

halo
assist

Installation supportline:

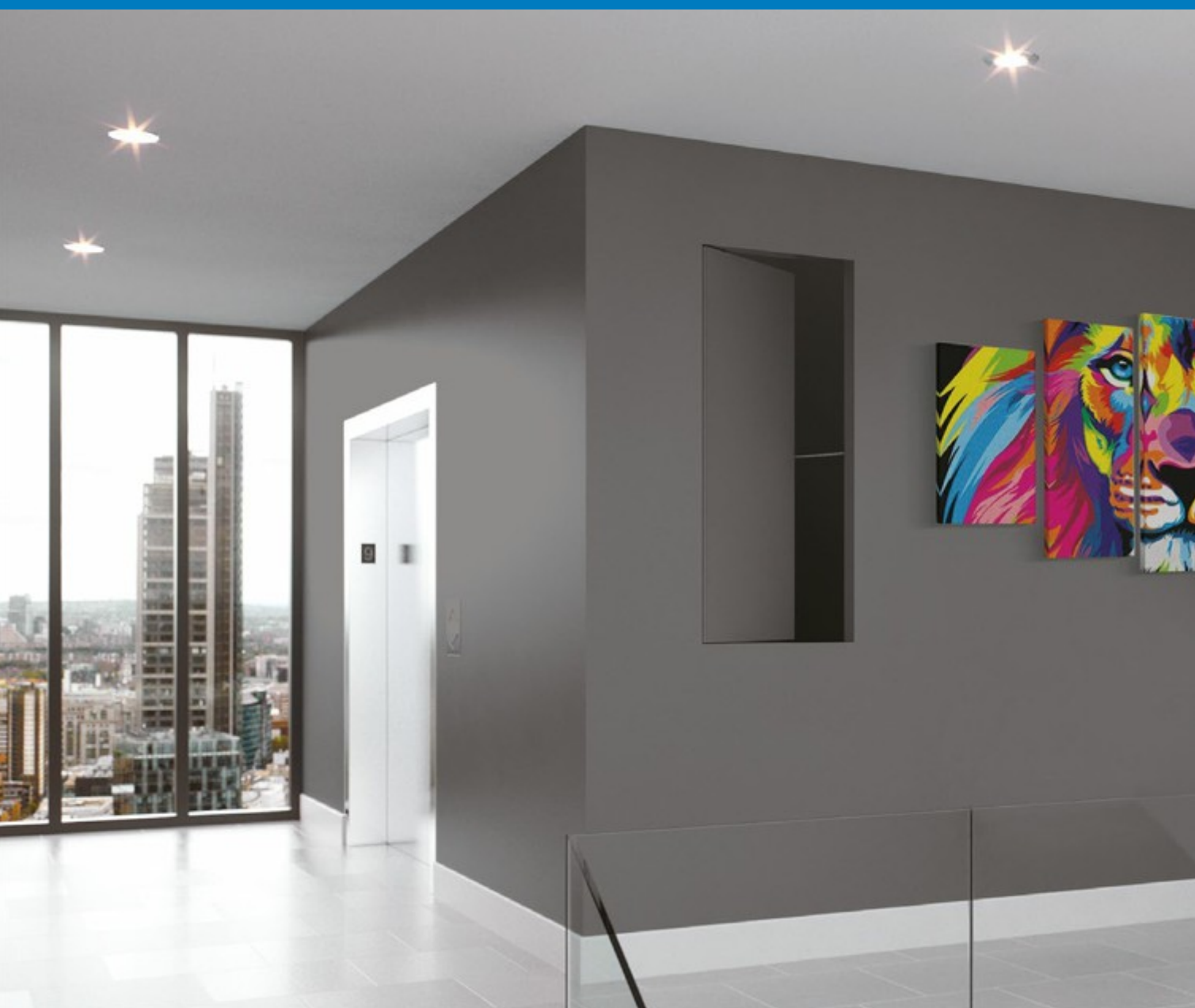
call 020 3880 0339

selo®

Concealed Frame Doorsets
Riser Doors & AOVs

Fuma+®

Automatic opening vent

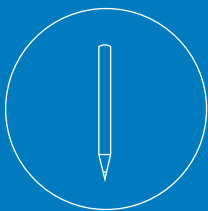


Installation instructions

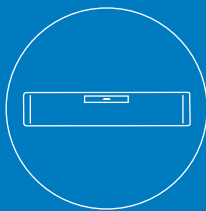
Thank you for choosing Fuma+

To ensure the installation process is simple and efficient we recommended you read this guide in full before you begin.

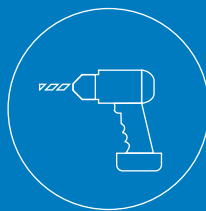
Tools Required



Pencil



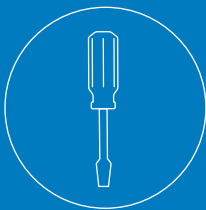
Spirit level



Cordless Screwdriver



Tape measure



Screw driver



Knife

The fire rating of any doorset is subject to a number of factors, including:



1. The design/workmanship of other work, in particular the partitions into which the doorset is fixed.)
2. The doorset being installed in accordance with the installation instructions.

Ensure the stud wall to which the Fuma+ system is being installed meets the correct fire resistance performance. To comply with the fire certification all four sides of the structural opening need to be lined with plasterboard.

Please consult Selo for advice and guidance to ensure the fire performance is met.

tel 020 3880 0339 **email** sales@selo-uk.com

Getting started

Before installation, please ensure you have carried out the recommendations below.

Wall Preparation

The wall will need to be constructed to suit the fire rating specified. If using a steel stud partition then a timber insert on the four sides of the opening needs to be fitted to ensure sufficient purchase with the fixings.

Some shaft wall partitions will not require the timber insert, please consult Selo for guidance and advice.

Delivery

The Fuma+ internal AOV will come fully protected with polystyrene corners and heat shrink wrapped in heavy duty polythene. Ensure the Door specifications shown on the printed label correspond with your project schedule.

IMPORTANT

In order to correctly install and 'true' the frame it is essential that floor access is available from inside the shaft.



