

# Quadra+®

Performance Riser Doorsets

## Installation Guide

SEL-PRT-00121 | Rev. 7.1



# Thank you for choosing Quadra+

To ensure the installation process is simple and efficient, we recommended you read this guide in full first. Specific tools are also required to complete the installation:



Knife



Tape measure



Pencil



Laser level



Cordless drill-driver



Hex key (6mm)



Screw driver

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



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

The Quadra+ system can be installed into various supporting constructions, you will need to ensure the wall itself meets the correct fire resistance performance.

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

**tel** 020 3880 0339 **email** [sales@selo.global](mailto:sales@selo.global)

# Installation guidance

Please ensure you follow the pre and post installation guidance below to ensure successful application.

## Wall preparation

The wall construction 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 fixity.

## Note

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

## Fixings

Screw fixings used during installation must be:

- › Min. 75mm long
- › Min. 35mm of penetration into the Stud
- › 4.2mm dia. (for optimum results)

## Doorset specifications

The Quadra+ doorset will come fully protected with cardboard corners and heat shrink wrapped in heavy duty polythene. Ensure the door specifications shown on the printed label correspond with your project schedule.

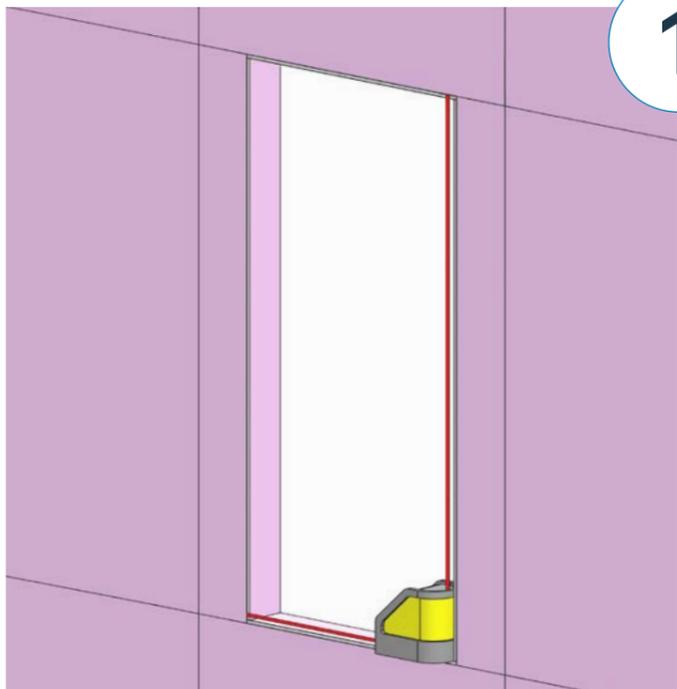
## Post installation checklist

Once installed; please ensure that all the steps within the post installation checklist (shown on back cover/final page) are completed to ensure safety and compliance.



# Single door installation

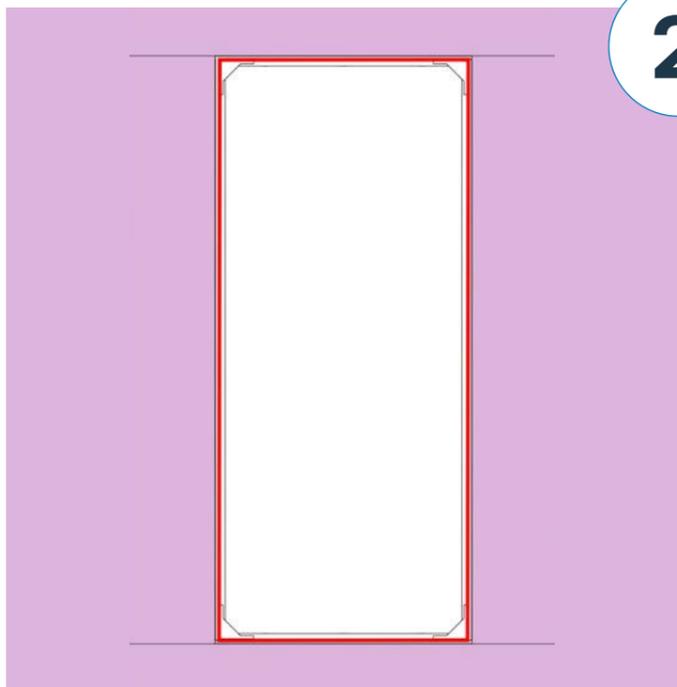
When fitting a single doorset the frame and doors will be supplied as one.



## 1 Check opening

It is very important to ensure the opening is square and level. A **laser level** is ideal for this. Also check the structural opening dimensions are correct.

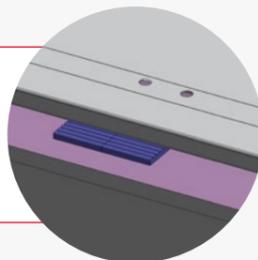
**IMPORTANT**  
If installing a **Double Door** please go to **page 10**  
For **Multi Door** instructions please go to **page 13**



## 2 Lift the doorset into the opening

Place **packers** on the bottom of the structural opening and lift the doorset into the opening to sit on the packers ensuring there is an **even gap top and bottom**.

**IMPORTANT**  
**Plastic or Non-combustible** packers **ONLY**. Gaps must **NOT exceed 10mm**.



## 3 Fix Hinge Jamb

Ensure the Hinge Jamb is plumb using a laser level. Hold in place by fixing through the **perforated flange** one screw **150mm from the top** and one screw **150mm from the bottom**.

**IMPORTANT**  
Screw fixings used during installation must be:  
> **Min. 75mm long, 4.2mm dia.** (for optimum results)  
> **Min. 35mm of penetration into the Stud**



## 4 Check gaps

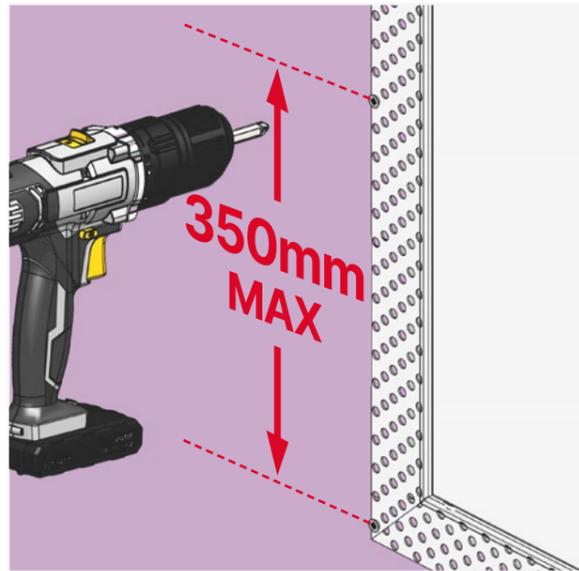
**4.1** Check you have an even **3mm gap** all round the door leaf using a **3mm packer**.

**4.2** Fix the **Latch Jamb** in the same way.



## 5 Check Door operation

Open and close the door to ensure it **does not rub or catch** and adjust if necessary.



## 6 Fix through Perforated Flange

Fix through the perforated flange with fixings no further apart than 350mm and a maximum 150mm from the corners. Use a fixing length that will penetrate the stud behind any lining boards by a minimum of 35mm.

### IMPORTANT

- Screw fixings used during installation must be:
- › **Min. 75mm long, 4.2mm dia.** (for optimum results)
  - › **Min. 35mm of penetration into the Stud**

If your doorset **does NOT** have **Adjusters** use appropriately sized packers and fix through the hole in the doorstop.



## 7 Final Frame fixings

### If NOT using Adjustable Frame

Fix through every hole of the doorset frame.

### IMPORTANT

- Fixings must penetrate the wall by a **min. 35mm**. Trim back any Packers to allow for coverage with intumescent sealant when applied. **DO NOT** use expanding foam to install the doorset.

