



origin

DOORS AND WINDOWS

OW-80 Window Specification File



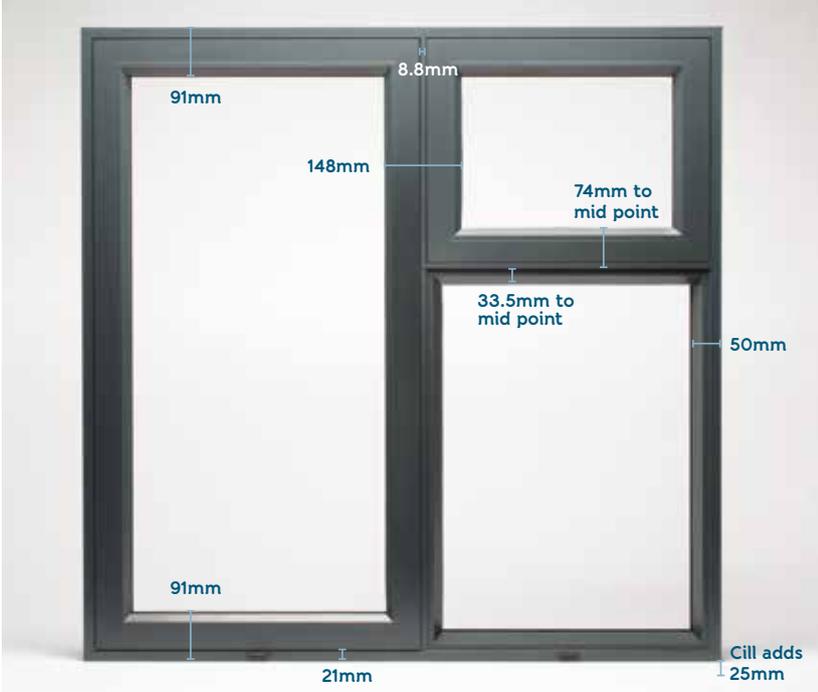


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Specification Overview

Thermally Broken Aluminium Window



External view of the OW-80



Internal view of the OW-80

Profile Specification

Outer Frame Depth	80mm
Sash Depth	80mm
Frame and Sash Sightline	91mm
Mullion and Sash Sightline	148mm

Features

- ▶ Up to a 20-year guarantee*
- ▶ Internal and external flush casement. The sash closes into the frame, sitting in line with both the inside and outside of the window
- ▶ Chamfered bead
- ▶ Mechanically double crimped corners
- ▶ Easi-clean mechanism on side hung configurations that are between 400-700mm
- ▶ Yale Encloser locking mechanism
- ▶ Stainless steel friction stay hinges

Options and extras

- ▶ French, casement, fixed, bay and gable configurations available
- ▶ Accommodates double and triple glazing, with unit sizes of 28mm or 44mm
- ▶ Georgian bar option
- ▶ Open out or fixed
- ▶ 95, 150, 180 and 225mm cill options available
- ▶ Available in over 150 different RAL colours
- ▶ Fixing straps
- ▶ 15 or 35mm frame extensions
- ▶ Restrictor hooks
- ▶ Egress hardware
- ▶ Aerogel insulation
- ▶ Door-to-window and window-to-window couplers available
- ▶ Black, white and colour-coded gaskets available
- ▶ 2500EA and 5000EA trickle vents available
- ▶ Marine finish option
- ▶ Colour matched handle options

*Guarantee based on location of where the windows will be installed.

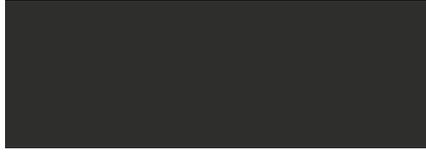
Full terms and conditions can be found on the Origin website - origin-global.com/terms-and-conditions.

Specification Overview

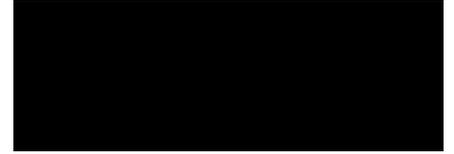
Origin's Popular Colours are available on our 'Your Lead Time, Not Ours' delivery promise, meaning your windows could be available in as little as 24-hours



Dark Silver Metallic (9007M)



Black Grey (7021M)



Jet Black (9005M)



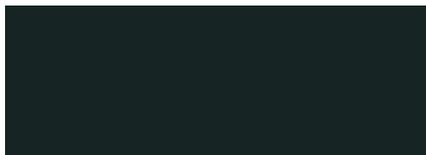
Slate Grey (7015M)



Dark Silver Metallic (9007M)



Hipca White (9910G)



Anthracite Grey (7016M)



9910G in/ 7016M out

This popular dual colour option is available on a 24-hour lead time

Outside of this, dual coloured windows then operate on a 3-week lead time

Lead Times

Popular colour casement windows:	24-hours
Special colour casement and French windows:	3-weeks
Popular colour gables and French windows:	2-weeks
Special colour gables:	4-weeks
Aerogel windows:	4-weeks

Our 4 authentic woodgrain finishes are also available on 'Your Lead Time, Not Ours'



Natural Oak



Golden Oak



Mahogany



Walnut



Alternatively, any RAL colour can be selected on a 3-week lead time

For the full range, visit origin-global.com

Even the gasket colour is your choice

Window Colour	Recommended Gasket Colour
A. 7015M and 9007M	Slate Grey
B. 7016M	Anthracite Grey
C. 9005M and 7021M	Black
D. 9910G	White
E. Natural Oak and Golden Oak	Light Oak
F. Walnut	Bronze
G. Mahogany	Chestnut Brown



A. Slate Grey



B. Anthracite Grey



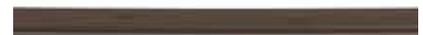
C. Black



D. White



E. Light Oak



F. Bronze



G. Chestnut Brown

Security

The OW-80 is PAS 24 certified.

Casement windows* have been impact tested up to 2633Pa and fixed windows tested to 3591Pa without failure or any sign of weakness in the crimps.

Hinges are made of ferritic stainless steel (to BS EN 10088-2 Grade, previously known as 304) for enhanced corrosion resistance. The hinges are tested to 50,000 cycles and feature a friction adjustment which has no metal to metal contact, ensuring minimum wear.

Hinge guards featuring patented anti-slip and lock technology are fitted as standard along the hinged side of the window.

The Yale Encloser lock is fitted to accurately align with the keeps. The cams are manufactured to be finely adjustable, if necessary.



*Testing was conducted on a 1525mm x 2641mm double top hung specimen.

Optional Extras

Restrictor Hooks

Variable restrictor hooks limit the sash opening to 70mm, but can be unhooked to allow the window to open fully.



Trickle Vents

Trickle vents have to meet the minimum air flow rates as defined in the British Building Regulations (see specifics below).

Can be fitted through the sash or through a 35mm frame extension.*

(See page 43 and page 44 for cross-section drawings)



Trickle vents

Additional Information

England and Wales:

Equivalent Air Rates of 2500EA and 5000 EA as required by Approved Document "F" 2006 for England and Wales.

Scotland and Northern Ireland:

2000, 3000, 4000, 6000 and 8000 free air models available for use in Scotland and Northern Ireland.

*Minimum sash width applies.

Handles

Whether in a premium brushed metallic or one of Origin's industry-unique colour coordinated options, the handle has been designed to offer a faultless performance, mirroring that of the window itself.

Popular colour range



9005M - Jet Black



7015M - Slate Grey



9007M - Dark Silver



7021M - Black Grey



7016M - Anthracite Grey



9910G - Hipca White

Metallic range



Chrome



Satin



Gold



Brushed Aluminium

The handle is available in any RAL colour to match or contrast against the window.

Georgian Bars

The OW-80 is able to be specified with Georgian bars. The bars are placed on the glass after installation, and instantly offers a property more of a traditional style.

See page 79 for installation instructions.



Aerogel



What is Aerogel?

Aerogel is a synthetic, highly porous solid material derived from a silica dioxide gel in which the liquid has been extracted and replaced with air. The gel is critically heated and the liquid evaporated, leaving a bonded, cross-linked macromolecule framework.

The name Aerogel may be misleading at first, as aerogels are dry, rigid or elastic foam-like materials, but the name originates from the fact that aerogels are usually derived from wet gels, physically similar to that of edible jelly.

A brief history of Aerogel

Aerogel is believed to have been discovered in 1931 as a result of a bet between two chemists, Samuel Kistler and Charles Learned, over who could replace the liquid in jelly with gas without causing the remaining solid to shrink. It was Kistler that first succeeded.

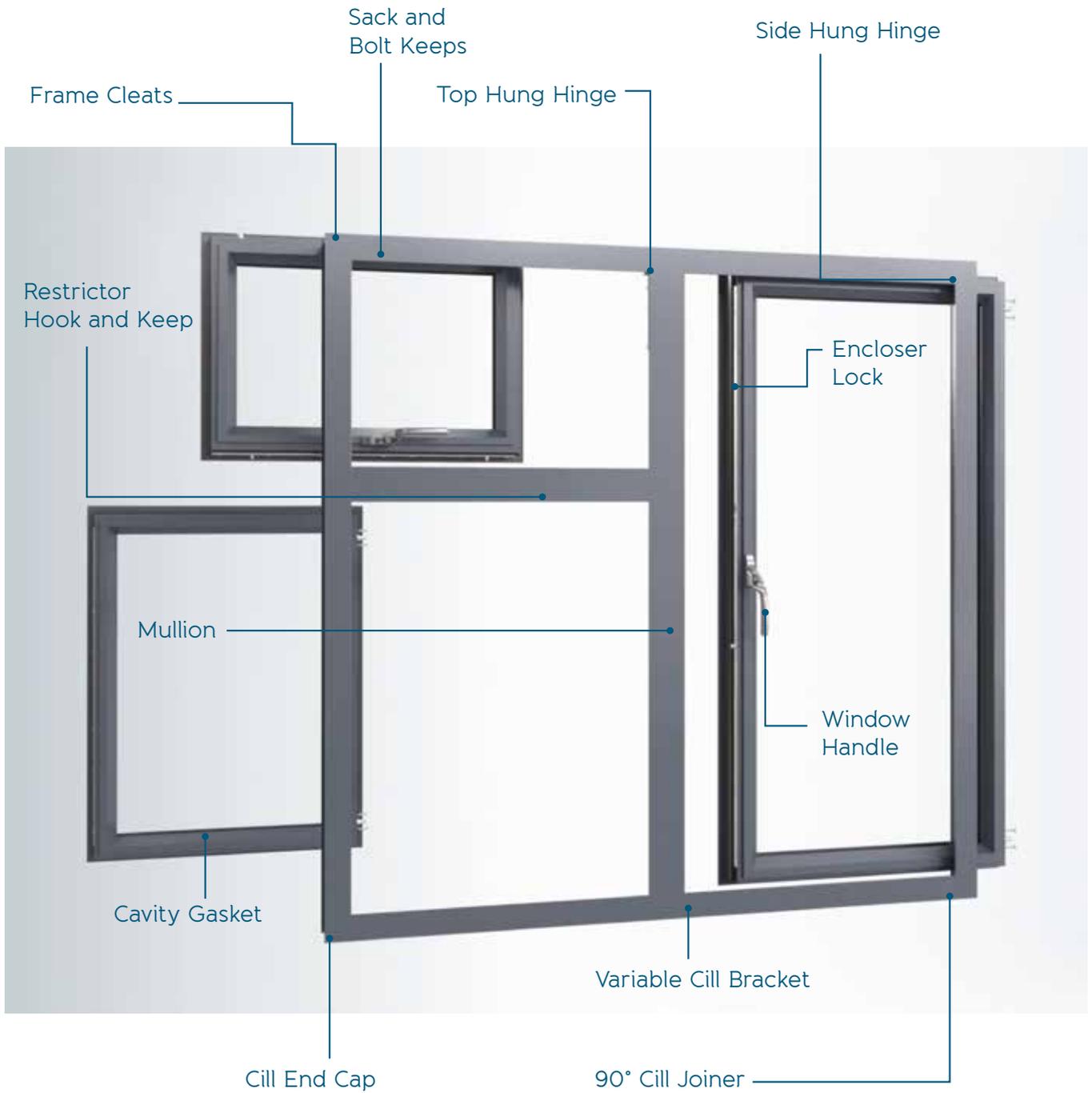
Since then, aerogels have been used in a wide range of applications from space exploration (Stardust launch and Mars exploration rovers) to the commercial manufacture of building insulation, clothing, tennis rackets, supercapacitors and thickening agents in cosmetics.

Due to the expensive processes involved in its production, commercial manufacture of it has only become viable since the dawn of the 21st century.

Why is Aerogel such a good insulator?

Aerogel can withstand very high temperatures, delivering 39 times more insulation than fibreglass. It is a fantastic insulator because it limits two of the three methods of heat transfer (convection, conduction and radiation). Firstly, they are excellent conductive insulators because they are composed of 99.8% gas (air) and gases are very poor at conducting heat. The remaining 0.02% of the aerogel is made of silica, which is incidentally also a poor conductor of heat. Secondly, the lattice structure of the solid is highly effective at minimising convection because air cannot circulate through it. While aerogels are poor radiative insulators (infrared radiation transfers heat) within an aluminium window frame, the aluminium blocks any infrared radiation.

Window Make-Up



Performance and Limitations

Thermal Ratings

Energy	Rating From B to A++ (see page 19)
u-Value	Up to 0.9 W/ Km ² K (see page 16-18)

Weather Rating

Air Permeability	Class 4 (600Pa)
Resistance to Window Load	Class B5 (2000Pa)
Water Tightness	Class E1500 (1500Pa)

Performance Testing

PAS 24 Certified (Document Q Compliant)

BS EN 10088-2 Grade Certified

Accreditation

ISO 9001

ISO 10077-2:2015

Size and Weight Limitations

	Width	Height	Weight
	Maximum Dimensions:		
Side Hung:	Max: 1000mm	Max: 1800mm	Max: 40kg*
	Maximum Dimensions:		
Top Hung:	Max: 1500mm	Max: 1500mm	Max: 50kg*
	Maximum Dimensions:		
French Window:	Max: 1800mm**	Max: 1400mm	Max: 40kg*

Please note: the minimum and maximum sizes vary depending on the configuration. See page 21-32 for more information.

Building Regulation Requirements

New Build and Extensions	2.0W/m ² K
Replacements	1.6W/m ² K
Energy Rating	B and C or better

All windows must conform to these requirements.

*Max width and height refers to the individual sash limitations.

**Max width for French window refers to the max width allowed in that configuration for both sashes.

Thermal Efficiency

The OW-80 is fitted as standard with a 35mm polyamide thermal break that features interlocking barriers to minimise air flow through the system.

A bespoke cavity gasket is fitted into the internal chamber of the window between the sash and the frame (excl. the locking side) in order to further improve thermal efficiency.

The OW-80 is available with Aerogel as an optional upgrade. Aerogel is the most insulating material on the planet and allows the OW-80 to achieve an Energy Rating of A++ or up to a 0.9 u-Value.

For more information on Aerogel, refer back to page 11 or visit www.origin-global.com/aluminium-windows

See the Window Energy Rating Specification Sheet on page 19 for certified test results.



Windows

Thermal Simulation Report

PRODUCT	Origin Window
SIM - SOFTWARE	Win Iso 2D Pro
GLASS CENTRE PANE U/VALUE	0.5 W/m ² K (44mm triple glazing)
INSULATION	AEROGEL

Thermal Transmittance:

0.9 W/(m²K)

Date: 05/11/2015

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All simulations strictly in accordance with the requirements of ISO 10077-2:2015

Email: info@origin-global.com | Web: www.origin-global.com

Origin Frames Ltd, Sands 10 Industrial Estate, Hillbottom Road, High Wycombe, HP12 4HS

OFDL_3.96.1

OW-80

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Windows

Thermal Simulation Report

PRODUCT	Origin Window
SIM - SOFTWARE	Win Iso 2D Pro
GLASS CENTRE PANE U/VALUE	0.5 W/m ² K (44mm triple glazing)
INSULATION	NONE

Thermal Transmittance:
1.1 W/(m²K)

Date: 05/11/2015

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DOORS AND WINDOWS

All simulations strictly in accordance with the requirements of ISO 10077-2:2015

Email: info@origin-global.com | Web: www.origin-global.com

Origin Frames Ltd, Sands 10 Industrial Estate, Hillbottom Road, High Wycombe, HP12 4HS

OFDL_3.971

Windows

Thermal Simulation Report

PRODUCT	Origin Window
SIM - SOFTWARE	Win Iso 2D Pro
GLASS CENTRE PANE U/VALUE	1.070 W/m ² K (28mm double glazing)
INSULATION	NONE

Thermal Transmittance:

1.5 W/(m²K)

Date: 05/11/2015

origin
DOORS AND WINDOWS

All simulations strictly in accordance with the requirements of ISO 10077-2:2015

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Window Energy Rating Spec Sheet

The following profiles, beads and glass specifications must be adhered to in order to achieve the associated energy rating.

BFRC Energy Rating B-9

Profile Spec	Origin Window Standard (frame:W66-67, Sash:W83-84)
Bead	28mm (ie. double glazed)
Glass Spec	4mm Diamant - 20mm 90% Argon - 4mm Planitherm Total +
Spacer Bar	20mm Swiss Ultimate

BFRC Energy Rating A+6

Profile Spec	Origin Window Aerogel (frame:WA03-04, Sash: WA05-06)
Bead	28mm (ie. double glazed)
Glass Spec	4mm Diamant - 20mm 90% Argon - 4mm Planitherm Total +
Spacer Bar	20mm Swiss Ultimate

BFRC Energy Rating A+9

Profile Spec	Origin Window Standard (frame:W66-67, Sash:W83-84)
Bead	44mm (ie. triple glazed)
Glass Spec	4mm Diamant - 2x16mm 90% Argon - 2x4mm Planitherm Total +
Spacer Bar	2 x 16mm Swiss Ultimate

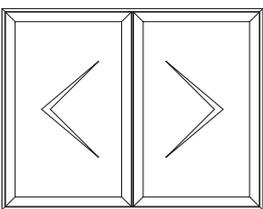
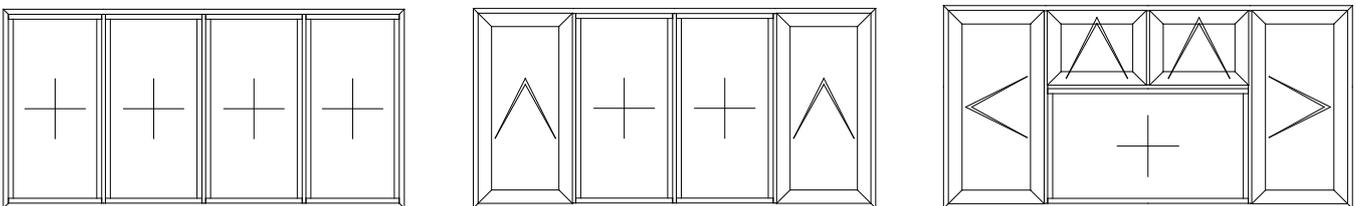
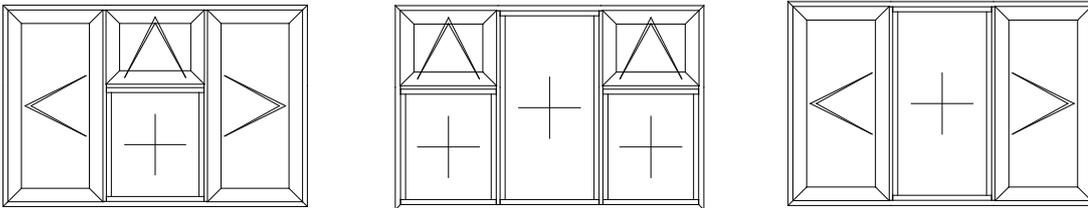
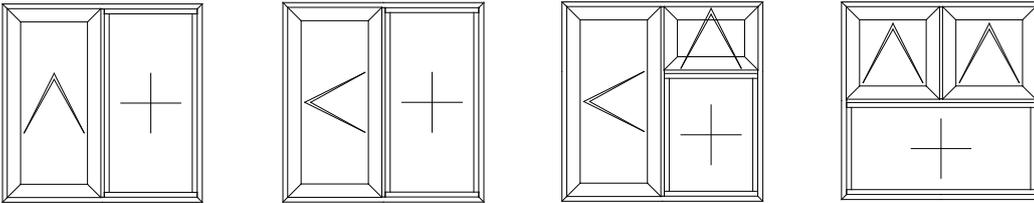
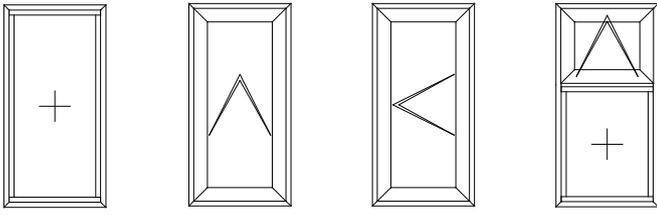
BFRC Energy Rating A++

Profile Spec	Origin Window Aerogel (frame:WA03-04, Sash: WA05-06)
Bead	44mm (ie. triple glazed)
Glass Spec	4mm Diamant - 2x16mm 90% Argon - 2x4mm Planitherm Total +
Spacer Bar	2 x 16mm Swiss Ultimate

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Popular Configurations



Key: + Fixed Frame or Dummy Sash \wedge Top Hung $<$ Left Hung $>$ Right Hung

Egress Application

Approved Document B of the Building Regulations 2010 specifies the following provisions with regards to egress application:

Section 2.8 Emergency egress windows and external doors

Any window provided for emergency egress purposes and any external door provided for escape should comply with the following conditions:

- a. The window should have an unobstructed openable area that is at least 0.33m² and at least 450mm high and 450mm wide. In practice, this means the opening should be at least 450mm high by 750mm wide or 750mm high and 450mm wide (the route through the window may be at an angle rather than straight through). The bottom of the open-able area should be no more than 1100mm above the floor.
- b. The window or door should enable the person escaping to reach a place free from danger and free from fire. This is a matter for judgement in each case, but, in general, a courtyard or back garden from which there is no exit other than through other buildings would have to be at least as deep as the dwelling house is high to be acceptable.

Note 1. Approved Document K protection from falling, collision and impact specifies a minimum guarding height of 800mm, except in the case of a window in a roof where the bottom of the opening may be 600mm above the floor.

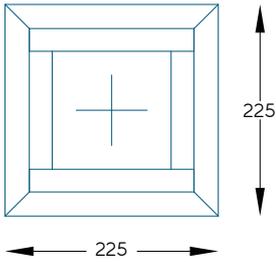
Note 2. Locks (with or without removable keys) and stays may be fitted to egress windows, subject to the stay being fitted with a release catch, which may be child resistant.

Note 3. Windows should be designed such that they will remain in the open position without needing to be held by a person making their escape.

Egress information was derived using 4mm, 4mm glass for double glazing and 4mm, 4mm, 4mm for triple glazing. For more information on size and weight limitations, please see the tables on page 23-24.

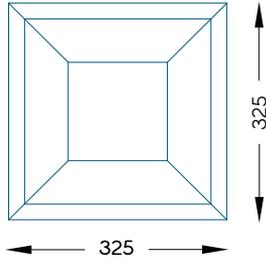
Size Guidelines

Minimum dimensions



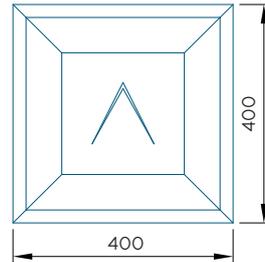
Fixed frame

Min height: 225mm
Min width: 225mm



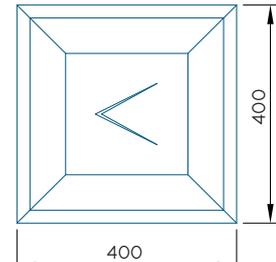
Dummy sash

Min height: 325mm
Min width: 325mm



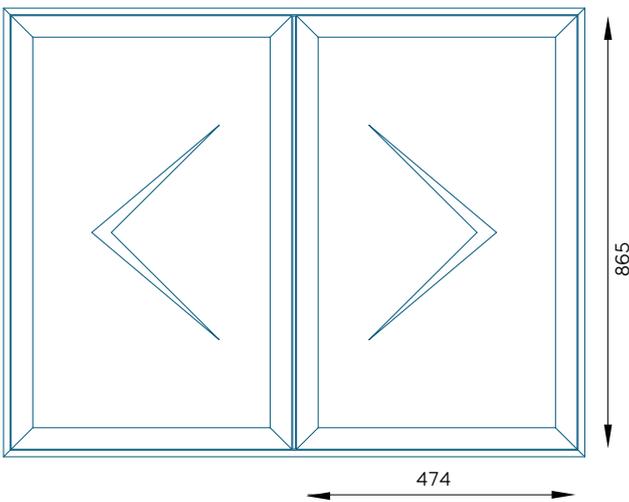
Top hung

Min height: 400mm
Min width: 400mm



Side hung

Min height: 400mm
Min width: 400mm



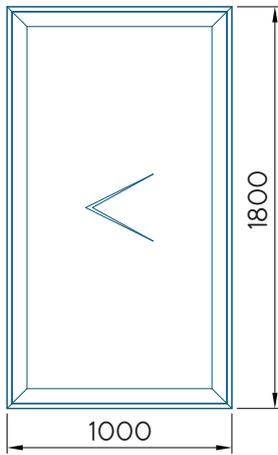
French window

Min sash height: 865mm
Min sash width: 474mm

Minimum height will be greater with a cill.

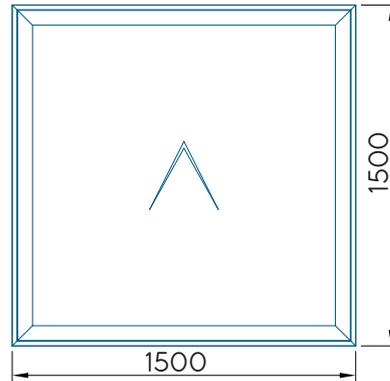
Minimum width will be greater with a frame extender.