L27747 TYPE C
FUMA 400mm x 1200mm
FR60S
4.R6.a



Set installation

The Frame and AOV will be supplied as one.

1

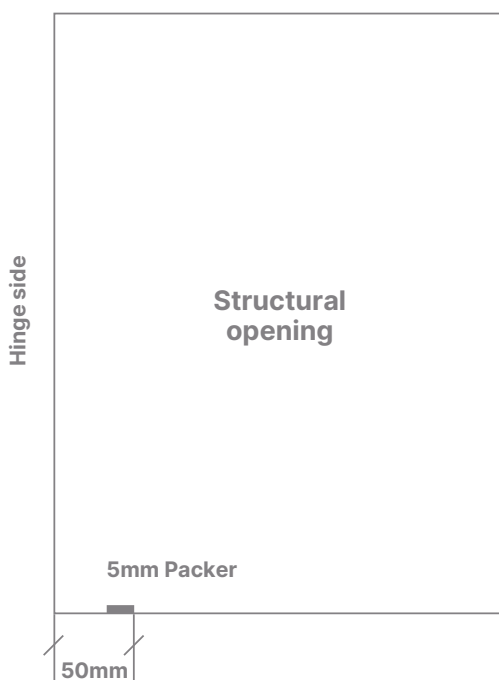
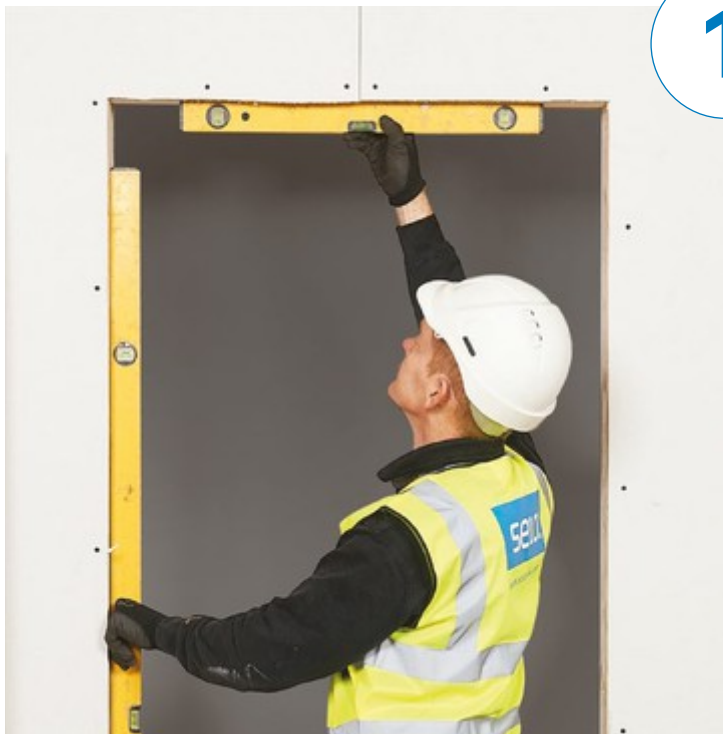
Check opening

It is very important to ensure that the opening is square and level and the opening dimensions are correct.

2

Place the Doorset in the opening

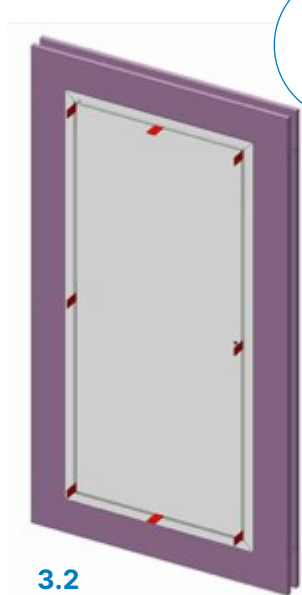
Place a **5mm** packer on the hinge side of the threshold **50mm** away from the side stud.





3

Fix in place



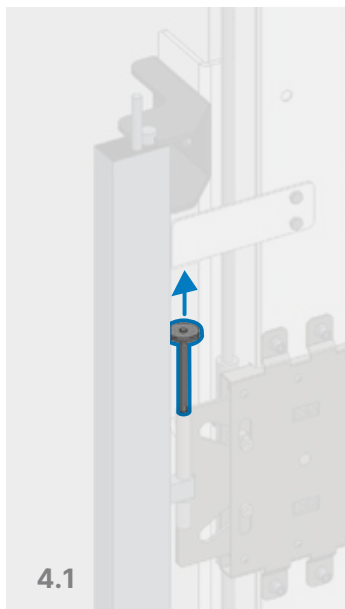
3.1 Plumb the **Hinge Jamb** with a level or laser, fix into place through the Perforated Flange with **x3-4 Screws** (depending on the height of the door).

3.2 Use 3mm Packers to check the gaps between the Door and Frame to ensure an optimum **3mm gap**.

IMPORTANT

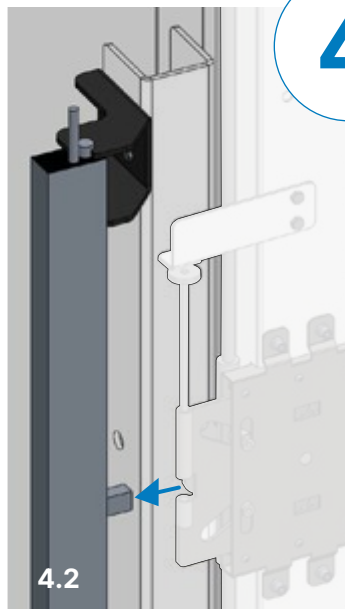
The maximum allowable gaps between Door and Frame are:
4mm on the verticals and **4.5mm on the horizontals**.

3.3 Fix the opposite side in the same way as 3.1



4

Disengage Connecting Pin



4.1 On the inside of the vent, pull the Pin upwards as pictured, this will release the Chain.

4.2 Once the Pin is disengaged the Door can be freely opened and closed to aid installation.



5

Check operation

Open and close the Door to ensure the Frame doesn't rub or catch on the Door in any place and adjust if necessary.

IMPORTANT

To ensure compliance, after the Door installation, fit the 'Pivot Release' sticker over the pivot slot on the front of the Door.