### Adjustable Frame

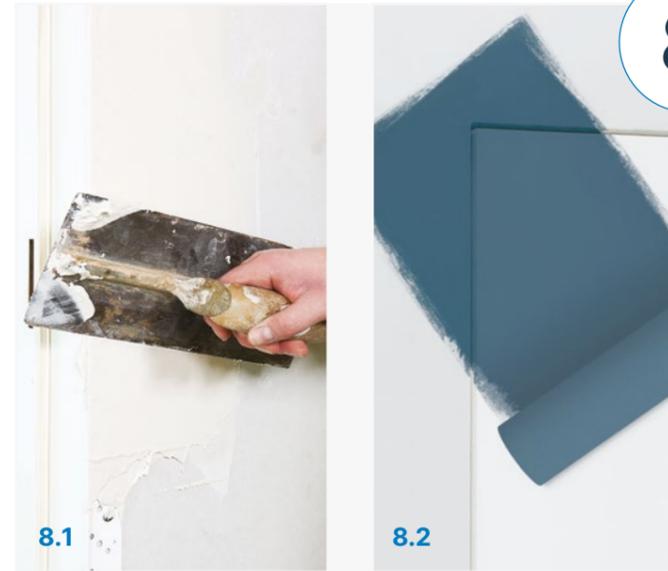
**7.1** Using the Hex Key, tighten the **Frame Adjusters** in the door stop so they just 'kiss' the opening.

**7.2** Fix through the hole in the Adjuster using a fixing length that will penetrate the stud behind any lining boards by a **minimum of 35mm**.

### IMPORTANT

- Screw fixings used during installation must be:
- › **Min. 75mm long, 4.2mm dia.** (for optimum results)
  - › **Min. 35mm of penetration into the Stud**

Ensure the gap between the frame and the structural opening is **no more than 10mm**. Use a packer to support the frame to ensure it doesn't twist when fixing.



## 8 Finishing

**8.1** Apply **Fibre Tape** to all 4 sides. Tape should be half on the Flange, half on the Plasterboard face. Tape & Joint or Plaster up to the perforated flange to conceal the frame.

**8.2** The doorset can either be left in its powder coated form, or, if indicated by a label on the door it can be painted over with the rest of the wall.

### IMPORTANT

If wallpapering; please **seek approval from Selo** as to its suitability for fire rating.



## 9a Fire rating

### Pre-intumesced frame ONLY

If specified, the doorset will be provided with the intumescent fire stopping material fixed into place. **There is no need to apply any additional sealant.**

To check compliance, look through the **inspection hole on the inner frame** (above the Quench sticker, shown below). Installed Quench intumescent should be visible through this hole.



### Acoustic attenuation

If maximum 41dB\* acoustic rating is required, please caulk the rear of the frame/structural opening gap.

\*41dB achieved in lab conditions.

### Smoke performance

Declared smoke resistance is only applicable to the door to frame. The frame to wall detail should always be plastered in or suitably sealed to ensure the smoke cannot pass through the wall junction.

### IMPORTANT

If using a **Picture frame surround** you must **seal this to the wall underneath the picture frame flange** between the rear of the frame and the wall. **There is no need to apply any additional sealant.**

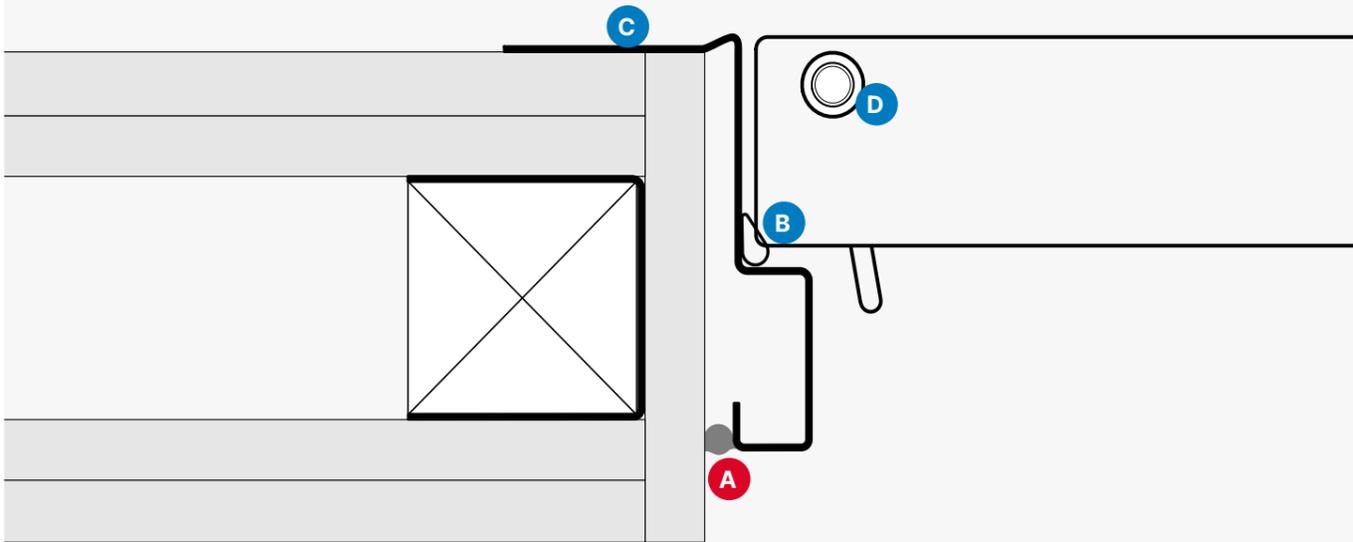


## 9b Fire rating

### Standard frame ONLY

To achieve a fire rating, it will require 'Mann McGowan Pyromas A' / 'Everbuild Everflex Fire Mate Acrylic Intumescent Sealant' or an intumescent sealant that has been tested in the same situation applied to the back edge of the frame as shown below.

**IMPORTANT - DO NOT USE ANY TYPE OF EXPANDING FOAM TO INSTALL THE DOORSET**



**IMPORTANT**

If packers have been used they must be trimmed back to enable them to be covered by the intumescent mastic. **DO NOT** use expanding foam to install the doorset.

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**.

- A** Continuous bead of intumescent sealant to rear of frame. Any packers used must be trimmed-back and covered with the intumescent sealant
- B** Silicone Smoke Seal
- C** Fixing-flange Frame
- D** Pivot Hinge location point

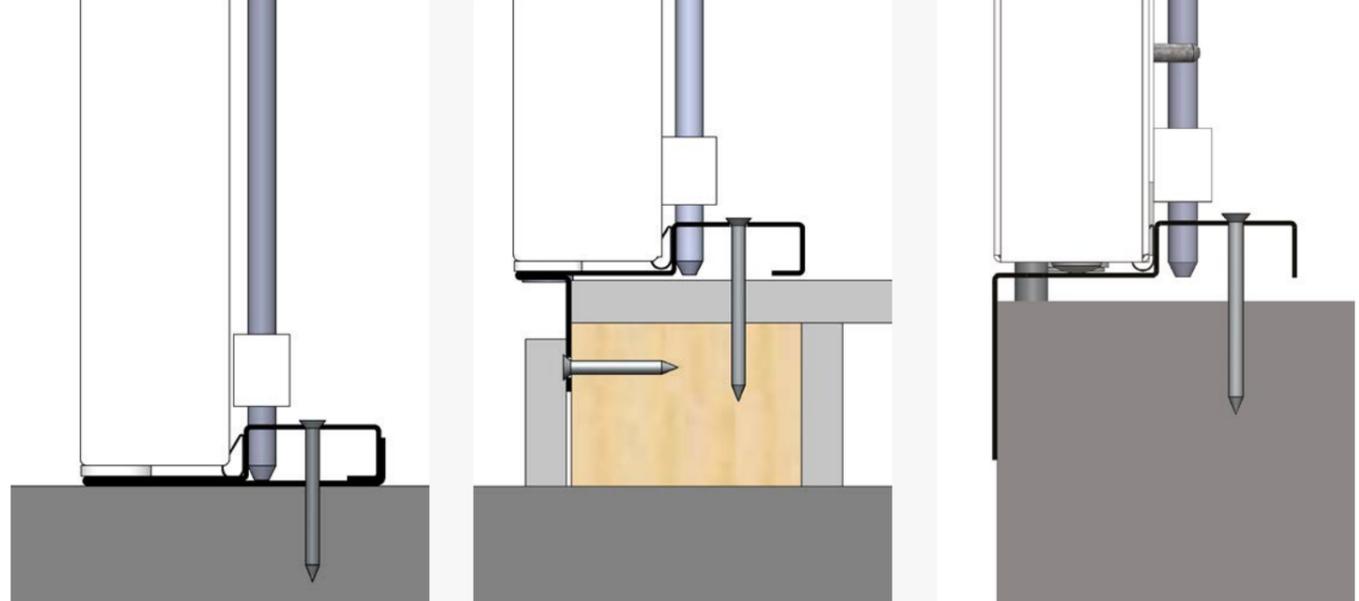


## 10 FDKL signage

FDKL signs must be fitted in accordance with local building regulations.