Maximum sash dimensions



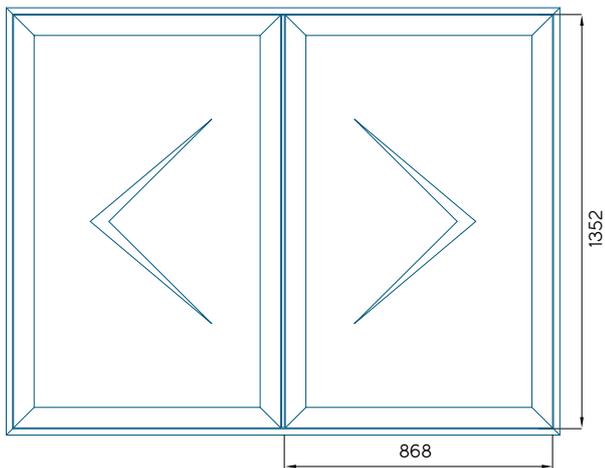
Side hung

Max height: 1800mm
Max width: 1000mm
Max sash weight: 40kg



Top hung

Max height: 1500mm
Max width: 1500mm
Max sash weight: 50kg



French window

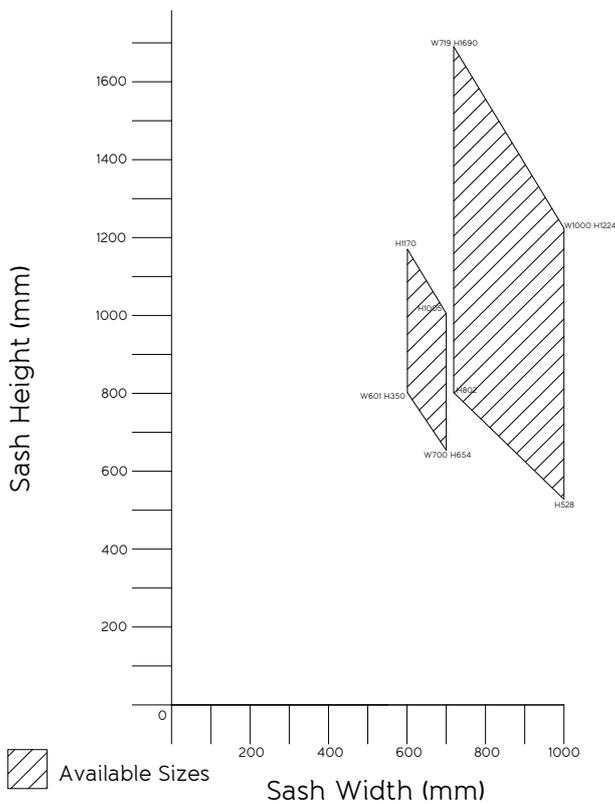
Max sash height: 1352mm
Max sash width: 868mm
Max sash weight: 40kg

Side Hung Sash Egress Dimensions

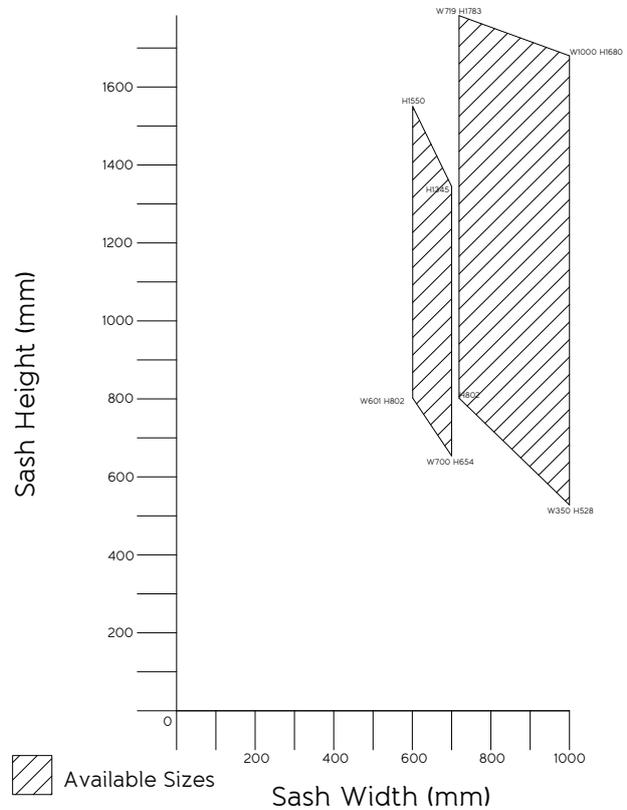
Glazing weight 30kg/m²

Glazing weight 20kg/m²

Side Hung Available Egress Sash Dimensions
30kg Glazing Weight (Generic Triple Glazing)



Side Hung Available Egress Sash Dimensions
20kg Glazing Weight (Generic Double Glazing)



Generic 44mm Triple Glazed

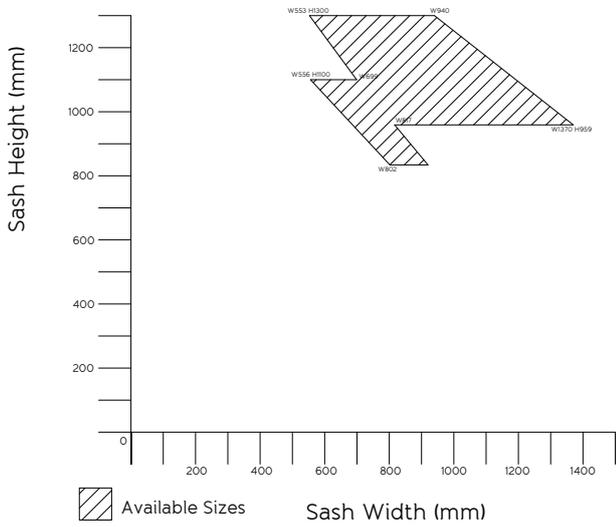
Generic 28mm Double Glazed

Top Hung Sash Egress Dimensions

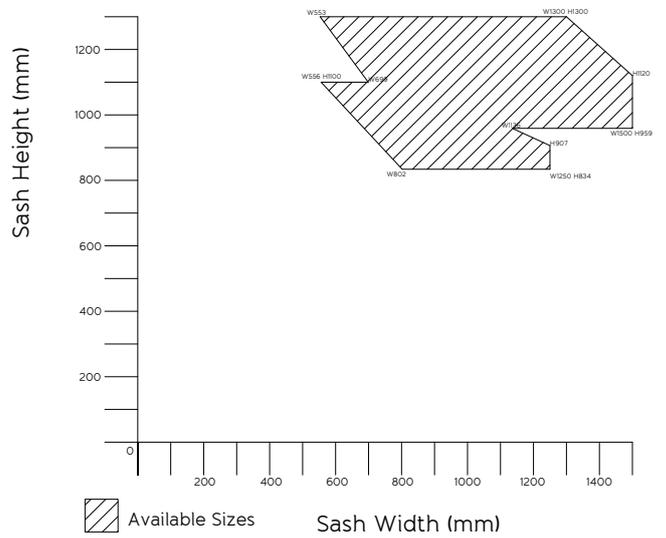
Glazing weight 30kg/m²

Glazing weight 20kg/m²

Top Hung Available Egress Sash Dimensions
30kg Glazing Weight (Generic Triple Glazing)



Top Hung Available Egress Sash Dimensions
20kg Glazing Weight (Generic Double Glazing)



Generic 44mm Triple Glazed

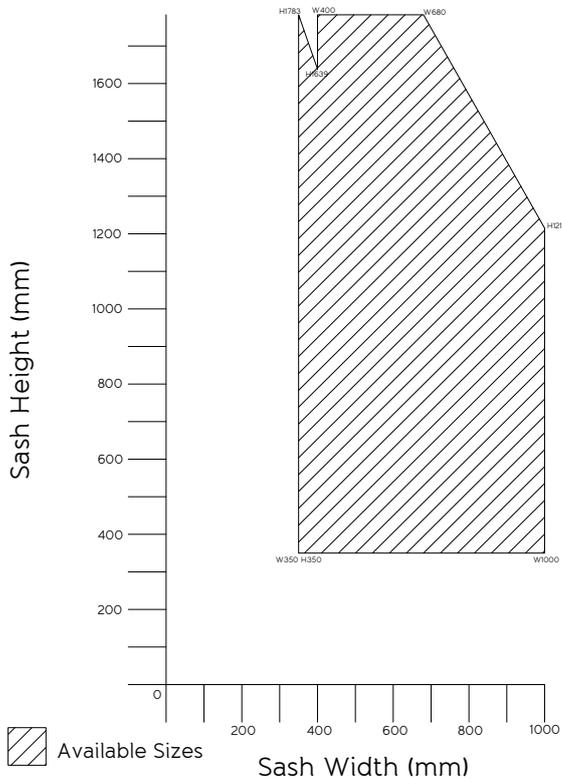
Generic 28mm Double Glazed

Side Hung Sash Maximum Dimensions

Glazing weight 30kg/m²

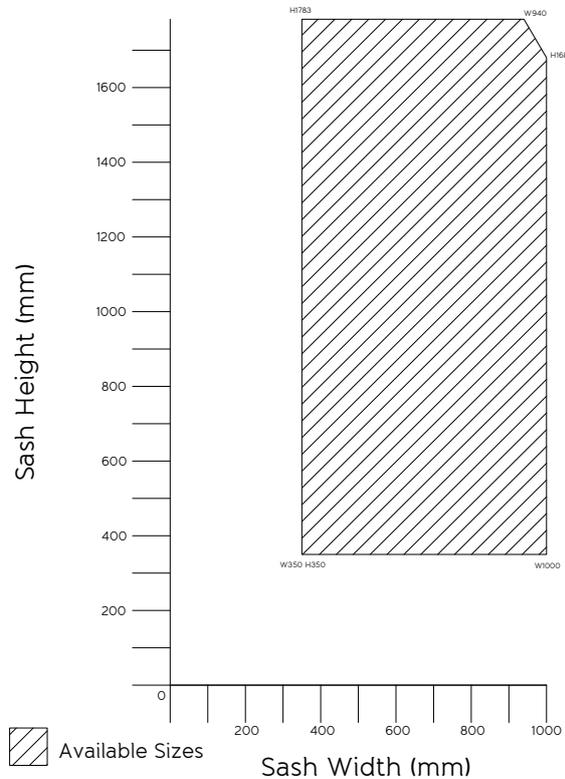
Glazing weight 20kg/m²

Side Hung Available Sash Dimensions
30kg Glazing Weight (Generic Triple Glazing)



Generic 44mm Triple Glazed

Side Hung Available Sash Dimensions
20kg Glazing Weight (Generic Double Glazing)



Generic 28mm Double Glazed

Top Hung Sash Maximum Dimensions

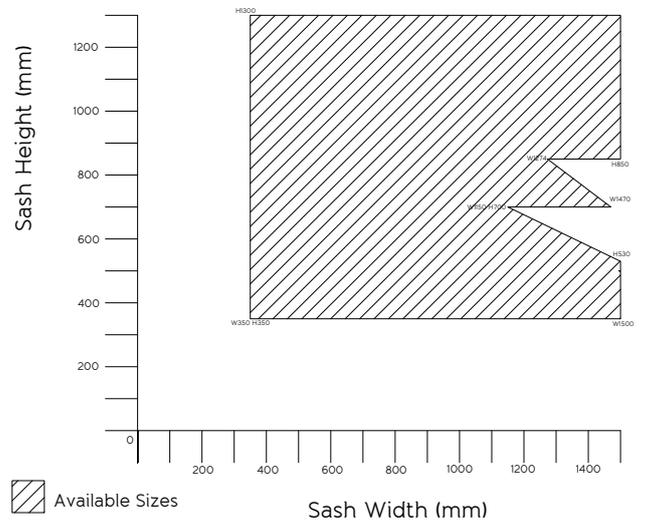
Glazing weight 30kg/m²

Glazing weight 20kg/m²

Top Hung Available Sash Dimensions
30kg Glazing Weight (Generic Triple Glazing)



Top Hung Available Sash Dimensions
20kg Glazing Weight (Generic Double Glazing)

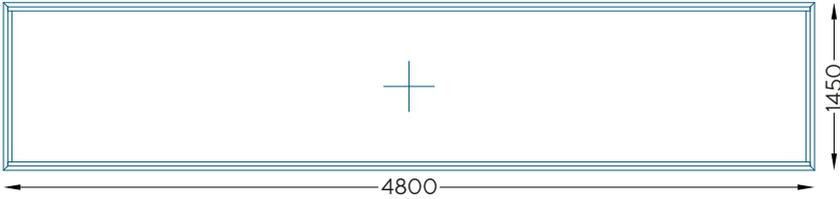


Generic 44mm Triple Glazed

Generic 28mm Double Glazed

Fixed frame maximum dimensions

Example 1

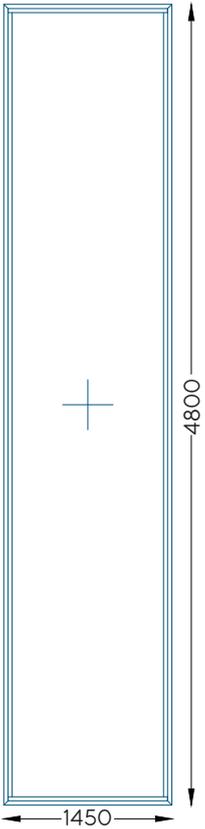


Maximum fixed width and area

Maximum area: 4800mm x 1450mm = approx 7m²

Maximum width: 4800mm

Example 2

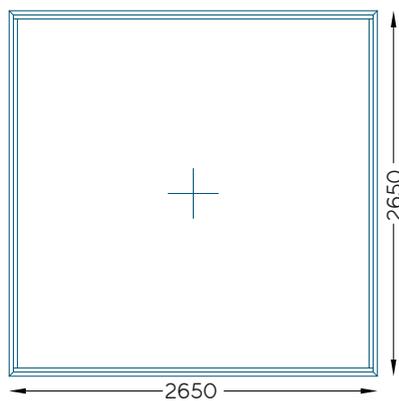


Maximum fixed height and area

Maximum area: 4800mm x 1450mm
= approx 7m²

Maximum height: 4800mm

Example 3



Maximum fixed area

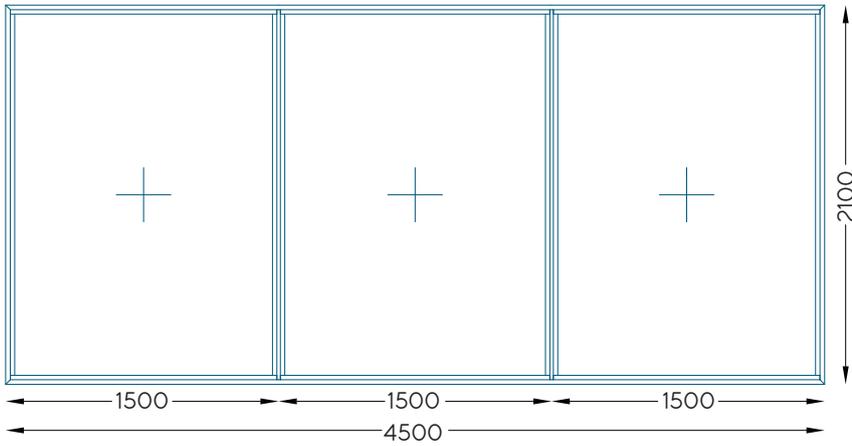
Maximum area: 2650mm x 2650mm = approx 7m²

Maximum height: 2650mm

Fixed windows over 4.8sqm cannot be coupled using Origin couplers.

Maximum mullion/ transom length

Example 1



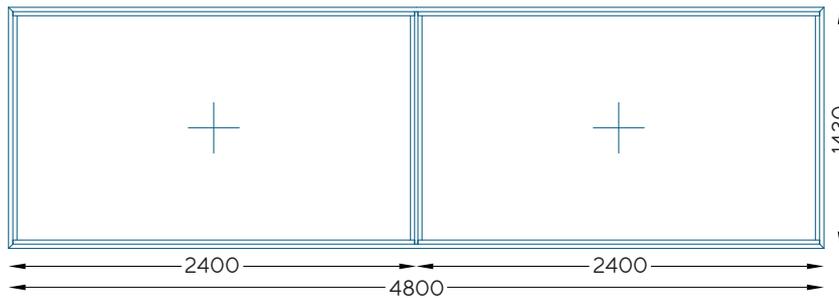
Maximum mullion length and glazed area next to a mullion/ transom

Maximum glazed area next to mullion/ transom: 1500mm x 2100mm = 3.15m²

Maximum height: 2100mm

(Window width of 4500mm is under maximum of 4800mm)

Example 2



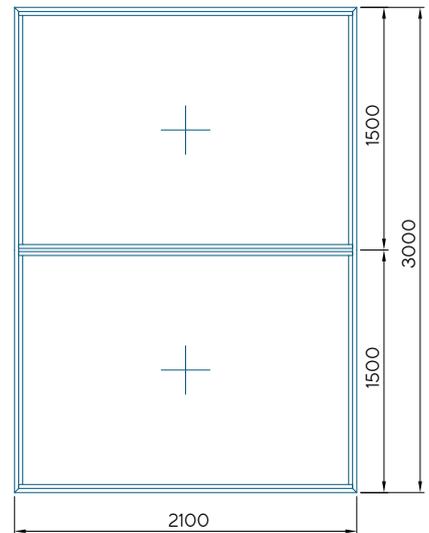
Maximum glazed area next to a mullion or transom

Maximum glazed area next to mullion/ transom: 2400mm x 1430mm = 3.15m²

Maximum window width: 4800mm

(Mullion is under maximum height of 2100mm)

Example 3



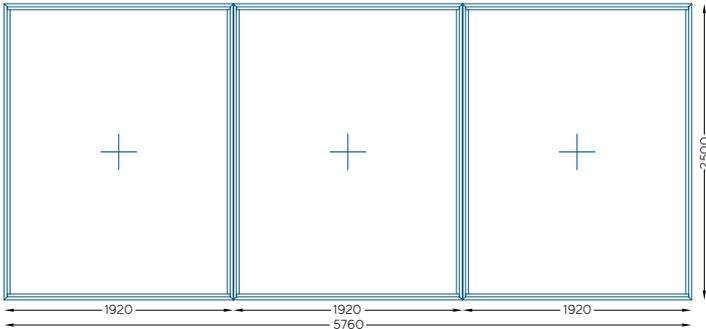
Maximum transom

Transom under maximum width of 2100mm

Maximum glazed area next to mullion/ transom: 2100mm x 1500mm = 3.15m²

Maximum coupled length

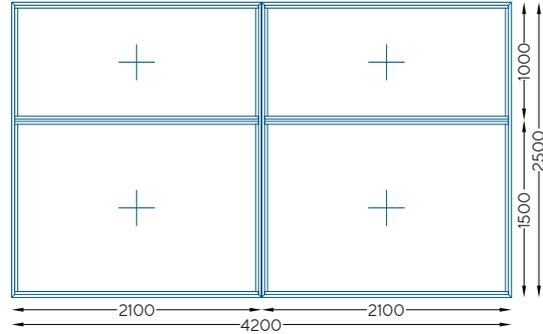
Example 1



Maximum coupled height with maximum individual glazed area

Maximum glazed area: 1920mm x 2500mm = 4.8m²
 (Overall width at 5760mm is fine as each frame is coupled)
Maximum coupled height: 2500mm

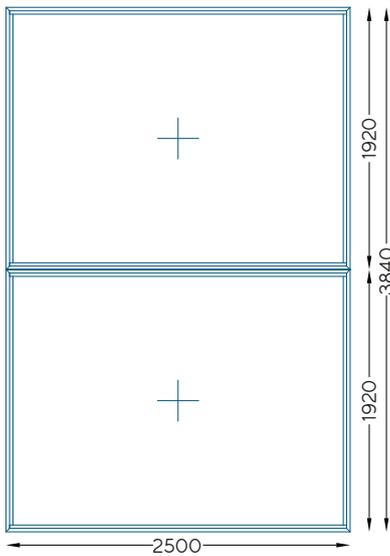
Example 2



Maximum coupled height with a maximum transom

Maximum glazed area next to mullion/ transom: 2100mm x 1500mm = 3.15m²
Maximum coupled height: 2500mm
Maximum transom length: 2100mm

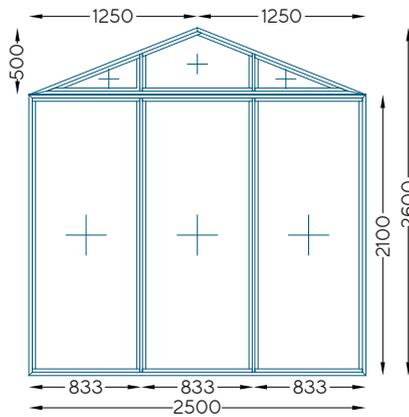
Example 3



Maximum coupled width

Maximum glazed area: 2500mm x 1920mm = 4.8m²
Maximum coupled length: 2500mm

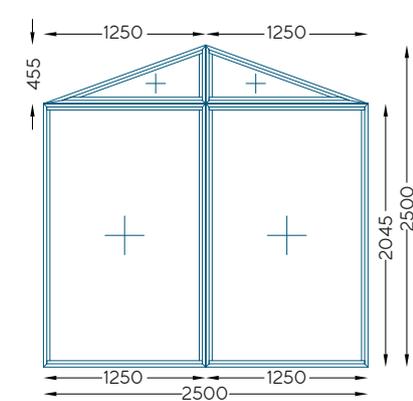
Example 4



Maximum coupled gable width, minimum gable corner angle and maximum mullion

Maximum coupled length: 2500mm
Maximum mullion length: 2100mm
Tightest gable corner angle: 20°

Example 5



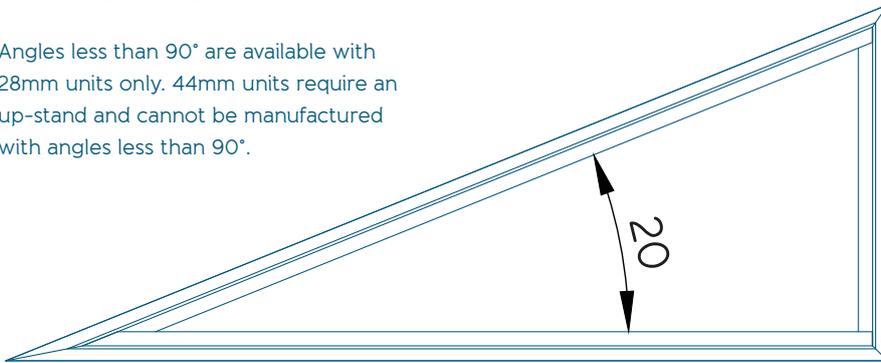
Maximum coupled width and height with tightest gable corner angle

Maximum coupled width and height: 2500mm
Tightest gable corner angle: 20°

Gables

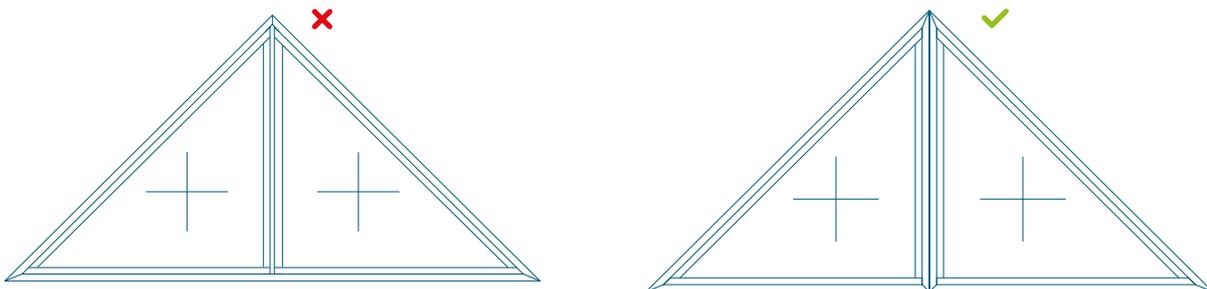
Minimum gable angle: 20°

Angles less than 90° are available with 28mm units only. 44mm units require an up-stand and cannot be manufactured with angles less than 90°.



Gables mullion restrictions

Mullions cannot be joined to another joint or apex in the frame:

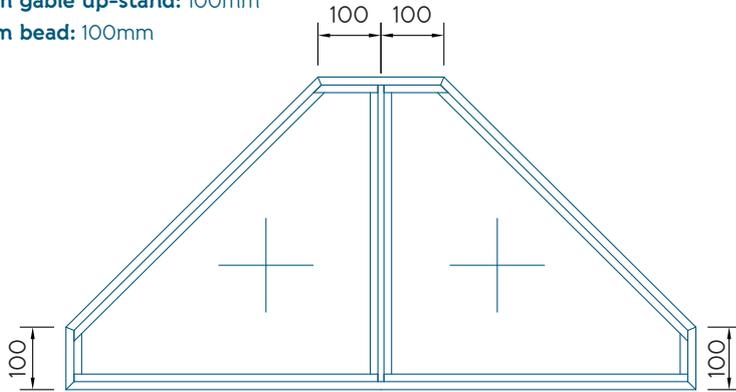


In this instance, the gable must be made out of two parts and coupled together.

Minimum gable up-stand

Minimum gable up-stand: 100mm

Minimum bead: 100mm



The minimum up-stand on a gable is 100mm.

Similarly, in the diagram above, if a mullion splits a small section of frame, there must be at least 100mm of profile either side of the mullion.