6

Frame fixings



6.1 Now the margins are all correct fix at least every **400mm centres** around the Frame, through the Perforated Flange.

6.2 Once fixings through the Perforated Flange are complete, fix through the Door stop using the holes provided. Every hole provided must be used.

IMPORTANT

Fixings must penetrate the wall by a **minimum 60mm**. Fixings should be a **maximum 150mm from the corners** and no more than **450mm apart**. When packing the Frame combustible and non-combustible packers are suitable. Packers are to be trimmed back flush with the Frame edge.

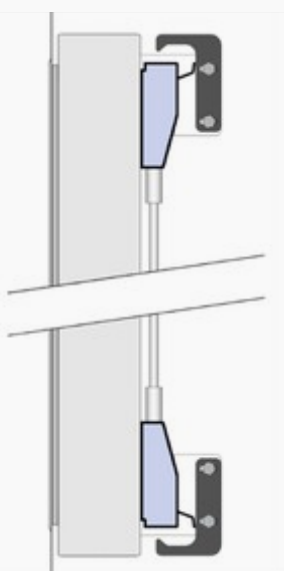
DO NOT pack behind the **central transfer box** as this will impair its function.

DO NOT use expanding foam to install the Doorset unless approved by Selo.

Ensure your firestopping gap between the Frame and structural opening is **no more than 10mm** on the **Hinge Vertical, Top and Bottom. 14mm** on the **Latch Vertical**.

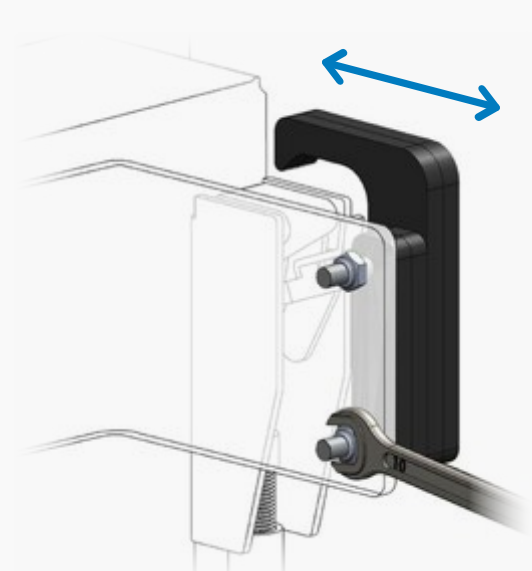
7

Door Hook alignment



Check for engagement

The top and bottom Door Hooks must engage with the Frame Latches at the same time. With the Chain disengaged and the Frame Latches open, pull the Door closed to check alignment.

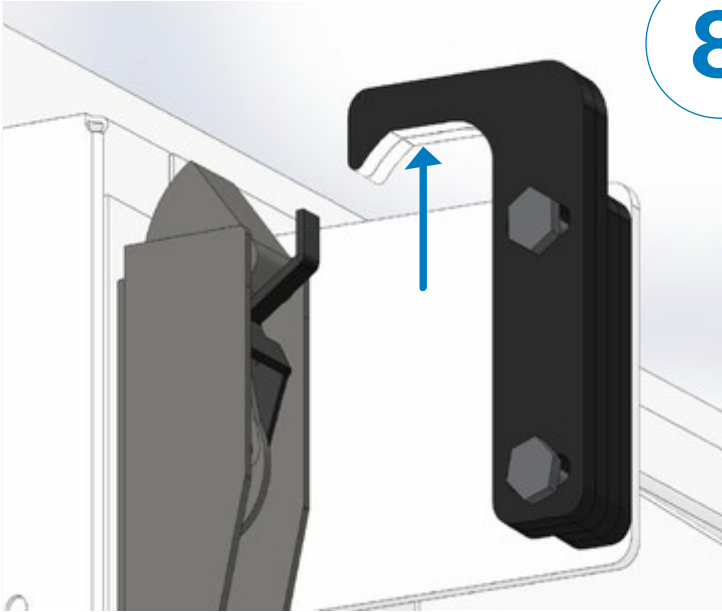


Adjust if needed

If the Hooks are not engaging at the same time; loosen the bolts on the hook which isn't in contact and adjust forwards or backwards as required. Re-tighten bolts once complete.

8

Lubricate Hooks



To ensure smooth operation of the Latch; please lubricate the contact surfaces of both Hooks (left and right) with a dry lubricant.

9

Tape & Joint / Plaster

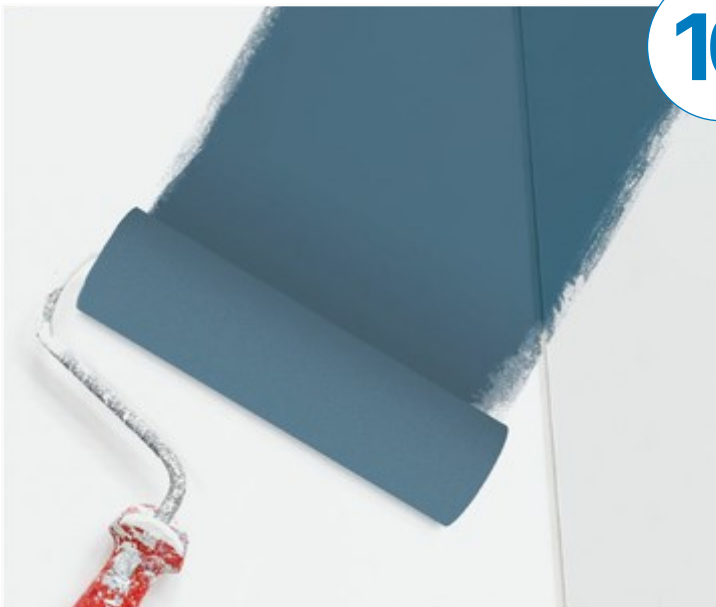


Apply **Fibre Tape** to all 4 sides to prevent Plaster getting into the Transfer Case.

Tape and Joint or Plaster up to the Perforated Flange to conceal the Frame.

10

Painting & Decoration



All Doorsets can be overpainted with the wall to conceal the Door (water-based emulsion only).

