



origin
DOORS AND WINDOWS

Premium Window (OW-80) Specification File



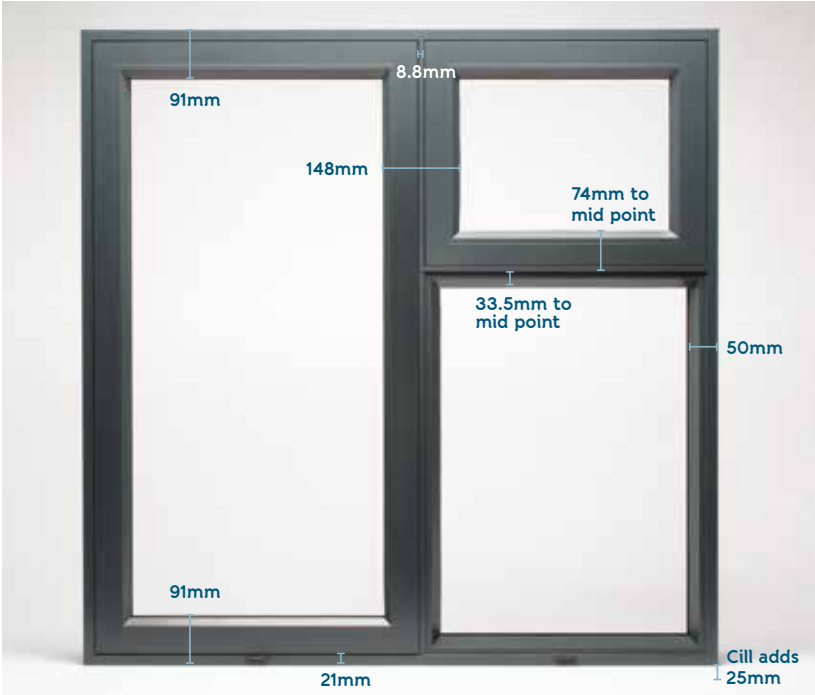
A close-up photograph of a dark-colored window frame, likely aluminum or steel, with a silver handle. The window is partially open, showing the internal mechanism and the glass pane. The lighting is soft, highlighting the metallic textures and the geometric lines of the frame.

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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

- ▶ Casement, fixed, bay, gable and French window configurations available
- ▶ Accommodates double and triple glazing, with unit sizes of 28mm, 32mm or 44mm
- ▶ Georgian bar option
- ▶ Open out or fixed
- ▶ 95, 155, 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.

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Specification Overview

The OW-80 is available on our ‘Your Lead Time, Not Ours’ delivery promise in our most popular colours, 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 and French windows:	24-hours
Special colour casement and French windows:	3-weeks
Popular colour gable 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



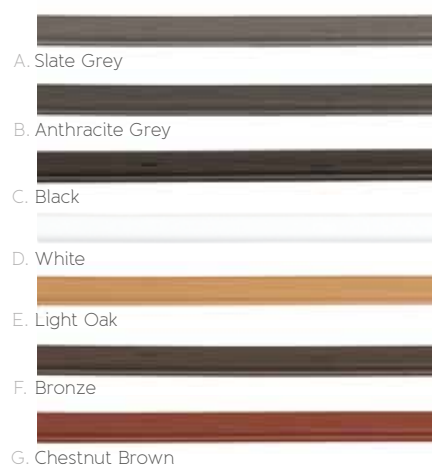
Walnut

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 and drainage cap colour is your choice...

	Window Colour	Recommended Gasket Colour
A.	7015M	Slate Grey
A.	9007M	Slate Grey
B.	7016M	Anthracite Grey
C.	9005M	Black
C.	7021M	Black
D.	9910G	White
E.	Natural Oak	Light Oak
E.	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

Drainage cap colours

Popular Colour	Gasket Colour	Drainage Cap Colour	Code
9007M (Dark Silver Metallic)	Light Grey	No. 38 Grey	C01349
7021M (Black Grey)	Anthracite Grey	Dark Grey	C01350
9005M (Jet Black)	Black	Black	C01163
7015M (Slate Grey)	Slate Grey	Dark Grey	C01350
9006M (Light Silver Metallic)	Light Grey	Cement Grey	C01352
9910G (Hipca White)	White	White	C01353
7016M (Anthracite Grey)	Anthracite Grey	Dark Grey	C01350
Natural Oak	Light Oak	Oak	C01354
Golden Oak	Light Oak	Tan	C01355
Walnut	Bronze	Black	C01163
Mahogany	Chestnut Brown	Black	C01163

Security

The OW-80 is PAS 24:2016 certified and Secured by Design Accredited.