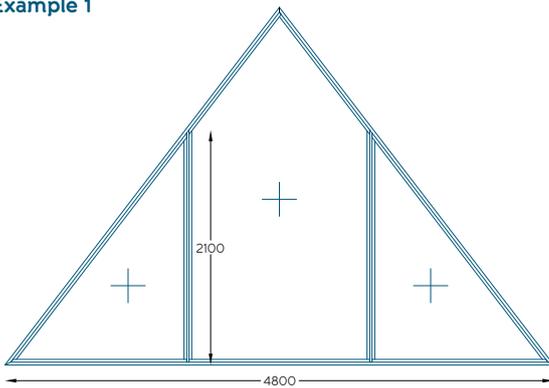
Maximum gable size

Maximum mullion length: 2100mm

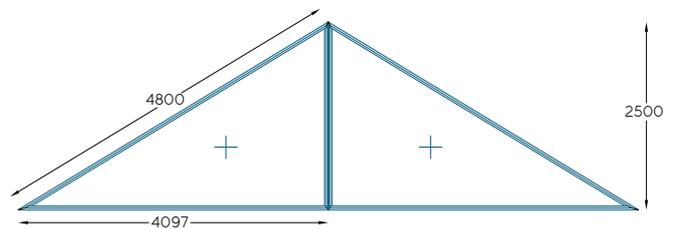
Maximum profile length: 4800mm

Maximum coupled length: 2500mm

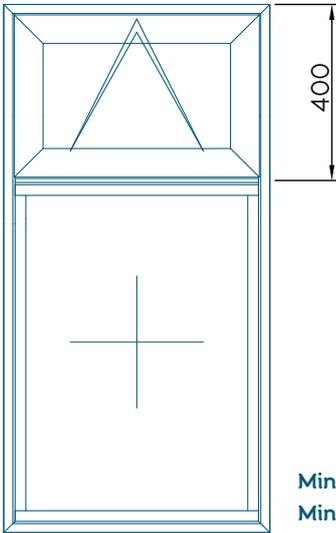
Example 1



Example 2

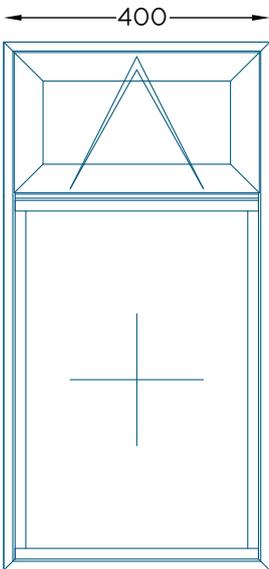


Minimum transom drop



Minimum transom drop with 15mm frame extension: 415mm
Minimum transom drop with 35mm frame extension: 435mm

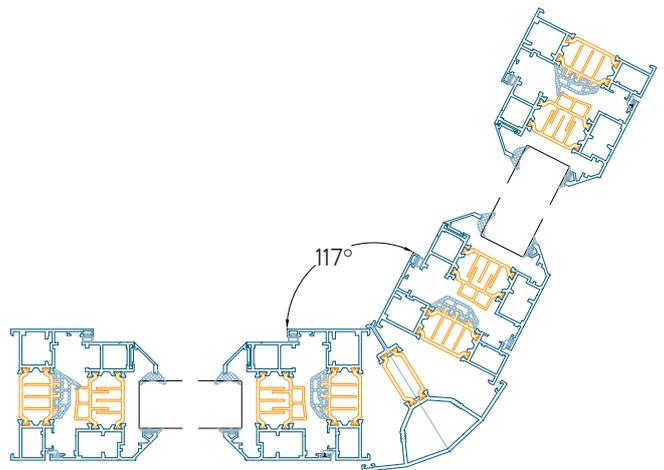
Minimum sash width with trickle vent



The minimum width for a 2500EA trickle vent to go through a 35mm add-on is 400mm.*

Bay window tightest angle

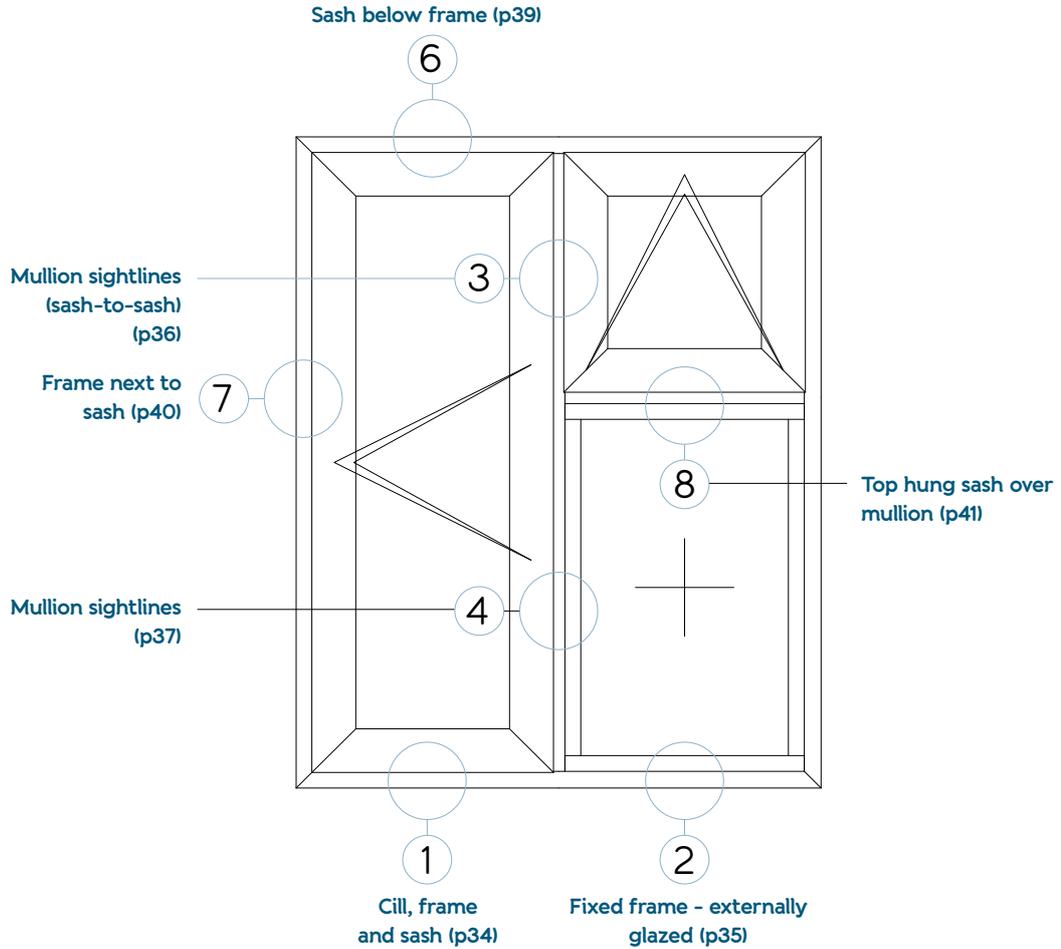
Tightest bay angle: 117°



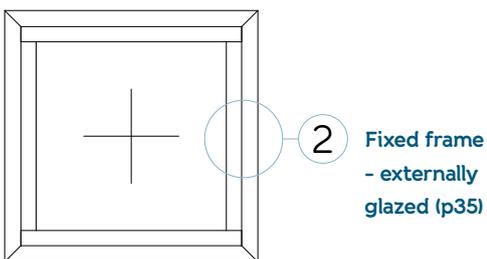
*Minimum airflow requirements to be adhered to as per building regulations.

Technical Drawings

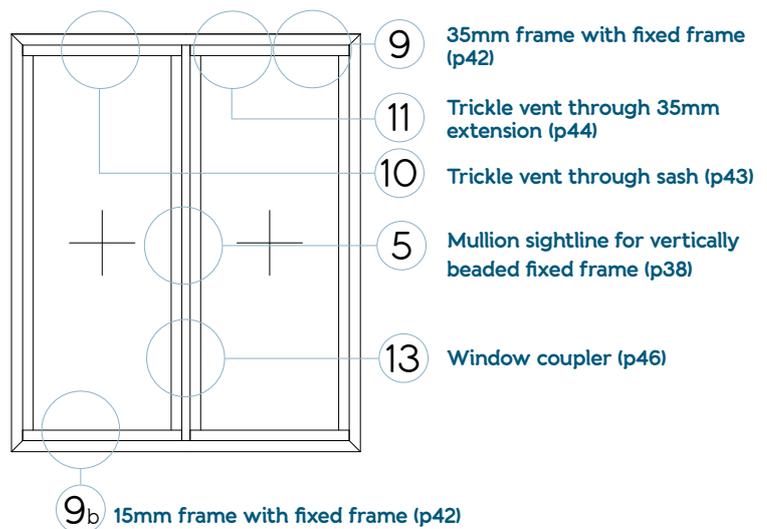
Casement



Fixed

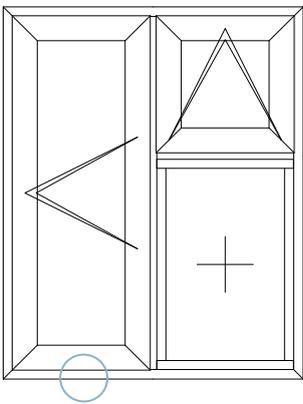
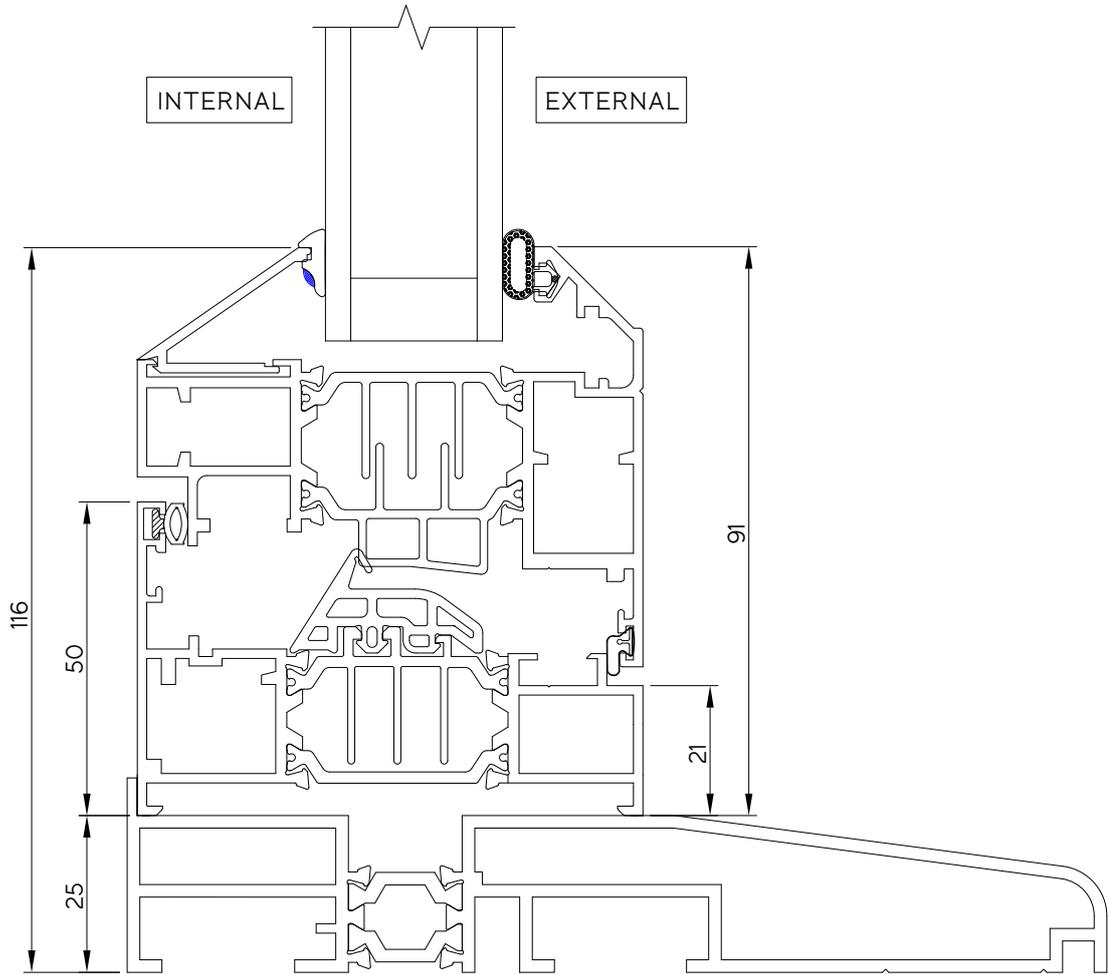


Mullion sightlines for fixed frames

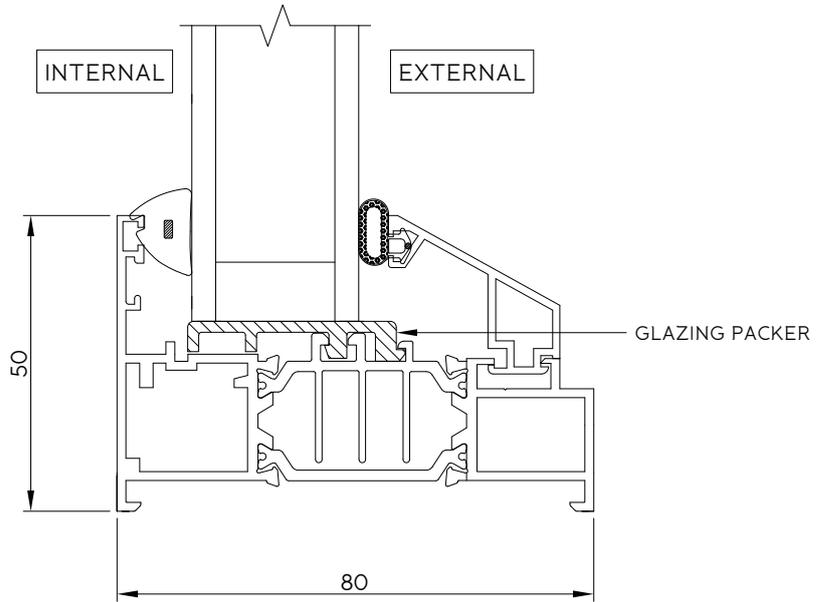


1

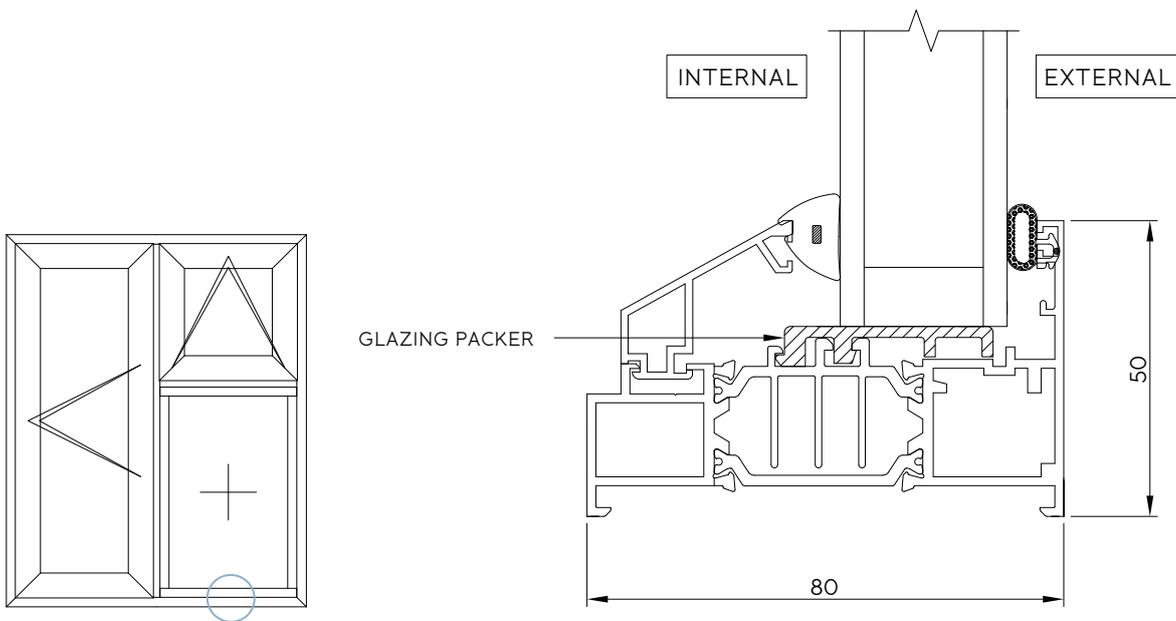
Cill, frame and sash



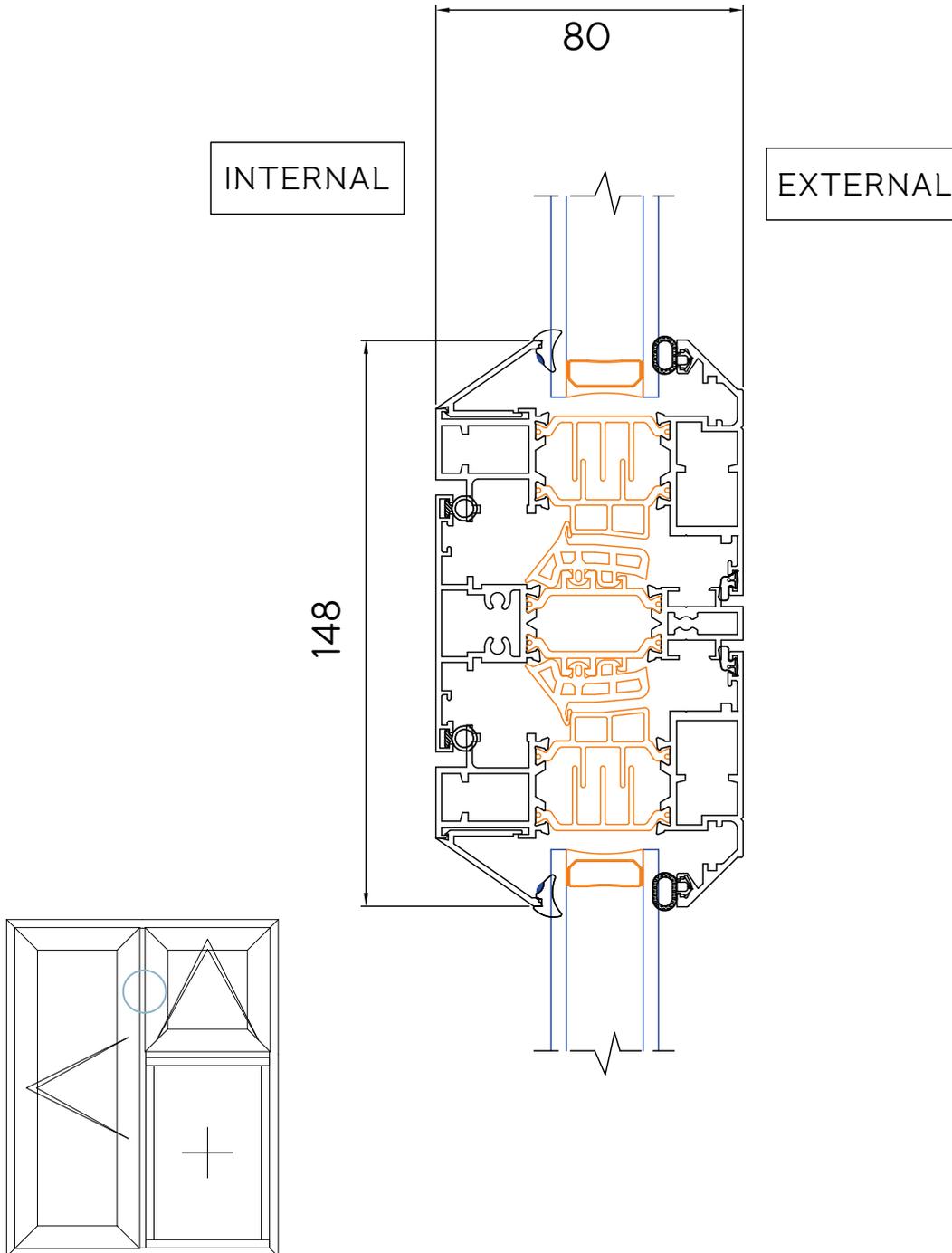
2a Fixed frame - external bead



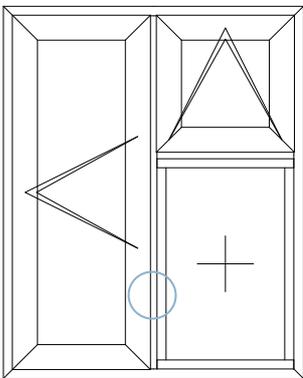
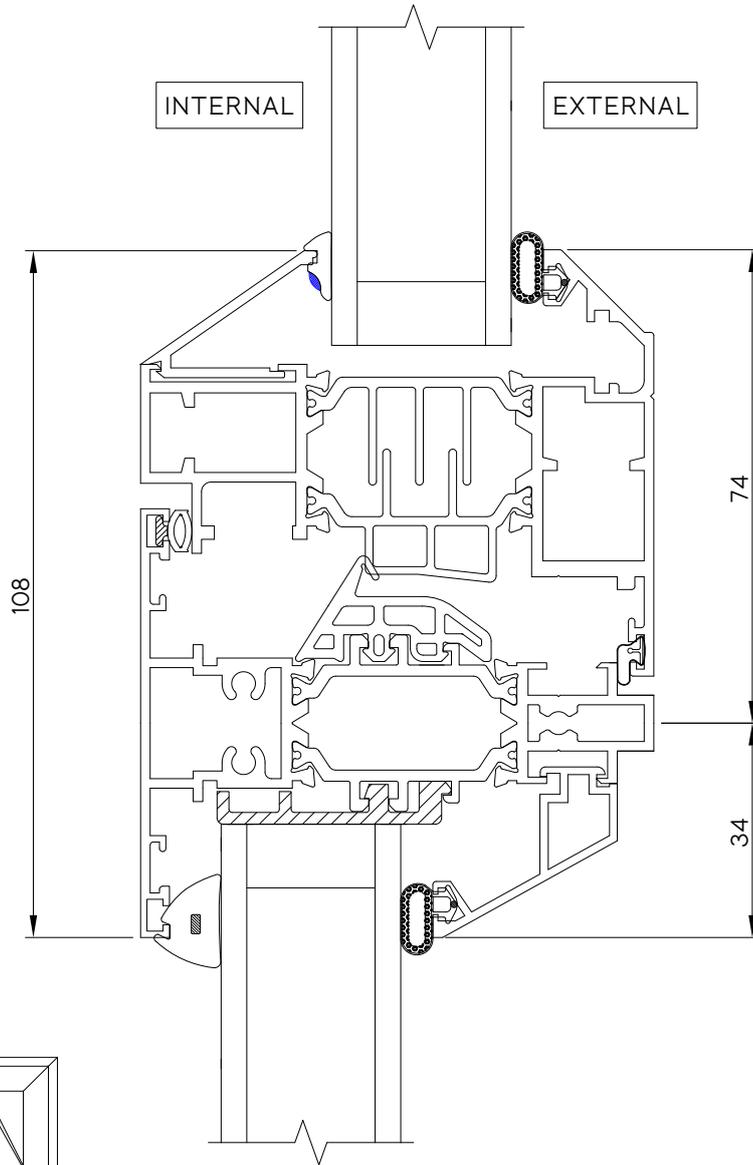
2b Fixed frame - internal bead



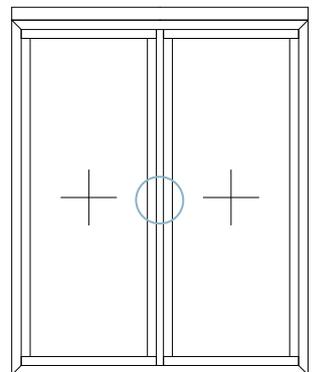
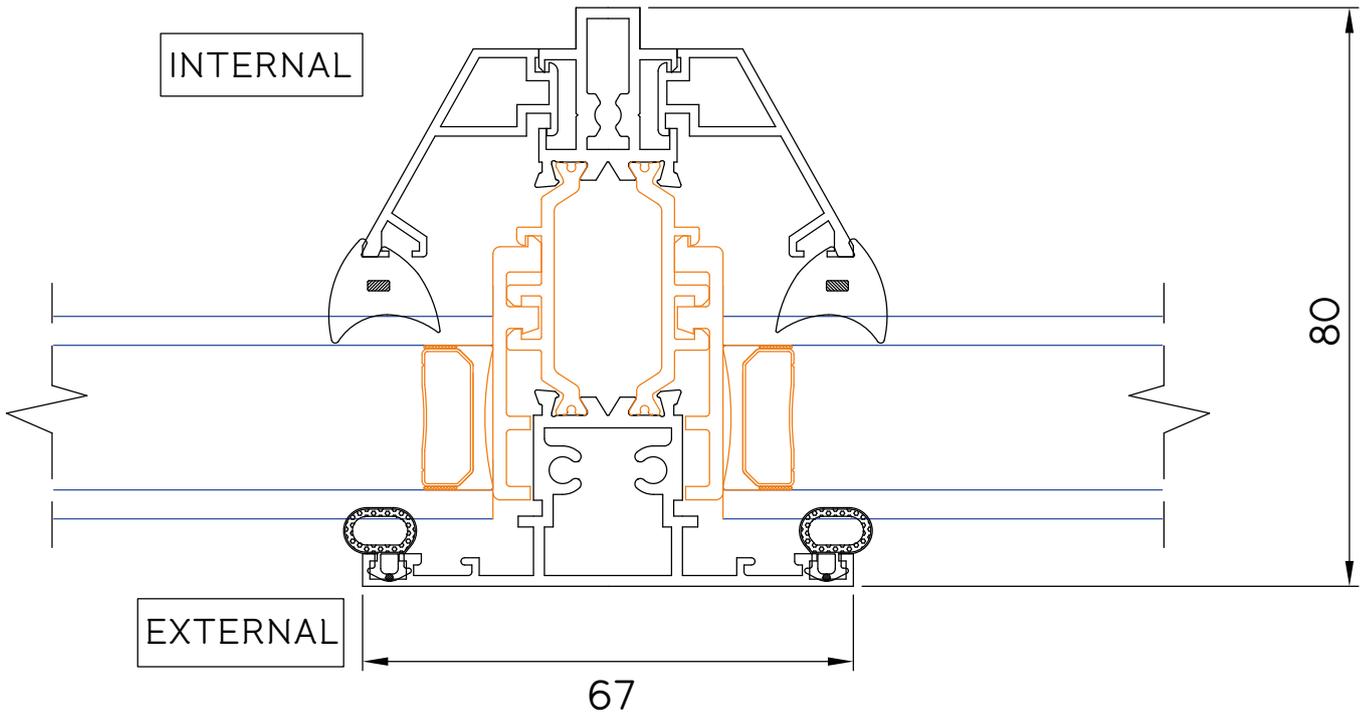
3 Mullion sightlines - sash-to-sash



