



THE
RESIDENCE
COLLECTION

**RESIDENCE COLLECTION WINDOWS & DOORS
INSTALLATION MANUAL**



WINDOWS & DOORS

MAKE IT A
FULL HOUSE



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Section 1

Information

INTRODUCTION

The following installation recommendations are for The Residence Window and Door systems. They follow best practice and industry standards.

Additional information can be found in The British Plastics Federation Code of Practice publications as well as The Glass and Glazing Federation Guidelines.

The British Plastics Federation

www.bpf.co.uk

The Glass and Glazing Federation

www.ggf.org.uk

TRANSPORT AND STORAGE

Window and door elements should be stored in an upright position, not leaning and in a dry environment. Fitting corner protectors to frames prevent damage during storage and transportation and are recommended.

Corner protectors are to be removed prior and just before the fitting of the window or door. Elements stored on site are to be protected from soiling by placing them on a firm base such as timber pattens, which supports them along the length.

Any packaging used should not cause heat build up. Packaging should not contaminate the elements surfaces such as adhesive tapes, etc.

During transport, the elements are to be protected against movement when stacked against each other or supporting frames and any damage caused by knocks. Distortion of the elements must be avoided.

General

BS 8213-4:2007 Code of Practice for the Survey and Installation of Windows and External Doorsets gives recommendations for the surveying and installation of non-load bearing windows and external doorsets, to be installed vertically (within 15°) into the external face of buildings.

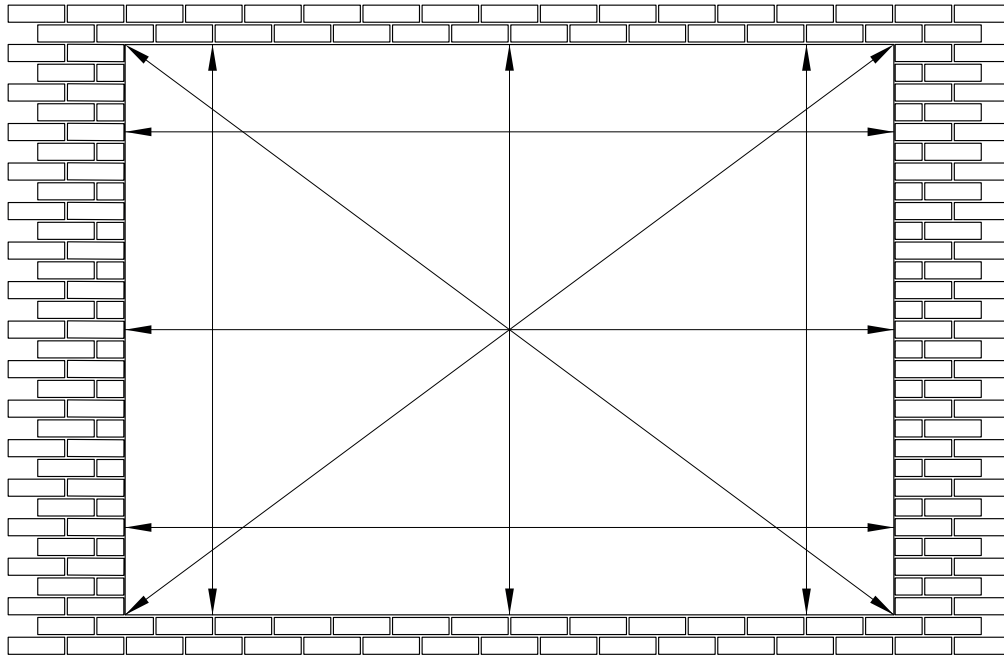
It gives guidance on the good practices for successful surveying and installation. All aspects of this document should be followed with particular attention given to the product's suitability for its location and the presence of any dead loads. Wherever possible the survey should identify any necessary variations to the standard installation techniques such as lug fixing or direct fixing.

Fixing methods are determined by the construction of the structural opening and the method of drainage. If you are at all unsure then please contact our technical team. Any finished floor level should clear the bottom of a door sash (gasket) by at least 5mm in closed and open position, to avoid any interference cause by installation tolerances and unevenness.

Personal protective equipment should be worn at all times during installation and on building sites. In order to protect surroundings from dust and debris, it is recommended to use dustsheet where possible.

Survey Notes

The manufacturing sizes should be determined by measuring the structural opening using the methods described in BS 8213-4:2007 Code of Practice for the Survey and Installation of Windows and External Doorsets. Generally three measurements of width and height should be taken and the squareness of the aperture determined by. For example, taking diagonal measurements (see Figure 1). The smallest measurement of width and of height is used to determine manufacturing sizes.



Preparation of Structural Opening

Check that the opening is the correct size for the new frame (n.b. For replacement work this should be done prior to removal).

Check that any DPC's are sound and not "bridged" by any render or plaster.
Check for the practicality of fixings to the lintels.

The base of the opening must be constructed of suitable structural material, e.g. brick, block, stone, timber etc.

However, the following fitting tolerances should be adhered to:

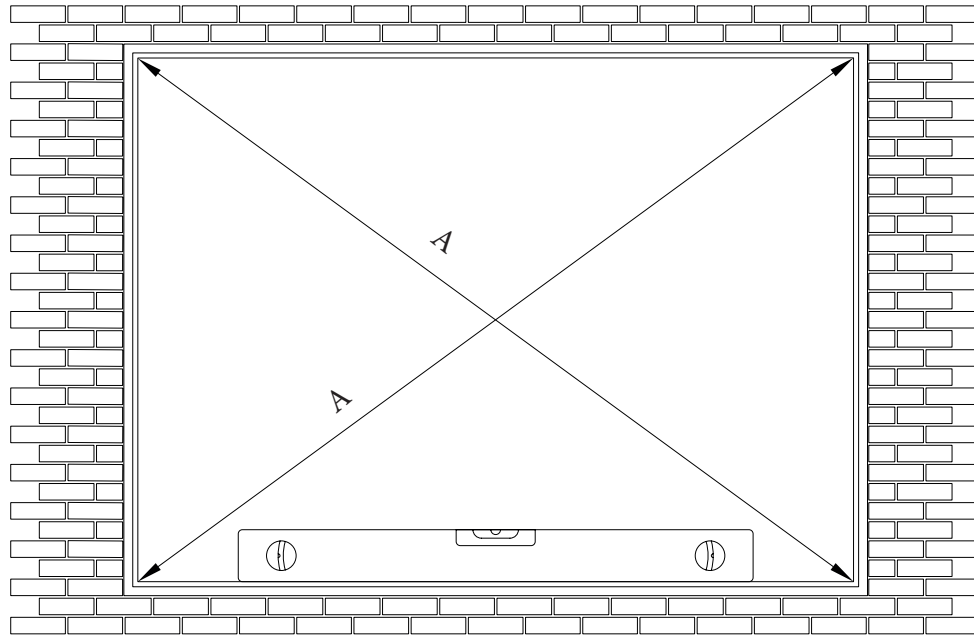
Recommended total deduction for width and height of structural opening		
	up to 3.0m	3.0m to 4.0m
White	10mm	15mm
Non-white	15mm	----

Please Note:

Height consideration must also be given to fitting a cill and additional deduction for dark coloured elements.

Section 2

Installation Details



Installation

Prior to any work being carried out, check that the aperture is compatible with the window or door. The sill must be leveled by means of packers, bed of mortar or appropriate wedges.

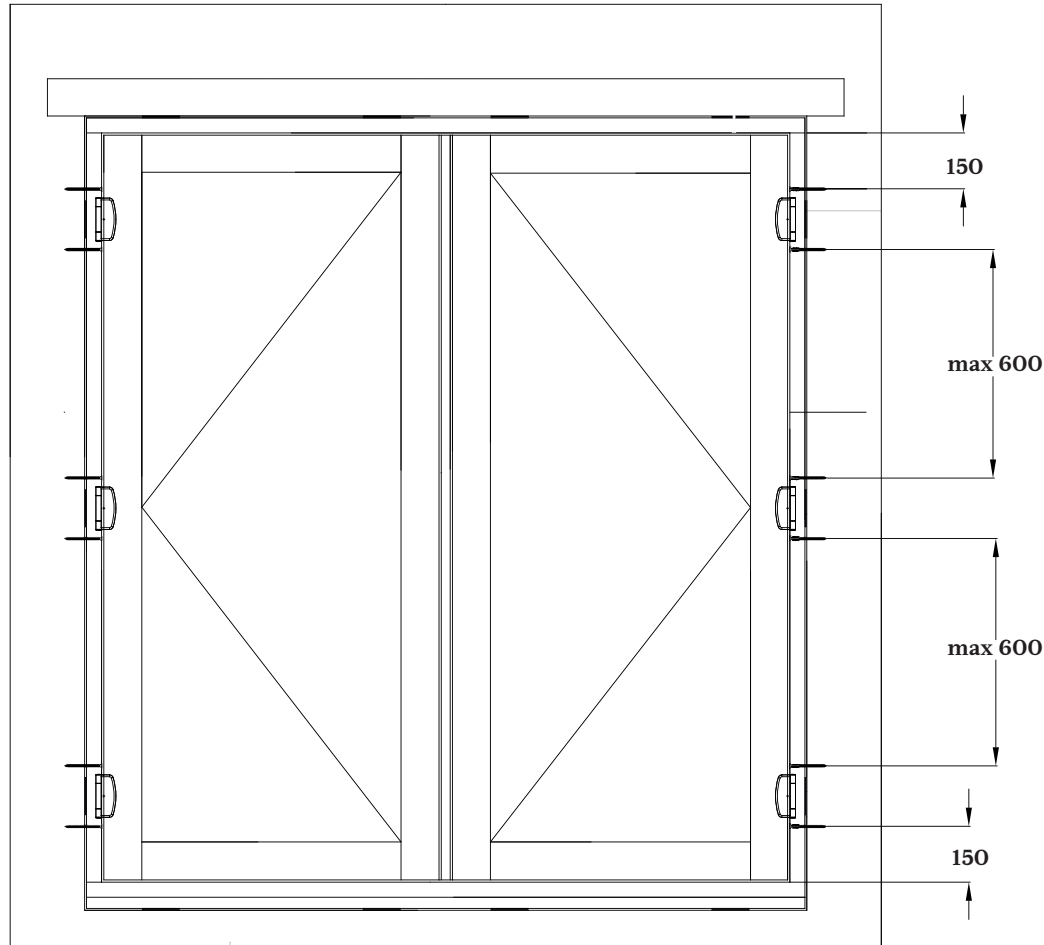
The element is trued up by using wedges and or packers. These should be removed after the element has been fixed. If this is not possible, care must be taken to ensure stresses, set up by the building, cannot be transmitted to the element and the linear expansion is not inhibited. Wedges must only be left in place at the points where the element is fixed to the building fabric.

Extra care must be taken, when installing elements at below 5°C and any impact to frame and sash must be avoided. The protective tape must be removed immediately after installation. When plastering/rendering in the profile, surfaces must be protected.