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.

For more information on Secured by Design, please see page 90.



**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 45 and 46 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 offer a property more of a traditional style.

See page 86 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.

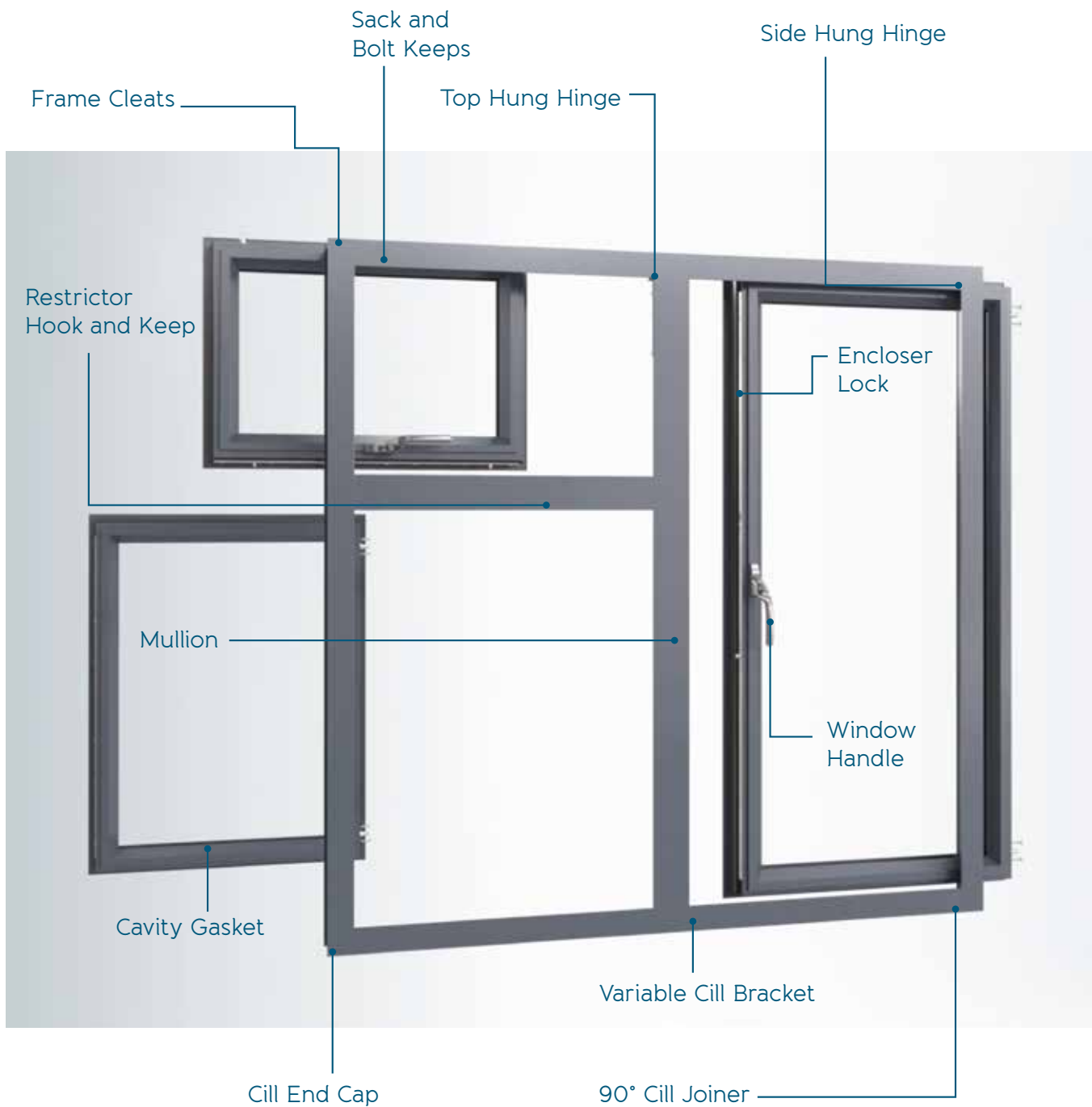
Since then, aerogels have been used in a wide range of applications from space exploration (Stardust launch and Mars exploration rovers) to the commercial manufacture of building insulation, clothing, tennis rackets, supercapacitors and thickening agents in cosmetics.