The Dead Matt finish provides the key to the paint, the only preparation work required is to clean the Door Frame of dust and debris. If wallpapering; please seek approval from Selo as to suitability for fire rating.

11

Fire rating Pre-intumesced Frame

The Doorset will be provided with the intumescent fire stopPing material fixed into place.

DO NOT apply any additional mastic as this could compromise the function of the Door.

Check the inner Frame of your Fuma+ Doorset to ensure the red approval sticker is present.



IMPORTANT

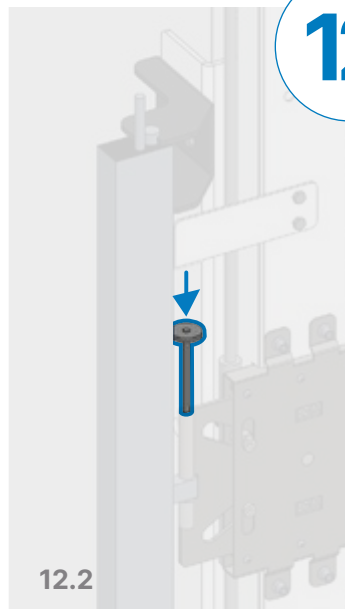
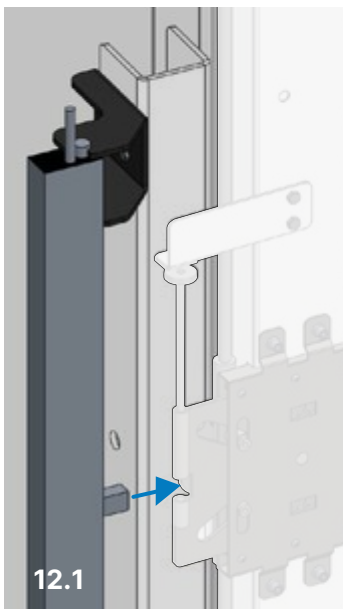
Do not use expanding foam to install the Doorset unless approved by Selo. If wallpapering the Doorset ensure it has the required fire rating to suit the application. Contact Selo for compatibility and installation advice on **020 3880 0339**.

12

Re-engage Connecting Pin

12.1 Align the Chain end with the Pin.

12.2 Push the Pin down through the Chain ensure it goes all the way though the Chain and into the bottom of its holder.



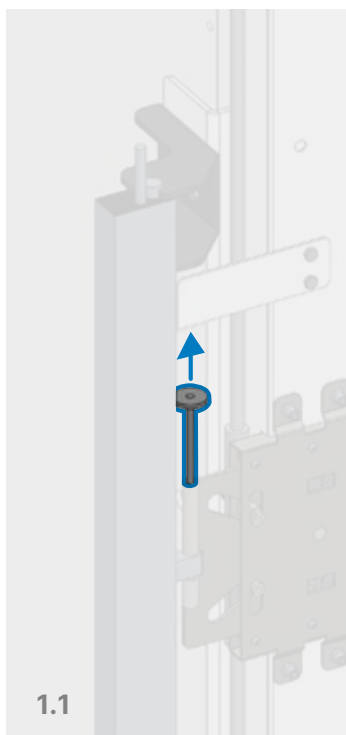


Leaf removal/re-hang

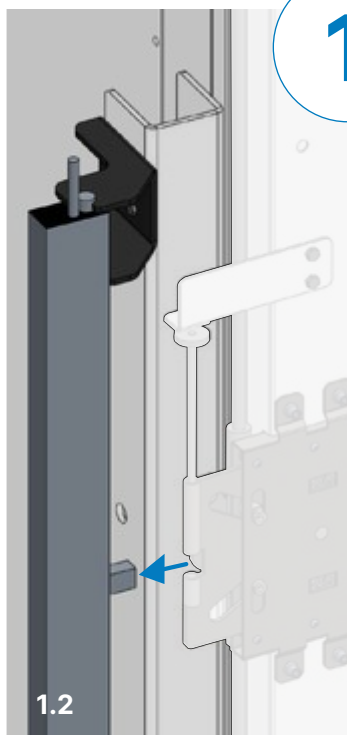
The Fuma+ system uses a pivot Pin hinge system for ease of installation.

1

Disengage Connecting Pin



1.1



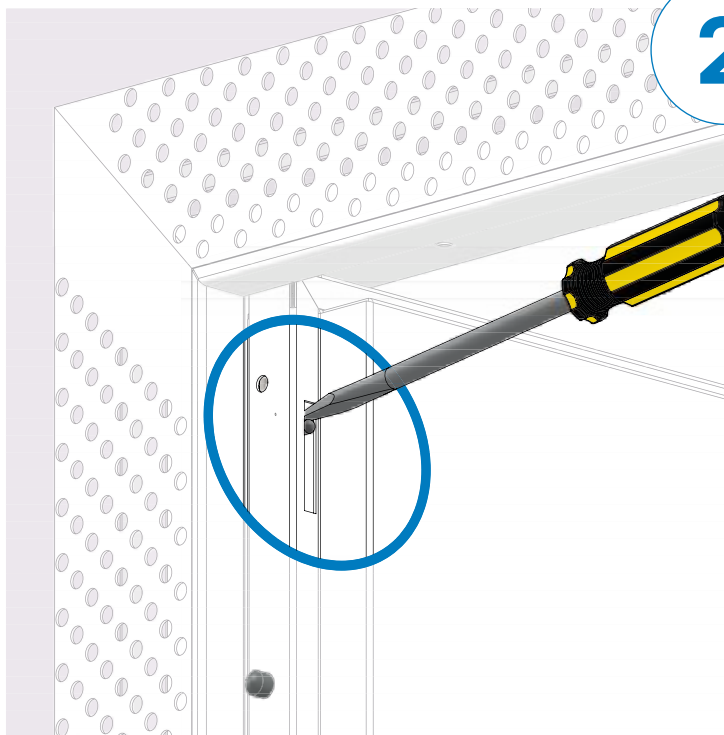
1.2

1.1 On the inside of the vent, pull the Pin upwards as pictured, this will release the Chain.

1.2 Once the Pin is disengaged the Door can be freely opened and closed to aid removal.

2

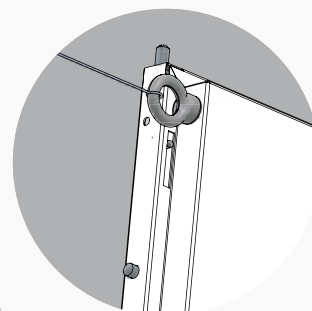
Disengage Pivot Pin



Open Door to access pivot Pin release. Using a flat-head Screwdriver, pull-down the Pin and carefully push the top of the Door away from you.