FIXING DETAILS

Setting, Fixing and Packing

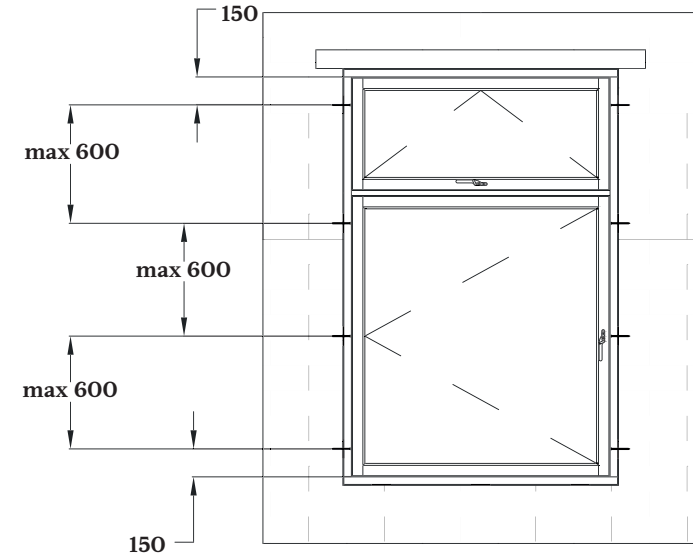
Door Recommendation



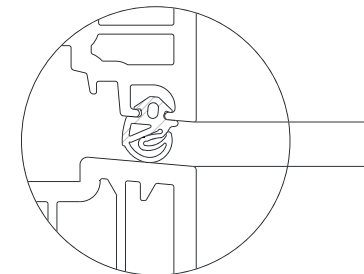
Fixing points through frame with packers, in line with hinge.

When fixing through the frame, fix 150mm from the inner corner of the frame, then every 600mm centres thereafter.

Window Recommendation



When packing around the frame, a consistent gap between sash and frame has to be maintained.



FIXING DETAILS

Fixing Methods

Fixing into masonry

The joint between elements and masonry must contain a foam sealing strip, polyethylene foam or similar material to act as insulation, but also as backing for the sealant. If thermal or sound insulation is critical, then the joint can be completely filled with mineral or sound insulation. Filling the gaps with mortar or plaster is not permissible. If foam filling is to be used, the manufacturer's instructions must be carefully read and strictly adhered to. The foam must be compatible to the frame material and the sealant.

Contact with any coloured or foiled surface must be avoided. Areas of cured PU foam must not remain exposed to the atmosphere. Bituminous materials must not be used for these joints.

Prior offering the element to the opening, set the cill on a bed of mortar or appropriate packer and apply silicone between sill and base. Make sure cill is adjusted plumb and straight.

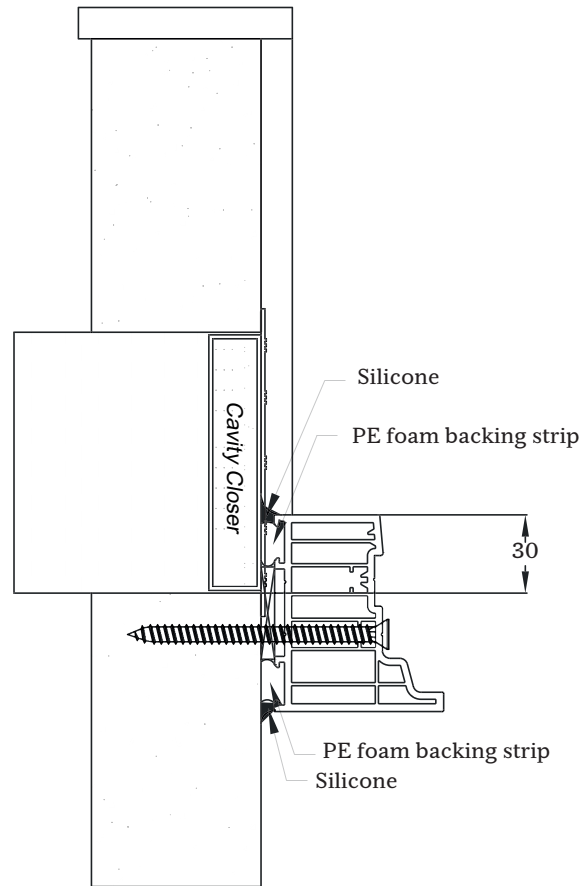
With frame in place, use suitable fixing method to fix frame jambs and frame head to the brickwork.

Fixings should be 150mm from internal top and bottom corners of frame and no more than 600mm centers in between. Make sure that in line with each fixing a shim is placed to avoid any distortion of the frame during tightening the screws. Finally fix frame to cill using 45-50mm self-tapping PVC screws, pre-drill and countersink if appropriate.

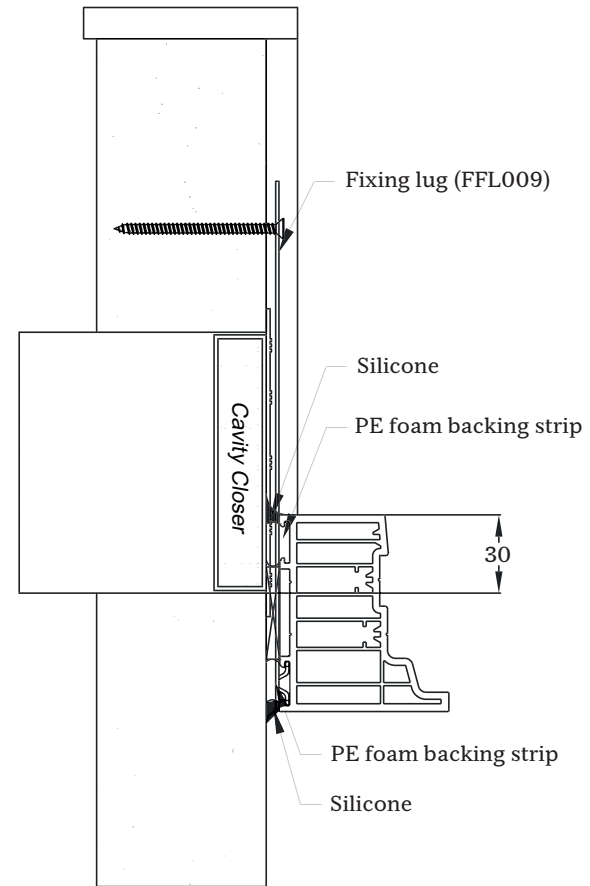
When using fixing lugs, it is recommended to fix the lug securely to the frame using suitable screws. Relying on barbed engagement legs only, may result in lug coming lose.