Discrete option available may be accepted by building control, approval must be sought.

**IMPORTANT - ADAPPTIONS**



**QT1 Frame**

Where the QT1 frame detail has been specified there is no perforated fixing flange. Fixings are to be applied through the door stop.

**QT2 Frame**

Where the QT2 frame detail has been specified, fix through the door stop and also through the flange using the holes provided.

**Picture Frame**

Fix through the stop only using pairs of (minimum) 75mm long steel fixings at a maximum of 150mm from any corner and at 350mm maximum centres.

# Double door installation

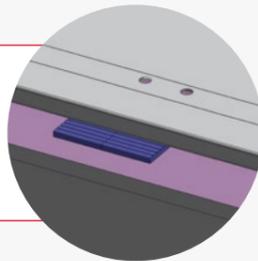
The frame needs to be installed first and the doors then hung.

## 1 Lift the Frame into the opening

Check opening with a **laser level** to ensure it is square and level.

Place **packers** on the bottom of the structural opening and lift the doorset into the opening to sit on the packers ensuring there is an **even gap top and bottom**.

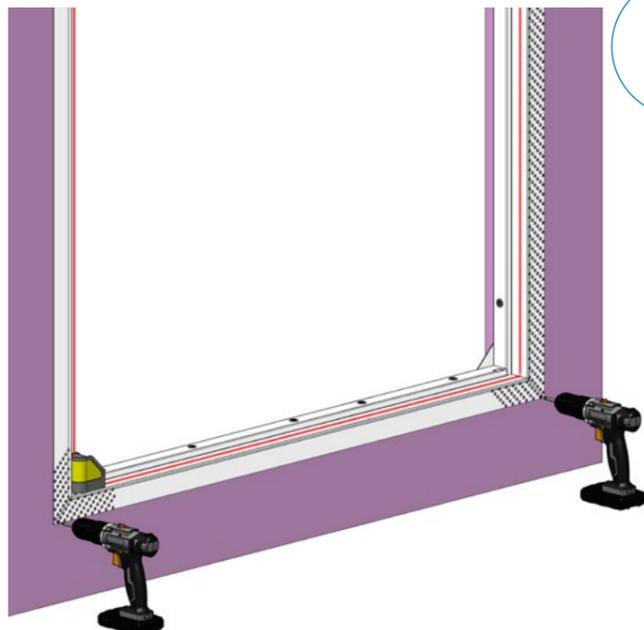
**IMPORTANT**  
Plastic or Non-combustible packers **ONLY**. Gaps must **NOT** exceed 10mm.



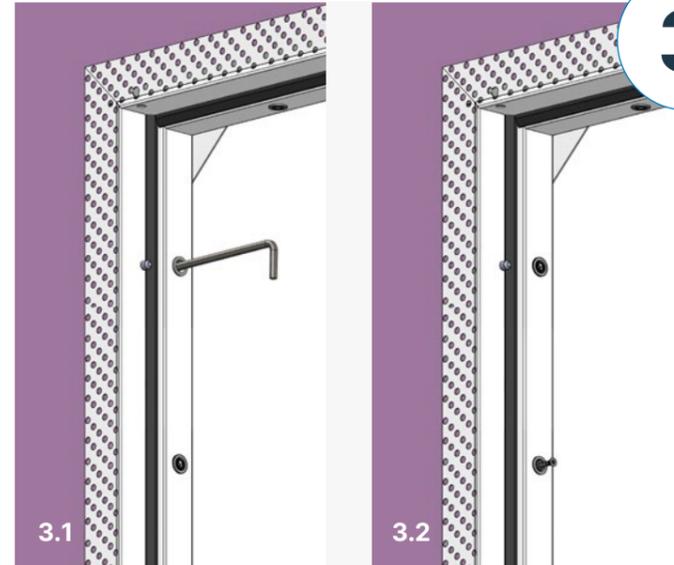
## 2 Level Threshold

Check the **Threshold is level** using a laser and fix a screw through the plaster-bead at the **Threshold only**, into each opposite corner of the threshold plaster-bead.

**IMPORTANT**  
Screw fixings used during installation must be:  
 > **Min. 75mm long, 4.2mm dia.** (for optimum results)  
 > **Min. 35mm of penetration into the Stud**



## 3 Plumb and fix Vertical Jamb



**3.1** Plumb the **Vertical Jamb** using a laser and wind out **top Adjuster** in the door stop to take up the gap using the **Hex Key** provided.

**3.2** Fit a screw through the **second hole** down in the door stop on each **Vertical Jamb**. **Do not screw these in tightly** at this stage.

**IMPORTANT**  
Screw fixings used during installation must be:  
 > **Min. 75mm long, 4.2mm dia.** (for optimum results)  
 > **Min. 35mm of penetration into the Stud**

## 4 Hang Door Leafs

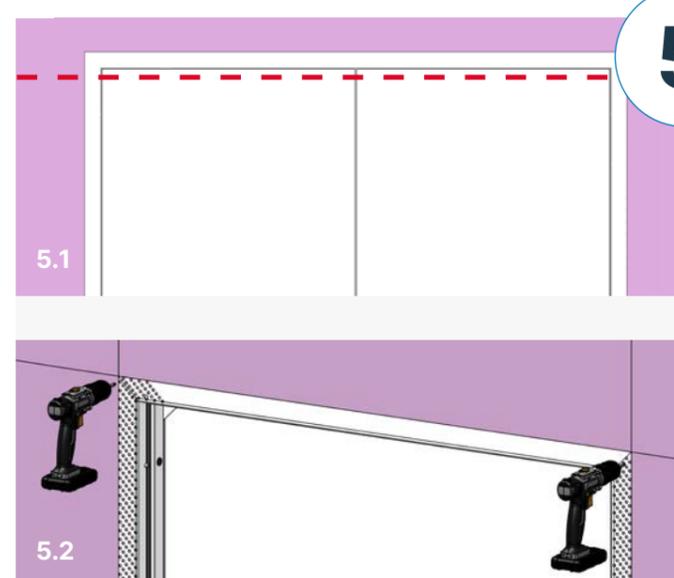


Check a **Washer** is present on each **Bottom Pivot**.

**4.1** Place the **Door Leaf** on the **Bottom Pivot** and then locate the sprung loaded **Top Pivot-pin** into the hole within the **Frame**.

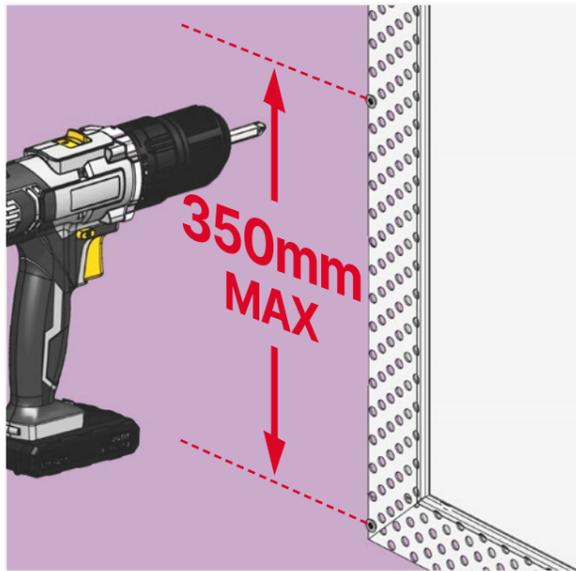
**4.2** Ensure that the **Pivot-pin** is **fully engaged** and that the lever is able to move into the horizontal slot.

## 5 Level Door Leaf tops



**5.1** Check the tops of the doors are level. If required, adjust the **Frame** left or right to achieve this.

**5.2** Lock the **Frame** into position by adding a fixing to each top corner of the **Fixing Bead**.



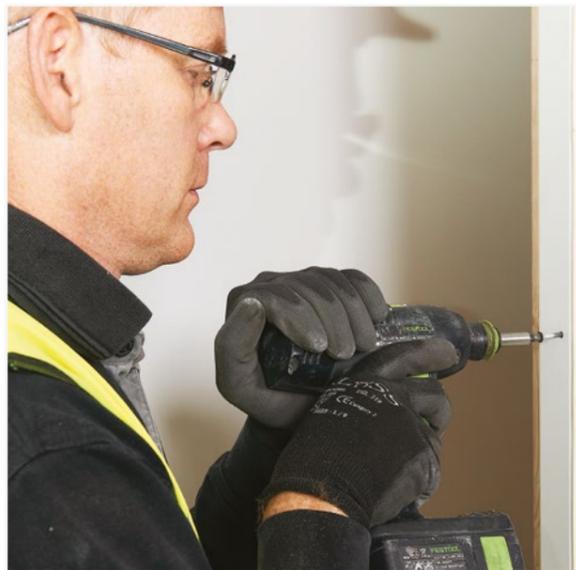
## 6 Fix through Perforated Flange

Fix through the perforated flange with fixings no further apart than 350mm and a maximum 150mm from the corners. Use a fixing length that will penetrate the stud behind any lining boards by a minimum of 35mm.