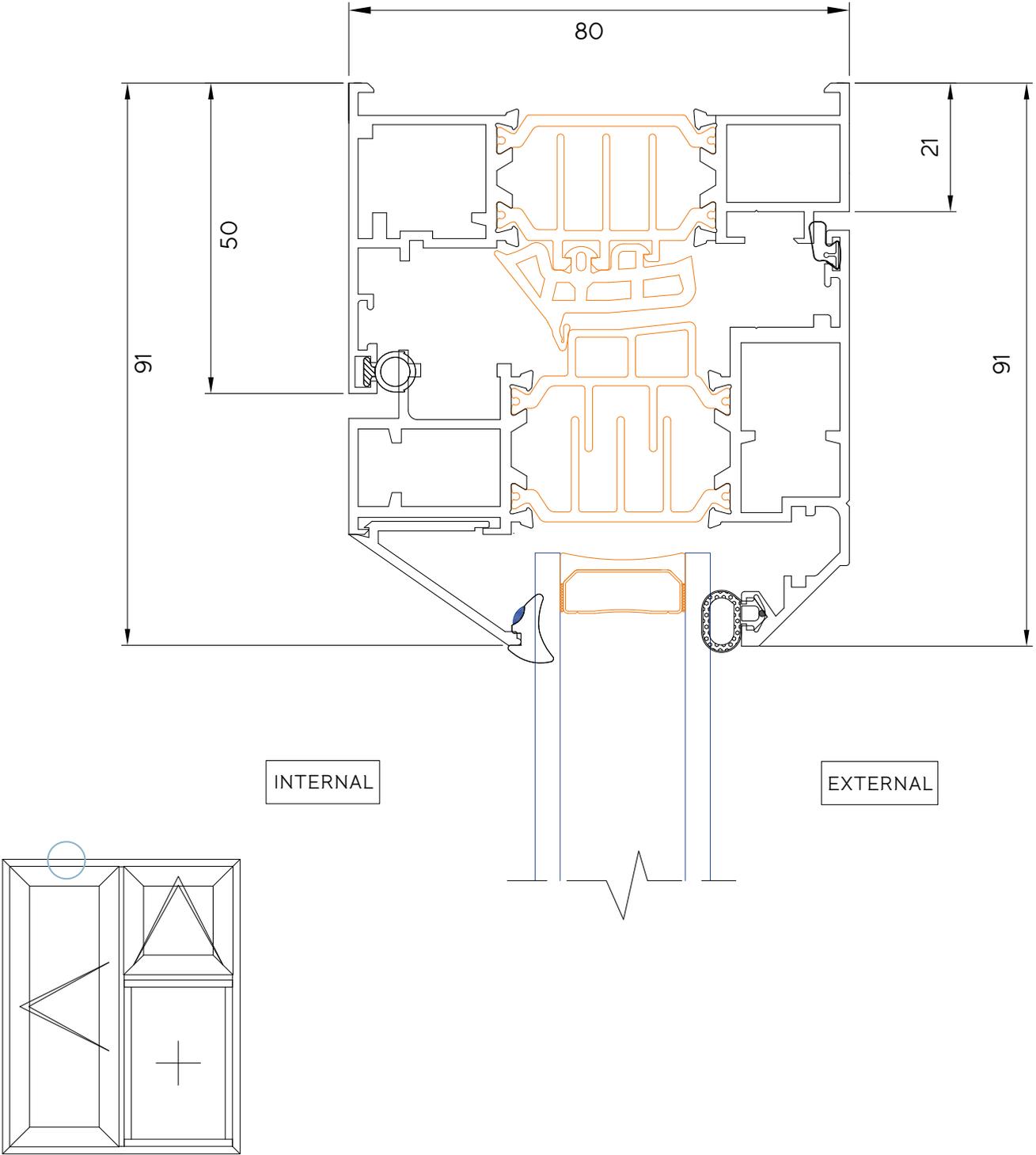
4 Mullion sightlines - sash-to-fixed



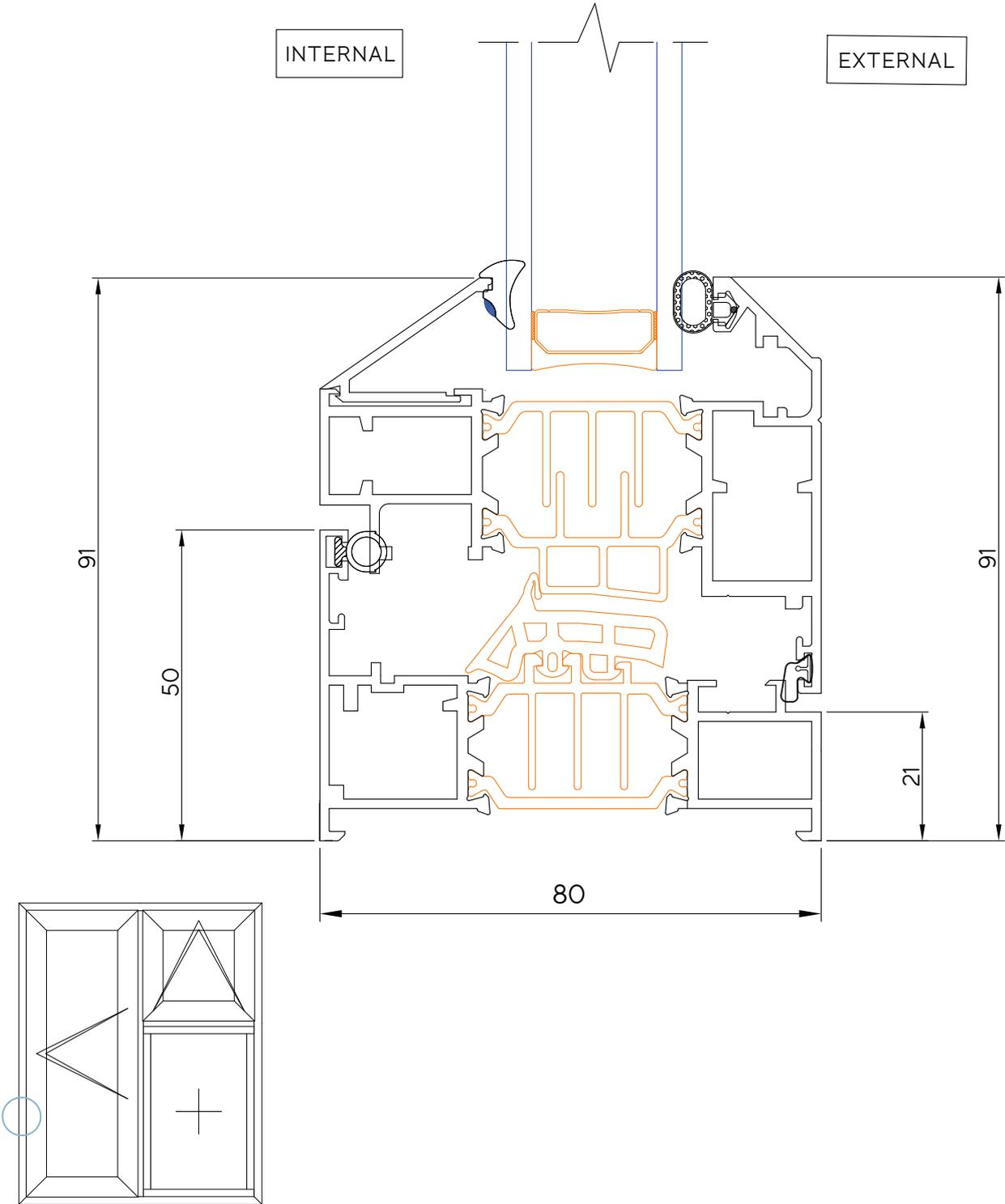
5 Mullion sightlines for internally beaded fixed frames



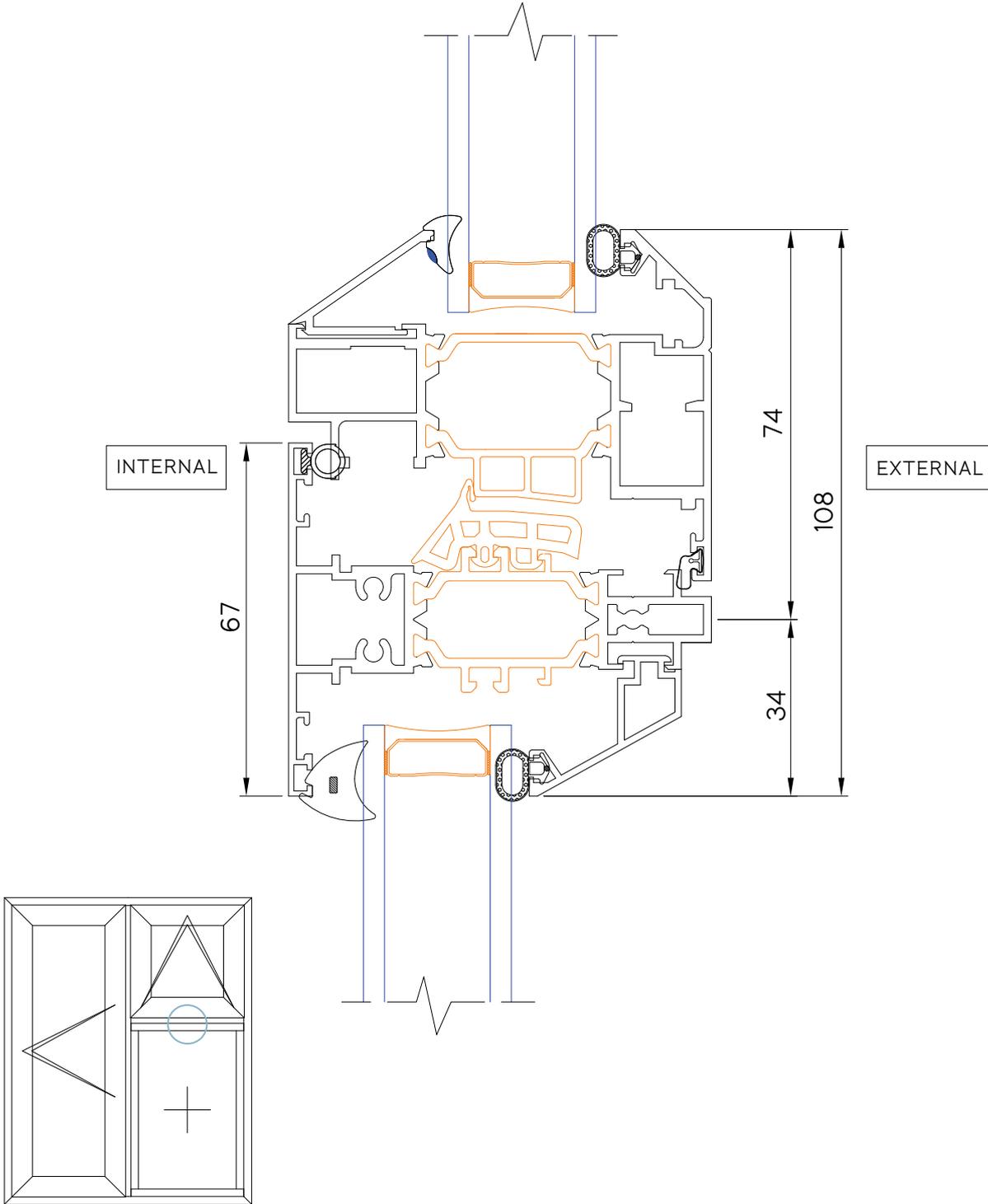
6 Sash below frame



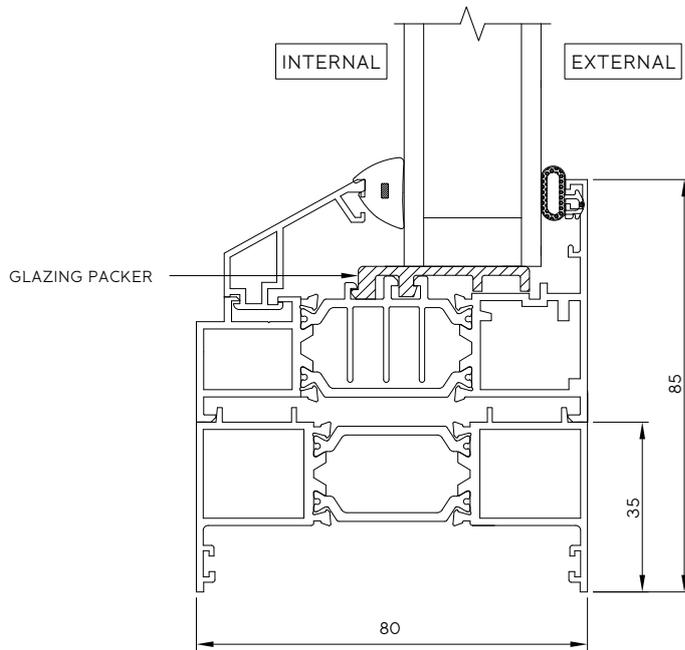
7 Frame next to sash



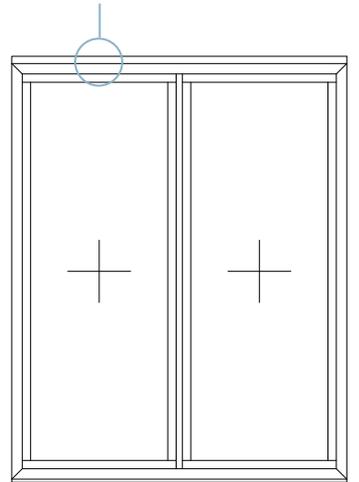
8 Top hung sash over mullion



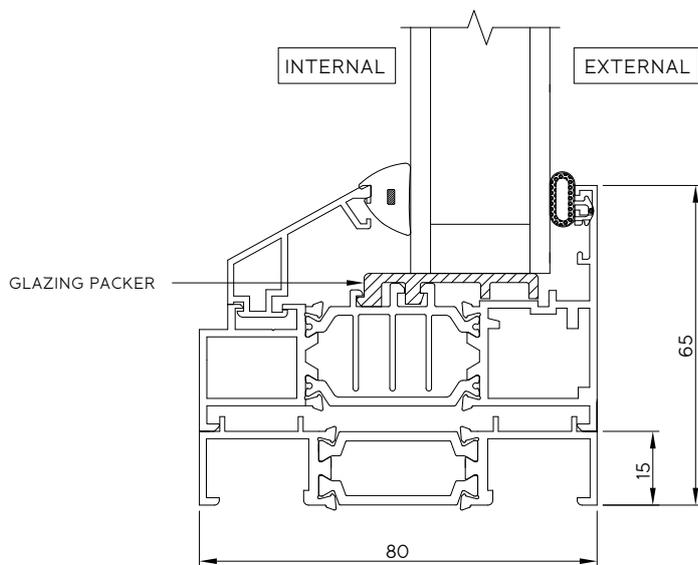
9 35mm frame extension



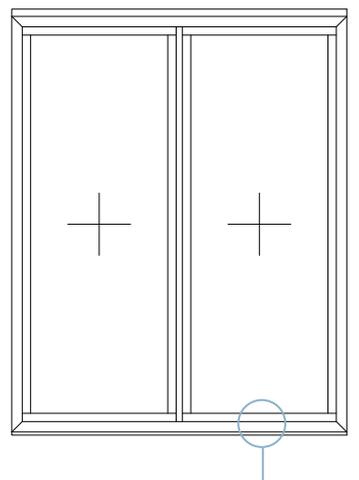
35mm frame extension with fixed frame



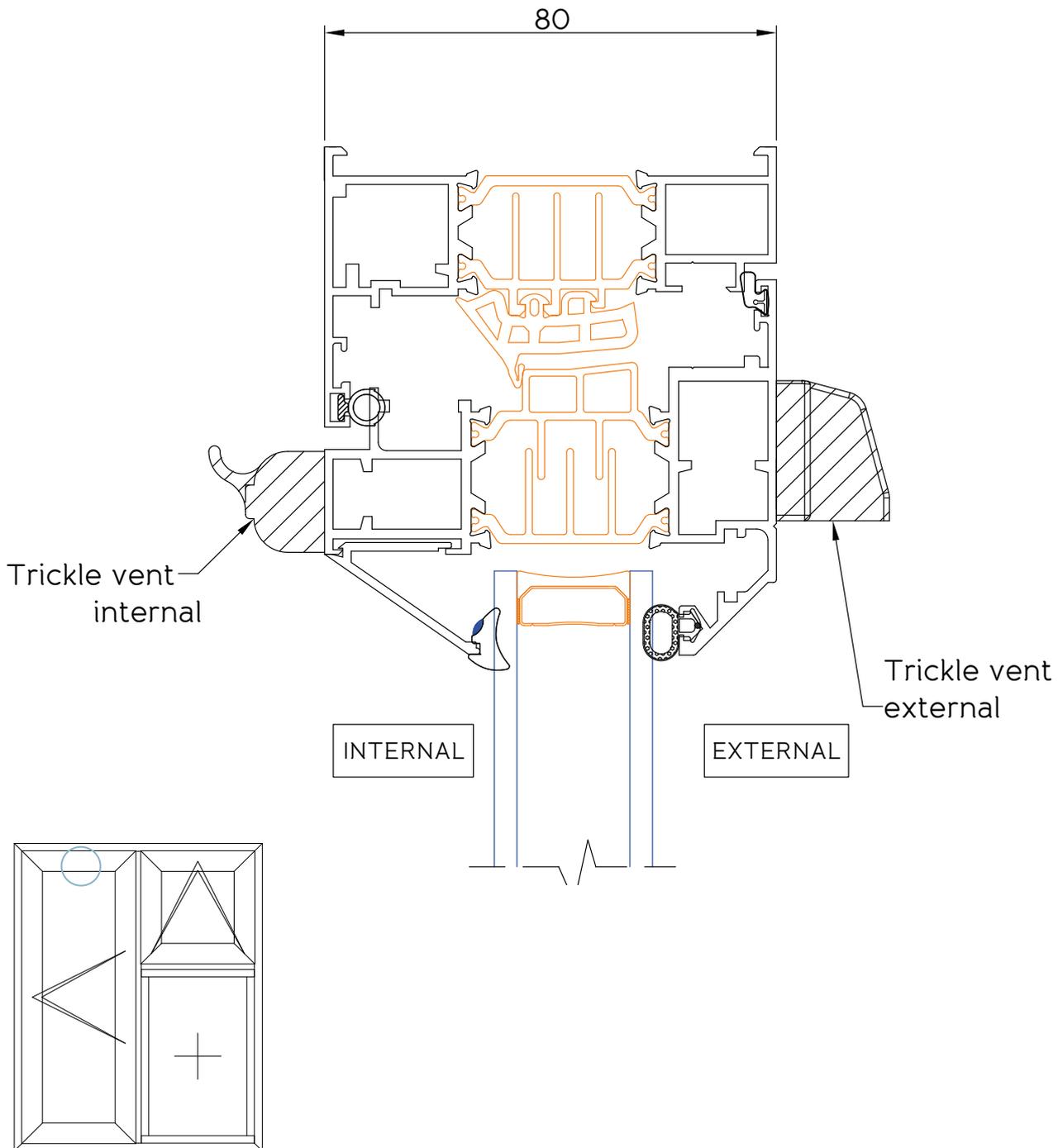
9b 15mm frame extension



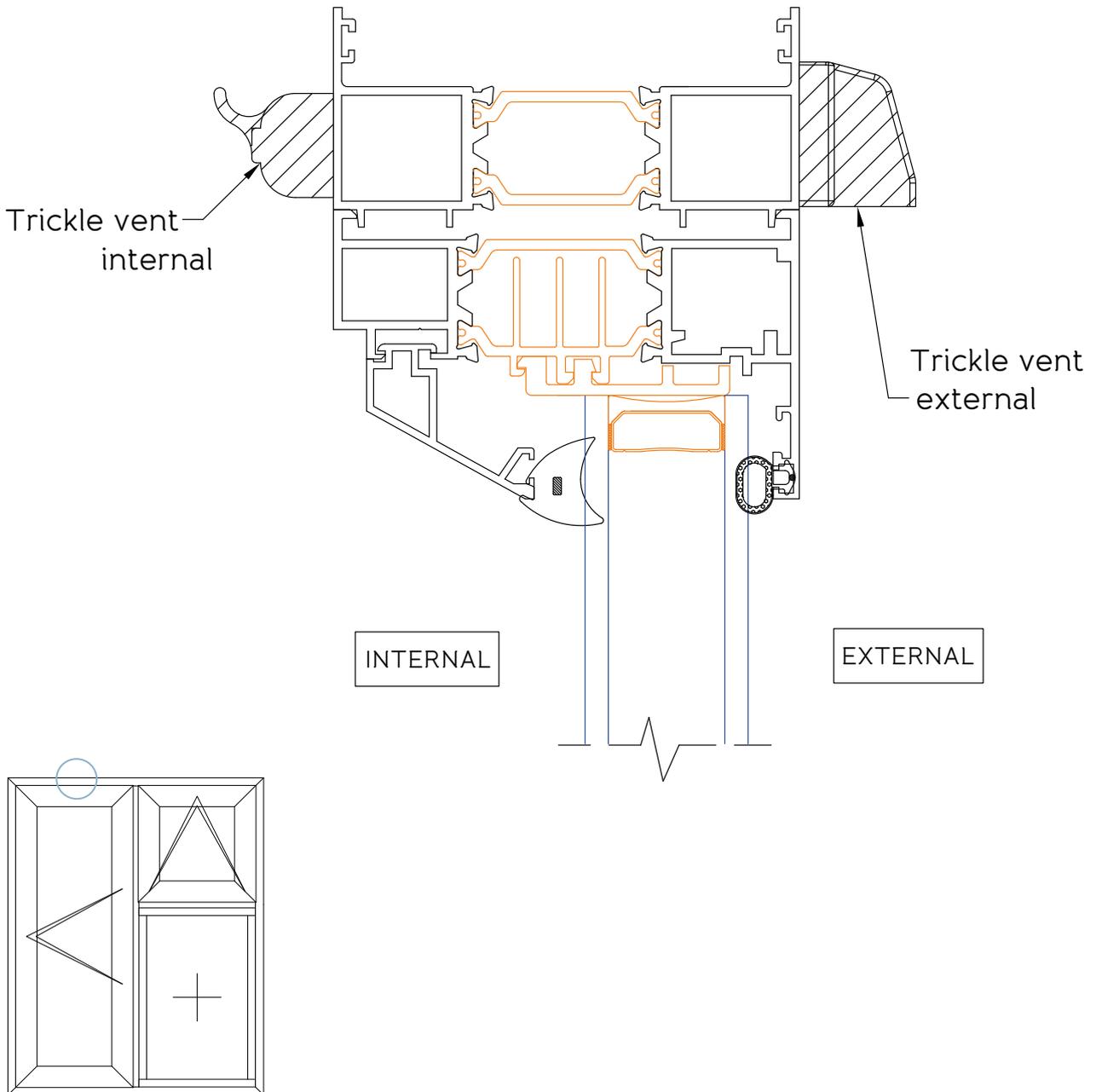
15mm frame extension



10 Trickle vent through sash

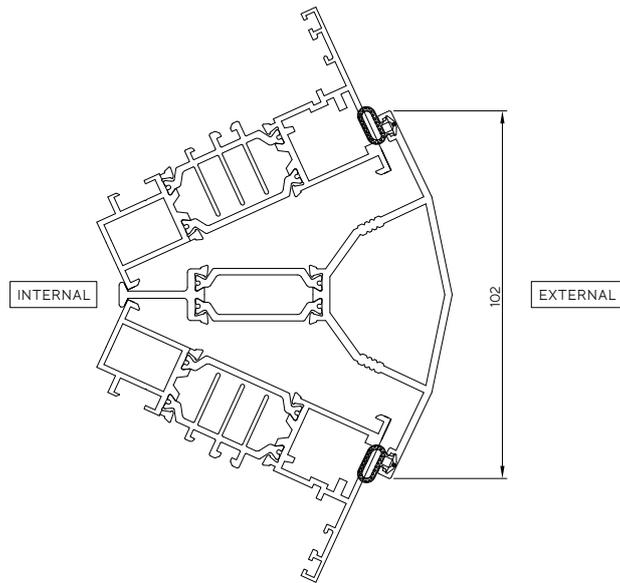


11 Trickle vent through 35mm frame extension

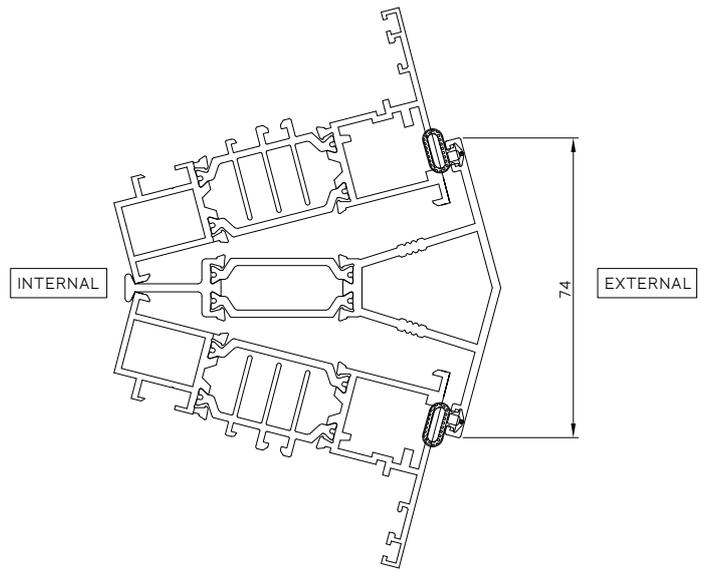


12 Variable bay mullion

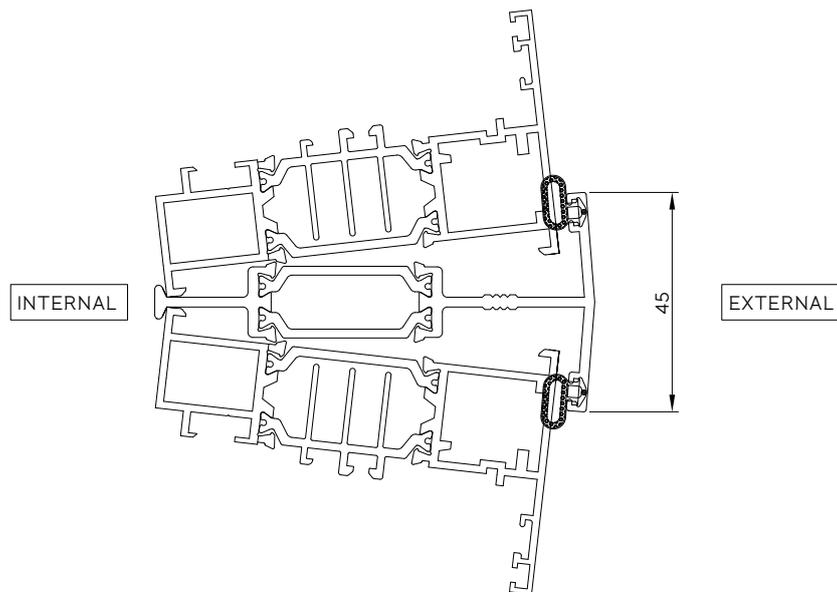
Internal angles: 117° - 138°



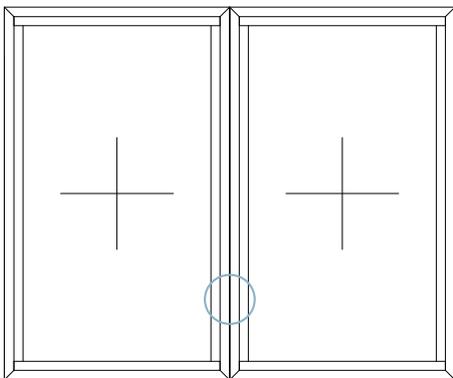
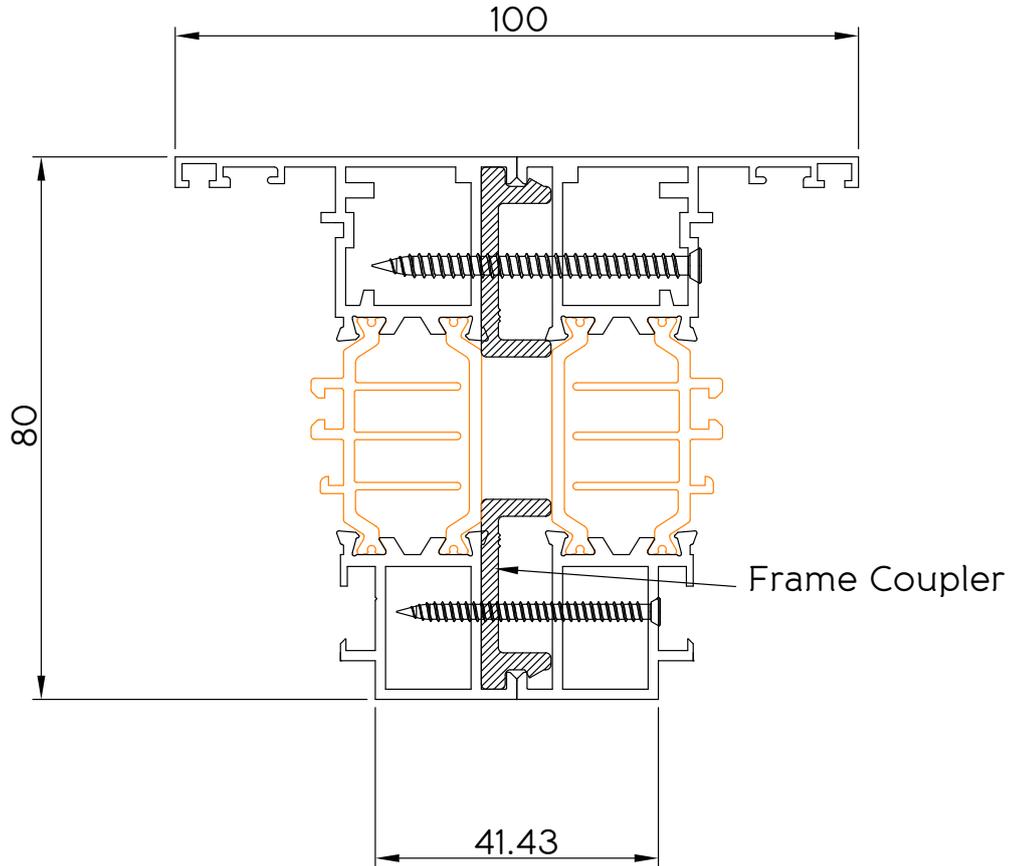
Internal angles: 138° - 159°