FIXING DETAILS

Open-in R7



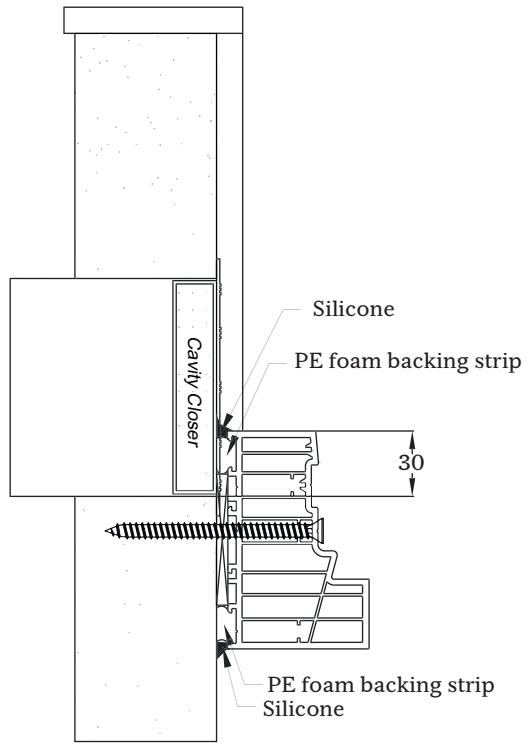
Through Frame



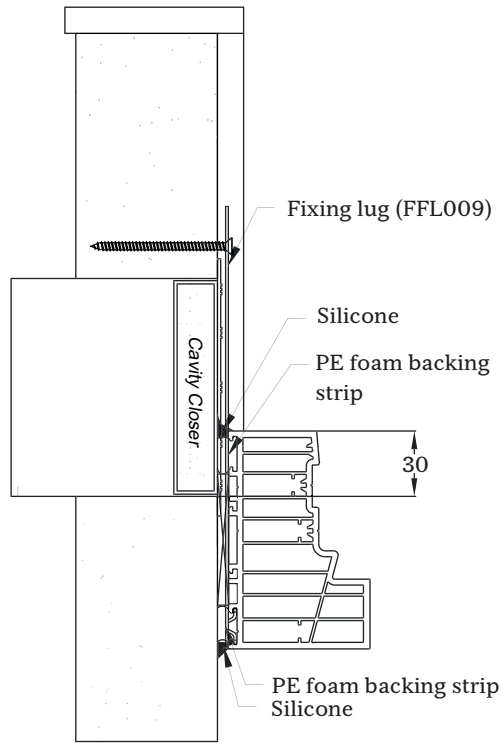
Fixing Lug

FIXING DETAILS

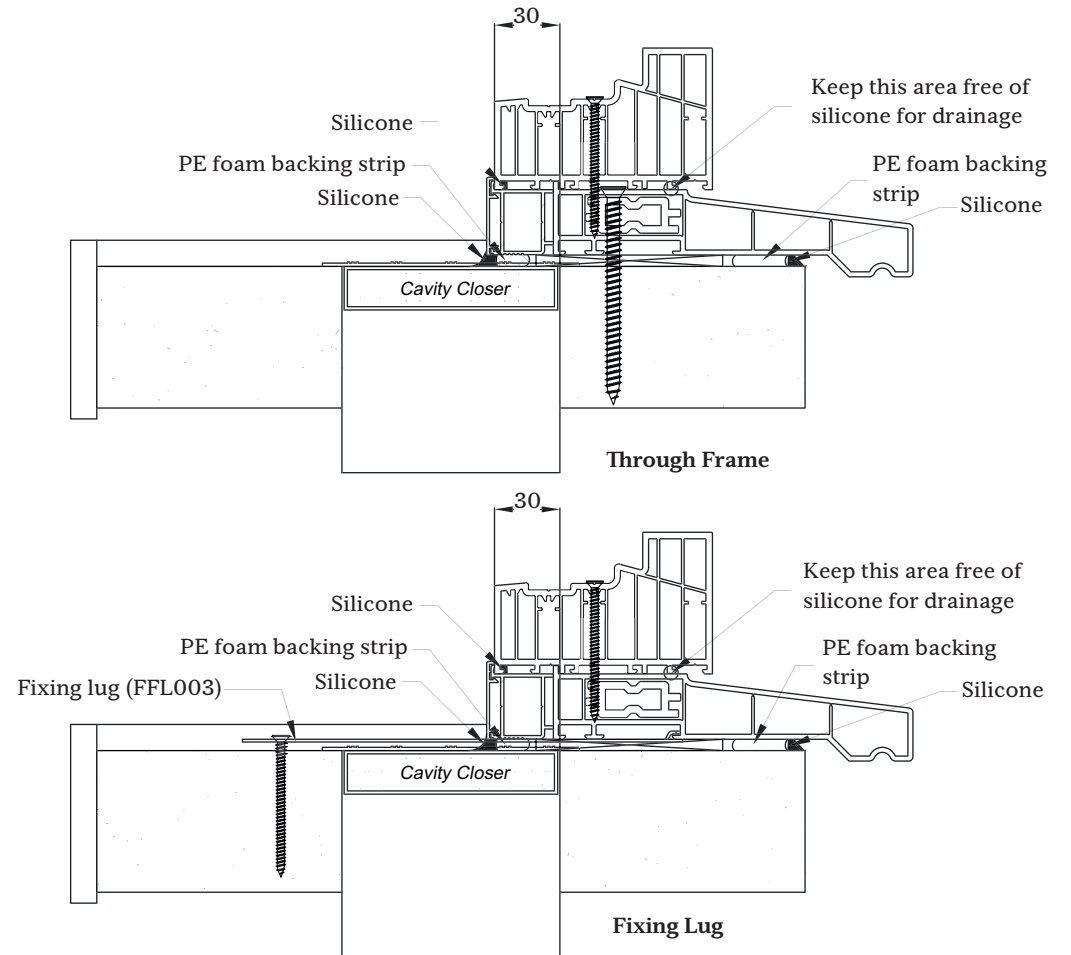
Open-in R²



Through Frame

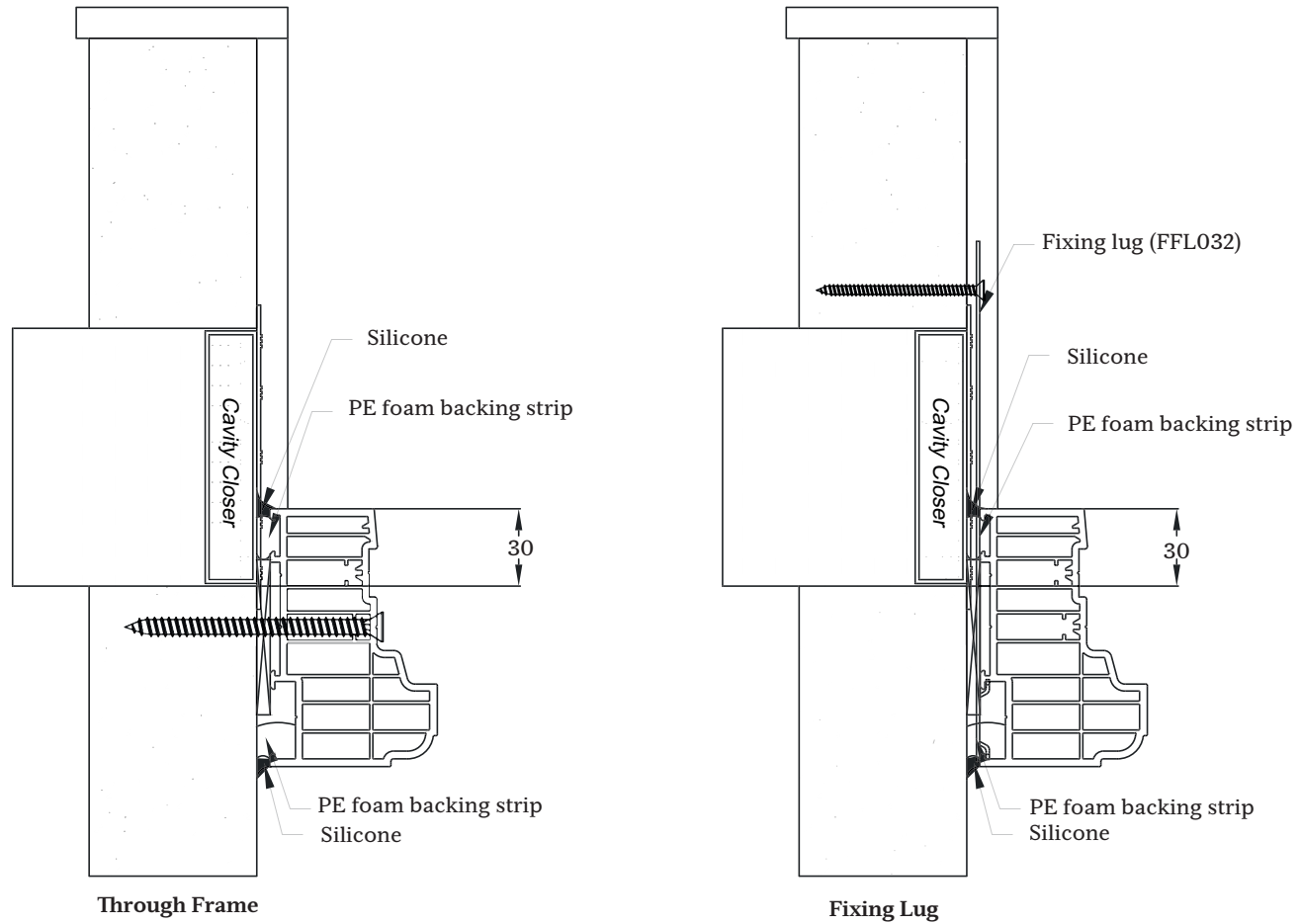


Fixing Lug



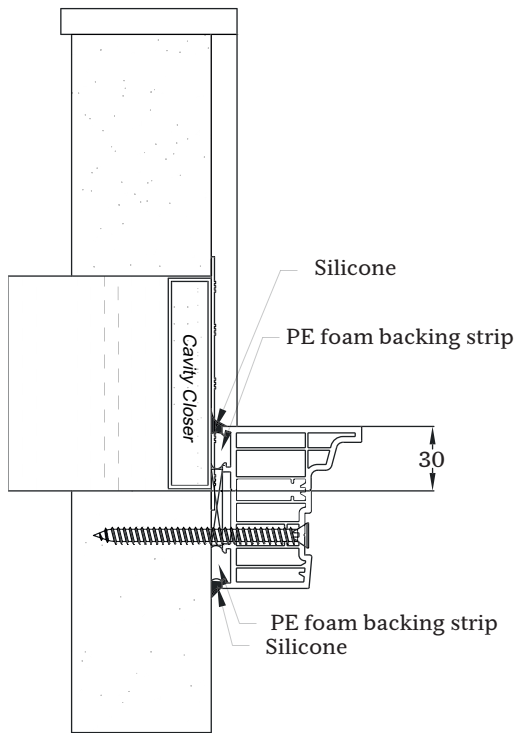
FIXING DETAILS

Open-in R9

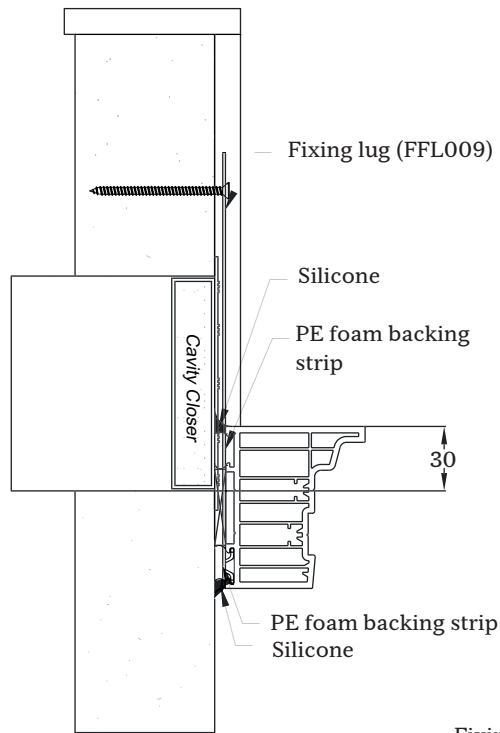


FIXING DETAILS

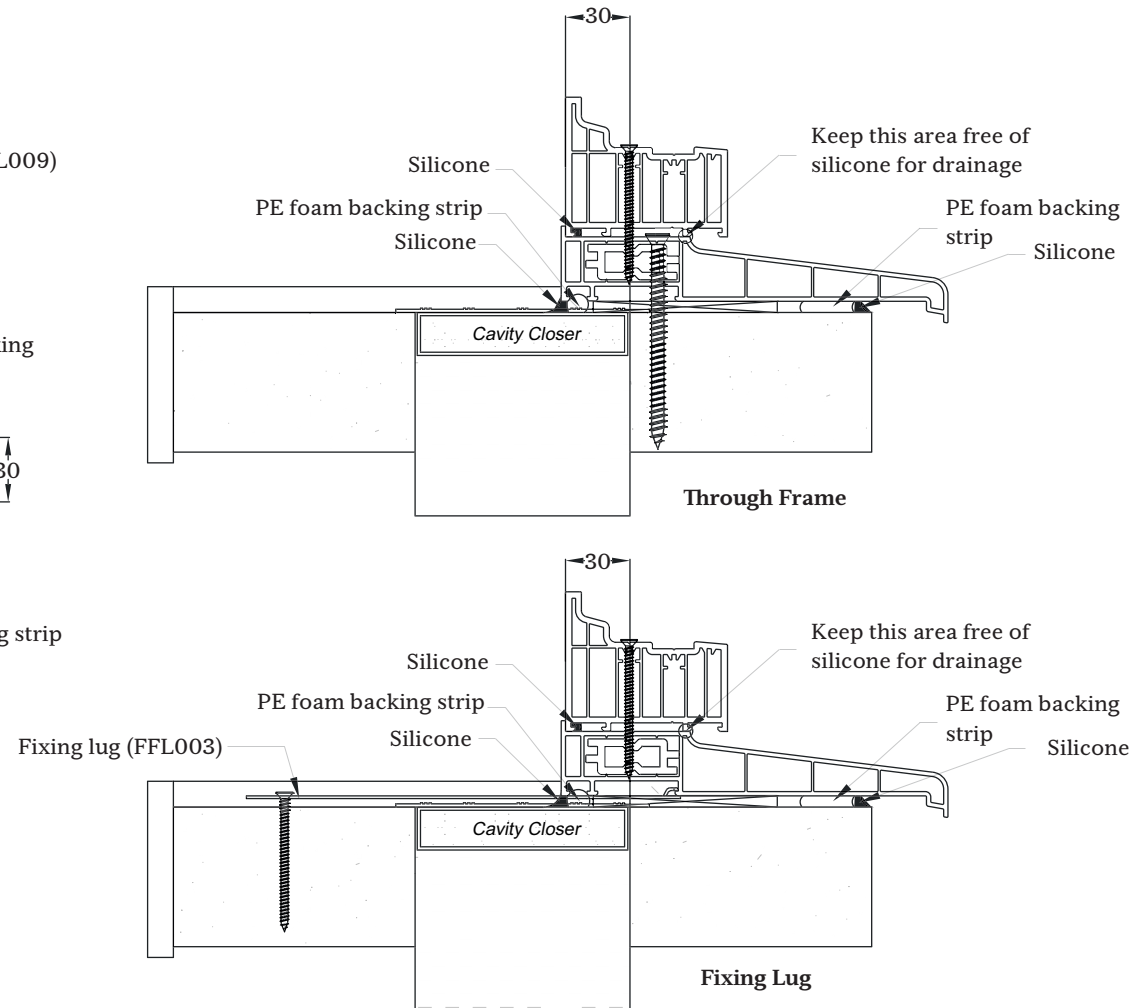