SAFETY NOTE

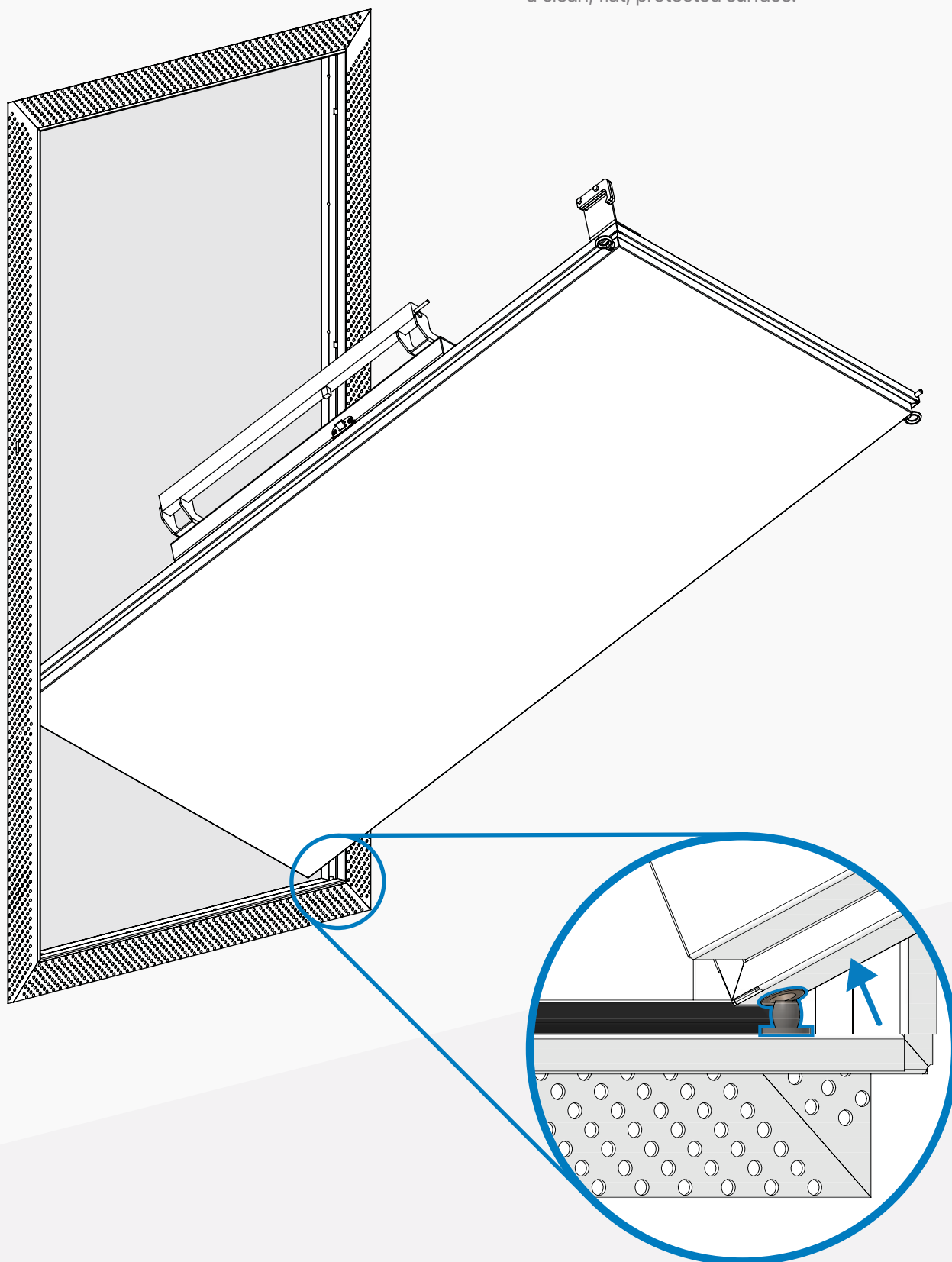
Fuma+ is provided with **M6 Eye-Bolts** which can be attached to the top of the leaf. These provide an anchor-point to prevent accidental dropPing during removal.



3

Remove from Base Pin

Lift the Door up and off the base Pin, extract through the opening and store face-down on a clean, flat, protected surface.



Connecting the Actuator

The Actuator is pre-fitted to Fuma+ internal AOV.

1

Actuator Specification

Specification

Chain Actuators	SlimChain
Type Fuma+ AOV	Bottom hung, Top hung, Side hung
Opening width / stroke	800
Tension [N]	300
Pressure [N]	200

Intelligent electronics

Continuously adjustable Actuator stroke and individual speeds for the ventilation and RWA modes.

British Standards

The Actuator has been tested as part of the Fuma+ to the relevant performance requirements in BS 9999.

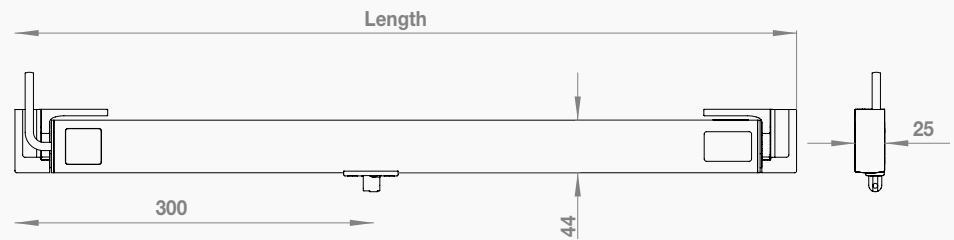


2

Technical Drawings

GEZE SlimChain

Left



GEZE SlimChain

Right



3

Actuator Positioning

The Actuator is positioned to the inside of the shaft-wall so it is not seen from the external view.