### IMPORTANT

- Screw fixings used during installation must be:
  - › **Min. 75mm long, 4.2mm dia.** (for optimum results)
  - › **Min. 35mm of penetration into the Stud**

If your doorset **does NOT** have Adjusters use appropriately sized packers and fix through the hole in the doorstop.



## 7 Final Frame fixings

### If NOT using Adjustable Frame

Fix through every hole of the doorset frame.

### IMPORTANT

Fixings must penetrate the wall by a **min. 35mm**. Trim back any Packers to allow for coverage with intumescent sealant when applied. **DO NOT** use expanding foam to install the doorset.

### Adjustable Frame

**7.1** Using the Hex Key, tighten the Frame Adjusters in the door stop so they just 'kiss' the opening.

**7.2** Fix through the hole in the Adjuster using a fixing length that will penetrate the stud behind any lining boards by a **minimum of 35mm**.

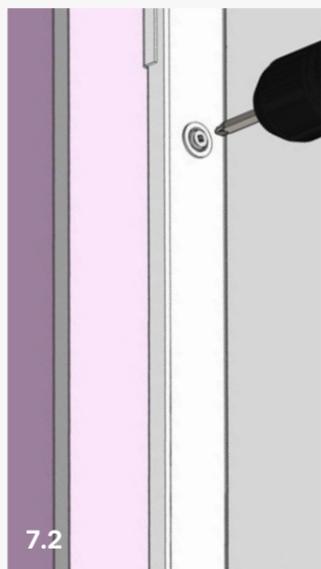
### IMPORTANT

- Screw fixings used during installation must be:
  - › **Min. 75mm long, 4.2mm dia.** (for optimum results)
  - › **Min. 35mm of penetration into the Stud**

Ensure the gap between the frame and the structural opening is **no more than 10mm**. Use a packer to support the frame to ensure it doesn't twist when fixing.

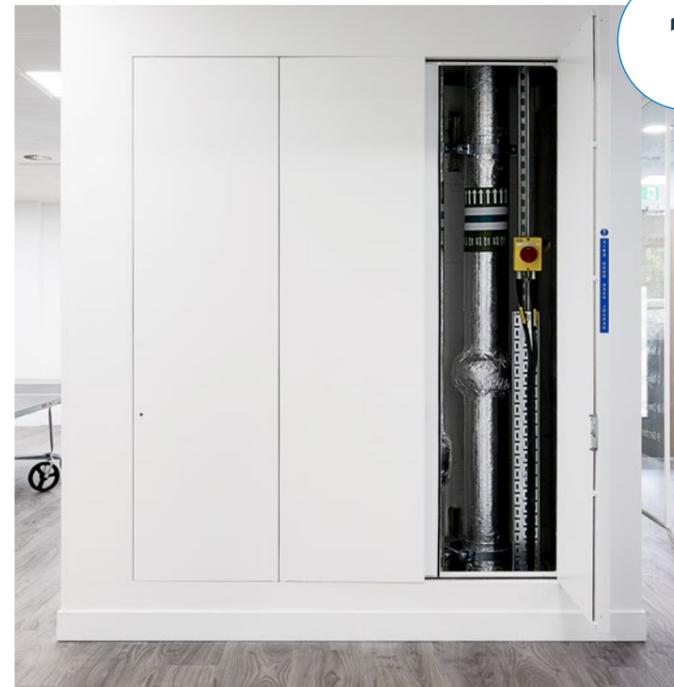
### FIRE RATING

Refer to Single Door Fire-rating Steps **9a** and **9b** to complete the Double Door Installation.



# Multi door installation

The frame needs to be installed first and the doors then hung.



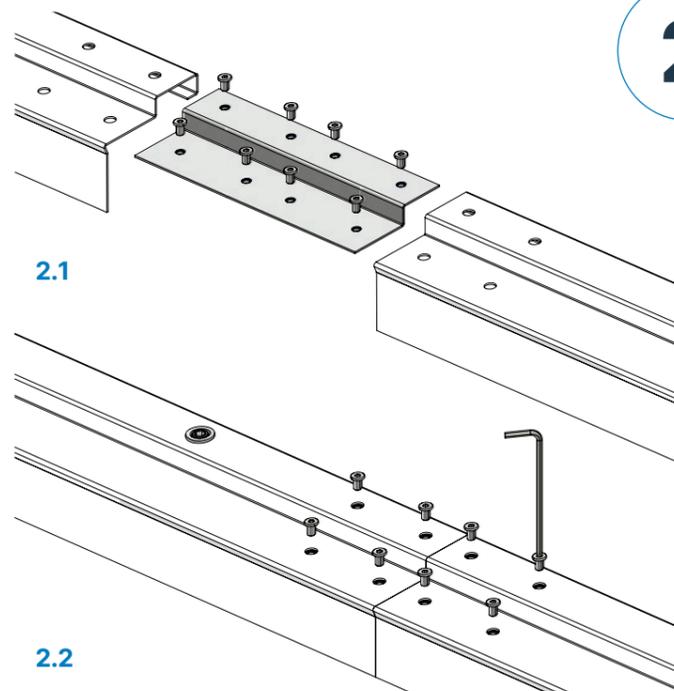
## 1 Installation

Multi doors are Doorsets that consist of 3–6 Door Leafs.

These are to be installed using the same steps as the Double Doors.

### IMPORTANT

Ensure that the pivot points in the middle of the threshold are securely packed to enable them to support the weight of the door. Ensure supporting wall design is suitable for the aperture and door weight.



## 2 Frame Joining

On wider frames the horizontal sections will be split into two pieces with a central joining plate.

**2.1** The joining plate goes under the frame.

**2.2** Using a 3mm Hex Key (not provided) bolt the frame and joining plate together using x8 M5x8mm Bolts (included).

# Hanging/removing door leaf

The Quadra+ system uses a pivot pin hinge system for ease of installation.



1

## Base pivot

Ensure the **3mm nylon washer** is set on the pivot.

Place the door leaf on the bottom pivot pin and lift the door into place.

**IMPORTANT**  
This is a **two person** operation.

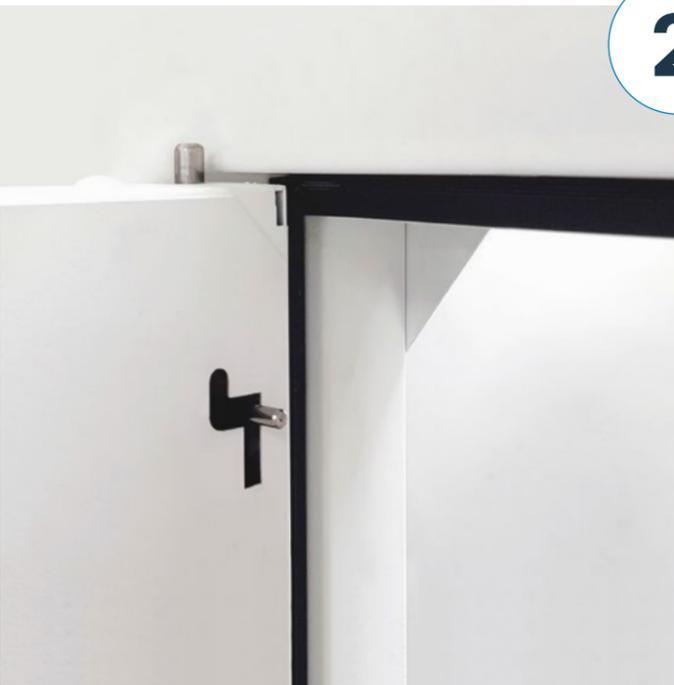
2

## Head pivot

Using the pivot pin on the back of the door, pull across and downwards to retract the head pin.