Open-out R7



Through Frame

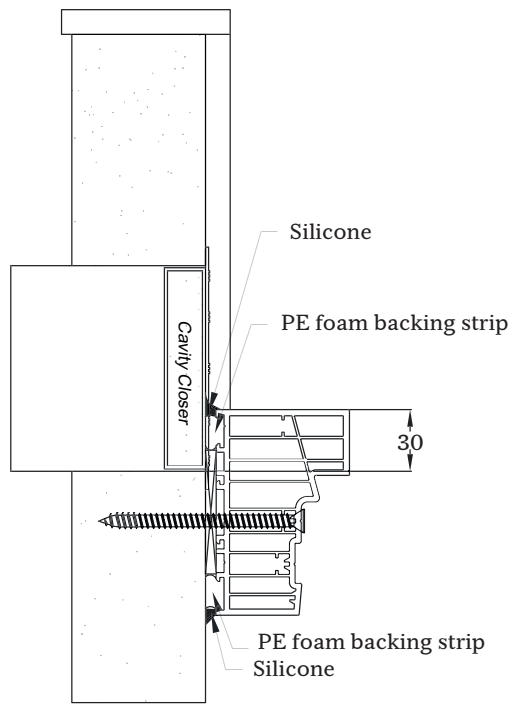


Fixing Lug

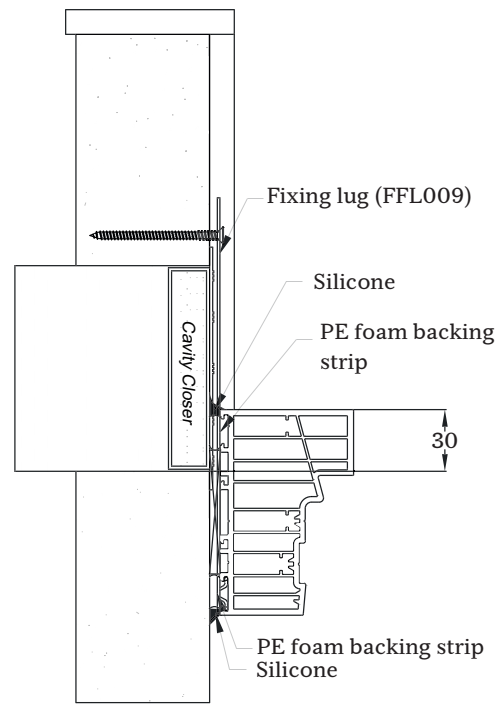


FIXING DETAILS

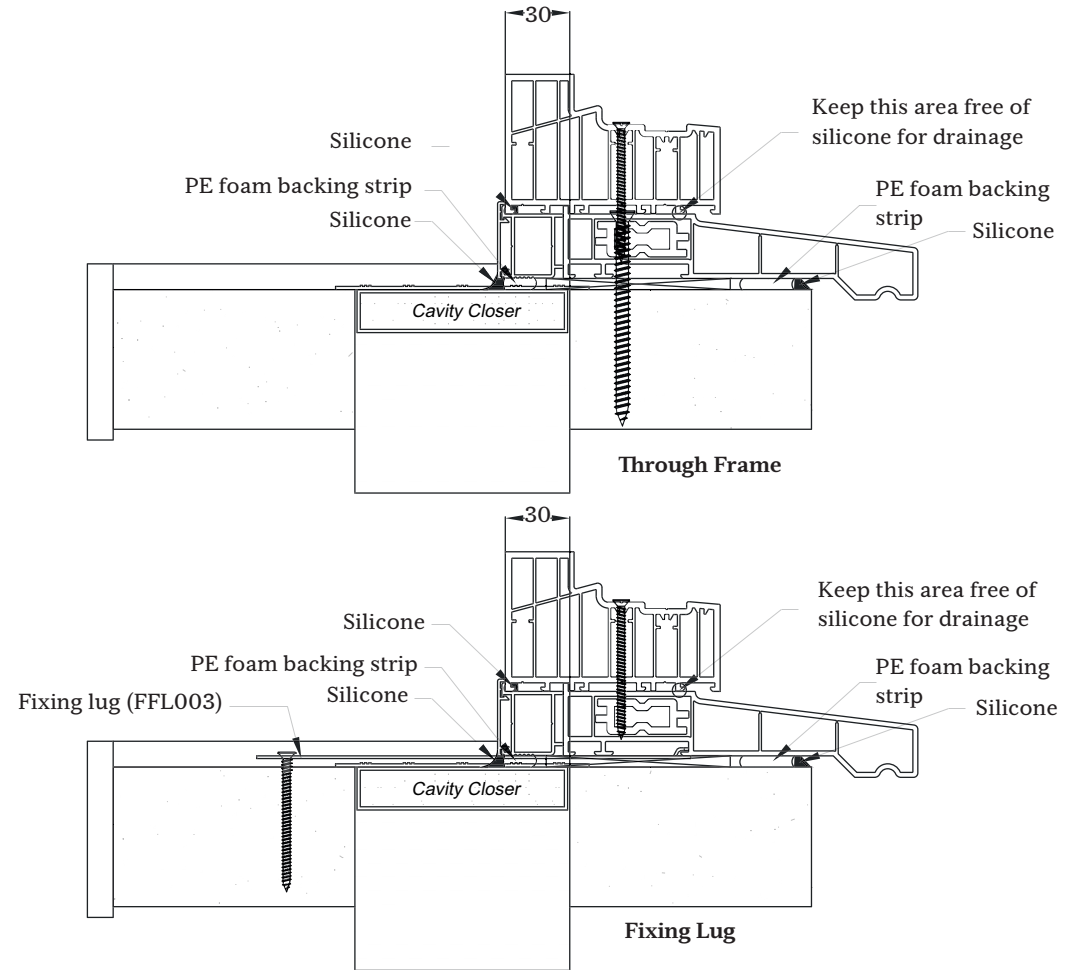
Open-out R²



Through Frame

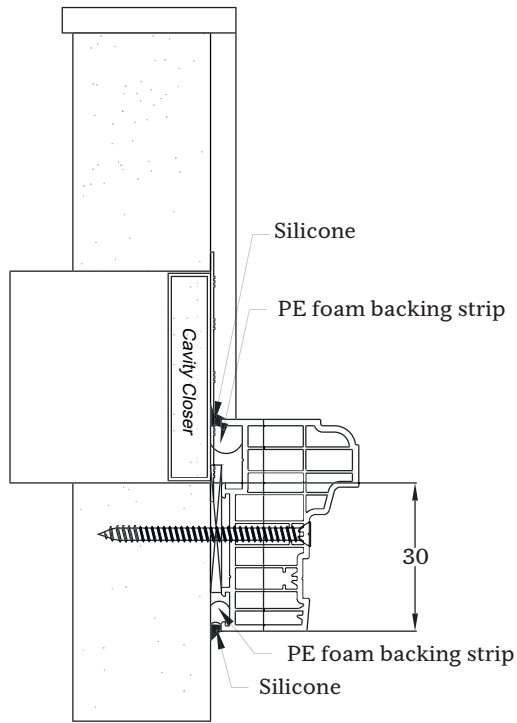


Fixing Lug

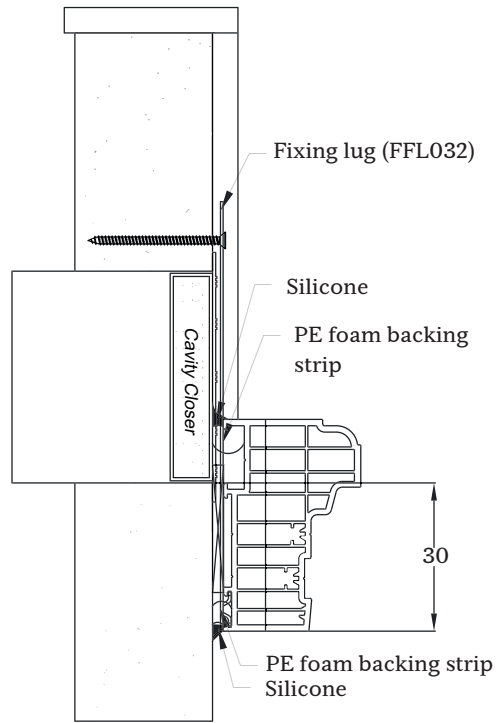


FIXING DETAILS

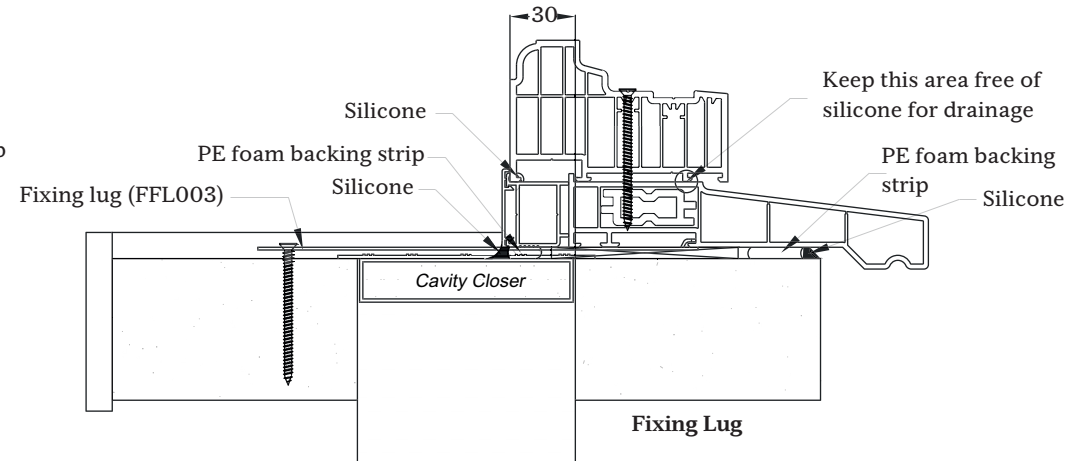
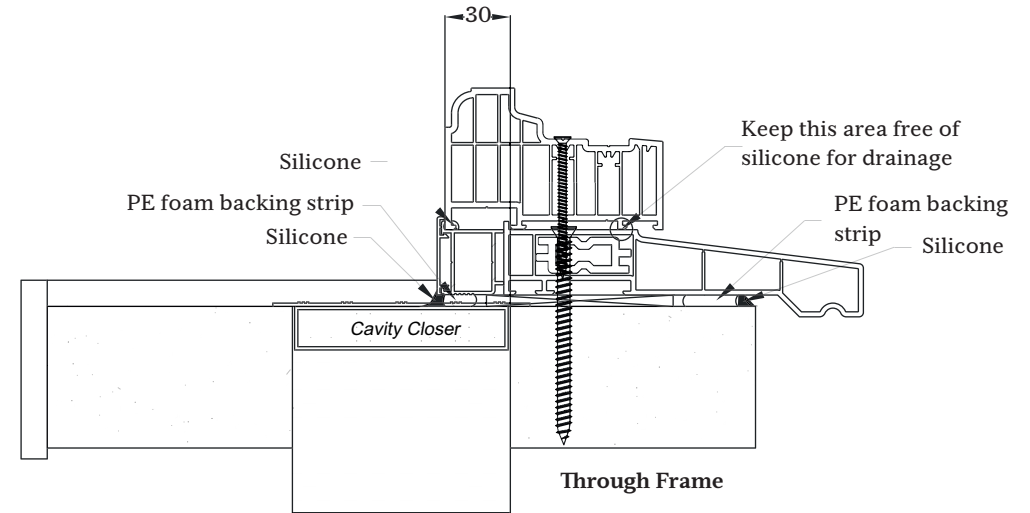
Open-out R9