4

Commission to Fully Open

Restricted open - 150mm

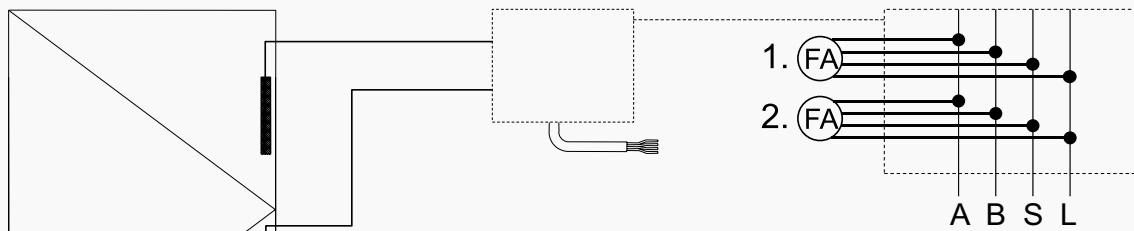
The GEZE Actuator defaults to 150mm opening stroke. This may need to be overridden by forcing it into 'alarm' mode.

	A 24V A				
	B 24V B	GND	+24V	GND	+24V
	S Signal	+24V	GND	+24V	GND
	L LIN	-	-	+24V	-

- › Connect the 'B' and the 'S' cable together prior to applying voltage.
- › Connect the 'A' cable to the opposite polarity.
- › Should this not work, change the polarity connection for the cable sets so that 'B + S' drives the Chain out.

5

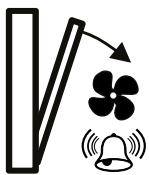
AOV Electrical connection



(Wiring shown for multiple Door/Actuator situation)

6

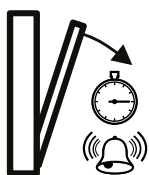
Operating Modes



Ventilation/Alarm - Control via Alarm Relay

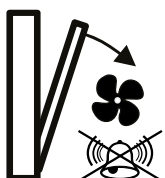
Ventilation: Actuator opens with ventilation speed till the ventilation stroke. Different strokes are possible.

Alarm: Actuator opens with alarm speed till the alarm stroke.



Permanent Alarm

Actuator always opens with alarm speed till the alarm stroke.

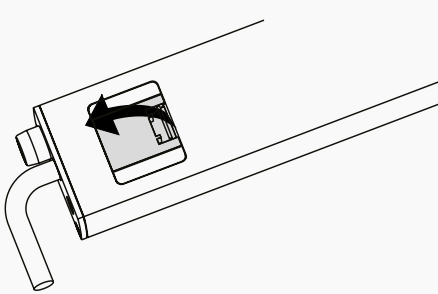


Ventilation without Alarm

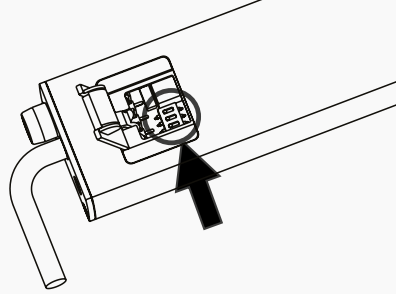
Actuator always opens with ventilation speed till the adjusted ventilation stroke.

7

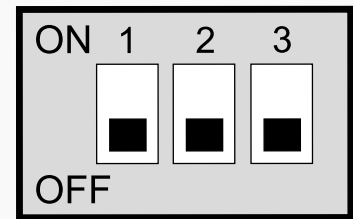
Control Panel location



A. Open access cover



B. Locate Control Panel



C. Identify switches

8

Programming

Each slave address of the Actuator can be assigned only once per AOV.

DIP switch 4 (only in E 250 NT) is used to set the direction of travel, i.e.

DIP4 = OFF → AOV OPEN =

Extend sPindle (normal state)

DIP4 = ON → AOV OPEN =

Retract sPindle or AOV CLOSED =
extended sPindle (RWA105 system).

For Actuators that run in synchro mode,
DIP 4 must be set the same on both.

Set number of slaves to master and address slaves.

DIP (FA)	1	2	3	(4)	Master Actuator
SlimChain	OFF	OFF	OFF		
	OFF	ON	ON		
	OFF	ON	OFF		
	1	2	3	(4)	Slave Actuator
	ON	ON	ON		
	ON	ON	OFF		

9

Troubleshooting

Partial function of the closing operation:

The Fuma+ Door set needs to be reprogrammed if the closed position memory is lost.
To do this, simply follow the below steps:

- › Drive open the Door to 100mm or more stroke length and STOP.
- › Switch the Door to 'CLOSE'.
- › As Door is closing, touch the 'B' and 'L' cable together for between 5 and 8 seconds.
(This will CANCEL the close position memory).
- › Stop the Door at the required closed position (switch off or disconnect power). Wait for 10 seconds.
- › Reconnect all wires as per the specification.
- › 'TEST' re-open the Door (half way), then switch to 'CLOSE'. Door should return to new close position.

Note

All cables are black in colour but do have identification letter printed on them.

10

Commissioning

The Actuator begins the initial operation after applying the voltage in the 'OFF' direction (24V A = +24V, 24V B = GND). Thereby it reads the OFF end position (closed position) when running in via electronic load switch-off with closed AOV. Make sure there is no obstacle when making the initial operation, or else the closed position is read wrong.

To re-start a start-up Actuator, proceed as follows:

- › Open AOV by at least 100 mm.
- › Actuate switch for closing the AOV (AOV begins to close).
- › Connect cables 'B' and 'L' for at least 5 seconds.
- › Thereafter, separate 'B' and 'L' link.

Only the 'S', 'A' and 'B' wires are used to operate the units. The 'L' wire is required for reprogramming purposes, including the setting of the Door stop positions. It is, therefore essential to route the 4-core cable to an accessible joint position outside of the shaft, even though the 'L' cable will not be connected this will allow access to ALL cable cores with the Door in its closed position.

Should the Actuator require the parametrisation to be altered, please call our technical support team on **020 3880 0339** to discuss the reconfiguration process required for your specific installation.