Insert the door leaf into the frame and locate the head pivot mounting point. Once in position re-extend the pin securing it to the frame, then slide across and up to lock the pin into position.

To remove the door simply reverse the steps.



# 3 point lock

Quadra+ comes pre-fitted with a 3 point locking system.



1

## Standard lock

The Quadra+ doorset uses a 3 point locking system operated by a square drive key as shown. This is provided already fitted to the door.



1.1 Centre lock mechanism



1.2 Base locking pin



1.3 Head locking pin

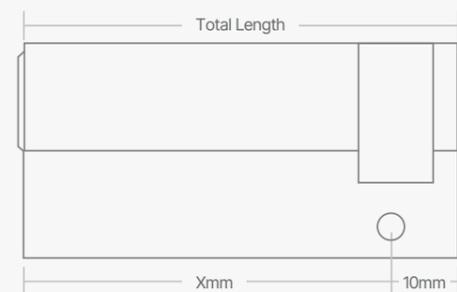
# Euro cylinder

For high security situations the Quadra+ locking system can be provided with a provision for a euro cylinder.

## 1 Fitting a euro cylinder

Insert the required cylinder into the pre-cut hole.

|                          |           |             |
|--------------------------|-----------|-------------|
| <b>Standard</b>          | 65mm Long | 55/10 Split |
| <b>Concealed</b>         | 50mm Long | 40/10 Split |
| <b>47-48db</b>           | 80mm Long | 70/10 Split |
| <b>47-48db Concealed</b> | 65mm Long | 55/10 Split |



## 2 Fix the cylinder in place

The cylinder is held into place using an M5x20mm screw supplied loose with the cylinder.

## 3 Activating the Cylinder

To activate the Cylinder the activation screw needs to be removed from the back of the lock as shown.

**IMPORTANT**  
Only do this once ready to be used as the **activation cannot be reversed.**

## 4 Check operation

The 3 point lock can only be operated while the key is turned in the cylinder.

The key cannot be removed from the lock until the 3 point lock has been turned to the lock position.

**IMPORTANT**  
Once installed; please ensure that all the steps within the **post installation checklist** (shown on back cover/final page) are completed to ensure safety and compliance.

# Nulfire™ installation

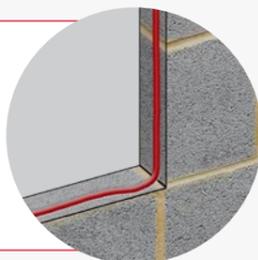
Complete the following before installing your Quadra+ Riser Doorset.

Screw fixings used during installation must be: 6.3mm x 70mm Concrete Screws, or 7.5mm x 100mm Concrete Screws

## 1 Fire stopping the structural opening

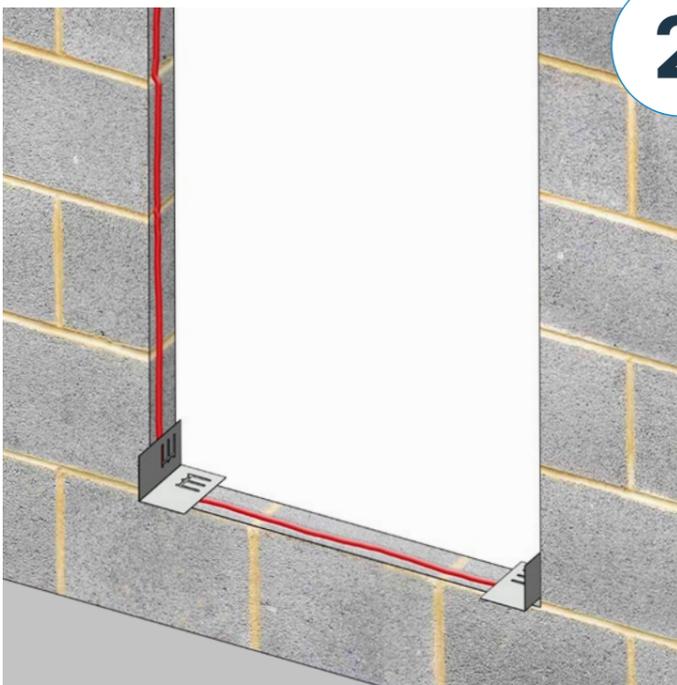
Apply a continuous bead of intumescent mastic around all four sides of the front edge of the structural opening.

**IMPORTANT**  
Acrylic Intumescent Sealant  
(coloured red for illustration only).  
**Mann McGowan Pyromas A**  
**Everbuild Everflex Fire Mate**



## 2 Fit bottom corners

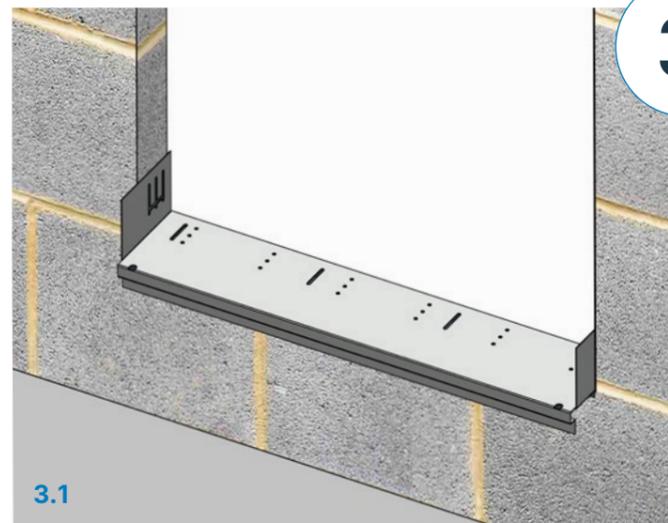
Place a **Corner Piece** in the bottom two corners of the opening and bed into the mastic.



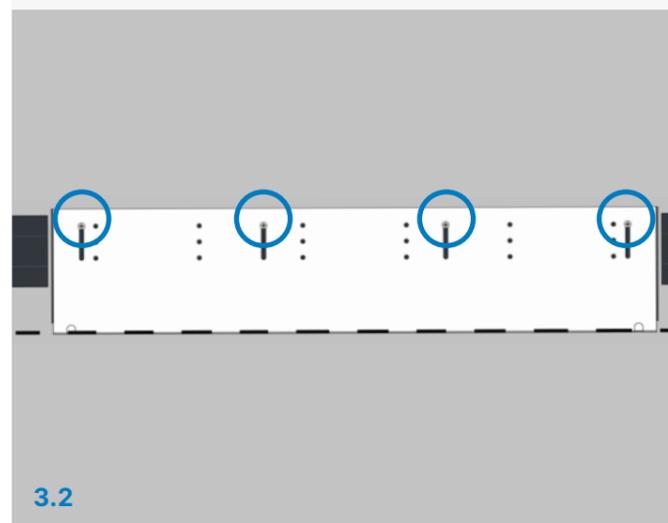
## 3 Bottom liner

**3.1** Lay the **Bottom Liner** on top of the **Corners**.

**3.2** Ensure the bottom liner is centralized across your opening and is aligned to your required finished wall plane. Screw-fix through the slots using **6.3mm x 70mm Concrete Screws**.



3.1



3.2

## 4 Verticals

Place the two **Vertical Liner** sections into place, sliding the **top two Corner Pieces** behind.

Ensure the **Vertical Liners** are aligned with the **Bottom Liner**, then screw-fix through the slots as shown using **6.3mm x 70mm Concrete Screws**.



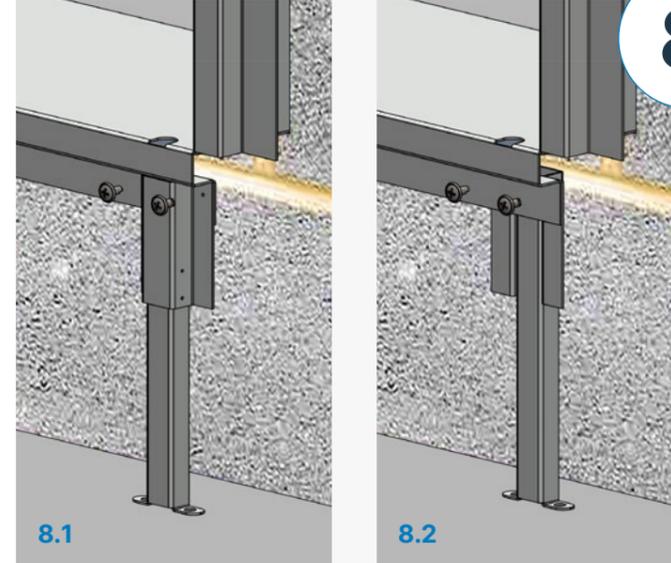


# 5

## Top liner

Fix the top liner into place through the slots. If using a fire-rated lintel, use **6.3mm x 70mm** or **7.5mm x 100mm Concrete Screws**, where required.