Through Frame

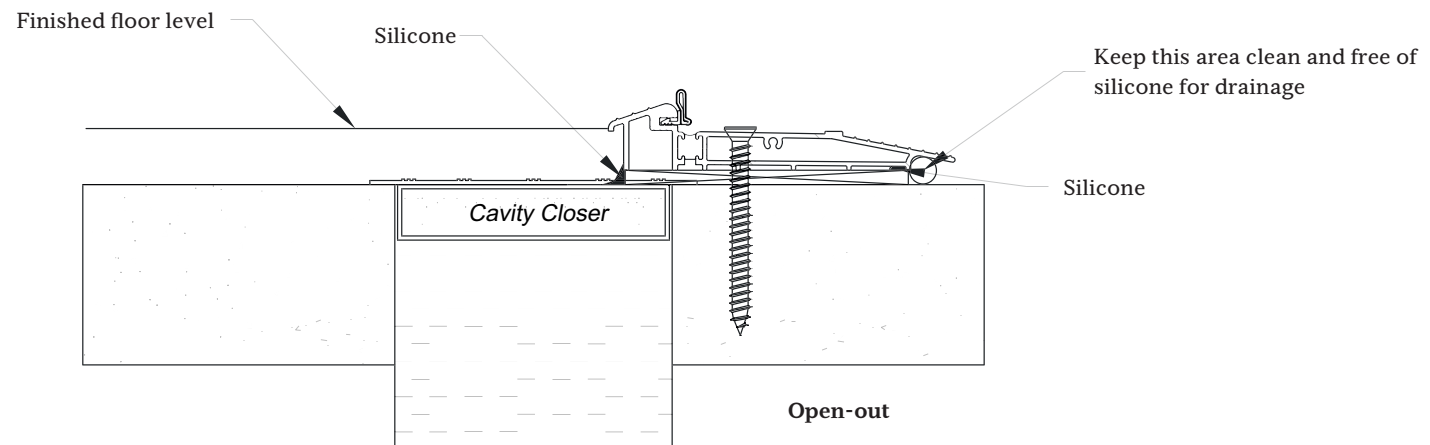
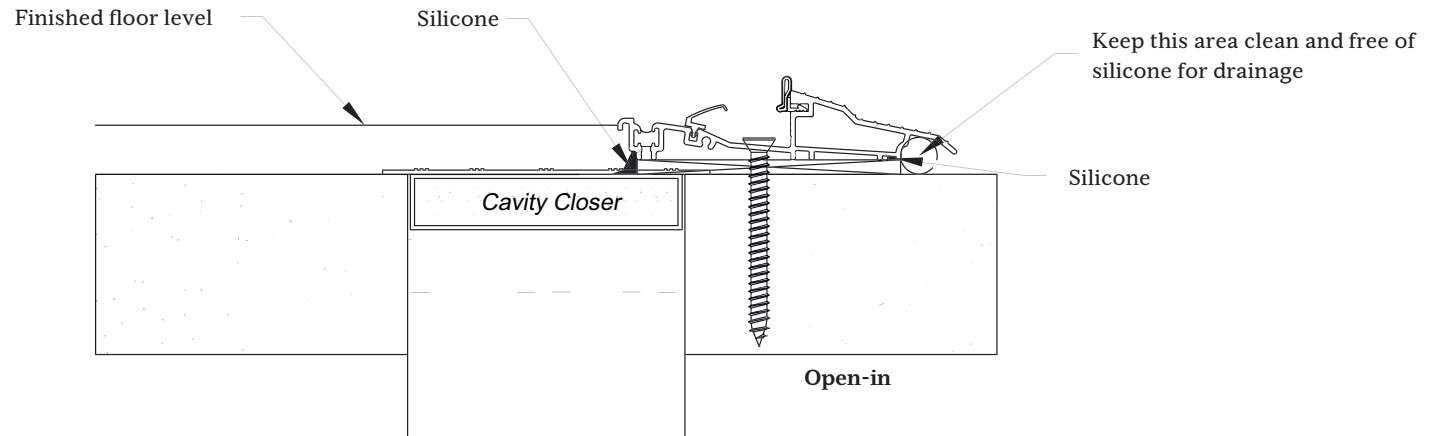


Fixing Lug



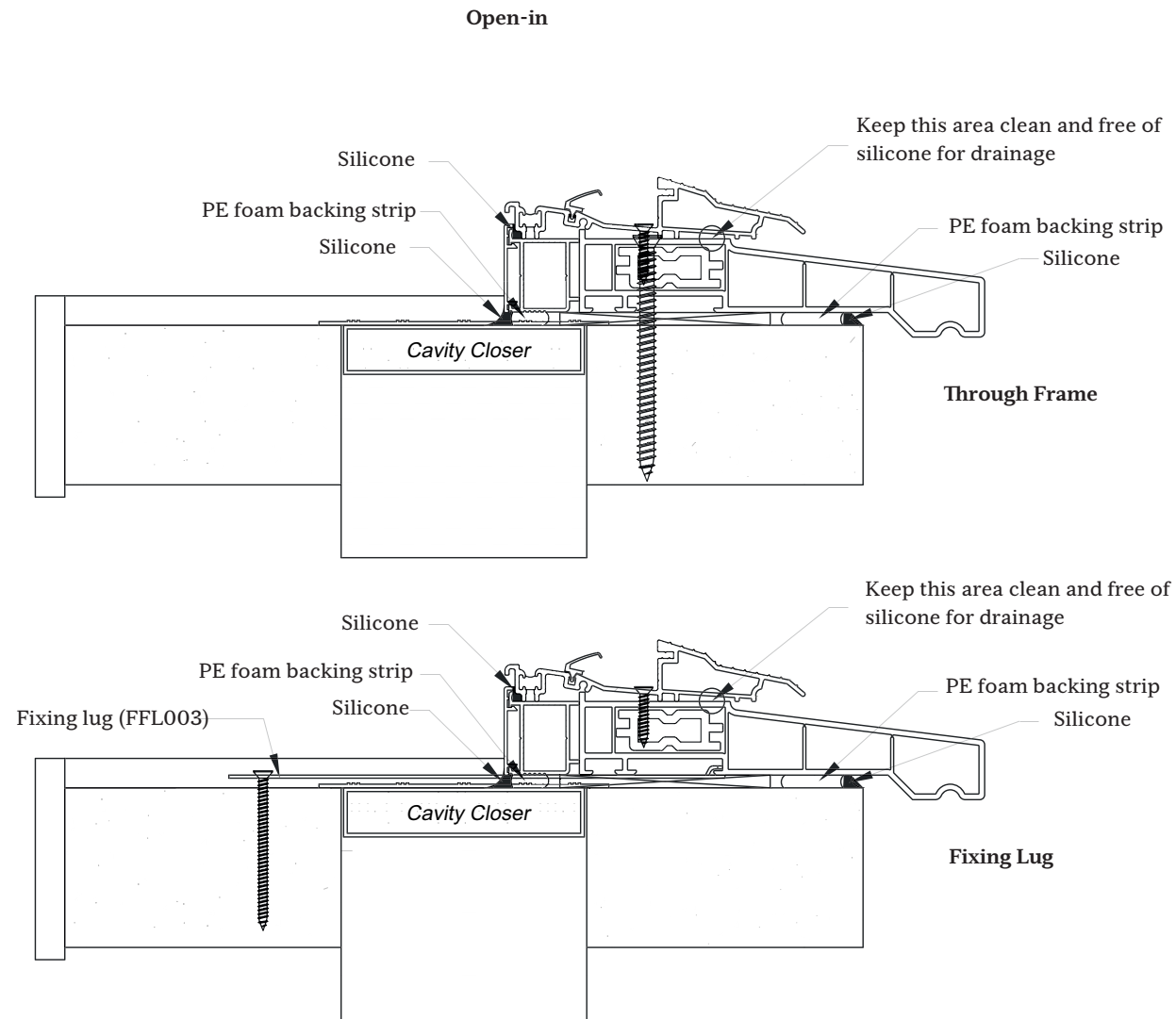
FIXING DETAILS

Fixing Methods - Low Threshold



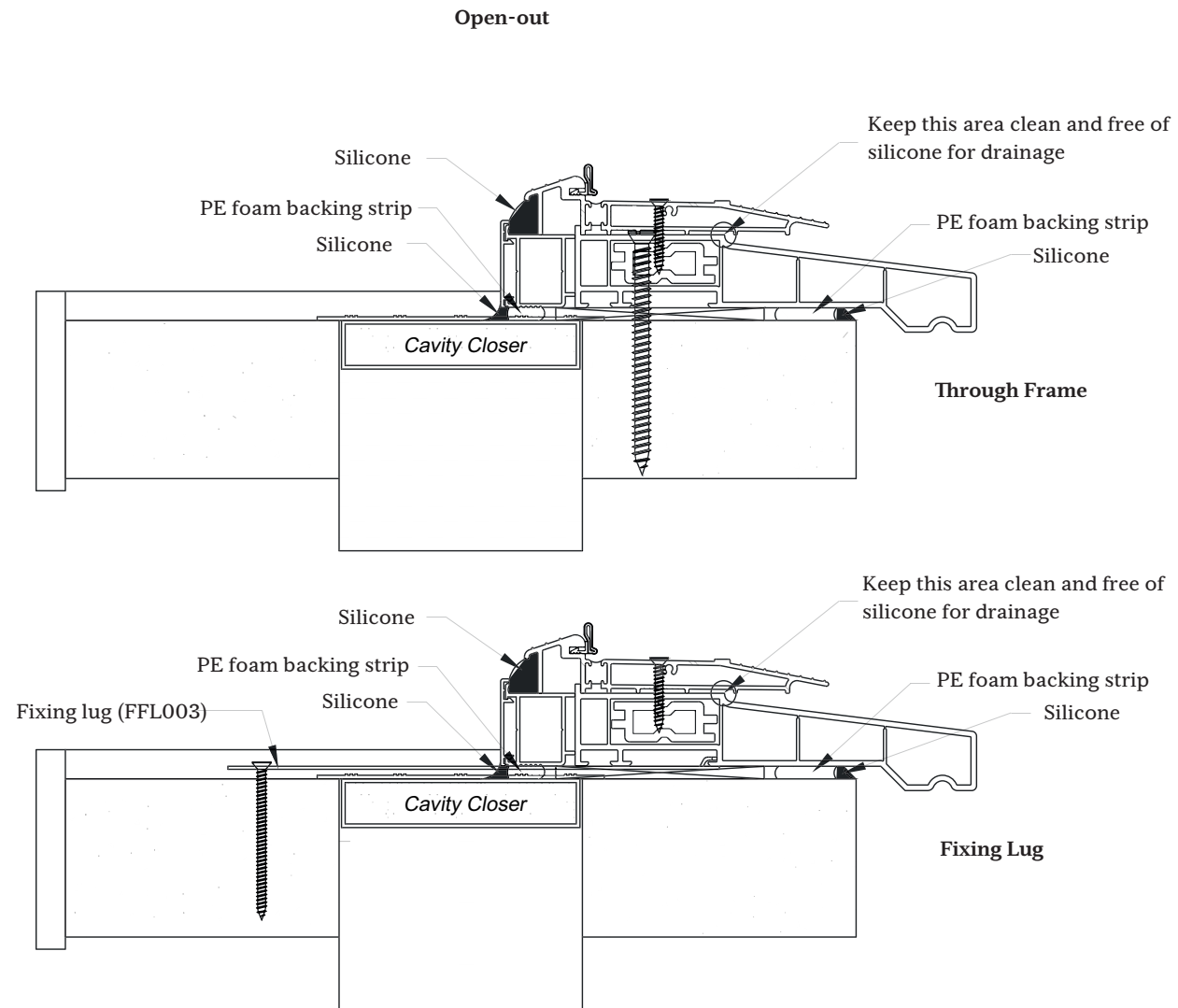
FIXING DETAILS

Fixing Methods - Low Threshold on Cill



FIXING DETAILS

Fixing Methods - Low Threshold on Cill



FIXING DETAILS

Perimeter Sealing

The purpose of perimeter sealant is to repel water and prevent air leakage caused by differential movement between the aperture and the door/window set. It is important to prevent water entering between the frame and the structure from the outside, but also to seal air gaps on the inside. This is to prevent moist air reaching over the insulation and creating condensation.