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/ Km2K (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 24:2016 Certified (Document Q Compliant)
BS EN 10088-2 Grade Certified
Secured by Design accredited

Building Regulation Requirements

New Build and Extensions	2.0W/m²K
Replacements	1.6W/m²K
Energy Rating	B and C or better

All windows must conform to these requirements.

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*

Please note: the minimum and maximum sizes vary depending on the configuration. See page 27-33 for more information.

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

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 12 or visit www.origin-global.com/aluminium-windows

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



OW-80

Thermal Simulation Report

PRODUCT	OW-80 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)

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Date: 05/11/2015

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

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Stuart House, Coronation Road, Cressex Business Park, High Wycombe,
Buckinghamshire, HP12 3TA

OFDL_3.96.2

OW-80

Thermal Simulation Report

PRODUCT

OW-80 Window

SIM - SOFTWARE

Win Iso 2D Pro

GLASS CENTRE
PANE U/VALUE

0.5 W/m²K (44mm triple glazing)

INSULATION

NONE

Thermal Transmittance:

1.1 W/(m²K)

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Date: 05/11/2015

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

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OFDL_3.972

OW-80

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OW-80

Thermal Simulation Report

PRODUCT	OW-80 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)

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DOORS AND WINDOWS

Date: 05/11/2015

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

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Stuart House, Coronation Road, Cressex Business Park, High Wycombe, Buckinghamshire, HP12 3TA

ISO OFDL_3.98.2

OW-80

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	OW-80 (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	OW-80 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	OW-80 (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	OW-80 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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OW-80

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BS 6180:2011

Building Regulations Part K Compliance

BS 6180:2011

Barriers in and about buildings

REPORT REFERENCE:	CW17513-2
ISSUE DATE:	31 January 2018
PROJECT:	Multi-light Barrier Window
PREPARED FOR:	Origin Frames Ltd Stuart House, Coronation Road, Cressex Business Park, High Wycombe, Buckinghamshire, HP12 3TA
TEST HOUSE:	Build Check Ltd

SAMPLE 1	TEST	LOAD	PASS/FAIL
	Line load	0.74 kN	Pass
	Point load	0.5 kN	Pass
	Uniform distribution load (UDL)	1.0 kN/m ²	Pass

TEST 1	LOAD	DEFLECTION	PASS/FAIL
Line load	0.96 kN	14.75	Pass
Point load glazing	0.5 kN	4.25	Pass
Point load frame	0.5 kN	4.10	Pass
Uniform distribution load (UDL)	1.06 kN/m ²	9.89	Pass

TEST 2	LOAD	RESULT
Line load	1.44 kN	Pass
Point load glazing	0.75 kN	Pass
Point load frame	0.75 kN	Pass
Uniform distribution load (UDL)	1.6 kN/m ²	Pass

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OFDL18133.1

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OW-80

Certificate of thermal simulation

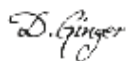
PRODUCT	OW-80 Window
SIM - SOFTWARE	Win Iso 2D Pro
GLASS CENTRE PANE U/VALUE	1.2 W/m ² K (28mm double glazing)
INSULATION	NONE

Thermal Transmittance:

1.6W/(m²K)

TESTED BY David Ginger (Product Proving Manager)

SIGNED



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DOORS AND WINDOWS

Date: 05/11/2015

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

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

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OW-80

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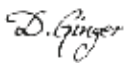
OW-80

Certificate of thermal simulation


PRODUCT	OW-80 Window
SIM - SOFTWARE	Win Iso 2D Pro
GLASS CENTRE PANE U/VALUE	1 W/m ² K (28mm double glazing)
INSULATION	AEROGEL

Thermal Transmittance:
1.4 W/(m²K)

TESTED BY David Ginger (Product Proving Manager)

SIGNED 

Date: 05/11/2015


DOORS AND WINDOWS

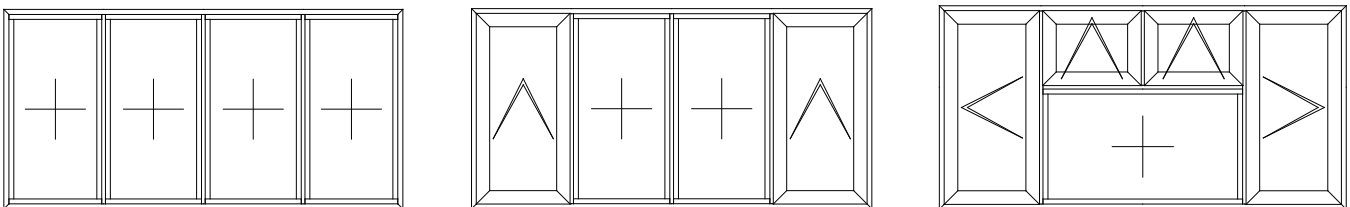
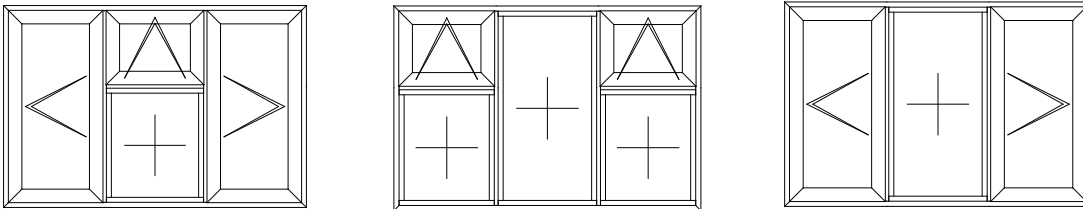
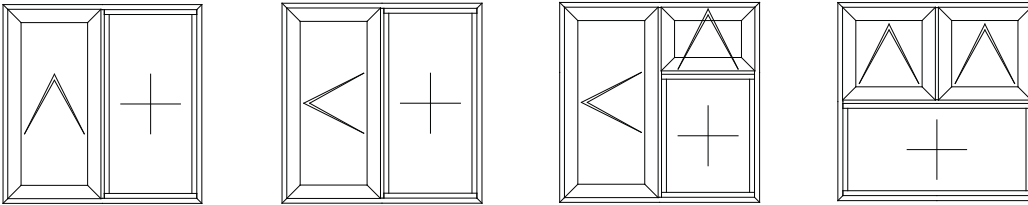
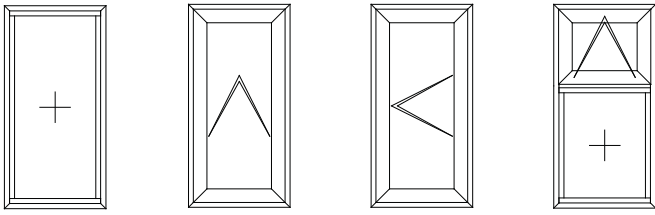
All simulations strictly in accordance with the requirements of ISO 10077-2:2015

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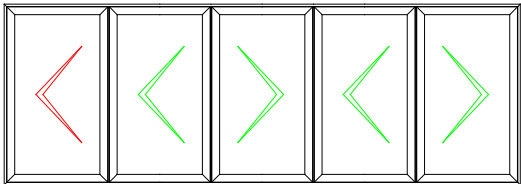
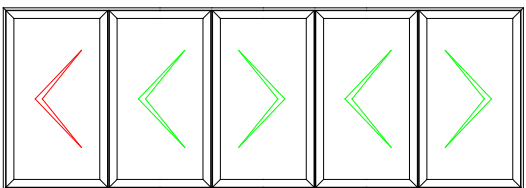
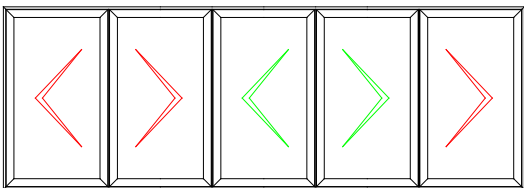
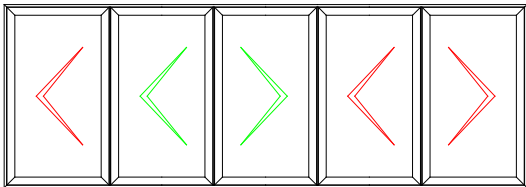
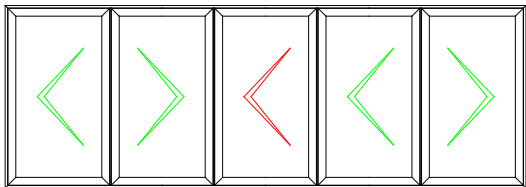
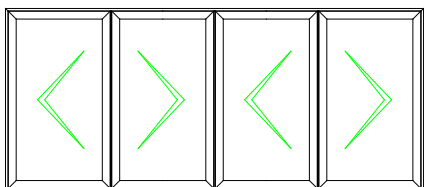
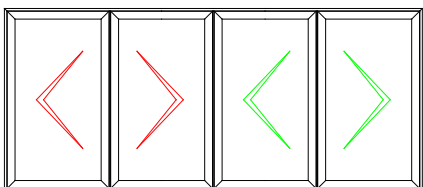
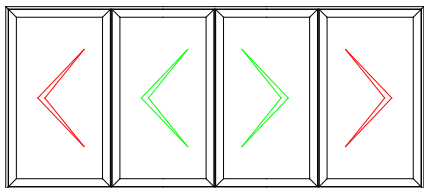
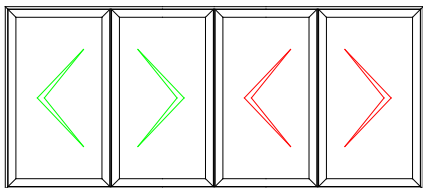
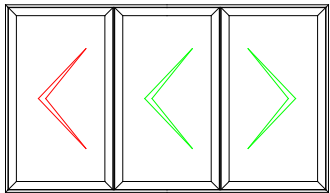
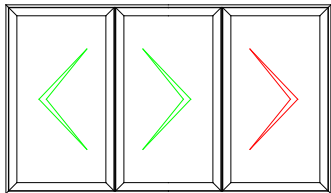
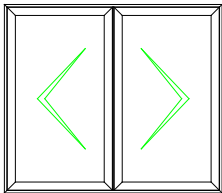
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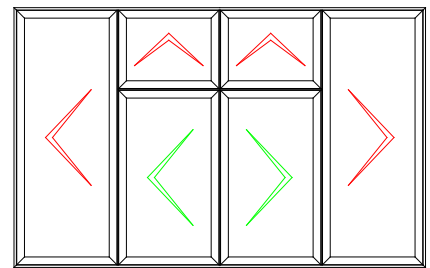
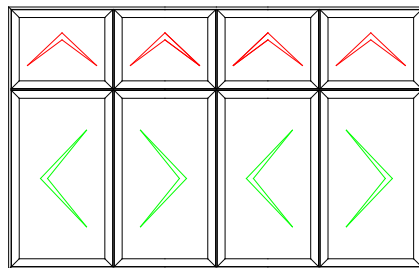
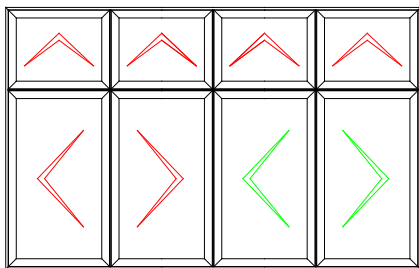
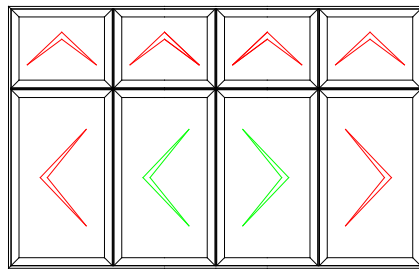
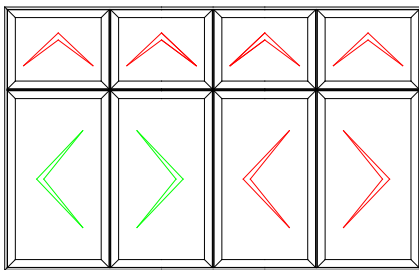
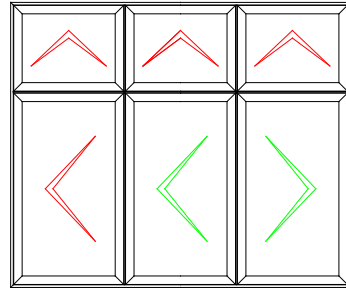
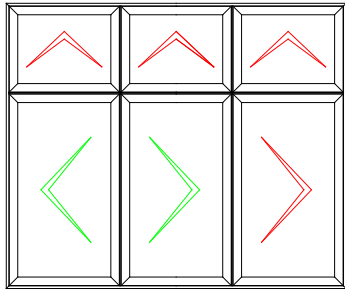
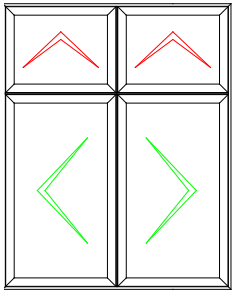
Popular Configurations