Ensure it is aligned with the rest of the frame.



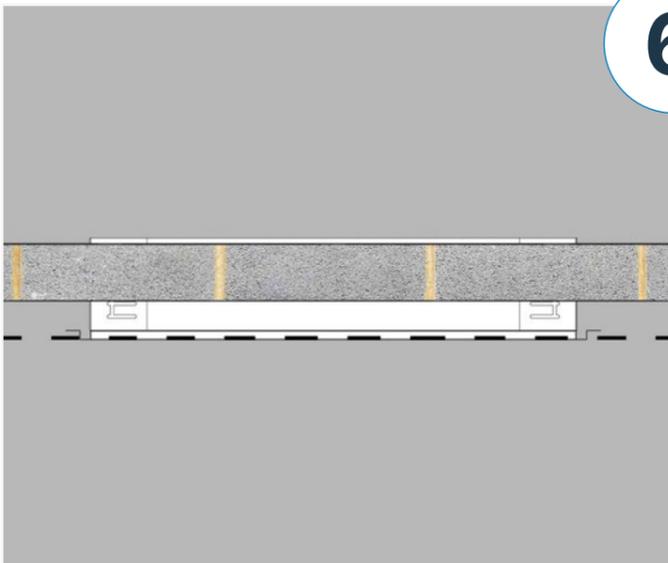
# 8

## Frame legs

Screw all the supplied **Frame Legs** into the underside of the **Frame**.

**8.1** It is the recommended configuration to fit the legs to the face of the frame as shown.

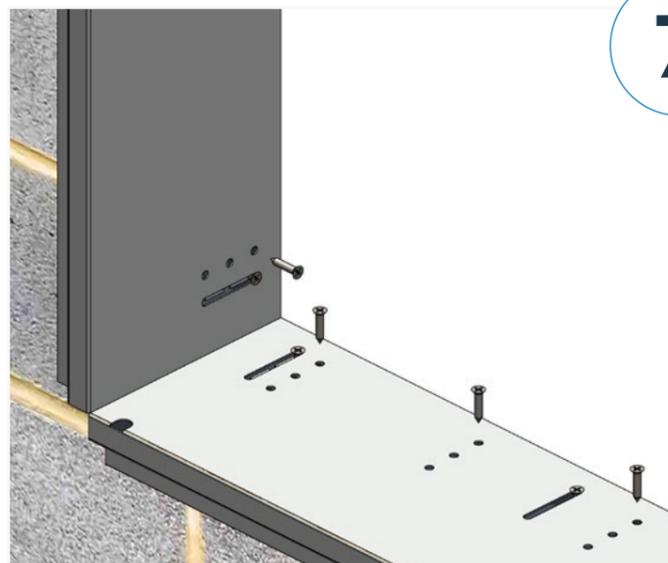
**8.2** However, if required, the legs can be fitted to the reverse of the frame as shown.



# 6

## Alignment

Check that the frame is still aligned to the required finished wall plane.

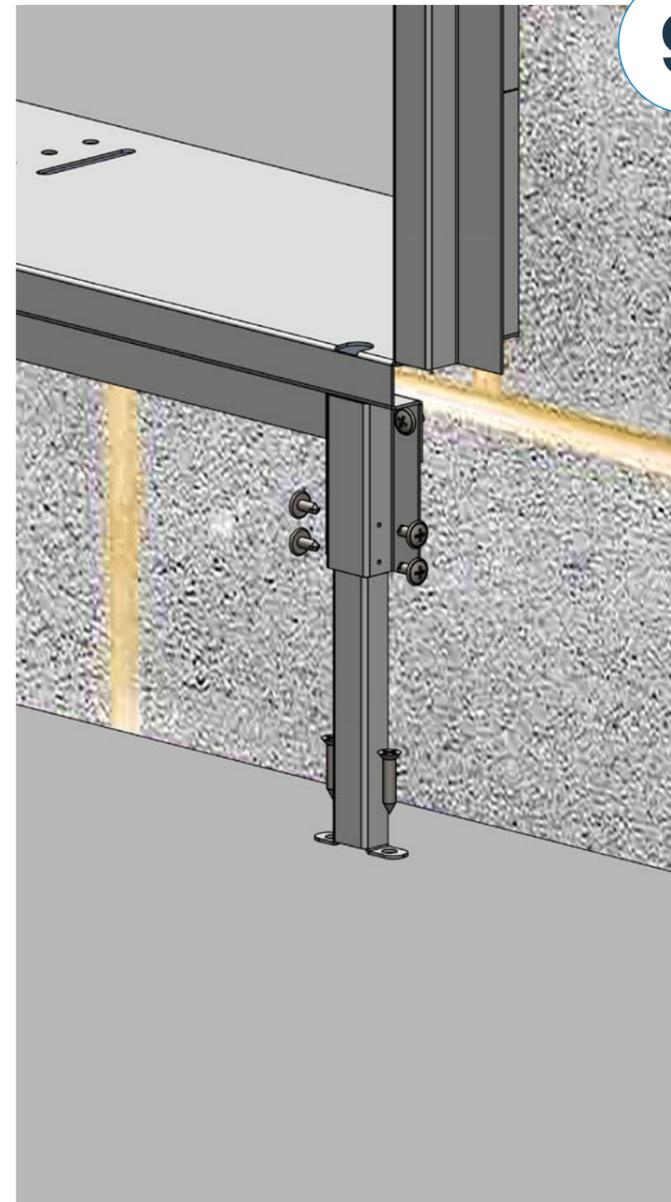


# 7

## Final frame fixings

Screw through the **Frame Holes** to permanently lock the frame in place. Only **one fixing per row** is required (choose the best located hole).

**IMPORTANT**  
Use screws of suitable type for the substrate.



# 9

## Frame feet

Screw-fix all the supplied **Feet** to the **Floor** using Screws of suitable type for the substrate.

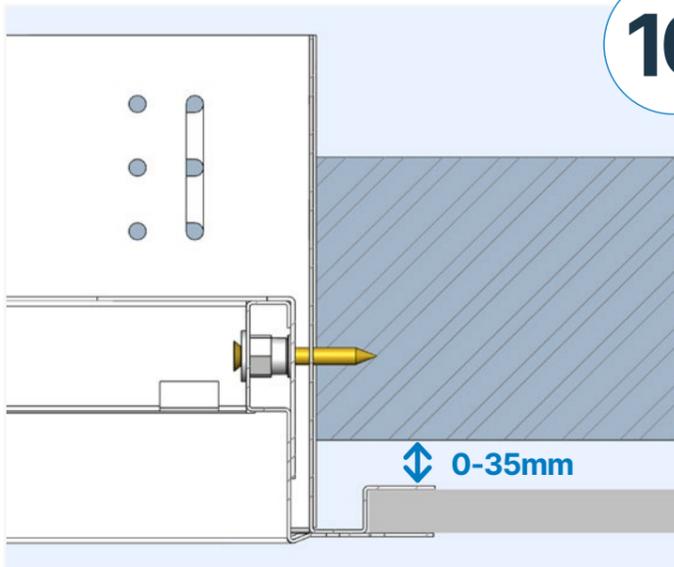
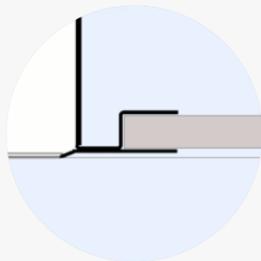
Screw through the **Frame Leg** to secure the **Feet**.

# 10

## Plasterboard and measure

Plasterboard to the level of the Nulfire Liner.