Suitable sealants exhibit and retain flexibility and adhesion over this period. The movement class for the sealant will depend on the substrate material, the frame material and the dimensions of the joint between the frame and the opening. It is advisable to clean down the frame before sealing the perimeter. The gap between the outer frame and structure must be sealed using a suitable external grade sealant. 5-6mm gaps may be filled with sealant alone, however the use of foam backing strips is recommended but should be used for larger gaps.

In some cases a small cover trim will be required to produce a neat finish. If access allows, the gap below the sill should be pointed with sealant. If this is not possible, ensure that the sill has been set on a suitable silicone or mortar bed.

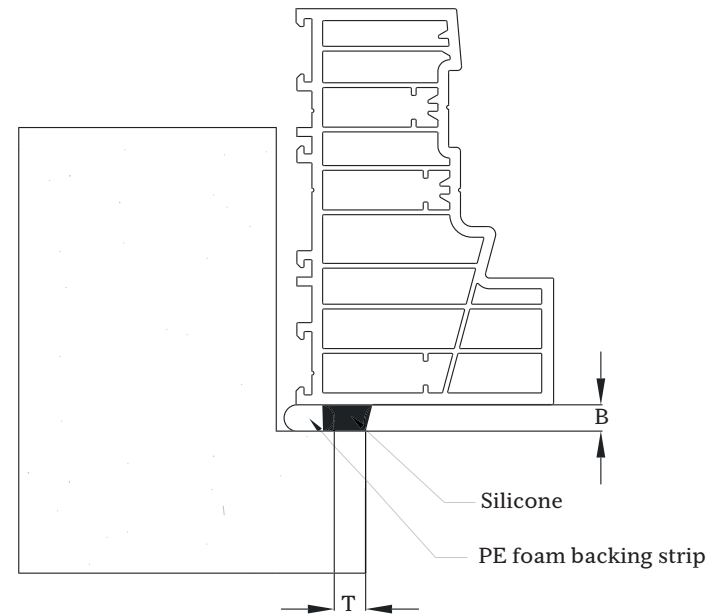
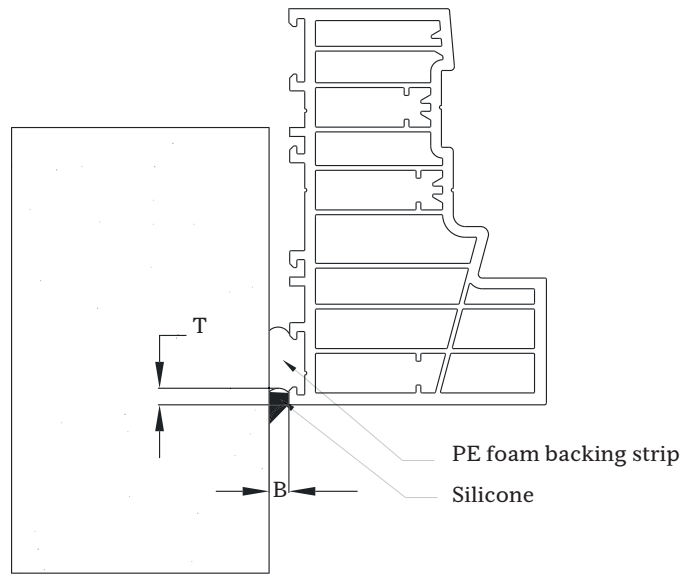
FIXING DETAILS

Perimeter Sealing

The perimeter gap between the window/door element and the building, needs to accommodate the linear expansion, contraction or building distortion.

Expansion differentials depend upon temperature and frame material.

PVC-U white 1.2mm/m
 PVC-U coloured 2.4mm/m



White Profile Element size up to 3.0m, B=5mm

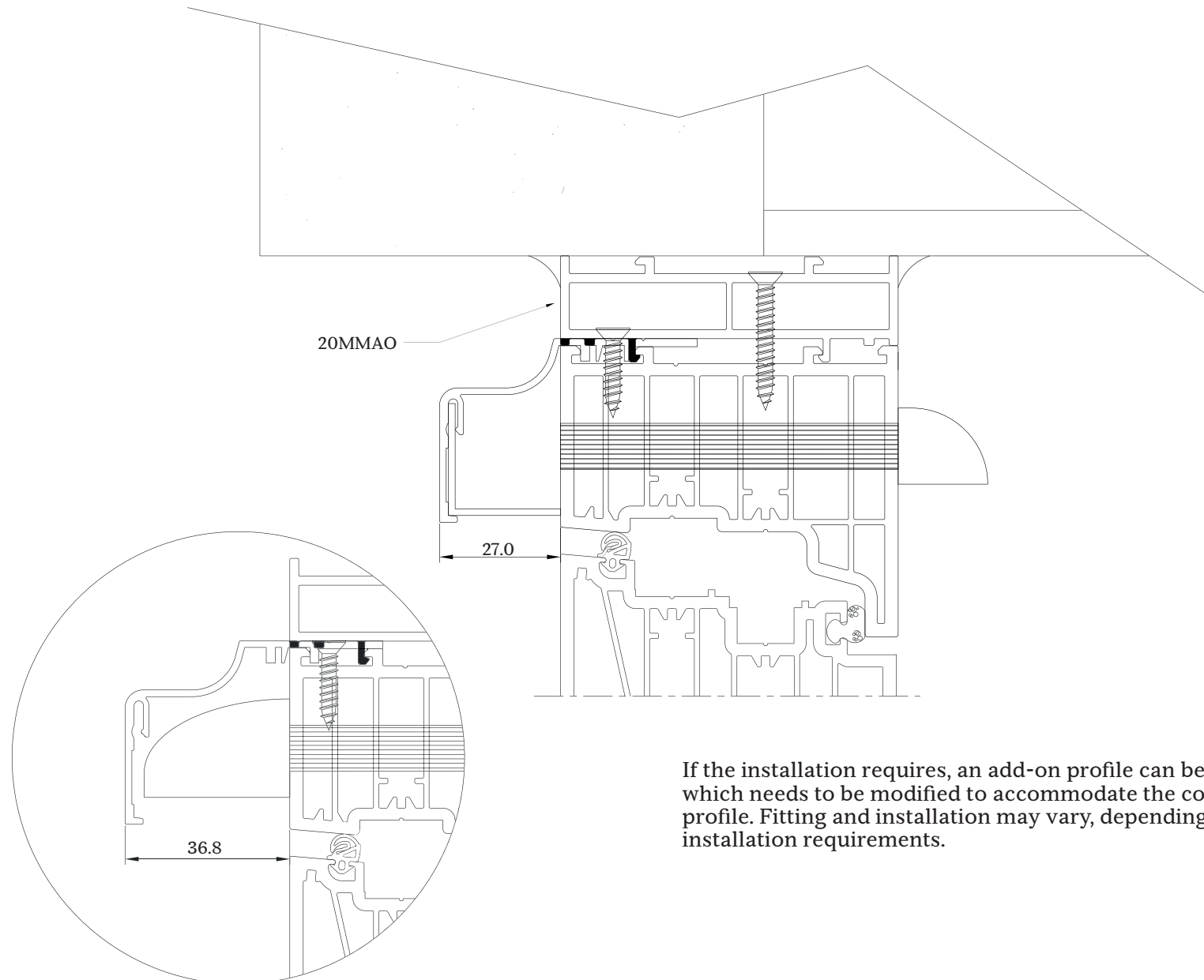
Element size 3.0mm - 4.0m, B=7.5mm

Non-white Profile Element size up to 3.0m, B=7.5mm

The gap depths T depends on the gap width B and has to be checked against sealant manufacturers recommendations. However, for the above stated gap widths B, the typical ratio is 1:1 to 2:1 (B:T).

TRICKLE VENT COVER

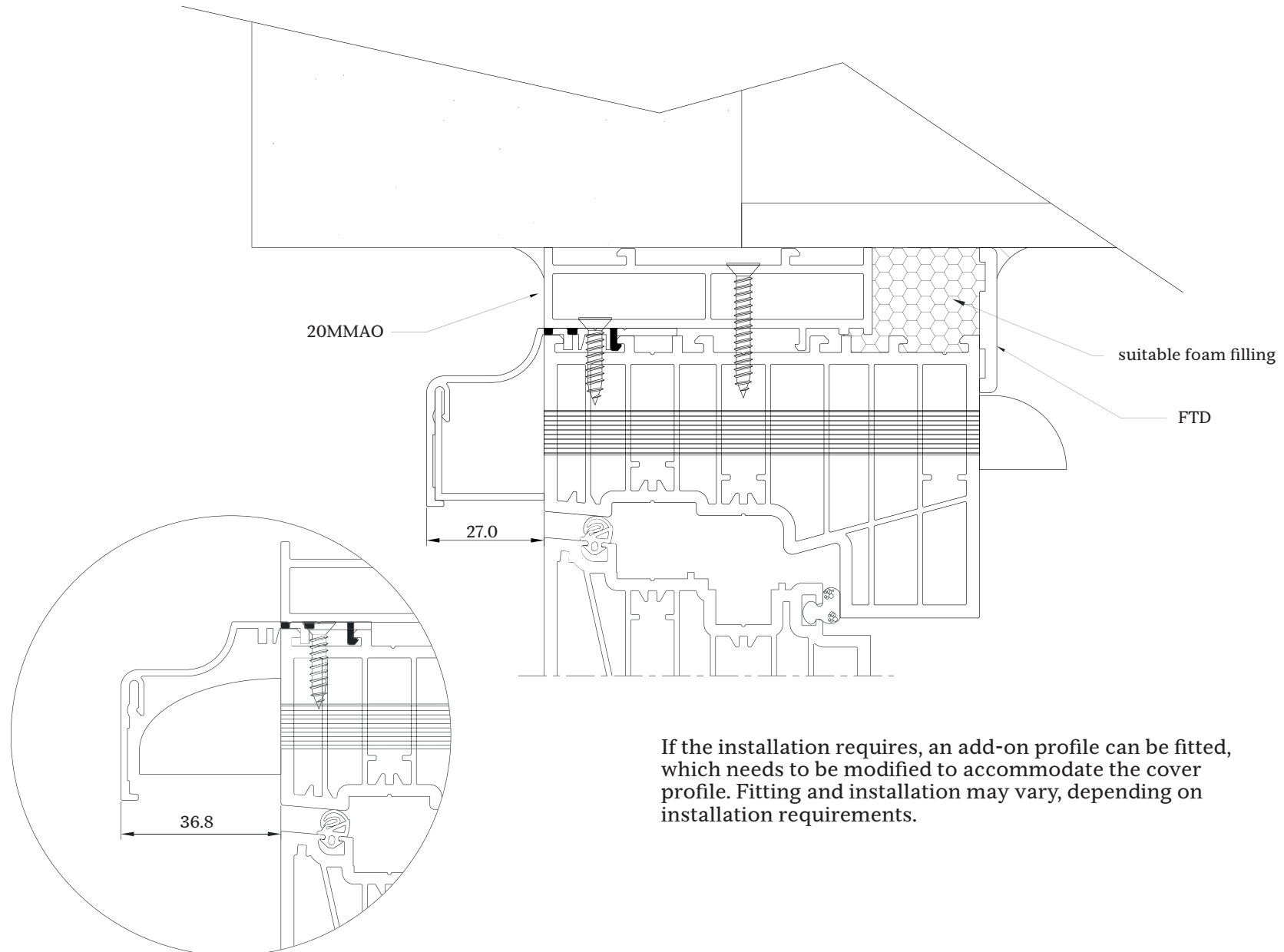
R7 Fixing



If the installation requires, an add-on profile can be fitted, which needs to be modified to accommodate the cover profile. Fitting and installation may vary, depending on installation requirements.