11

SlimChain Electrical Data

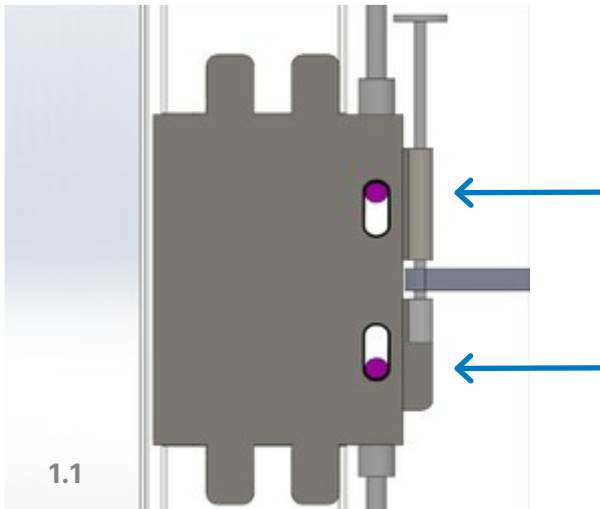
Voltage (V DC)	24 V +/- 25% SELV
Max. ripple U _{ss} %	20
Duty cycle %	30
Short term operation[min]	6
Input [W]	Max.22
Current consumption in ventilation mode [A]	0.9:24V DC
Current consumption in alarm mode [A]	1.1:18V DC
Ambient temperature [°C]	-5 /+70
Protection type [IP]/Class	IP 40/III
Area	Dry rooms
Connection cable	4 × 0.75mm ²
Cable length	2m Silicon-coated

Latch troubleshooting

If Door is not opening correctly please follow the steps below:

1

Sliding Pins



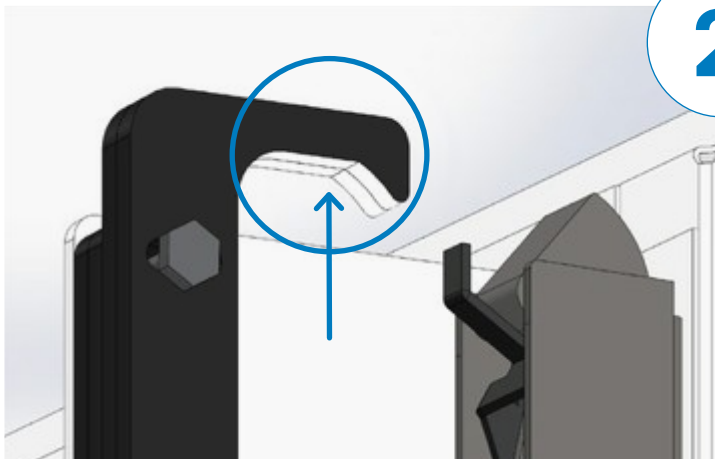
1.1 When the 'Transfer Case' is fully retracted (Door open) both sliding Pins should be touching the edge of the oval slot as shown.

1.2 If the sliding Pin position needs to be adjusted; loosen the locking nut and rotate the sliding Pin anti-clockwise until it is in the correct position within the transfer case. Re-tighten the locking nut.



2

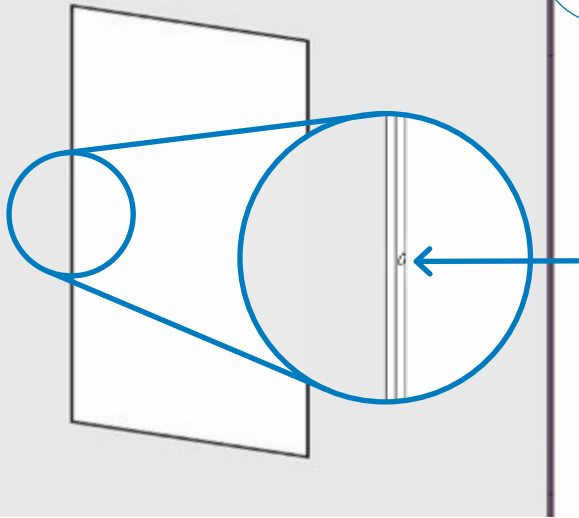
Latches



If the Latches seem to be sticking to the Hooks, apply dry lubricant to the hook contact surface.

3

Emergency Release



If the Door has become locked in its closed position, the emergency release must be used.

The emergency release is located within the Perforated fixing Flange. Locate the dimple on inside of Frame, this identifies the position of the emergency slot within the Flange.

4

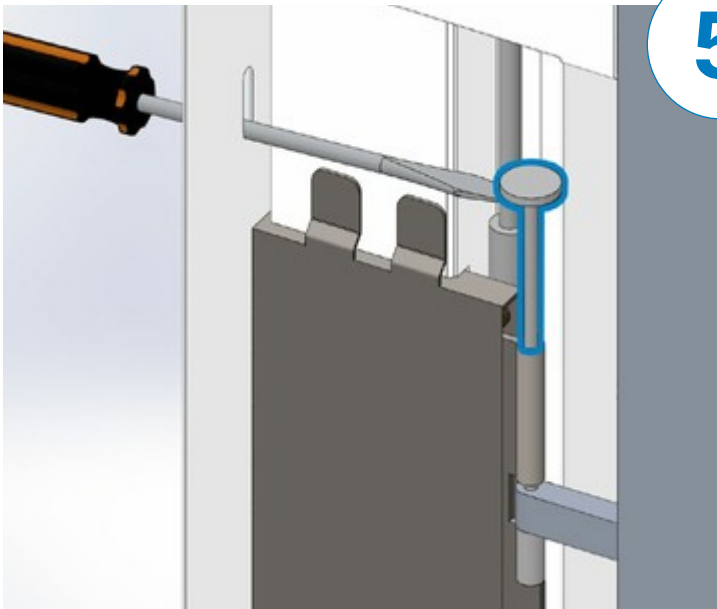
Reveal Release Slot



Remove the plaster in the highlighted area to undercover the emergency release slot.

5

Release the Chain



Visually identify the location of the release Pin through the Perforated Flange.