Depending on the protrusion from the supporting construction different fixings are used:



### 0-35mm

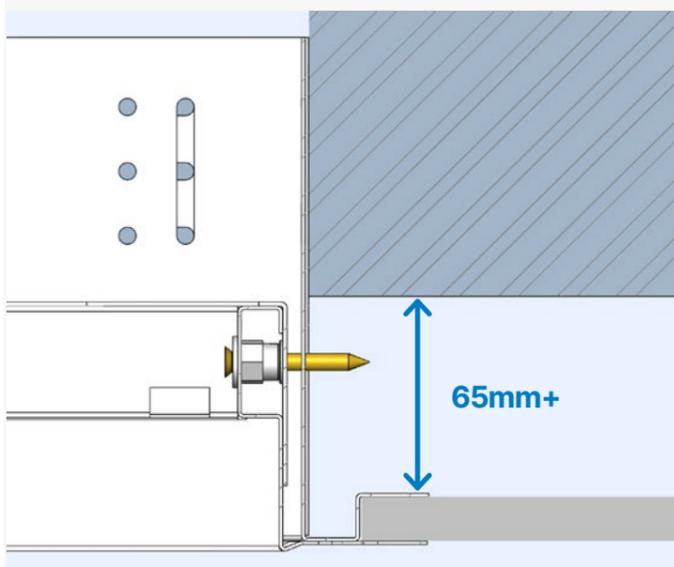
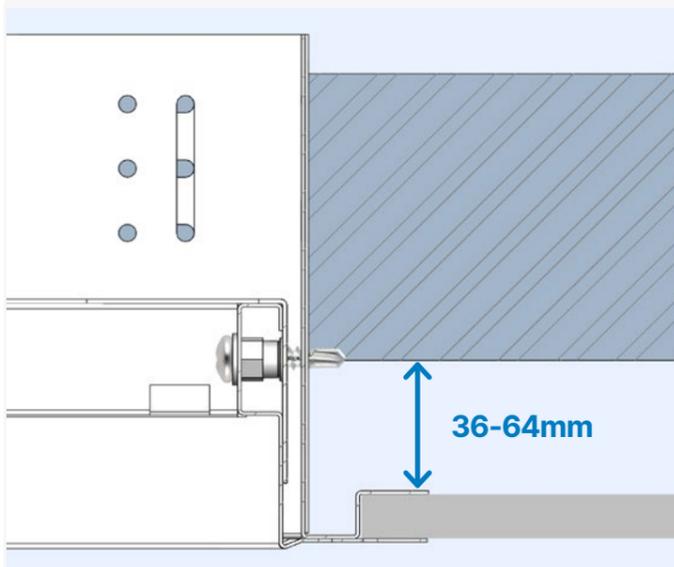
When installing the Quadra into the Nulfire, if the protrusion is 0-35mm, **drill and plug** the supporting construction before screwing.

### 36-64mm

If the protrusion from edge of bead to supporting construction is 36mm to 64mm, this will require the use of a **self-drilling screw** to secure the Quadra+ to the Nulfire steel.

### 65mm+

If the protrusion from edge of bead to supporting construction is 65mm or greater, **no wall plug is required**.



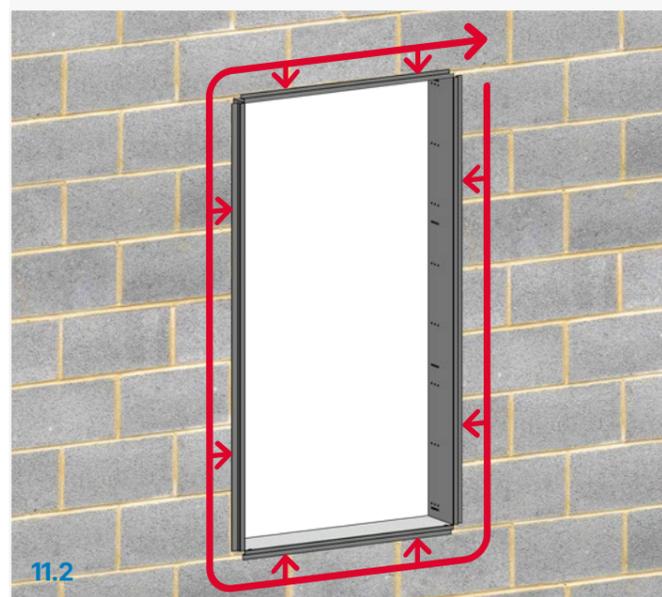
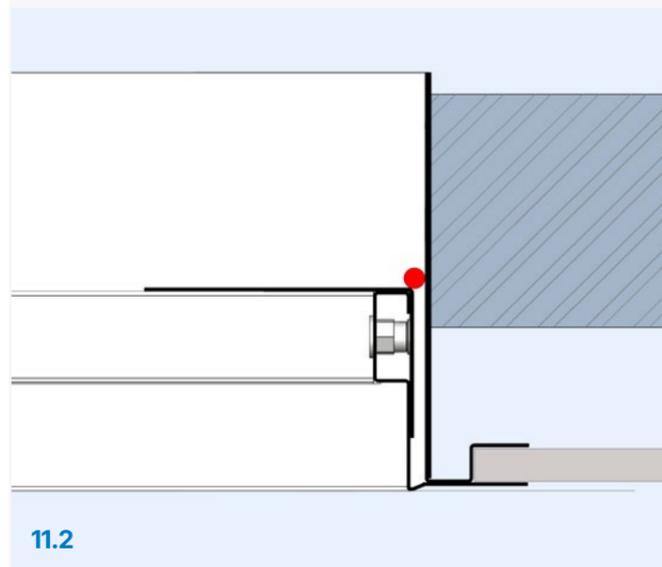
# 11

## Install doorset and apply intumescent

**11.1** You are now ready to install the Quadra+ doorset.

**11.2** Once the doorset has been installed, a **continuous bead of intumescent mastic is to be applied where the rear of the Quadra frame meets the Nulfire**, as shown.

To achieve a fire rating, it will require 'Mann McGowan Pyromas A' / 'Everbuild Everflex Fire Mate Acrylic Intumescent Sealant' or an intumescent sealant that has been tested in the same situation.



**IMPORTANT**  
Do NOT use any type of expanding foam to install the doorset.

# Quadra+ Temporary Door Leaf

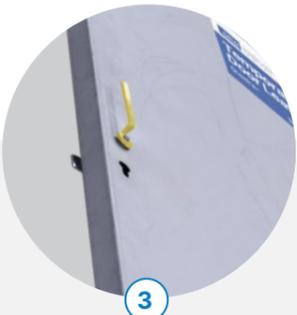
Follow the additional steps below If a TDL has been specified for installation:



**1 Install Threshold Cover**  
The protection plate fits neatly over the threshold. Frame fixings to be installed through cover and into surround.



**2 Install TDL**  
Follow the door leaf installation steps shown on **page 4** to install / remove the TDL.



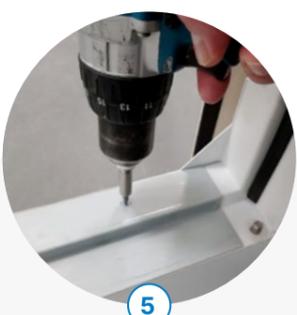
**3 3-point Budget Lock**  
The lock is operated by the handle to lock and unlock the door. (Eurocylinder option shown)



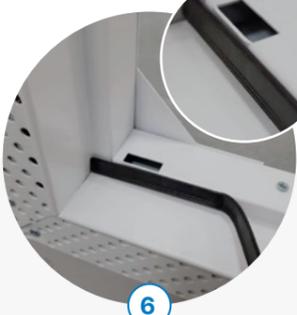
**Remaining construction can now take place in and around the riser**  
Once the tape-and-joint (or skim) is complete and the finished doors are on site the TDL can be removed.  
**Follow steps 4-7 below**



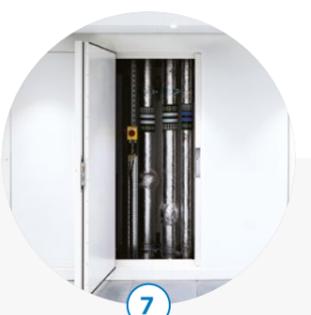
**4 Door Removal**  
Remove the door by depressing the pin and lifting off the door. (Door can then be recycled)\*



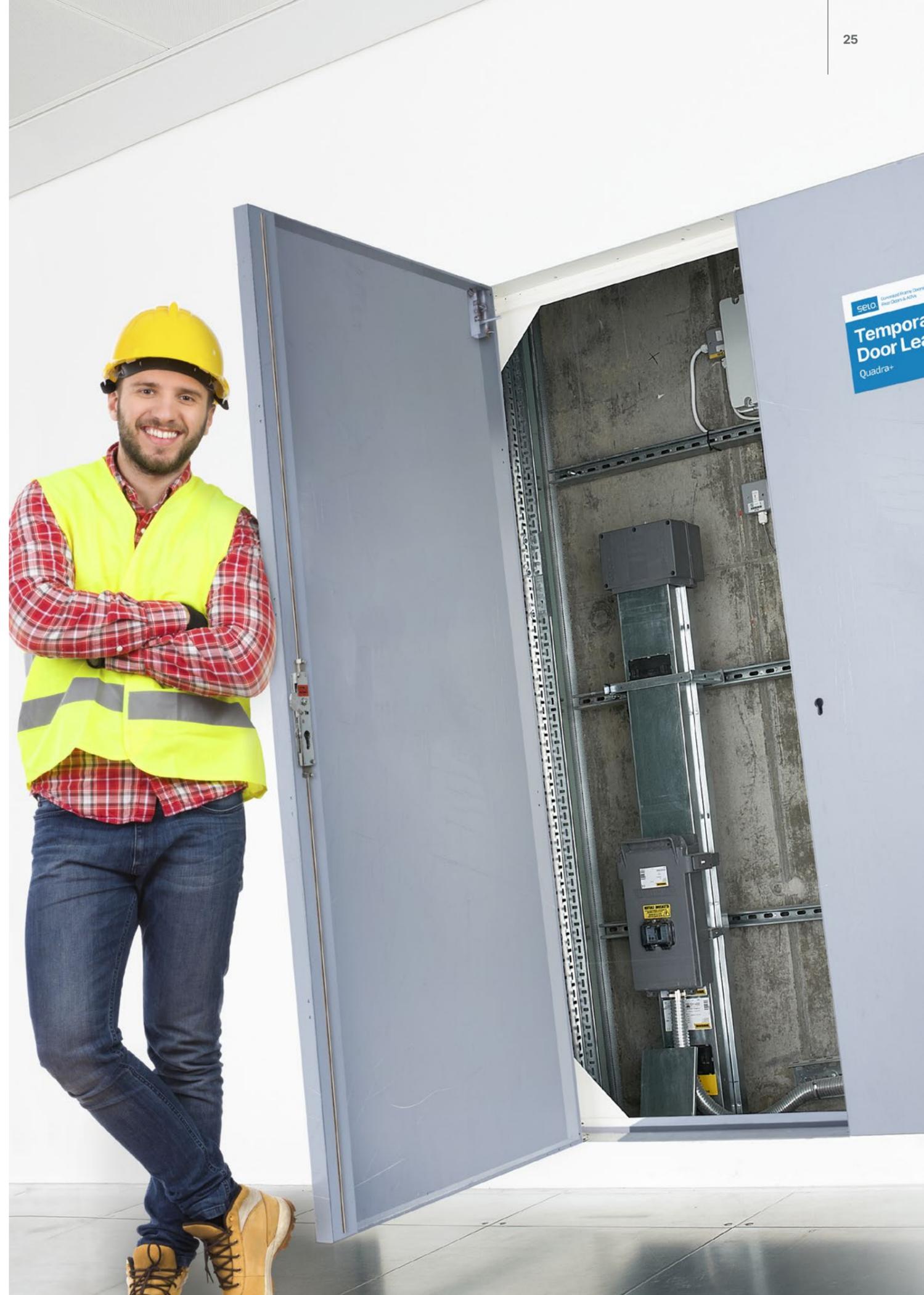
**5 Threshold Removal**  
Remove the fixings and lift away the protection. Clean the threshold of the permanent frame. Reinstall frame fixings.



**6 Apply Threshold Seal**  
Fit seal to the door stop of the threshold with the larger part of the seal adjacent to the bottom edge of the stop.



**7 Hang Permanent Door**  
Hang the permanent door in its place. The Quadra+ doorset is ready.  
**Please complete the Post Installation Checklist.**



\*Contact Selo to assist with **disposal and recycling** of door leaves.  
**call** 020 3880 0339 / **email** sales@selo.global

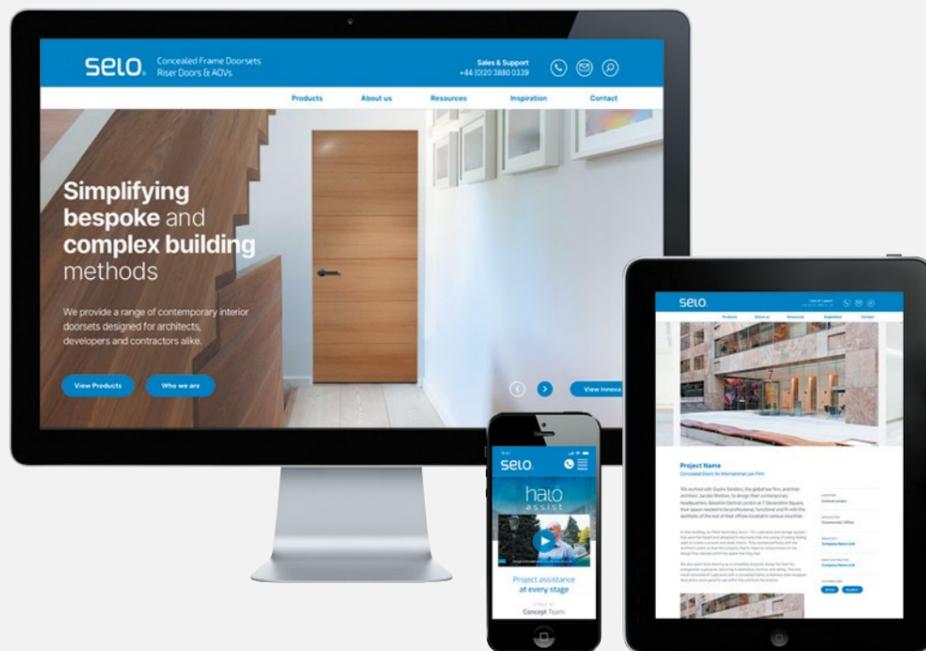
Scan QR code for further Quadra+ TDL product details.

# Support

For help and advice with your installation contact our experienced team.

**call** 020 3880 0339 **email** sales@selo.global

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# Quadra+® Riser Doorset BY seLO



## Post installation checklist

Required upon completion, the checklist should also be completed monthly.

| Item check                                 | Requirement   | ✓ or X | Initials |
|--|---|--------|----------|
| Intumescent seal                           | <b>Gaps between the frame and the wall should not exceed 10mm.</b> This gap should be filled with a bead of suitable Acrylic intumescent sealant, unless the frame is pre-intumesced with Quench®.  |        |          |
| Door gap                                   | <b>3mm +/-1mm</b>   |        |          |
| Appropriate door stop fixings used         | Every hole in the door stop must be fixed with steel screws that penetrate the stud by <b>min. 35mm</b> . Stop fixings should not be overtightened distorting any part of the frame.  |        |          |
| Appropriate plaster bead fixings used      | Must be <b>75mm long</b> steel fixings. No more than <b>350mm apart</b> and <b>maximum 150mm from corners</b> .   |        |          |
| Frame is square to wall                    | Ensure frame is not distorted during installation, so the gap between the door stop and the rear of the door remains at <b>2-4mm</b> and is consistent across the full height of the door. <b><u>Do not use expanding foam of any kind.</u></b> |        |          |
| Seals present all around the Quadra+ frame | Seals should be present and intact all around the frame stop to seal the perimeter of the door when closed.   |        |          |
| Top edge of meeting doors                  | Top edges of double-doors (+multiples) should be level and parallel with the frame.   |        |          |
| Nylon bearing washer                       | Each door should have a nylon bearing washer fitted to the bottom pivot pin located at the heel edge of the door.   |        |          |
| Door operation                             | Door must open and close securely, flush with wall and adjacent doors.  |        |          |
| Top and bottom pivot                       | The top pivot should be fully engaged into the frame with the release bar fully-up and into it's locked position. The door should be fully located on the bottom bearing washer and pin.  |        |          |
| 3 point lock                               | Operation of the full function and engagement of the 3 point locking on <b>each</b> door. Check all lock fixing bolts are secure.   |        |          |
| Euro cylinder (Optional specification)     | Check function of the eurocylinder and that the retaining screw fitted is <b>M5 x20mm Pan head</b> . (Longer screws prevent lock from functioning)  |        |          |
| Lock turn                                  | Check lock turn is flush with face of door.   |        |          |
| Label                                      | Check the label declaring fire rating is fitted to the rear of the door.  |        |          |

| Site | Door ID | Signed | Date |
|------|---------|--------|------|
|      |         |        |      |