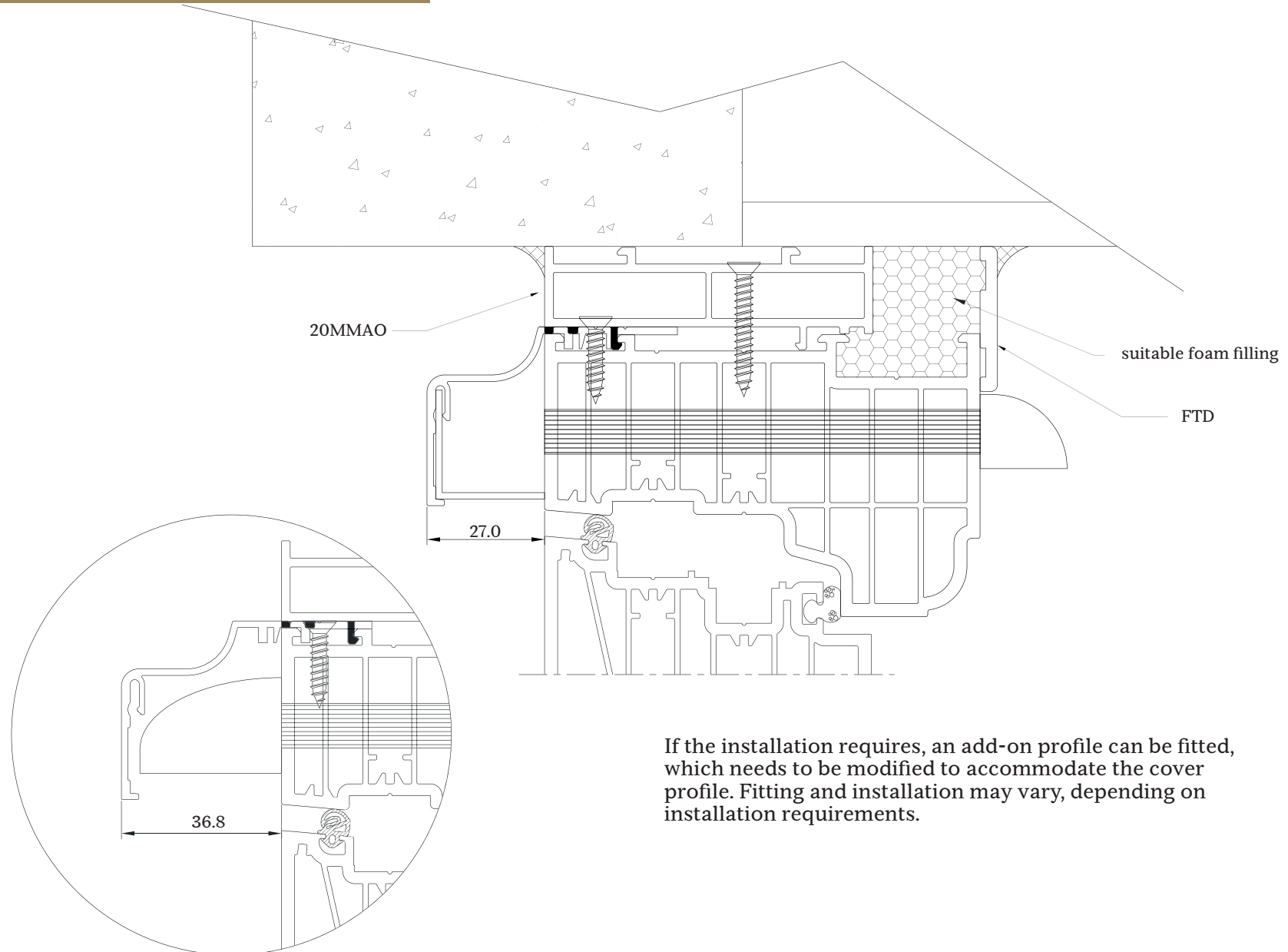
TRICKLE VENT COVER

R² Fixing



TRICKLE VENT COVER

R9 Fixing



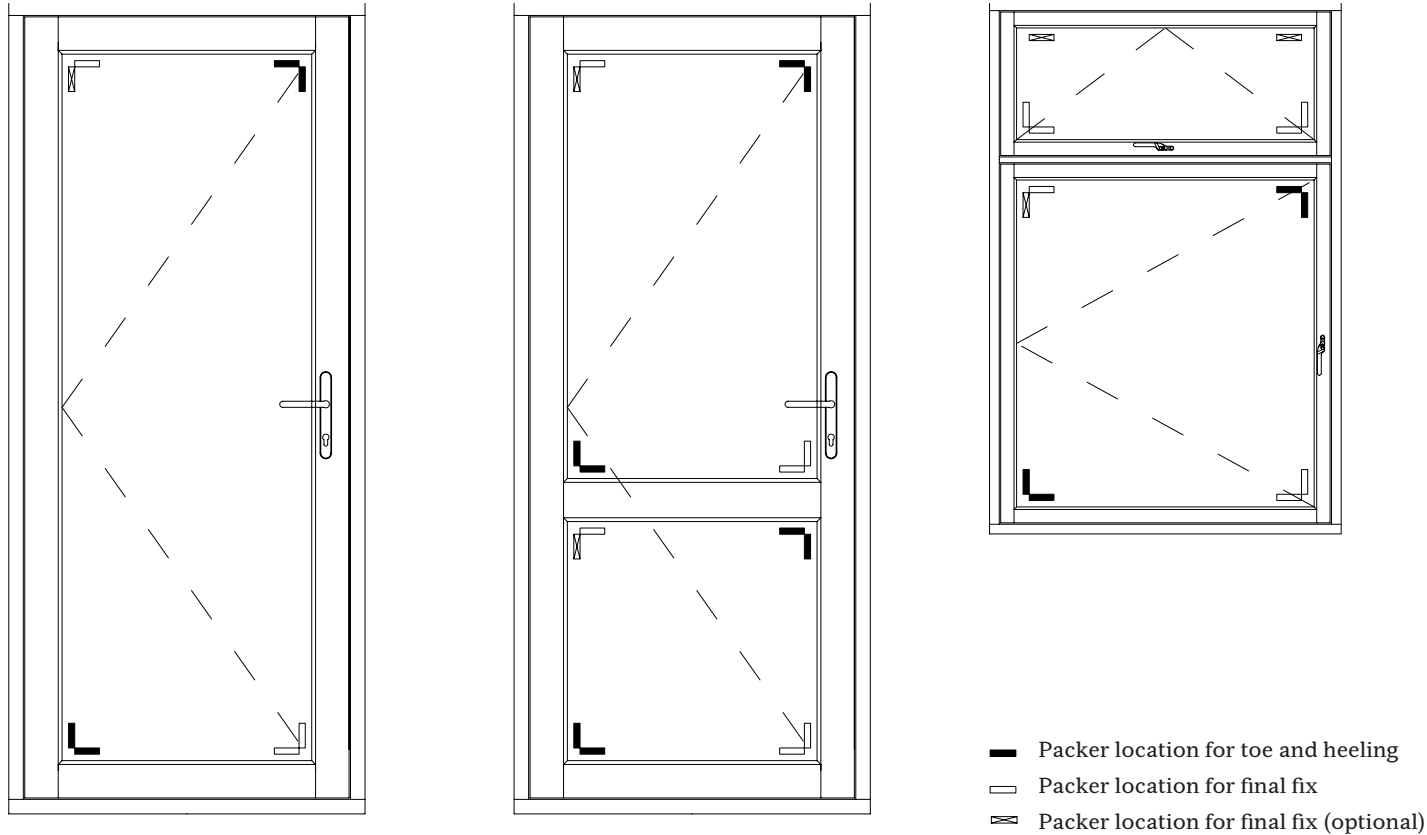
If the installation requires, an add-on profile can be fitted, which needs to be modified to accommodate the cover profile. Fitting and installation may vary, depending on installation requirements.

Section 3

Adjustments and Finishing Off

ADJUSTMENTS AND FINISHING OFF

Toe and Heeling Details



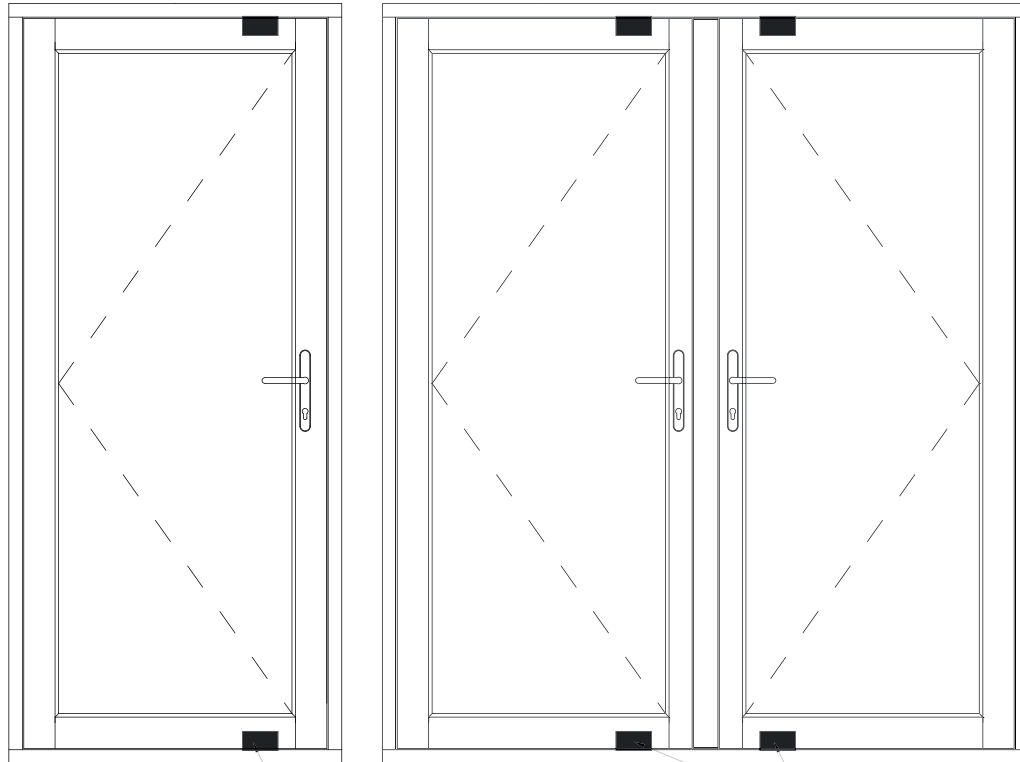
Glazing
Bridge packers are placed into position. of the door. Additional glazing packers should be used to properly toe and heel all opening sashes of the window or door.