Using a long Screwdriver, insert through the slot until reaching the pivot Pin. Lever the Pin up to release the Chain.

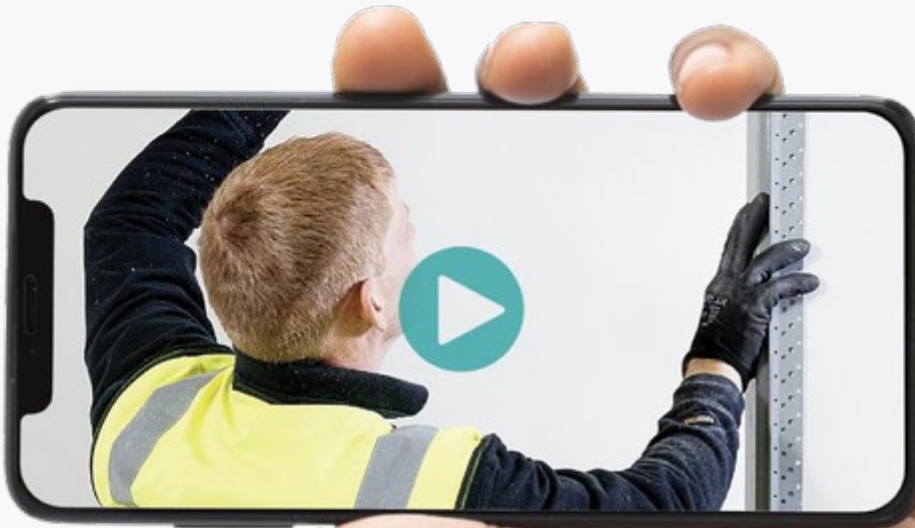


For installation help and advice with your project:
call 020 3880 0339 / **email** sales@selo-uk.com

INSTALLER TRAINING

Hands-on practical installation advice

Complimentary training is provided at our Milton Keynes headquarters. Learn installation tips and tricks directly from the manufacturer; helping improve standards with quality, compliant installations.

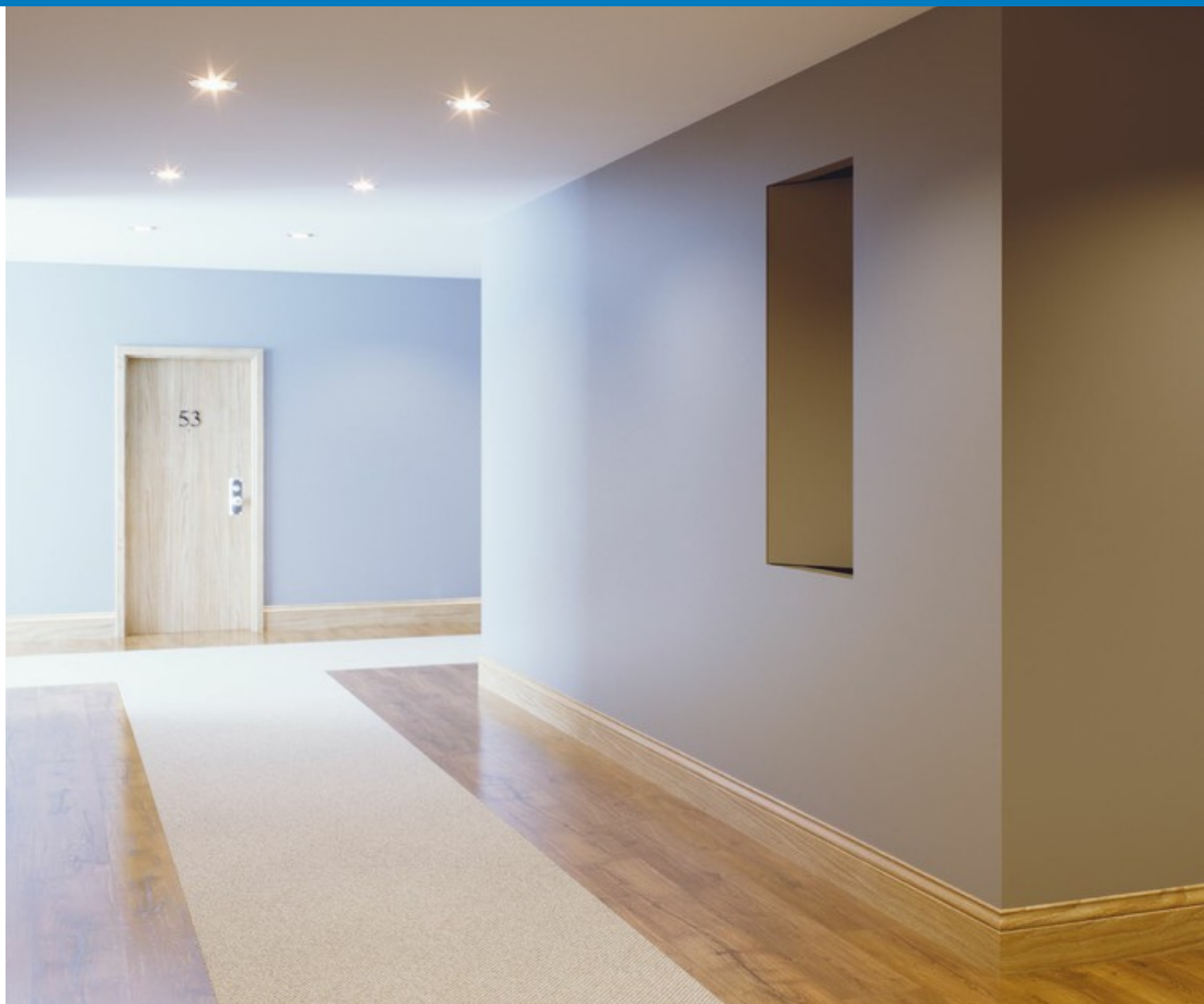


Scan QR for Video Library
www.selo.global/video-library/

For installation support contact our experienced team:

call 020 3880 0339

email sales@selo-uk.com



selo®

call 020 3880 0339
email sales@selo-uk.com
www.selo.global

Selo
K2 Kents Hill Business Park Timbold Drive
Milton Keynes MK7 6BZ



Follow us on:

