,7	13,9	14,7	15,5	16,3	17,2	18,2	19,0	19,8	20,6	21,5	22,3	23,1	24,2
500	kg	10,0	10,8	11,6	13,1	14,3	15,1	15,9	16,7	17,5	18,6	19,4	20,2	21,0	21,9	22,7	23,5	24,6
550	kg	10,3	11,1	12,6	13,5	14,6	15,5	16,3	17,1	17,9	18,9	19,8	20,6	21,4	22,3	23,1	23,9	25,1
600	kg	10,6	12,2	13,0	13,8	15,0	15,8	16,7	17,5	18,3	19,4	20,2	21,0	21,8	22,7	23,5	24,3	25,5
650	kg					15,4	16,2	17,0	17,9	18,7	19,8	20,6	21,4	22,2	23,1	23,9	24,7	25,9
700	kg					15,8	16,6	17,4	18,3	19,1	20,2	21,0	21,8	22,6	23,5	24,3	25,1	26,4
750	kg					16,1	17,0	17,8	18,6	19,5	20,6	21,4	22,2	23,0	23,9	24,7	25,5	26,8
800	kg					16,5	17,4	18,2	19,0	19,8	21,0	21,8	22,6	23,5	24,3	25,1	26,0	27,3
850	kg					16,9	17,7	18,6	19,4	20,2	21,4	22,2	23,0	23,9	24,7	25,5	26,4	27,7
900	kg					17,3	18,1	19,0	19,8	20,6	21,8	22,6	23,4	24,3	25,1	25,9	26,8	30,0

Free air passage (m^2)

Hn\Wn [mm]		300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
300	Sn [m^2]	0,09	0,11	0,12	0,14	0,15	0,17	0,18	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,32	0,33
350	Sn [m^2]	0,11	0,12	0,14	0,16	0,18	0,19	0,21	0,23	0,25	0,26	0,28	0,30	0,32	0,33	0,35	0,37	0,39
400	Sn [m^2]	0,12	0,14	0,16	0,18	0,20	0,22	0,24	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,40	0,42	0,44
450	Sn [m^2]	0,14	0,16	0,18	0,20	0,23	0,25	0,27	0,29	0,32	0,34	0,36	0,38	0,41	0,43	0,45	0,47	0,50
500	Sn [m^2]	0,15	0,18	0,20	0,23	0,25	0,28	0,30	0,33	0,35	0,38	0,40	0,43	0,45	0,48	0,50	0,53	0,55
550	Sn [m^2]	0,17	0,19	0,22	0,25	0,28	0,30	0,33	0,36	0,39	0,41	0,44	0,47	0,50	0,52	0,55	0,58	0,61
600	Sn [m^2]	0,18	0,21	0,24	0,27	0,30	0,33	0,36	0,39	0,42	0,45	0,48	0,51	0,54	0,57	0,60	0,63	0,66
650	Sn [m^2]					0,33	0,36	0,39	0,42	0,46	0,49	0,52	0,55	0,59	0,62	0,65	0,68	0,72
700	Sn [m^2]					0,35	0,39	0,42	0,46	0,49	0,53	0,56	0,60	0,63	0,67	0,70	0,74	0,77
750	Sn [m^2]					0,38	0,41	0,45	0,49	0,53	0,56	0,60	0,64	0,68	0,71	0,75	0,79	0,83
800	Sn [m^2]					0,40	0,44	0,48	0,52	0,56	0,60	0,64	0,68	0,72	0,76	0,80	0,84	0,88
850	Sn [m^2]					0,43	0,47	0,51	0,55	0,60	0,64	0,68	0,72	0,77	0,81	0,85	0,89	0,94
900	Sn [m^2]					0,45	0,50	0,54	0,59	0,63	0,68	0,72	0,77	0,81	0,86	0,90	0,95	0,99

Sample order



1. product
2. width/height
3. option: flange
4. mechanism type
5. option: type magnet and voltage
6. option: bipolar end of range switch (FDCU included)
7. option: grill

Approvals and certificates

All our products are submitted to a number of tests by official test institutes. Reports of these tests form the basis for the approvals of the products.

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