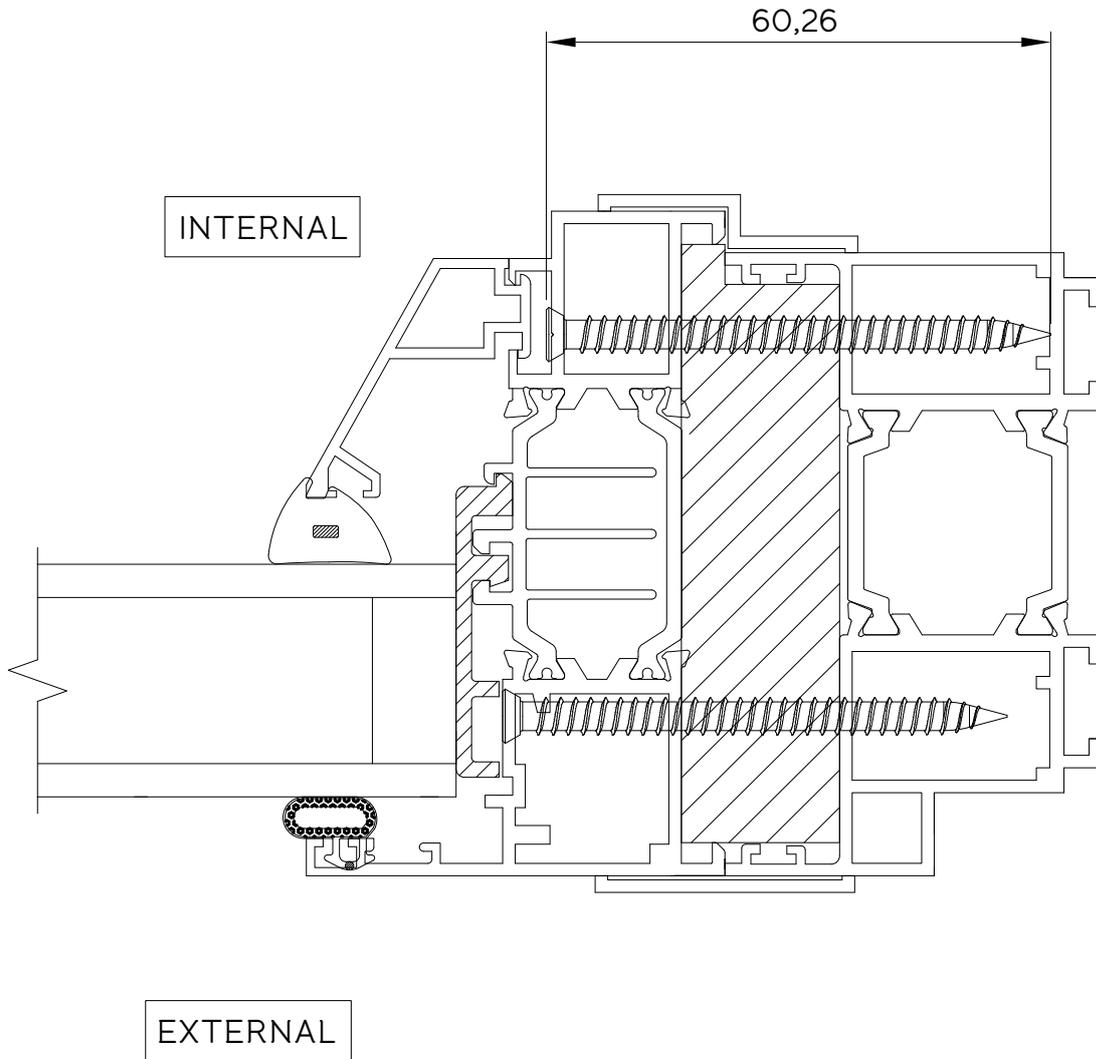
Internal angles: 159° - 175°



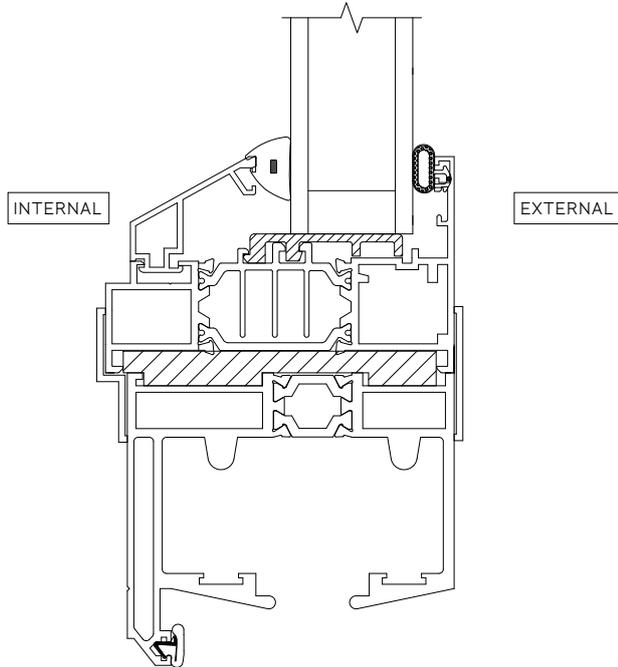
13 Window coupler



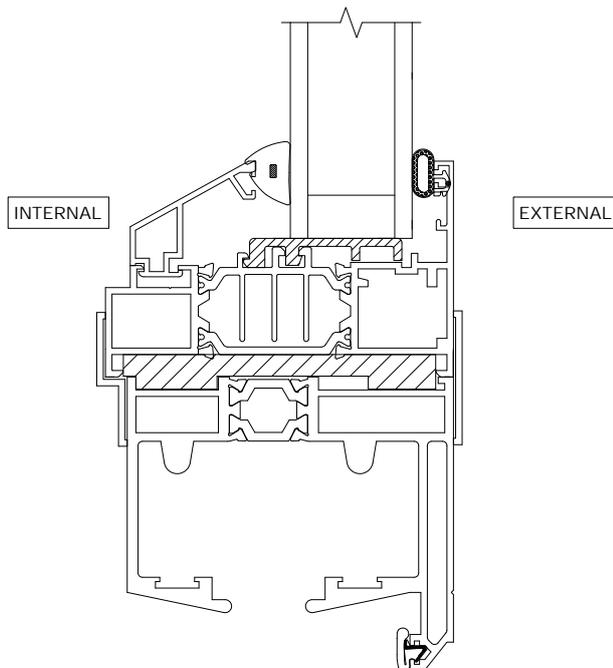
14 Window-to-door jamb coupler



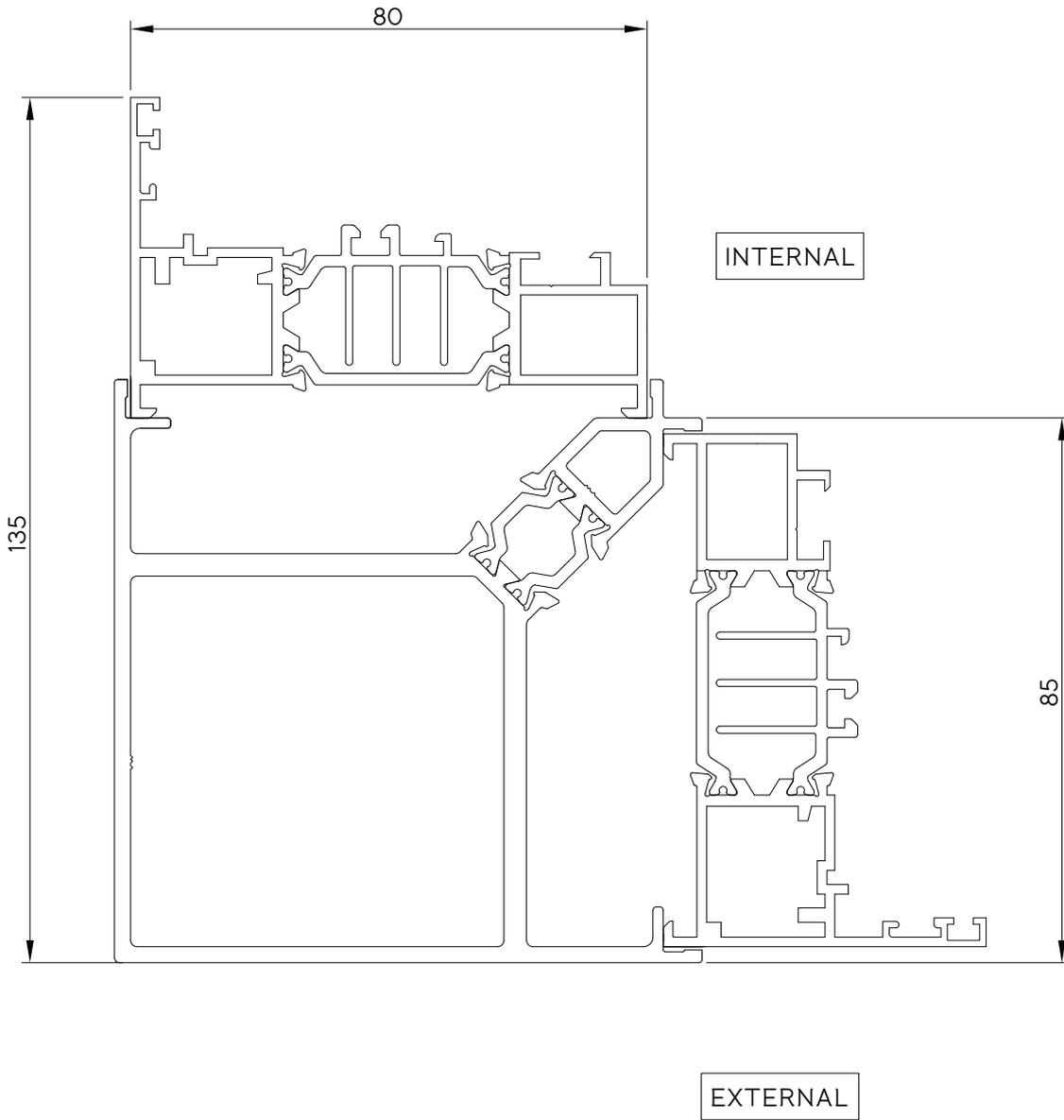
15a Window-to-door track coupler (open out)



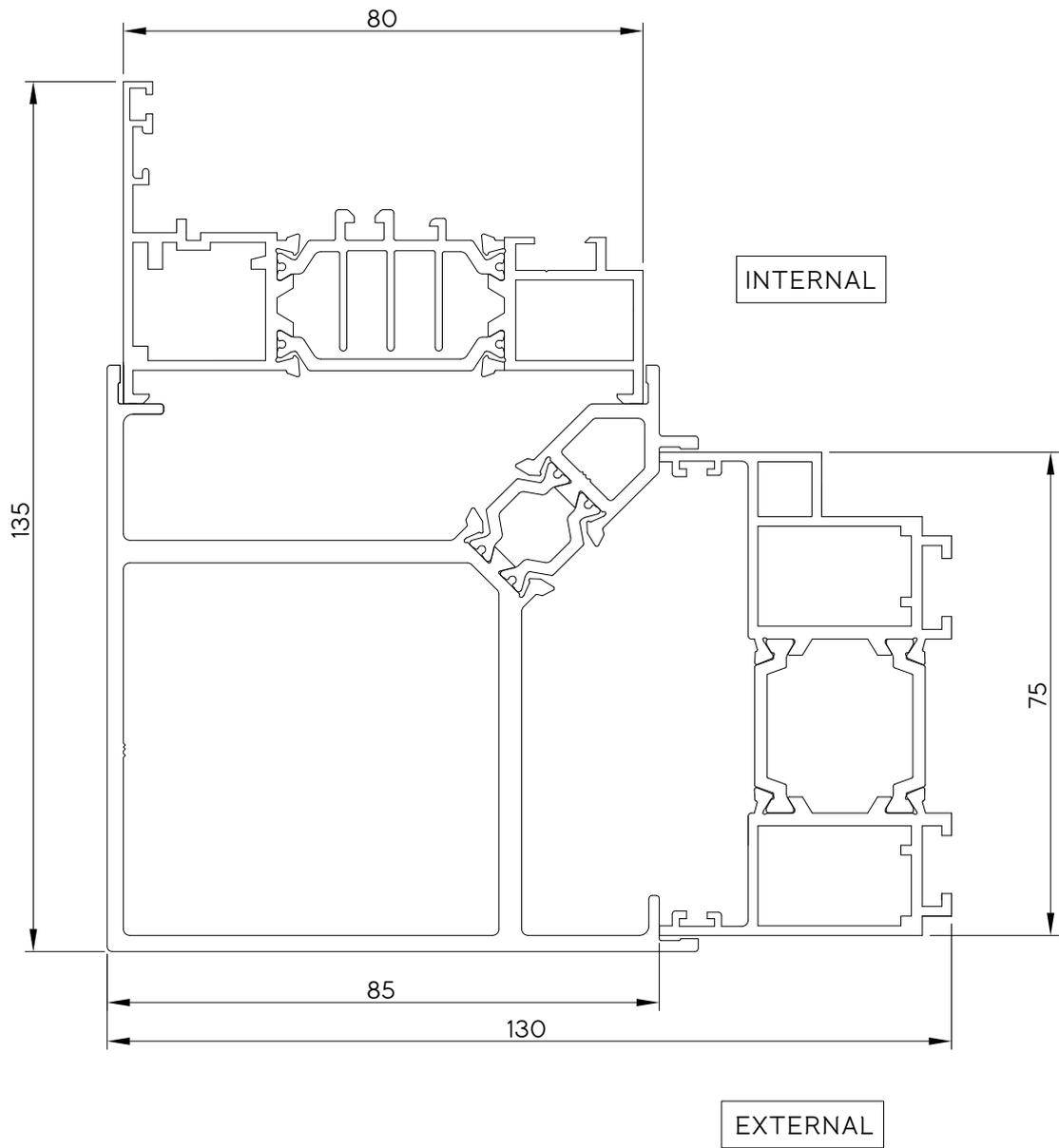
15b Window-to-door track coupler (open in)



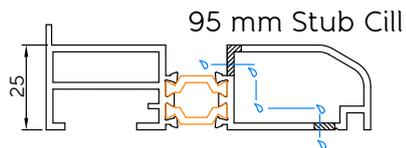
16 Window-to-window corner post



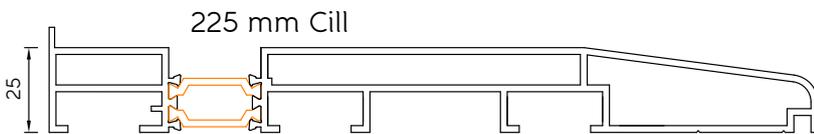
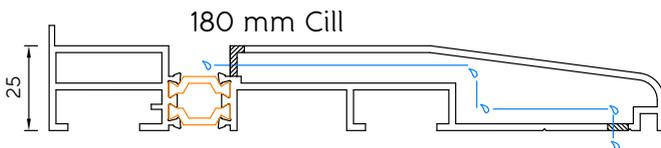
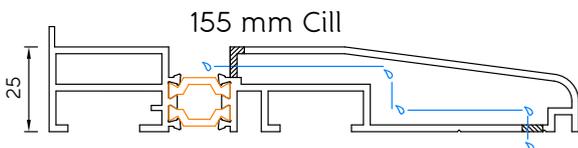
17 Window-to-door corner post



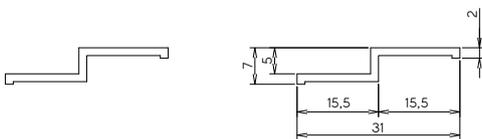
18 Cills, bead and trim



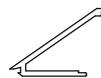
The 95mm stub cill can only be prepared with concealed drainage if the water can drain away towards the outside of the reveal. There must be a gap of at least 20mm between the drainage hole and the substrate in order to ensure the water can drain effectively. The substrate must be sloped to ensure the water doesn't drain back into the building. It is the installers responsibility to ensure the drainage outlets are clear and free to drain water away from the substrate.



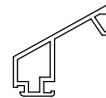
Trims



28mm Sash Bead



28mm Frame Bead



44mm Sash Bead

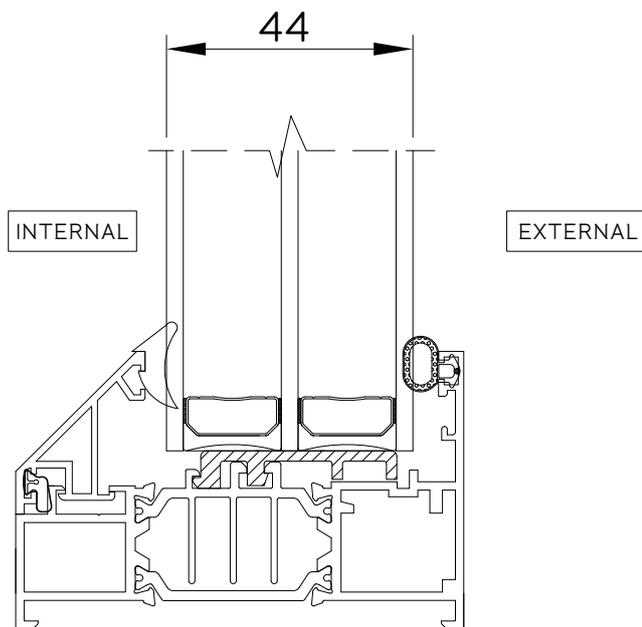
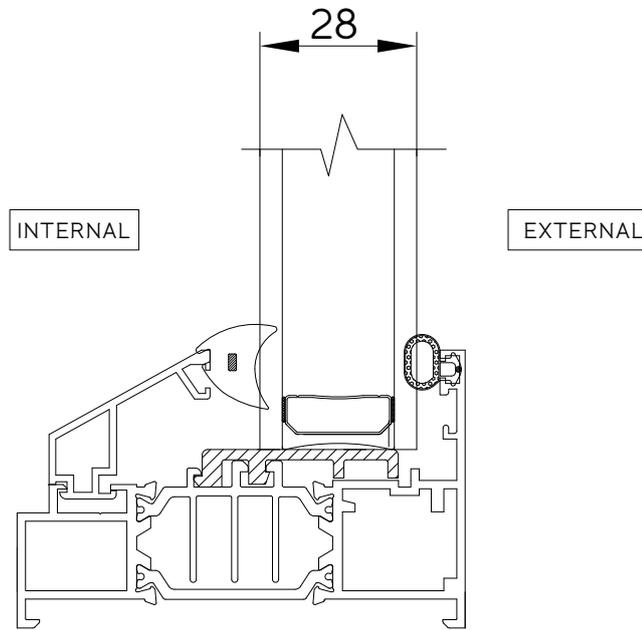


44mm Frame Bead



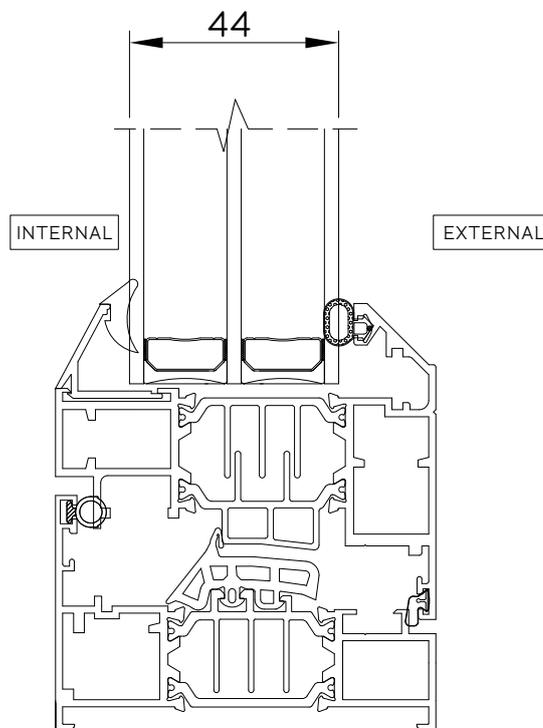
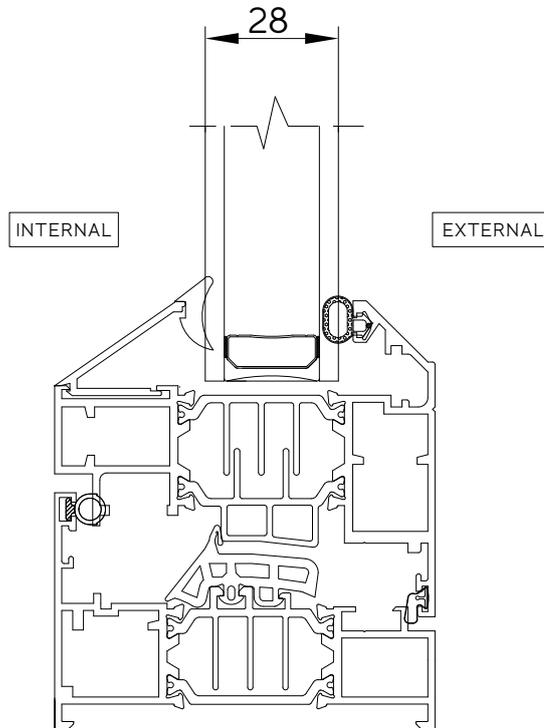
Glazing options

Fixed frame



Glazing options

Frame and sash



Gaskets

4028

Frame gasket
(internally fitted)

Black



QL4636

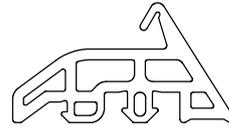
Sash gasket
(externally fitted)

Black



Cavity gasket

Black



B2018

Glazing rebate
(externally fitted)

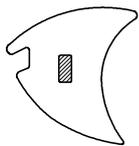
Black



W473P

Frame wedge 28mm
(internally fitted)

Black, white,
colour-coded



W488

Sash wedge 28/44mm
(internally fitted)

Black, white,
colour-coded



W474

Frame wedge 44mm
(internally fitted)

Black, white,
colour-coded

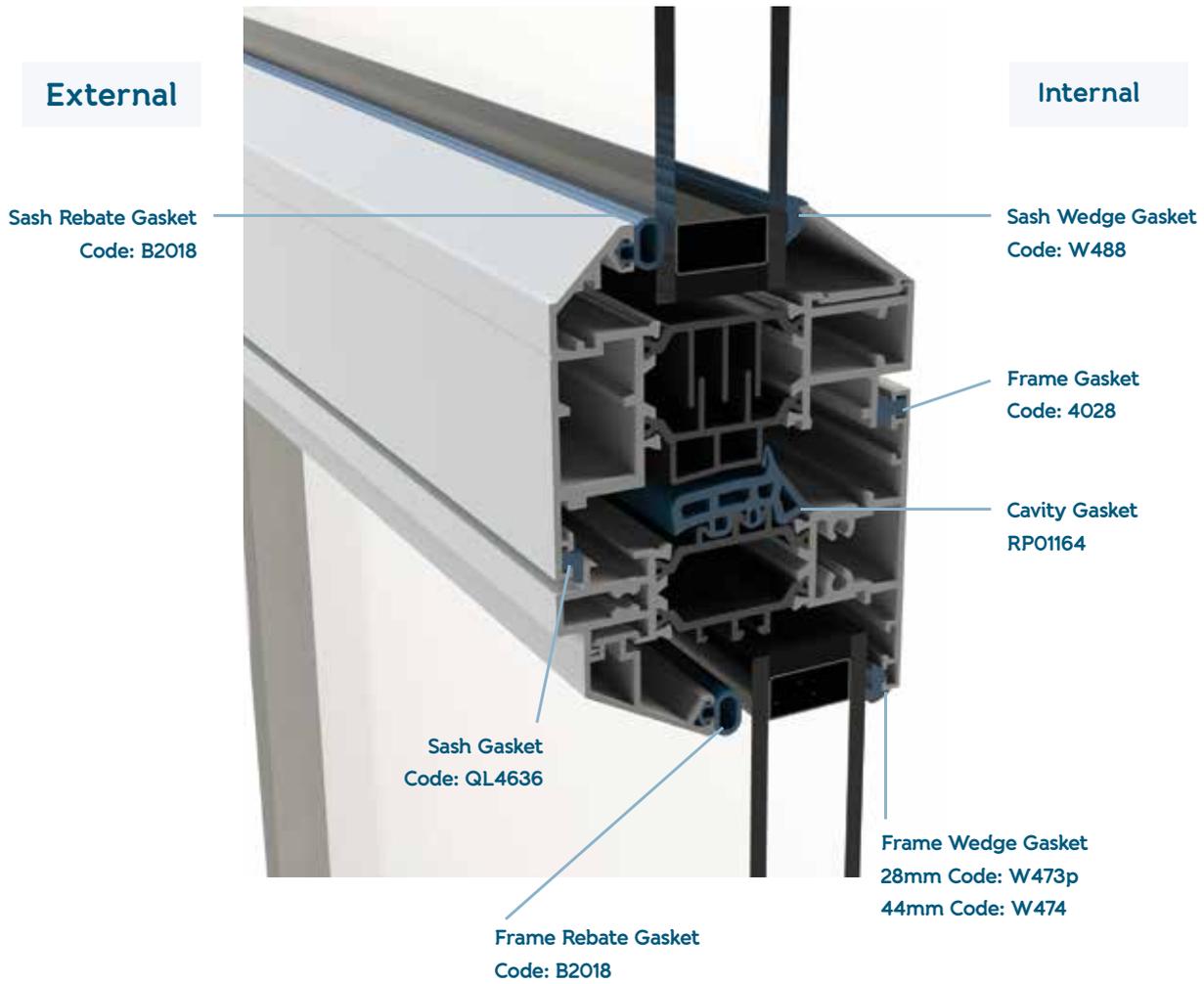


Key

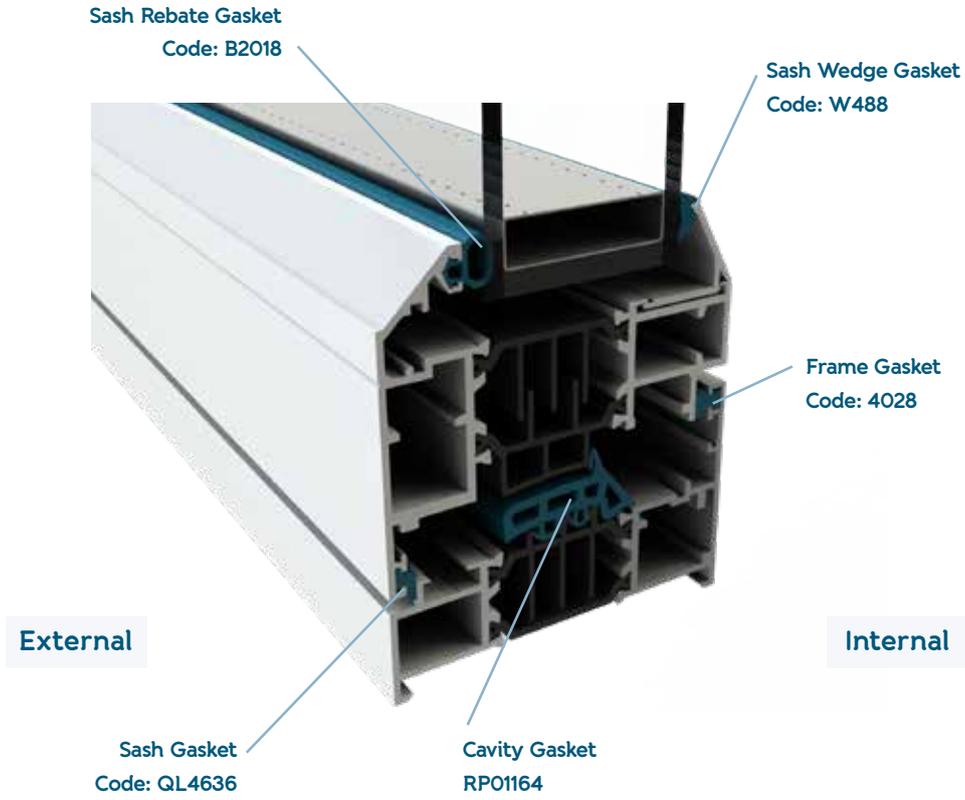
The colour-coded gasket option includes the following colours:

Slate grey, anthracite grey, light grey, white, light oak, bronze and chestnut brown.