When toe and heeling, ensure each sash is not pushed out of alignment. Use toe and heeling to align sashes correctly so that they are closing freely, provide even gasket compression, clearances and locking. Packer for final fix are to be placed into top corners where shown. Make sure the final fix packer do not work against the toe and heel packers. To aid bead insertion when glazing, it is recommended to apply suitable lubrication to the gasket.

Additional security installation instructions
Rigid packing must be inserted between the frame and wall adjacent to fixings and locking points. All fixings must be suitable for the wall material and be positioned close to the locking points.

ADJUSTMENTS AND FINISHING OFF

Run-up Block Fitting



Doors:
On lock side

Doors:
On lock side

Run-up blocks are designed to lift and guide the sashes in to closing position.

Doors and side hung windows:

Excessive sash lift needs to be addressed by correct toe and heeling or via hinge adjustment. For best results, run-up blocks are fitted close to sash corners.

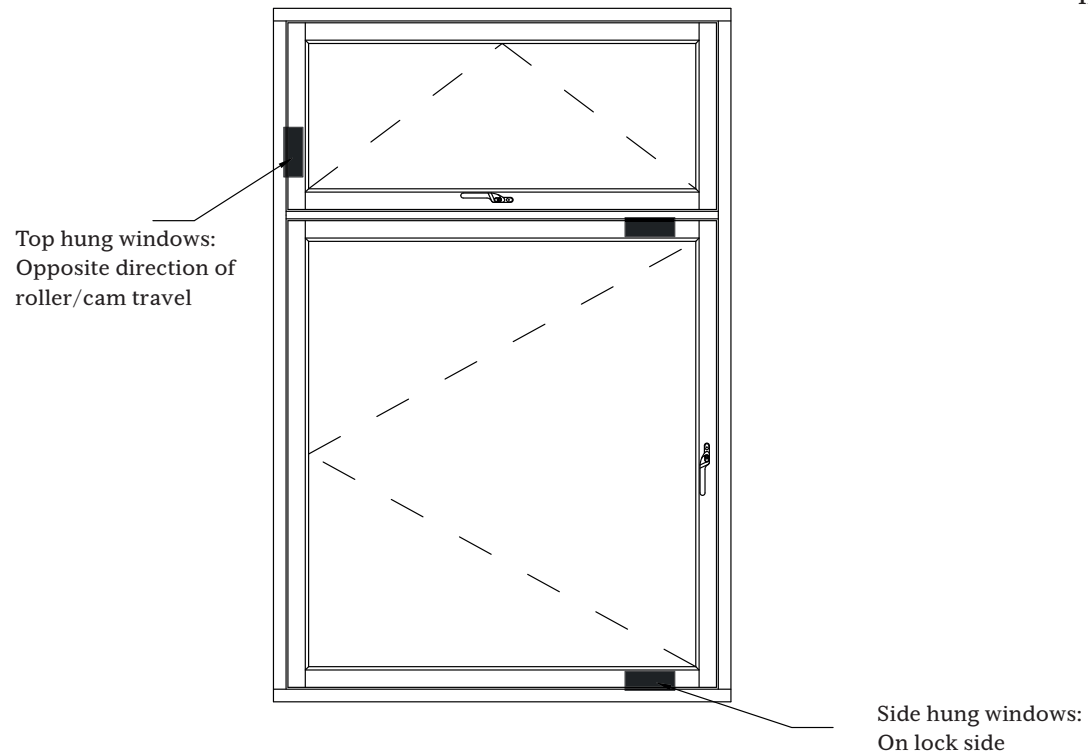
Top hung windows:

Run-up blocks are fitted to the opposite side of the roller/cam travel. This will correct any misalignment between sash and frame, when the lock is being tuned into the closed position.

ADJUSTMENTS AND FINISHING OFF

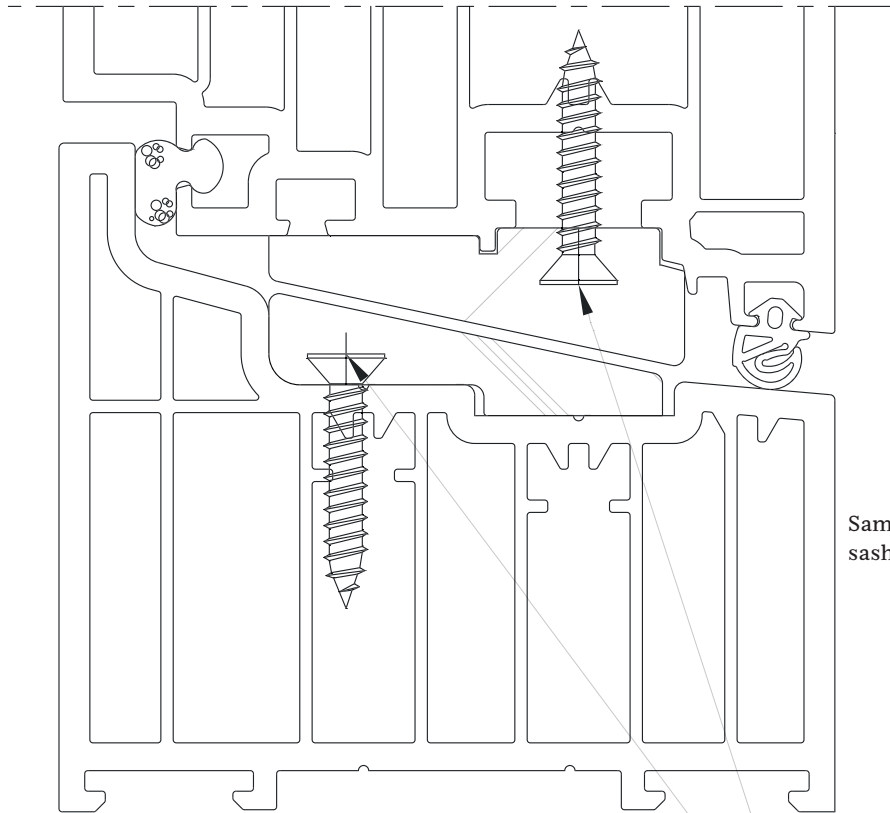
Run-up Block Fitting

If roller/cam travels to the right when locking, place run-up block on the left.
If roller/cam travels to the left when locking, place run-up block on the right.



ADJUSTMENTS AND FINISHING OFF

Run-up Block Fitting



Same fixing detail for all sashes and frames

CFG 4.8 x 25 Z

Fit run up blocks R323D in indicated positions on windows and doors, 120mm away from closes sash corner, not obstructing any drainage.

One pair at the cill and if sash clearance allows one pair at the top for best results.

Fix to frame and sash, using screws indicated.

ADJUSTMENTS AND FINISHING OFF

Details

Finally check that the door moves, closes and locks properly and is secure. The threshold should be cleared of any debris and mortar prior to operating the door by using a builders vacuum or other suitable cleaning equipment.

Door lock:

On the main lock, ensure that the latch is catching and the handle throw allows the hooks to move into position and the key turns in the cylinder.

Handle operation should be smooth and easy without resistance.

On the shoot bolt locks, ensure the handle can be turned freely and the bolts engage smoothly with the frame.

Window lock:

Handle operation should be smooth and easy without resistance.

Check the perimeter gaskets on the sashes are providing an even seal (compression) and constant and even gasket line, as well as the sash to be flush with the frame.

Compression on the lock can be adjusted by rotating the rollers in the required position. Further adjustment is available via keep positions.

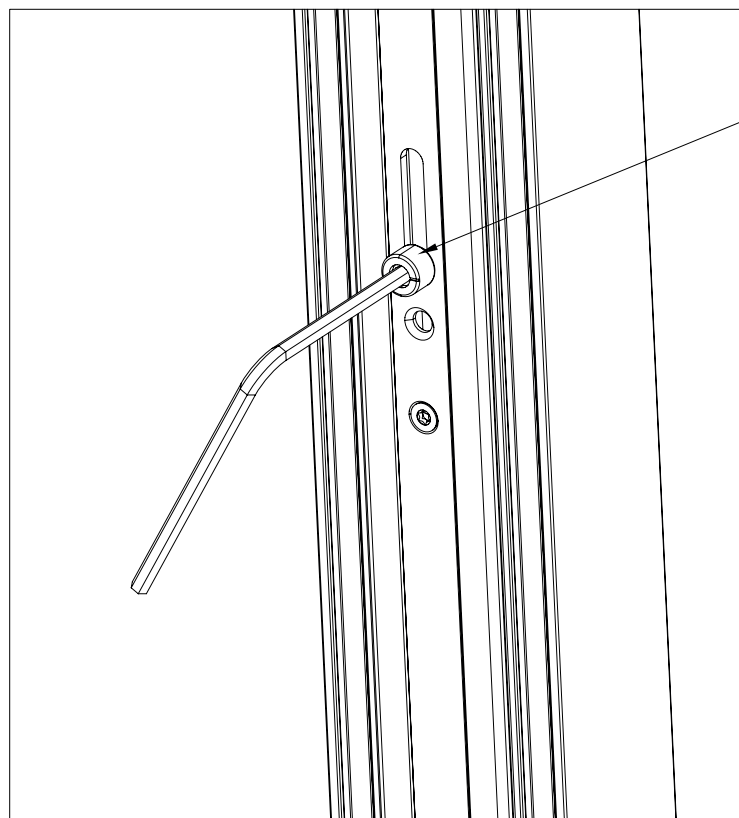
Door hinges provide further adjustment for the sash against the frame position in horizontal and vertical position as well as for gasket compression. The hinge supplier instructions provide further information.

It is recommended to undertake any adjustments after the final glazing.

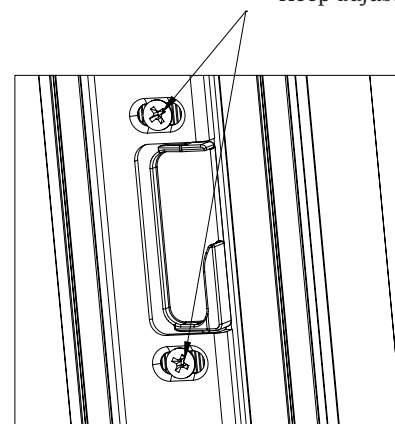
ADJUSTMENTS AND FINISHING OFF

Details

Remove protective tape from all PVC sections. Use luke warm water and washing-up liquid to clean the frame material to an acceptable standard.



Lock adjustment



Keep adjustment

NOTES

NOTES



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Get in Touch

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