Cross sectional gasket diagram

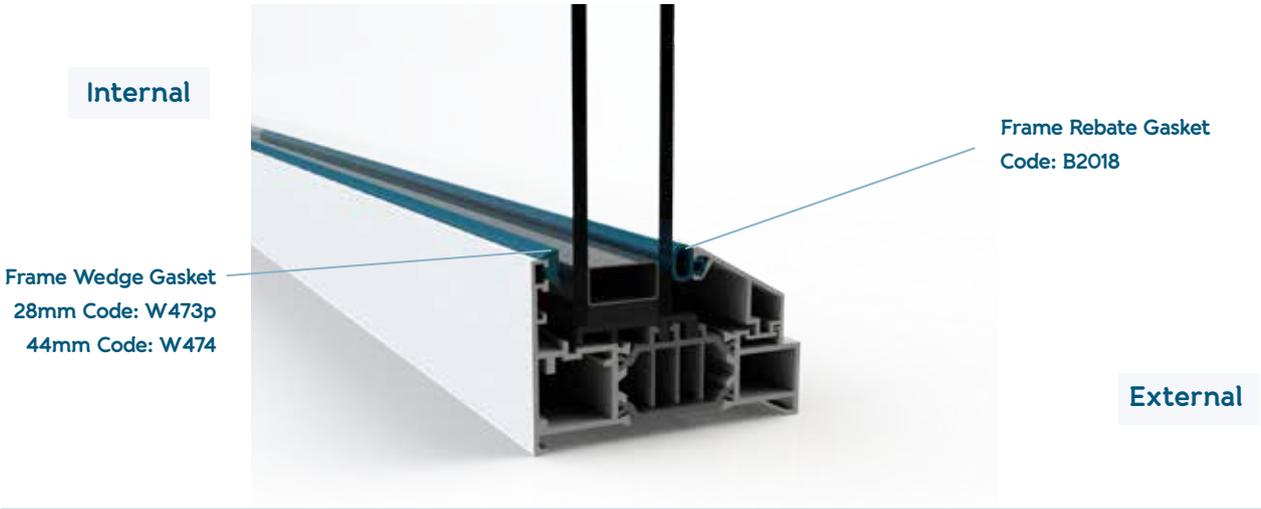


Cross sectional gasket diagrams



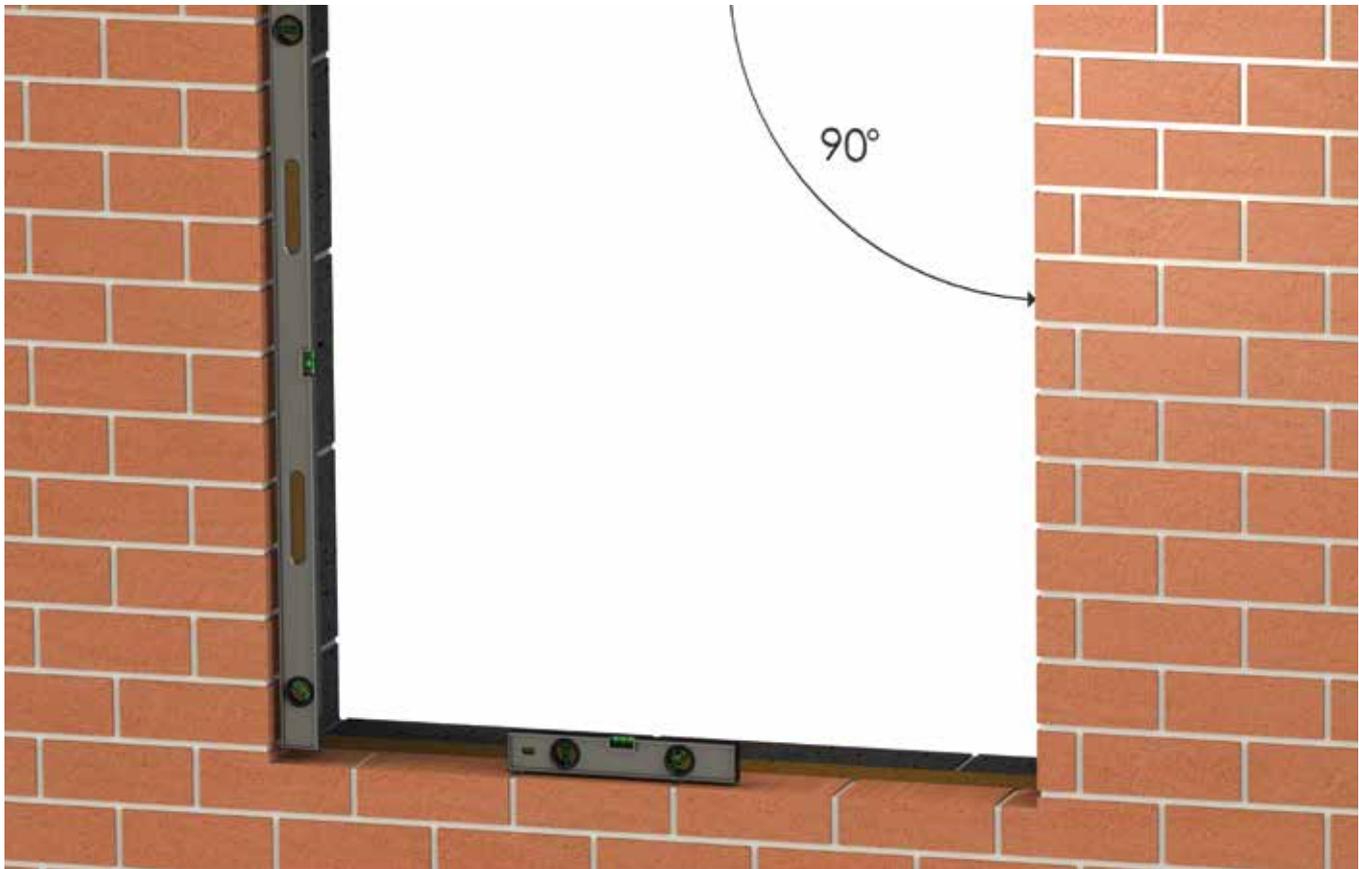
The cavity gasket not only provides an internal seal for the window, but more importantly, is a critical component for reducing the flow of air between the frame and the sash. This improves the thermal performance of the window.

Fixed frame



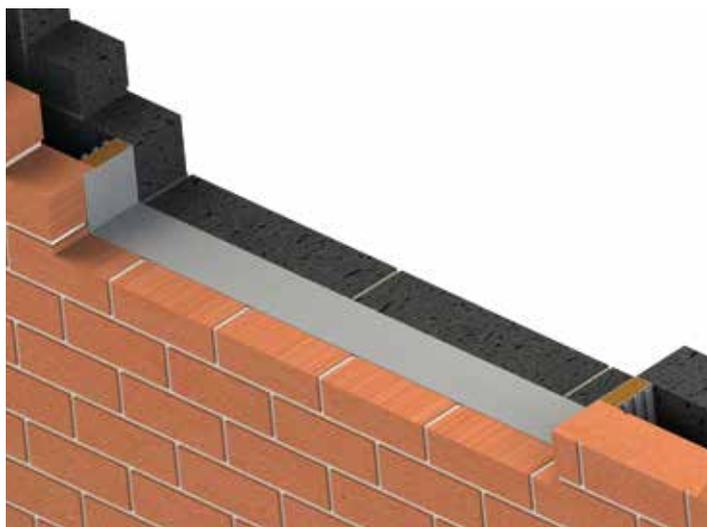
Installation Guide

Apertures



Open cavities discovered between the inner and outer skins of brick or block work should be bridged or closed with an insulation material in accordance with the local building authority.

Windows should be installed in the aperture without twisting, racking or distorting.



1. Frame Fixing



FIG 1

Measure the opening, checking it fits with all measurements on your Origin paperwork.

- ▶ **1.1.** Place the correct frame packers spaced at a maximum of 500mm apart along the length of the opening to create a level, well supported platform for the track/ cill to sit. (Fig.1)

1. Frame Fixing (continued)



FIG 2

- ▶ **1.2.** Using an appropriate silicone sealant, fill the ends of the cill section and install the end caps. (Fig.2)
- ▶ **1.3.** Place the cill on the pre-prepared frame packers and re-check for level. Adjust if necessary. (Fig.2)
- ▶ **1.4.** Using a silicone sealant, seal the drainage channels adjacent to the brickwork. (Fig.2)
- ▶ **1.5.** Run a bead of sealant along the up-stand of the cill. (Fig.2)

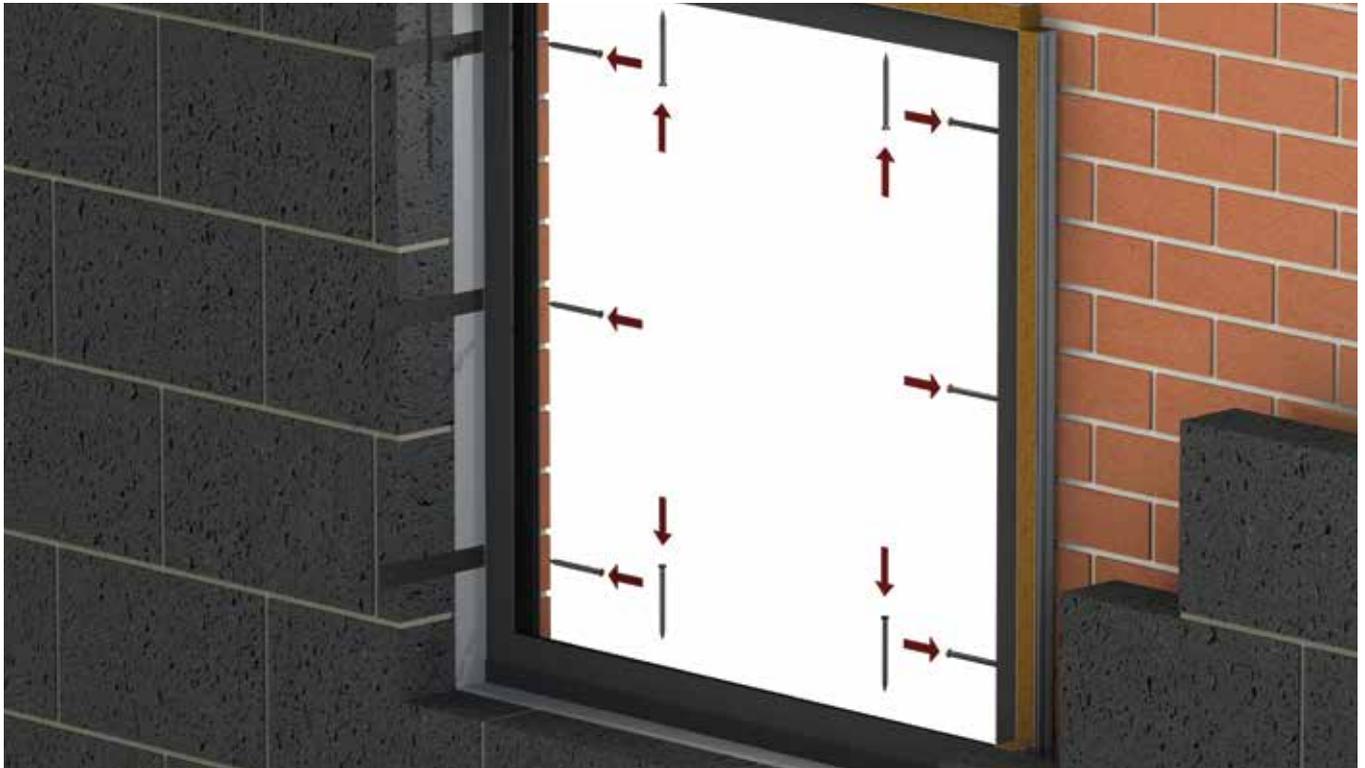


FIG 3

If using fixing straps, please skip to 1.7.

- ▶ **1.6.** Place the window on the cill and secure into position. Wherever practical, all four corners of the frame should be secured as follows:
 - Frame fixing should be between 100mm to 150mm from the external corners.
 - Fixings should be at no greater than 600mm apart and there should be the minimum of two fixings on each side. On windows over 1800mm wide, central head and cill fixings should be provided. (Fig.3)

Please move to 2.1.

- ▶ **1.7.** Secure the fixing strap into the rebate of the window with the screws provided. All four corners of the frame should be secured wherever practical.

2. Glazing



FIG 4

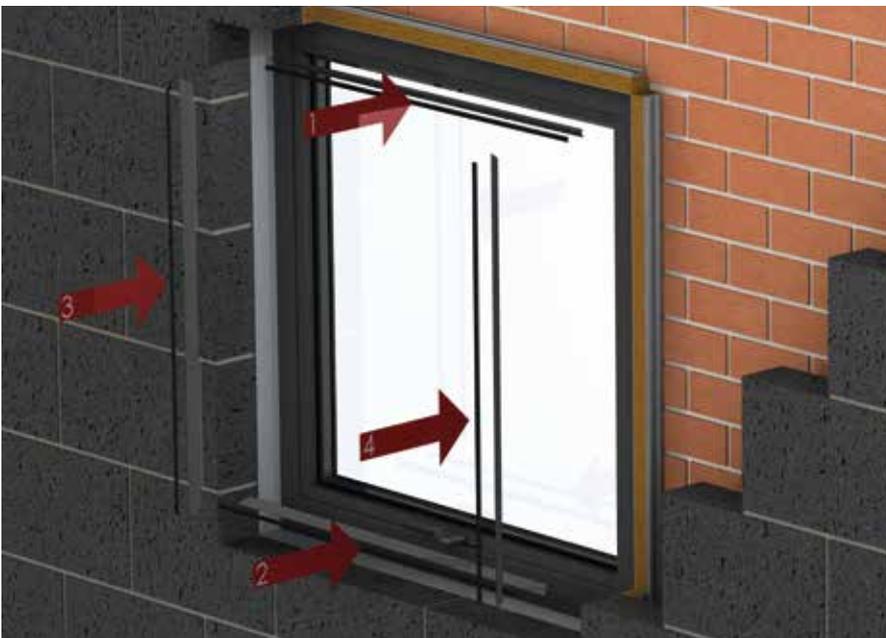


FIG 5

- ▶ **2.1.** All insulated glass units should be examined for damages and defects before installation. (Fig.4)
- ▶ **2.2.** Close the window and fully engage the lock. (Fig.4)
- ▶ **2.3.** Remove the 4 glazing beads. (Fig.4)
- ▶ **2.4.** Place the required packers in the bottom of the glazing chamber spaced approximately 50mm in from each corner at 90° to the window. (Fig.4)
- ▶ **2.5.** Install the glass on the packers, taking care not to pinch the gasket on the outside. (Fig.4)
- ▶ **2.6.** For safety, always ensure the top bead is installed first, followed by the bottom and then the side beads. (Fig.5)
- ▶ **2.7.** Cut the glazing wedge gasket to length and insert between the glass unit and the glazing bead. (Fig.5)

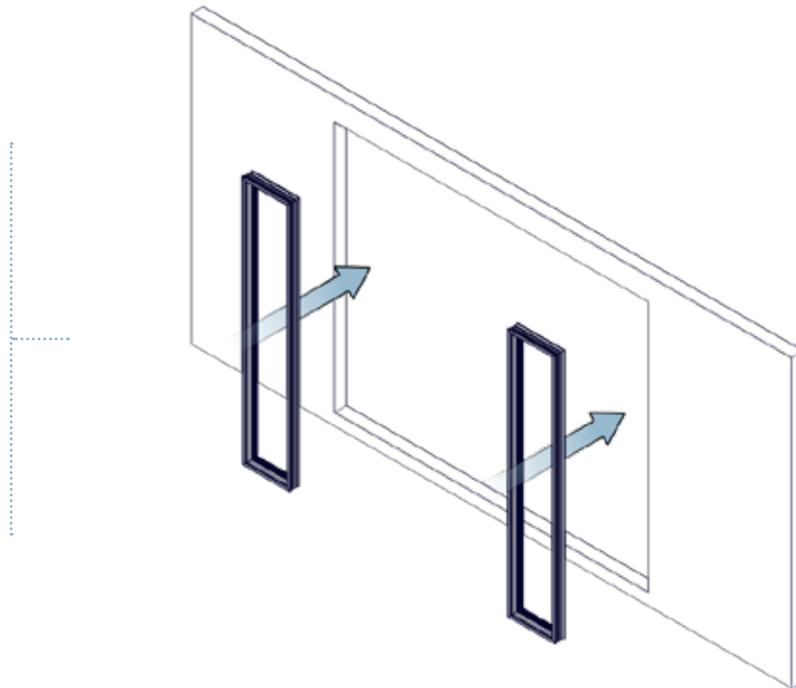


FIG 6

- ▶ **3.1.** Wherever practical, gaps around the window should be foam filled to stop air flow around the window and the surrounding aperture. (Fig.6)
- ▶ **3.2.** If required, use trims to bridge the gap between the window and the aperture. All trim should be compatible with the material of the frame and should be colour matched where specified. (Fig.6)
- ▶ **3.3.** The sealant should be applied against a firm backing so that it is forced against the sides of the joint during application. The best practice is to have insulating foam fill inserted wherever practical. (Fig.6)

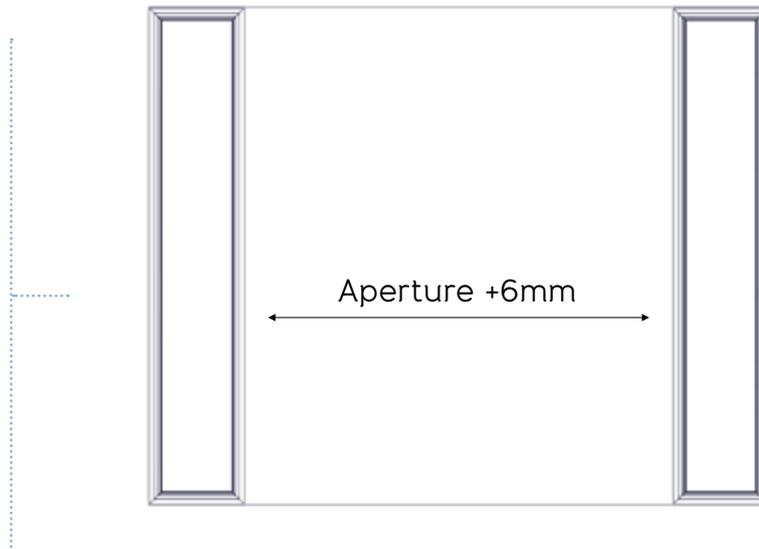
Window-to-jamb Coupler Installation Guide

Install the windows
as described in the
Installation Guide



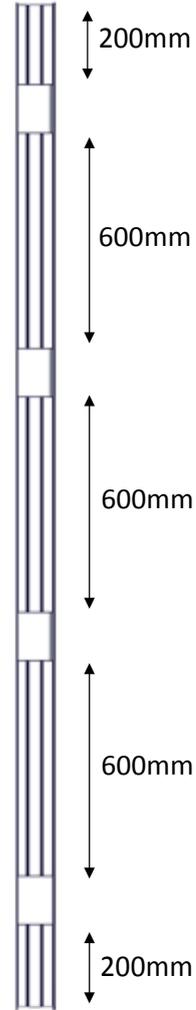
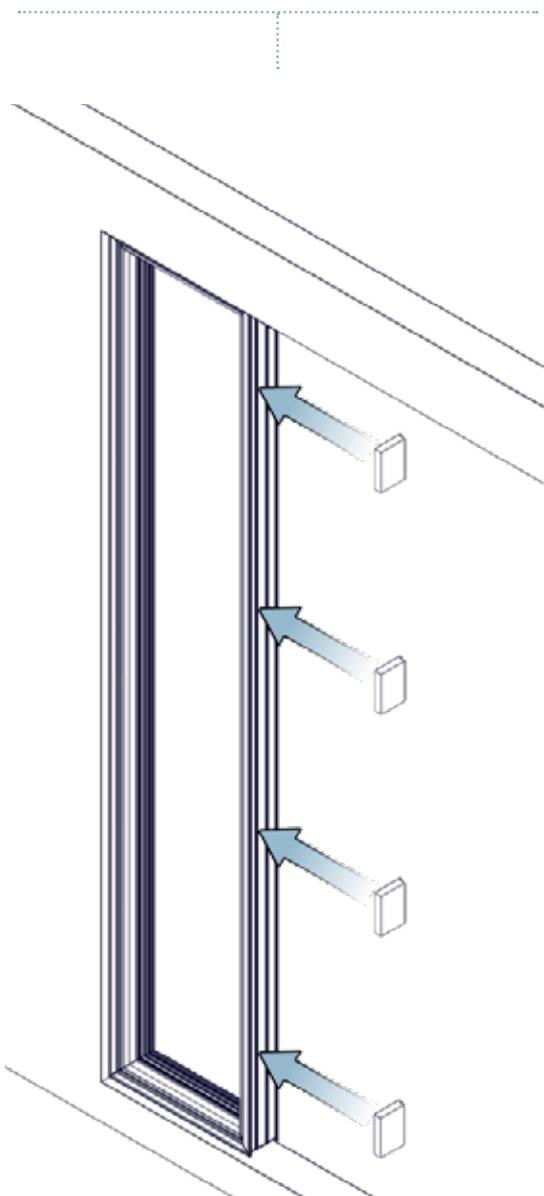
Ensure the remaining
aperture is 6mm wider
than the overall door
set width

Do not install the glass



Window-to-jamb Coupler Installation Guide

Install the alignment block into the window frame

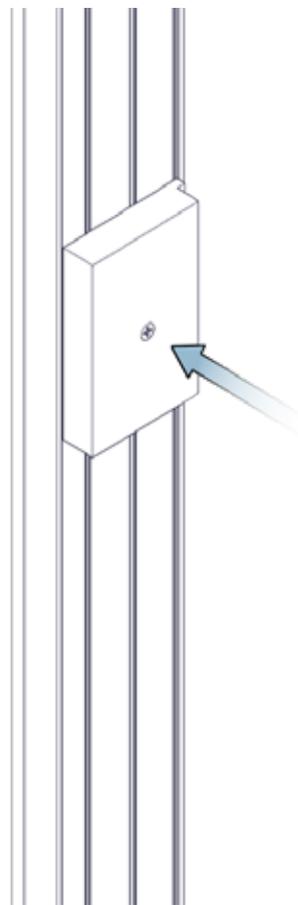
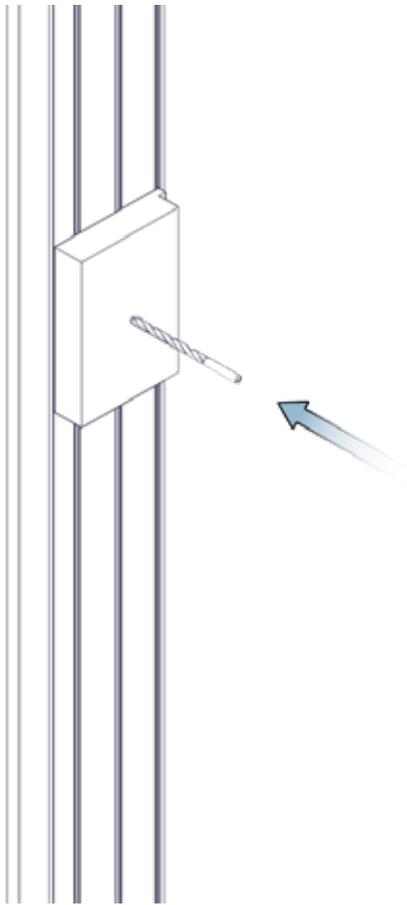


Leave 200mm from each end and evenly space the rest appropriately

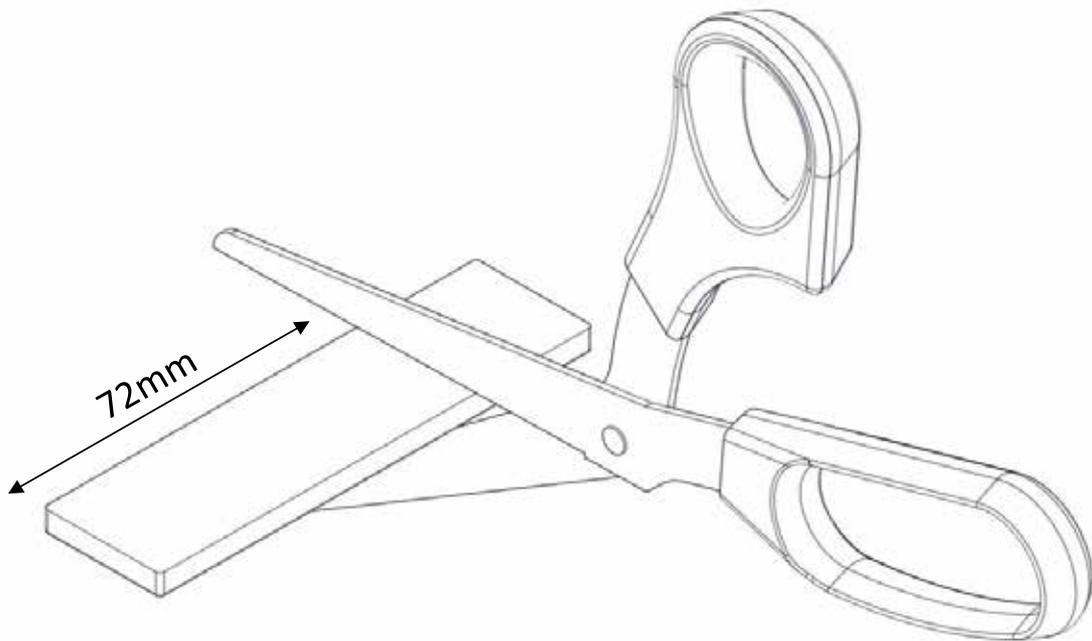
Drill, countersink and fix alignment blocks



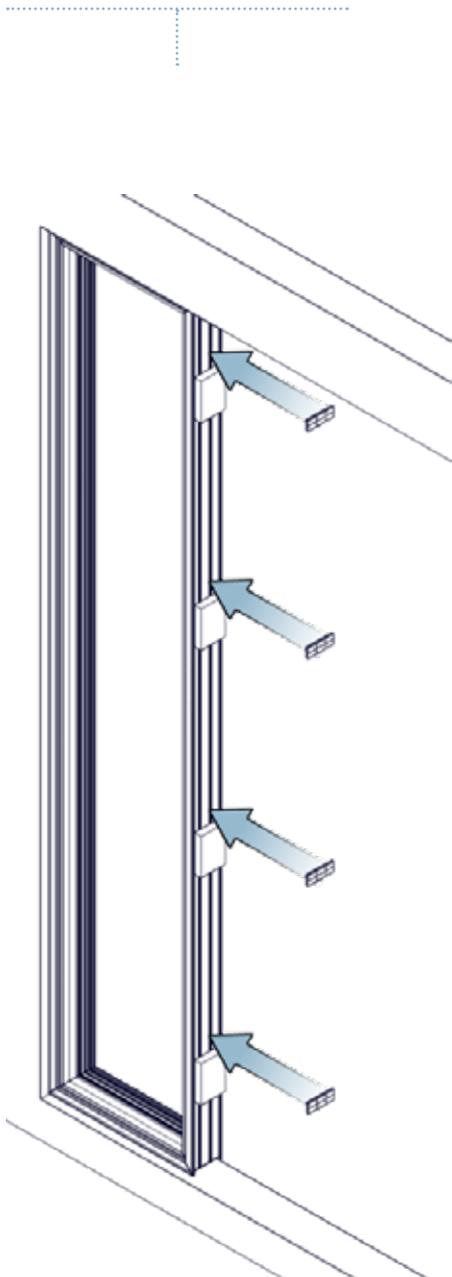
Ensure screw is flush with surface of the block



Cut down 5mm frame packers to 72mm (one for each jamb packer)

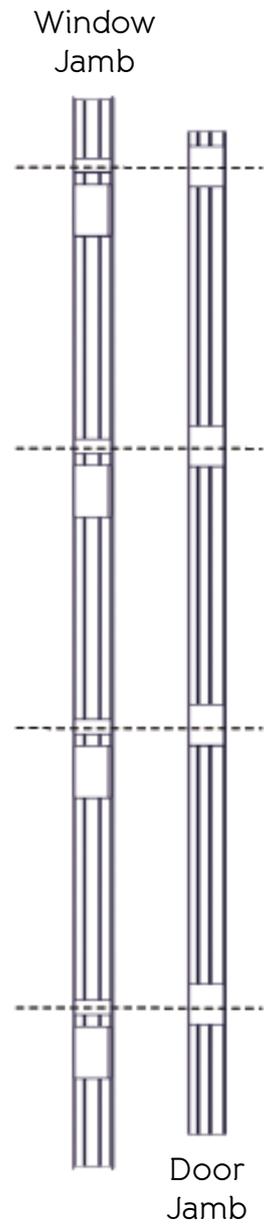
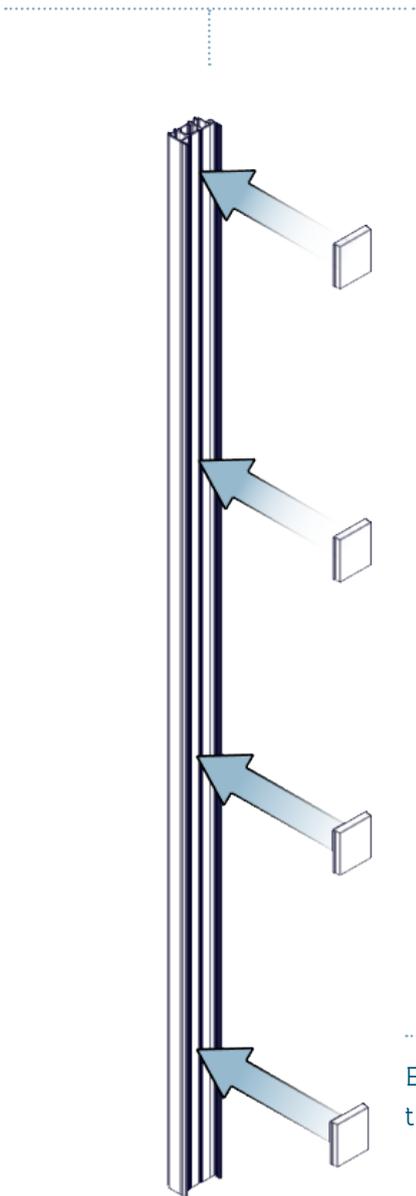


Install the glazing packers



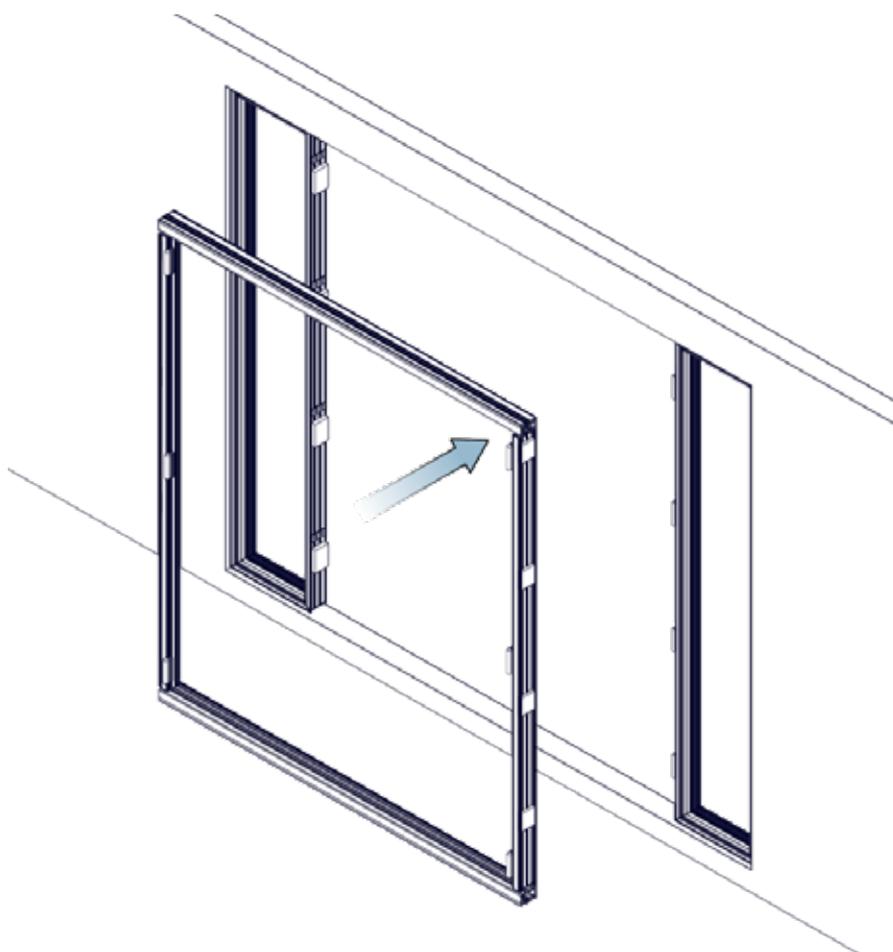
Ensure packers are positioned next to the alignment blocks

Re-position the jamb packers in the jamb



Ensure packers are spaced the same as the frame packers installed on the window frame and fix appropriately

Position the door frame
into the aperture and
pack/ clamp accordingly

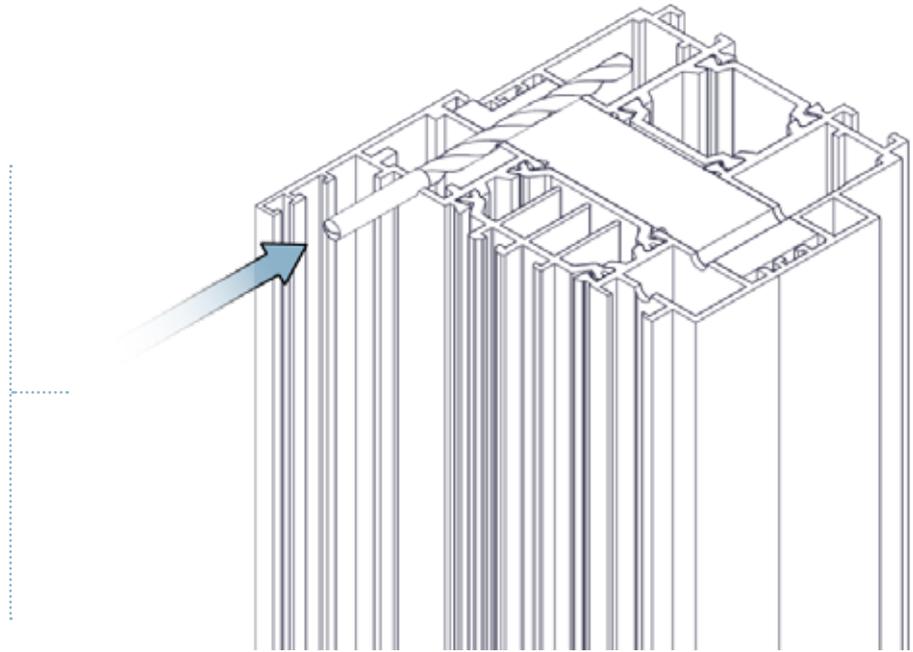


Window-to-jamb Coupler Installation Guide

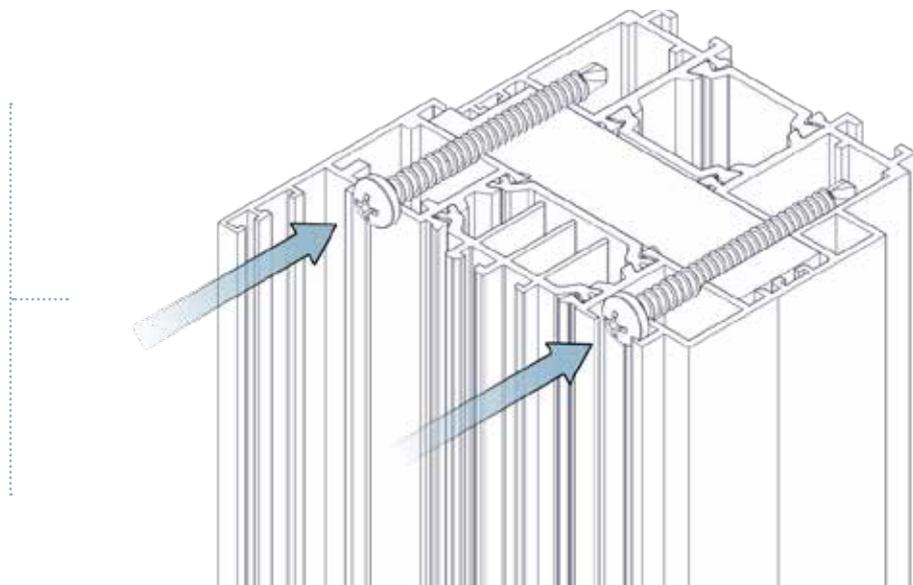


*Do not drill into
gasket chamber*

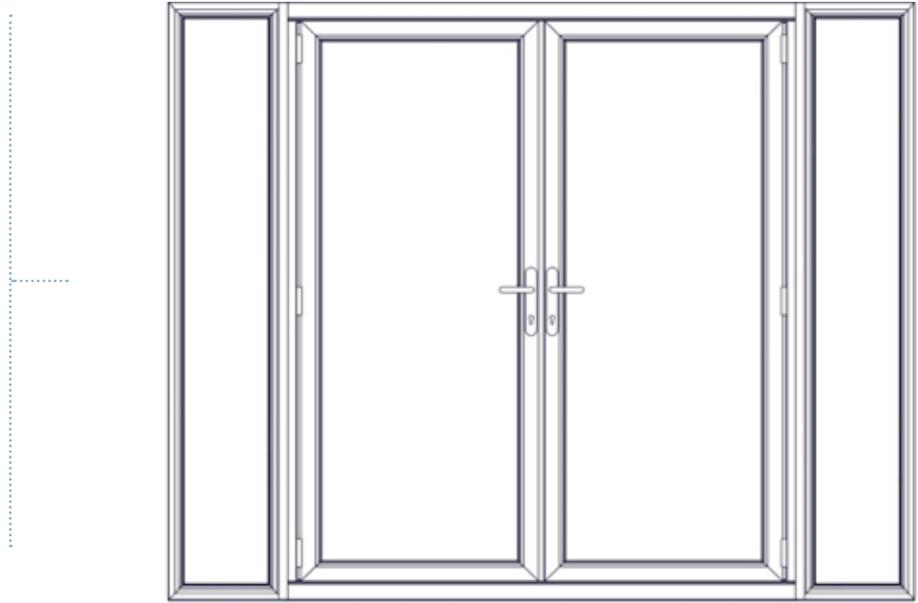
Pre-drill the frame
with a 3mm drill bit as
shown for every jamb
packer used



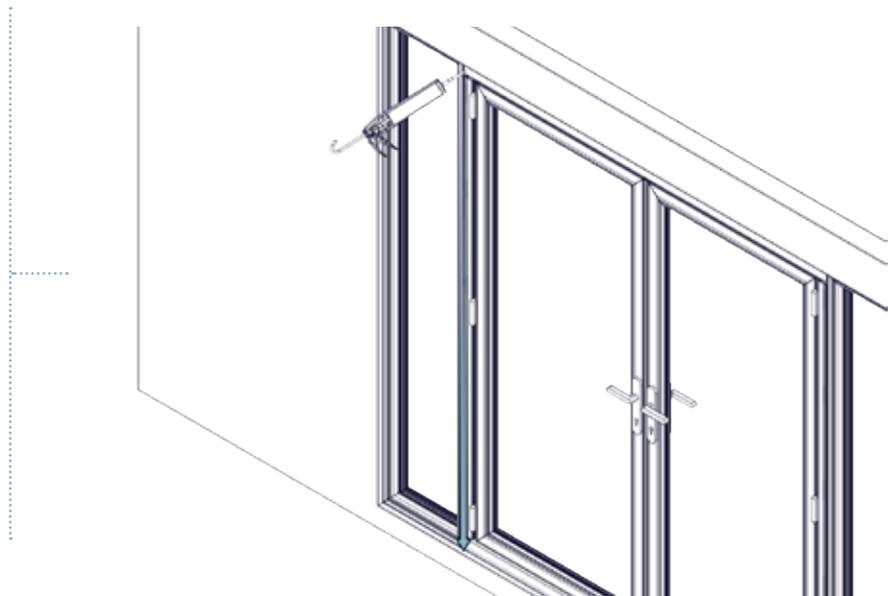
Using supplied screws, fix
the window frame to the
door jamb through the
jamb packers



Install door sash,
windows and glass
as described in the
Installation Guide

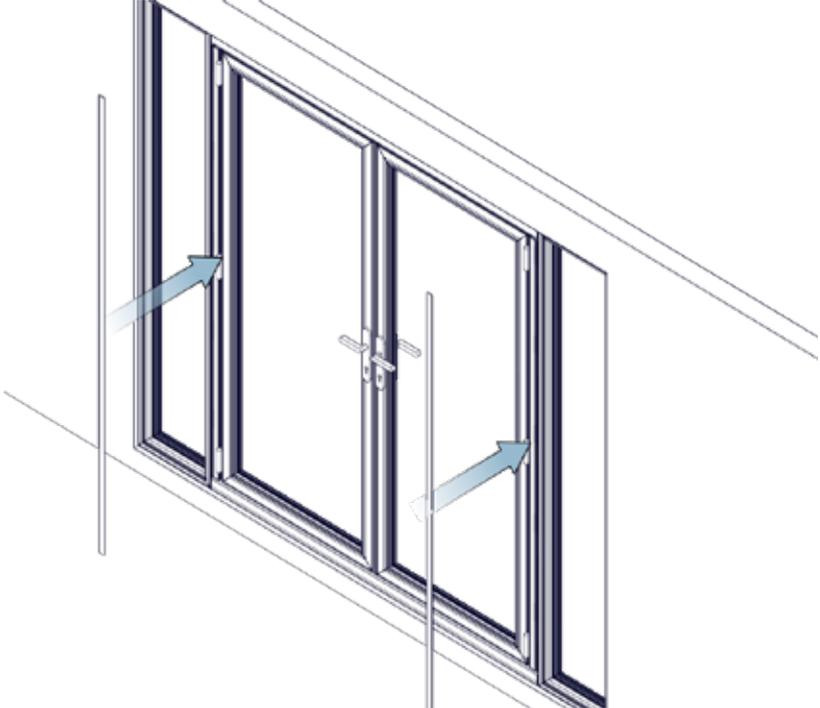


Seal the joint, between the
window and door frame,
making sure the joint is
completely weatherproof

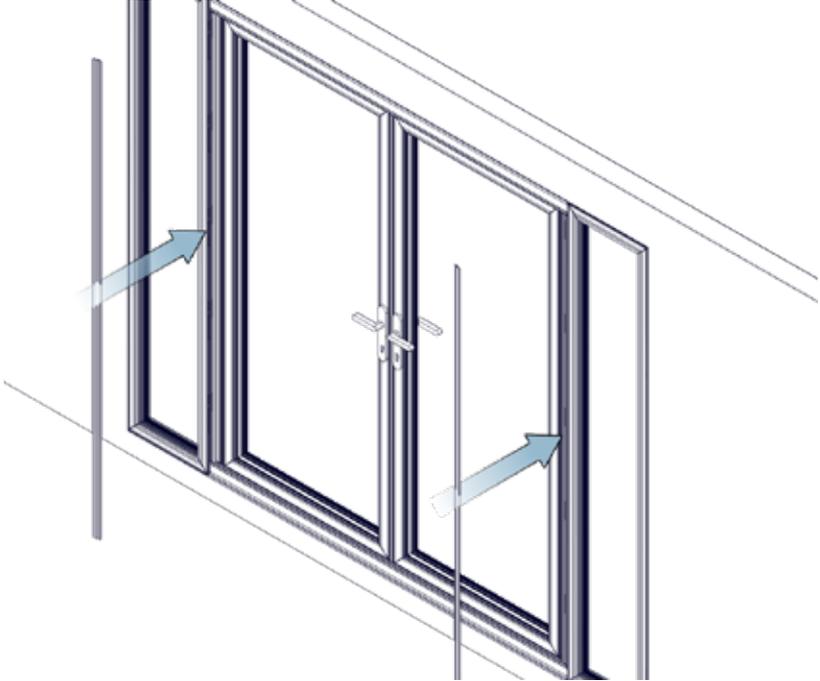


Window-to-jamb Coupler Installation Guide

Cut and fit supplied trim inside (flat) ...

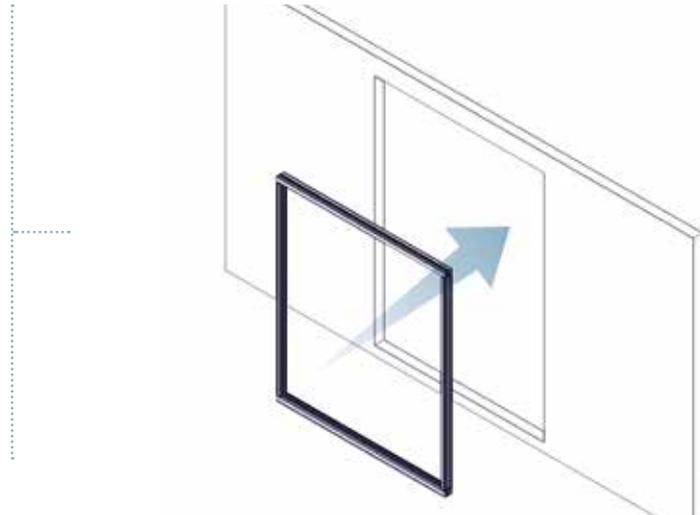


...and out (stepped)

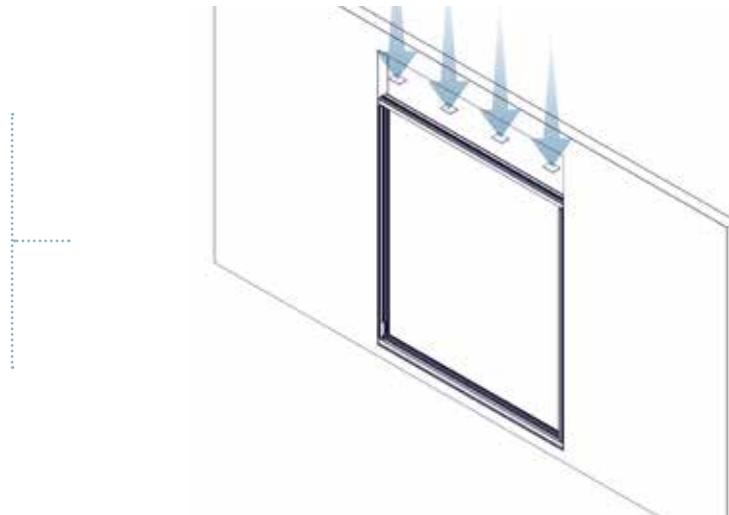


Window-to-track Coupler Installation Guide

Install door jambs and tracks as described in the Installation Guide

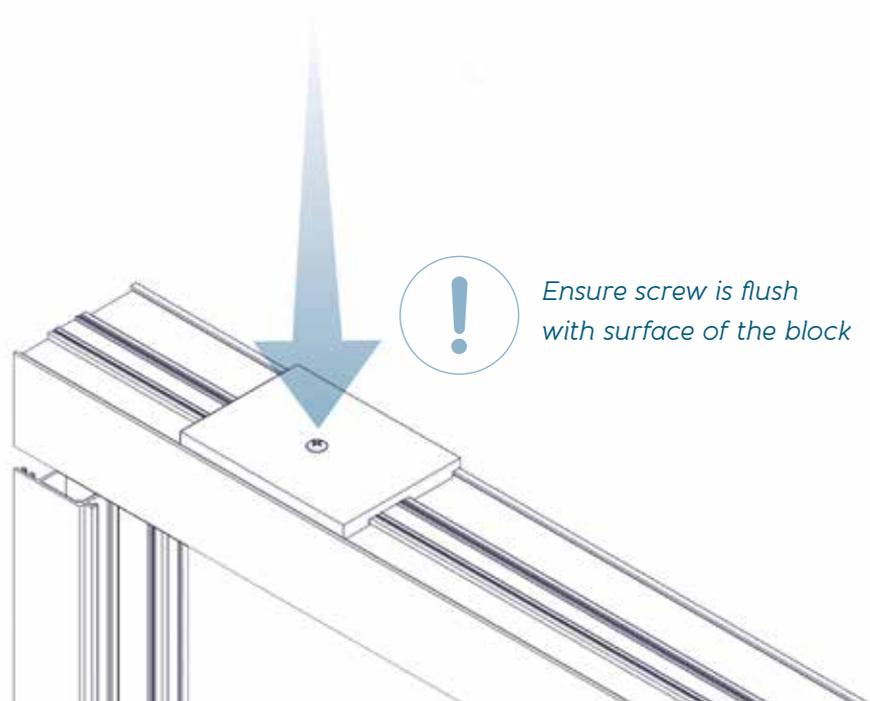
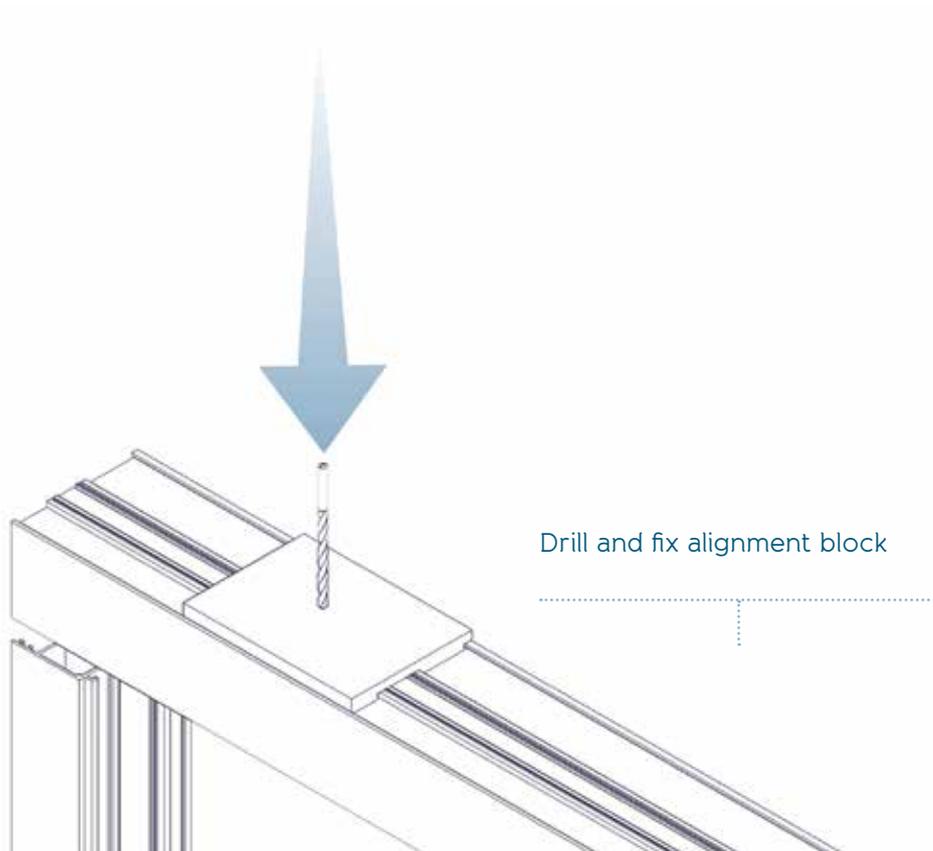


Place fixing blocks along the top track

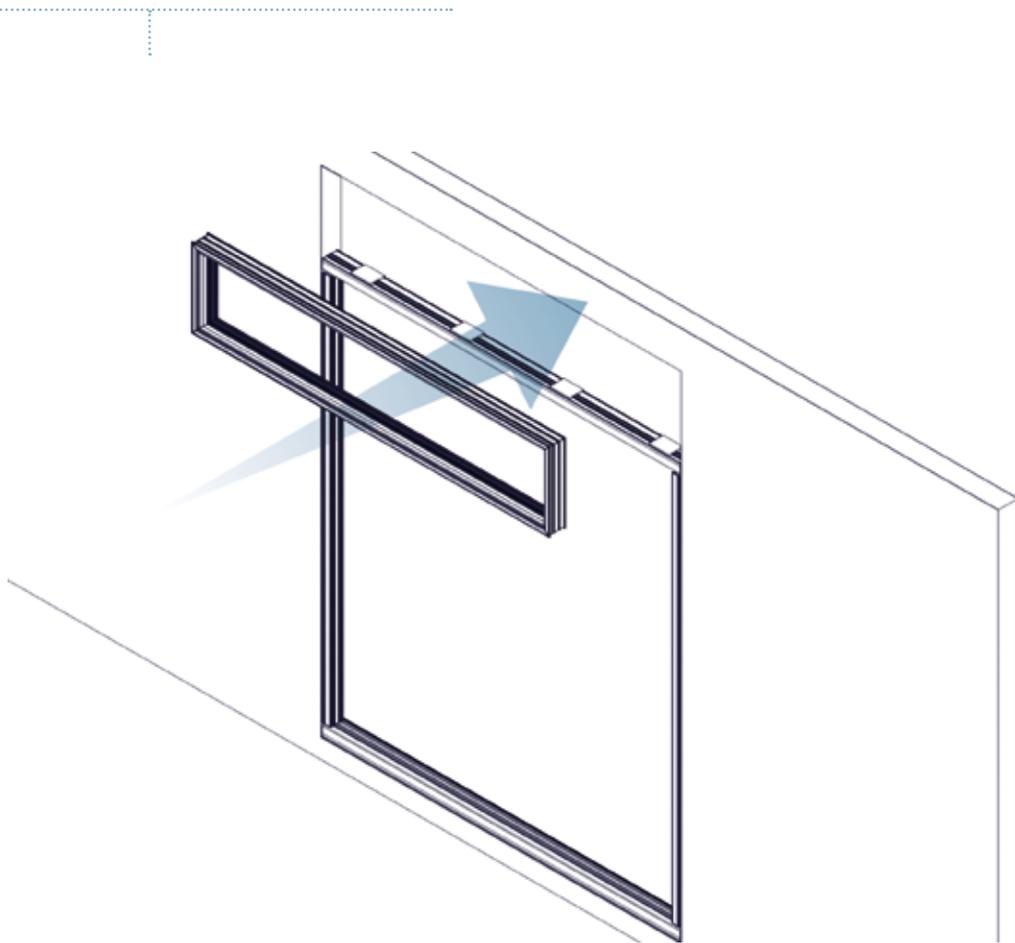


Ensure blocks are spaced evenly as shown

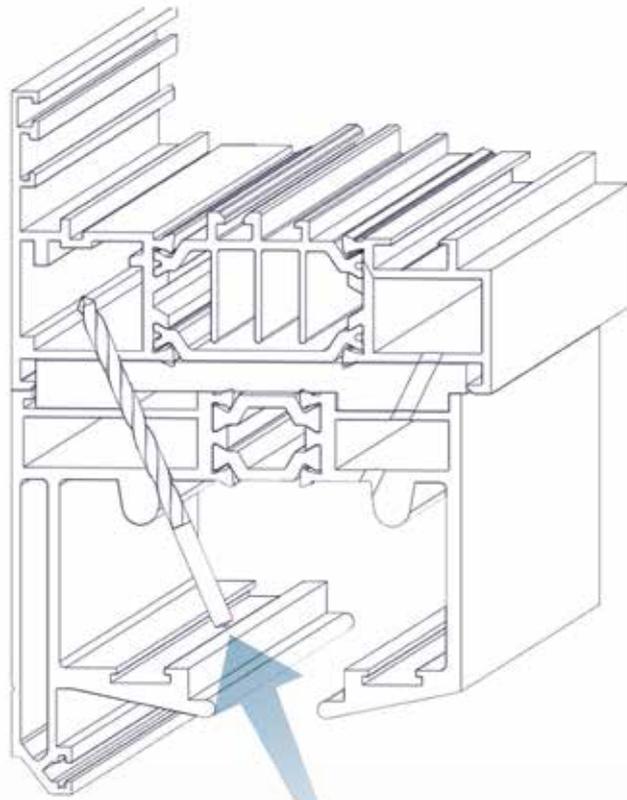




Install window above the door using clamps/
windbags to secure into position

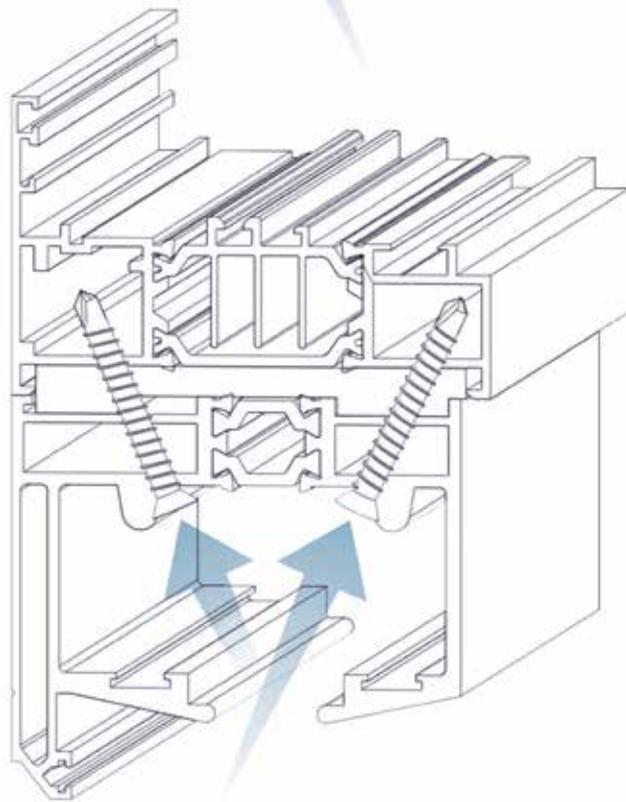


Pre-drill the frame with a 3mm long series drill bit as shown for every alignment block used

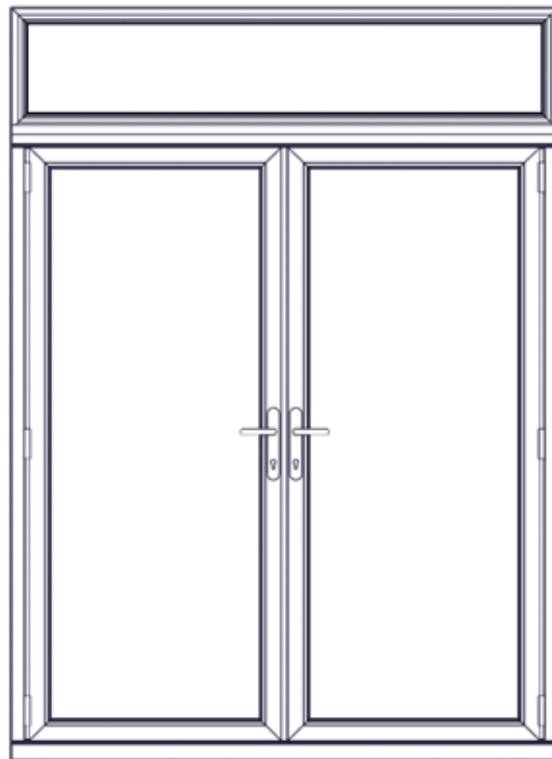


Do not drill into the window cavity

Using screws supplied, fix the track to the window frame



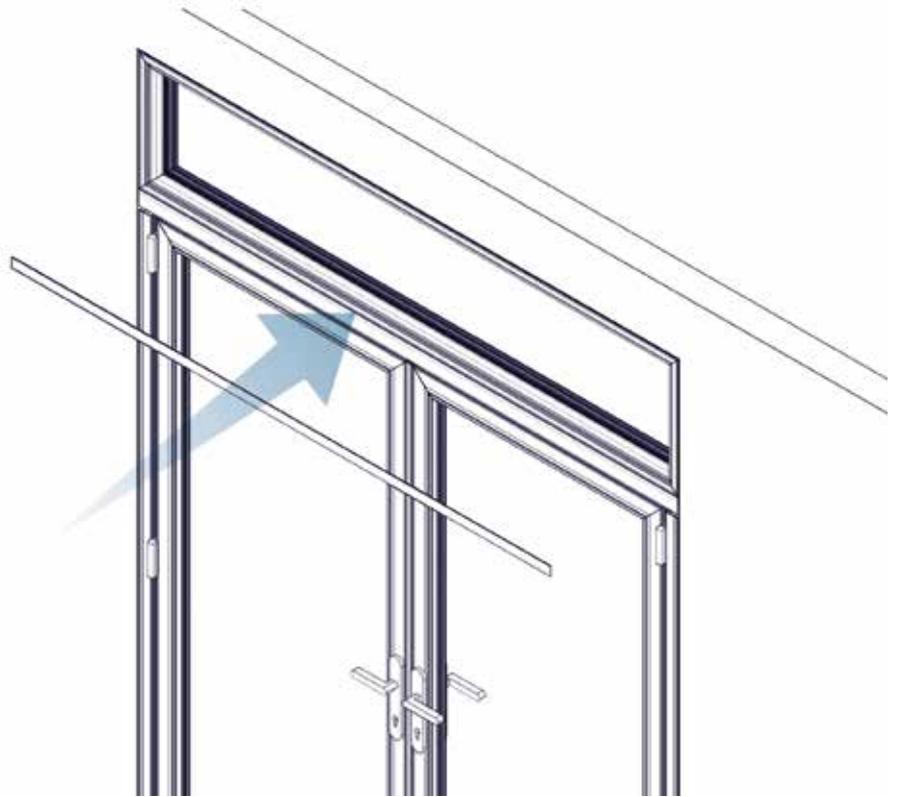
Install door sash,
window and glass
as described in the
Installation Guide



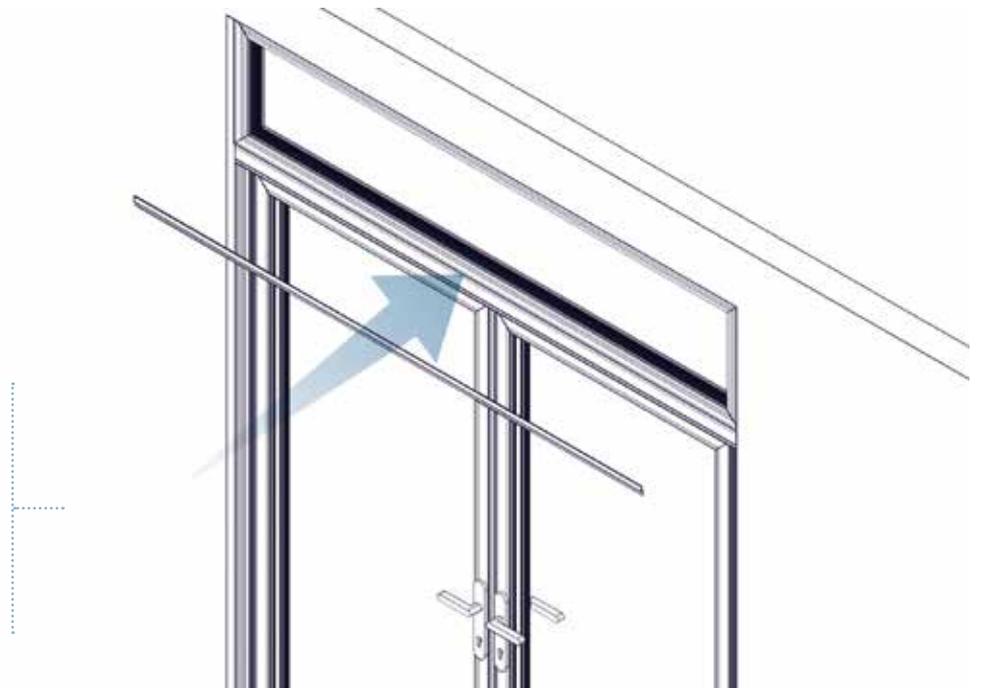
Silicone the joint between
the track and window
frame to ensure the joint is
completely weatherproof



Inside

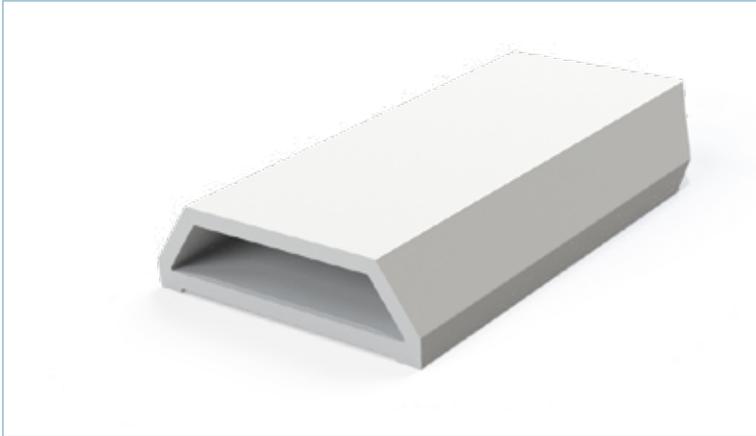


Outside



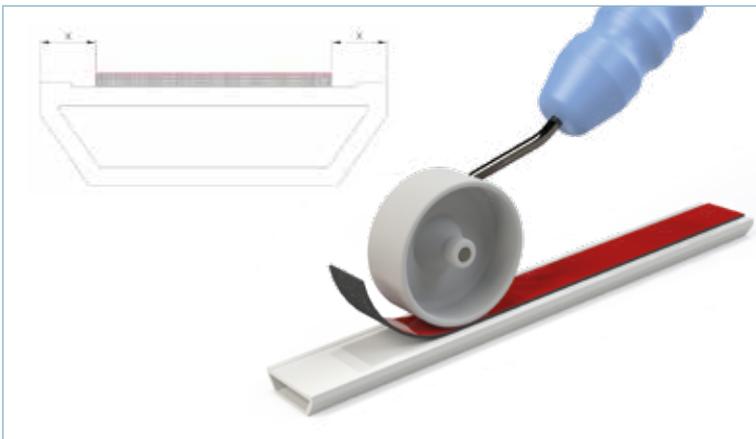
Cut and fit supplied trim
inside (flat) and out (step)

Georgian Bar Installation Guide



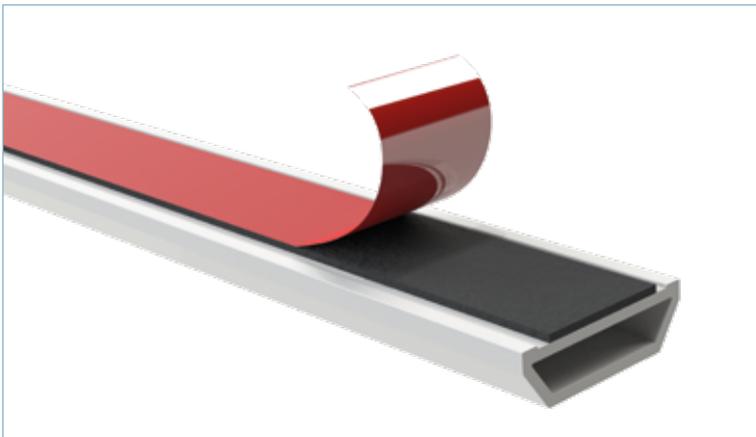
NB: The Georgian bars are supplied as 10m bar lengths (2x5m) with 13m tape. The tape will need to be bonded to the lengths of the bar.

1. Once glass is fully installed, ensure the glass is clean. It is recommended to use a saline solution or glass primer.
2. Measure the sash, and using the approximate deductions from the offset table, cut the bars to length with the appropriate angles.



Note: All deductions are oversize to reduce wastage. Bars will need to be trimmed to ensure a seamless joint.

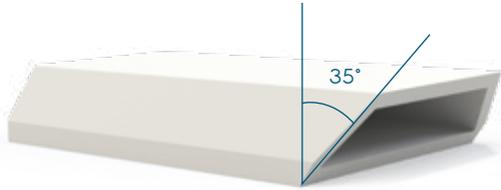
3. Clean the underside of the Georgian bar using a saline solution or primer.
4. Place tape on the underside of the Georgian bar, ensuring it remains central along the bar. It is recommended that a roller is used for this to ensure strongest bond.



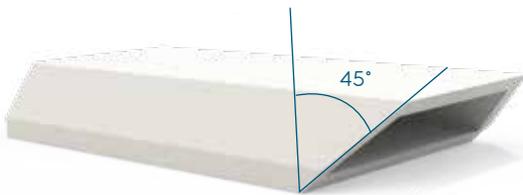
5. Before removing red backing, offer the bars up to the glass and check for size, trim as required.
6. Remove red backing of the tape and press bar firmly onto the glass.

Note: deductions are all approximate and are given as a guideline. Final trimming should ensure a snug fit.

Georgian Bar Window Offsets

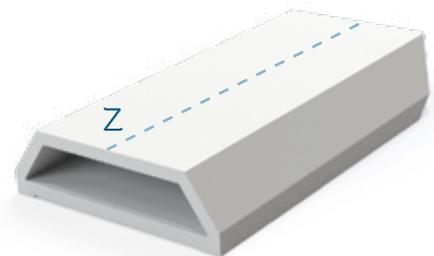
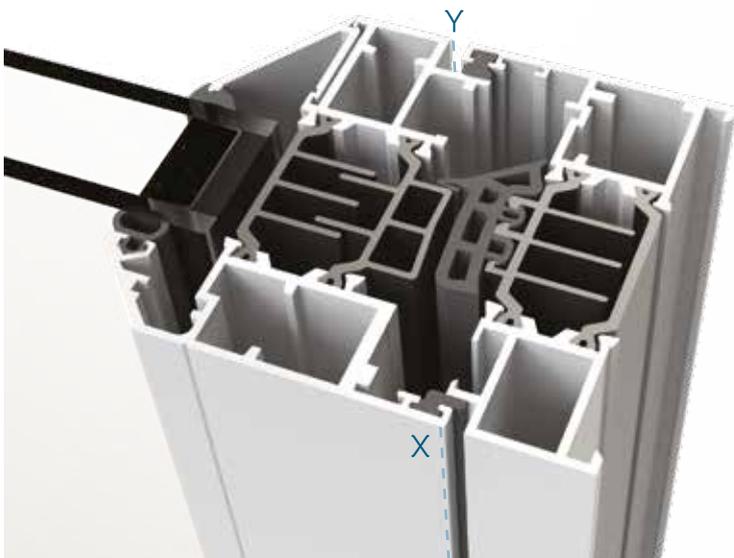
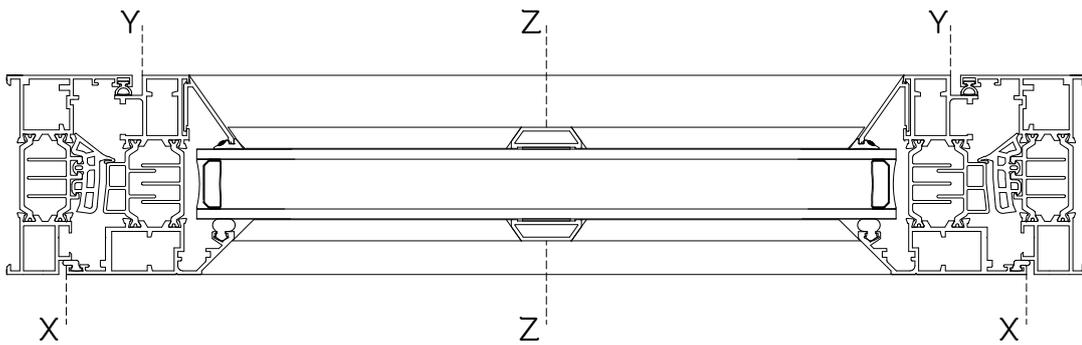


Full lengths	Cut Angle	Approximate Deduction
Sash Rebate to Sash Rebate	45°	X to X - 134mm
28mm Bead	35°	X to X - 138mm
44mm Bead	45°	X to X - 135mm

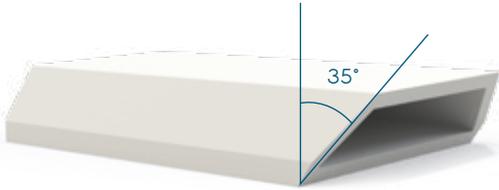


Crossover	Cut Angle	Approximate Deduction
Bar to Bar	35°	Z to Z - 25mm
Rebate to Bar	45° + 35°	X to Z - 81mm
28mm Bead to Bar	45°	Y to Z - 150mm
44mm Bead to Bar	45° + 35°	Y to Z - 149mm

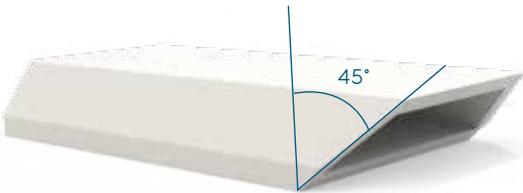
(X to Y dimension = 30mm)



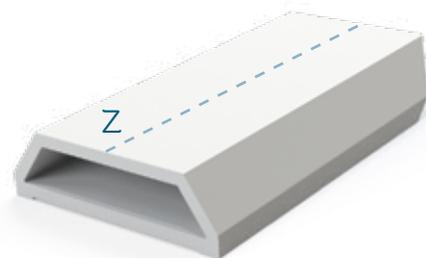
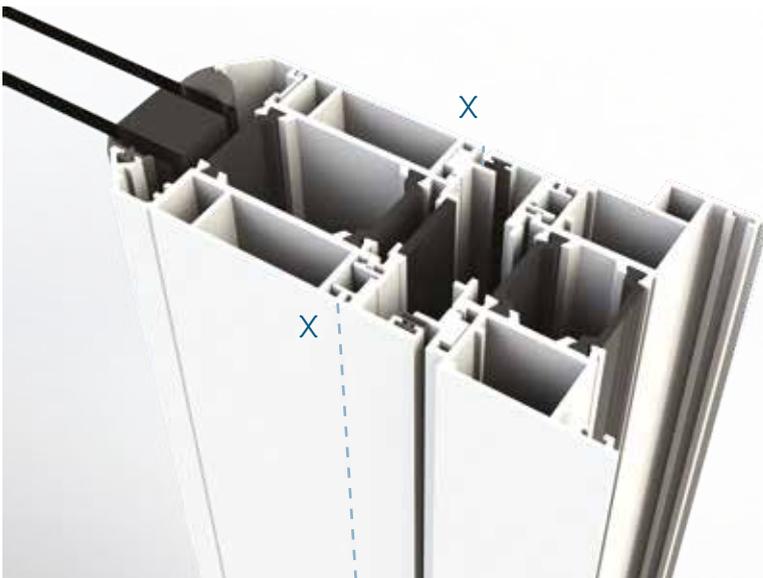
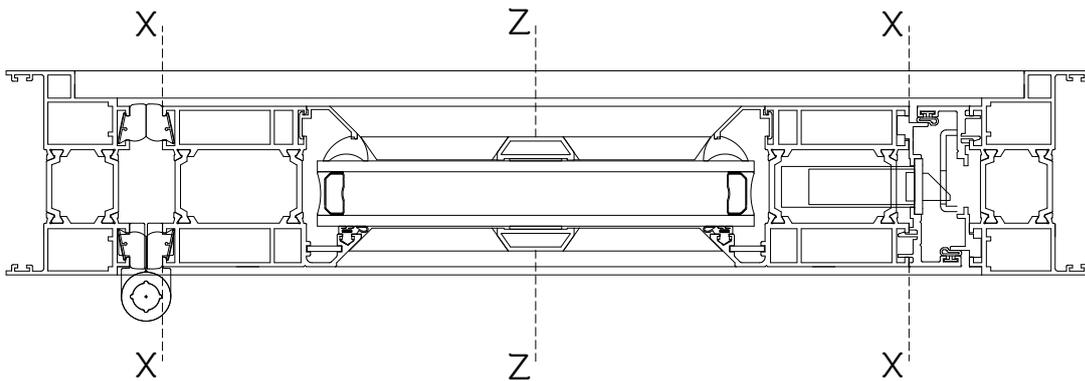
Georgian Bar Door Offsets



Full lengths	Cut Angle	Approximate Deduction
Rebate to Rebate	45°	X to X - 143mm
24mm Bead	35°	X to X - 150mm
28mm Bead	35°	X to X - 151mm



Crossover	Cut Angle	Approximate Deduction
Bar to Bar	35°	Z to Z - 25mm
Rebate to Bar	45° + 35°	X to Z - 84mm
24mm Bead to Bar	35°	X to Z - 90mm
28mm Bead to Bar	45° + 35°	X to Z - 88mm



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