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

French Window Configurations





Key: < > French Window ^ 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.

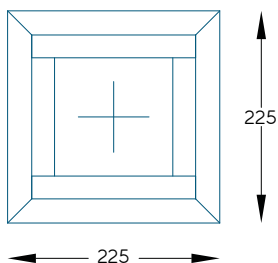
Note 2. Locks (with or without removable keys) and stays may be fitted to egress windows, subject to the stay being fitted with a release catch, which may be child resistant.

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.

French Window egress specification only applies to England and Wales only.

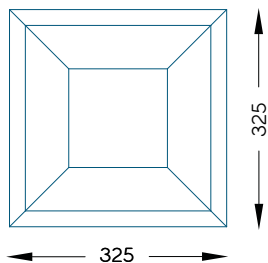
Size Guidelines

Minimum Dimensions



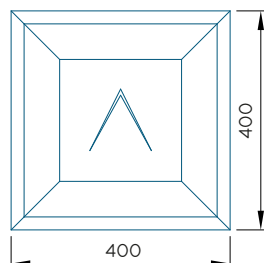
Fixed frame

Min height: 225mm
Min width: 225mm



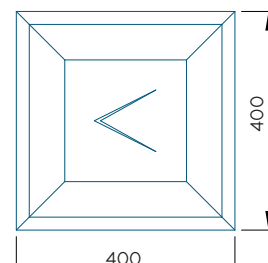
Dummy sash

Min height: 325mm
Min width: 325mm



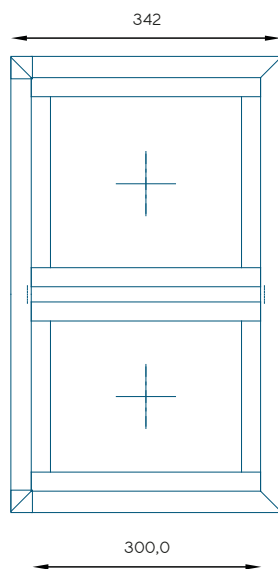
Top hung

Min height: 400mm
Min width: 400mm



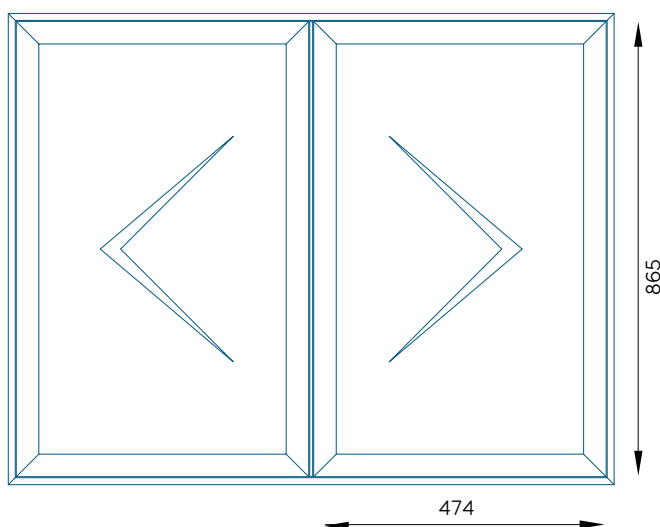
Side hung

Min height: 400mm
Min width: 400mm



Transom/Mullion

Min length: 300mm



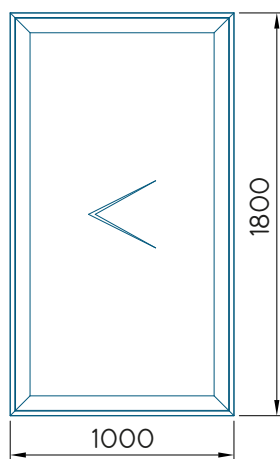
French window

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

Minimum height will be greater with a cill.

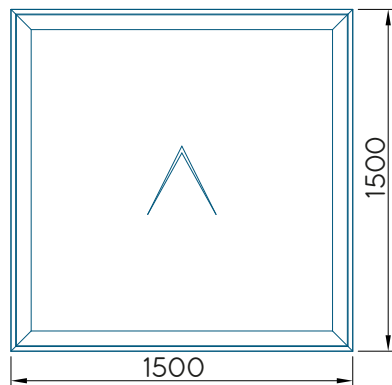
Minimum width will be greater with a frame extender.

Maximum Sash Dimensions



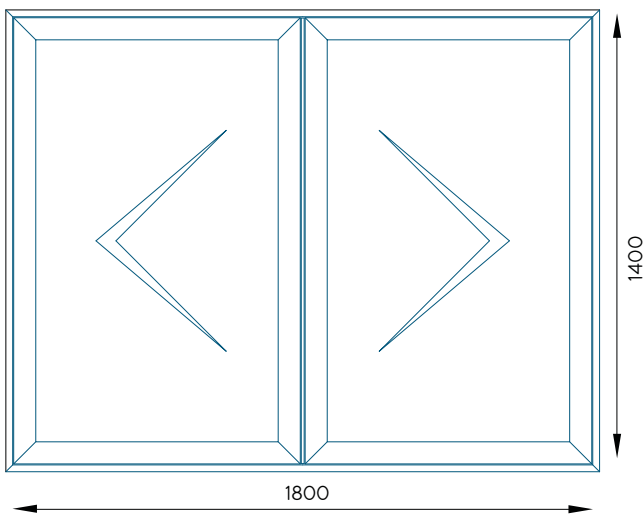
Side hung

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



Top hung

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

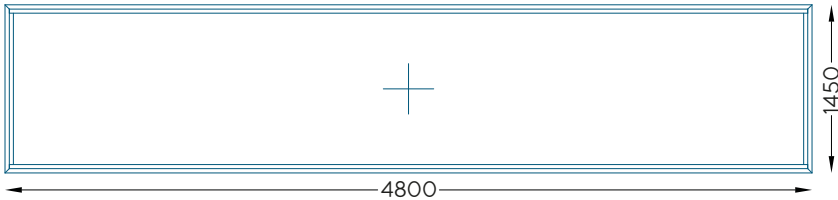


French window

Max height: 1400mm
Max width: 1800mm

Fixed Frame Maximum Dimensions

Example 1

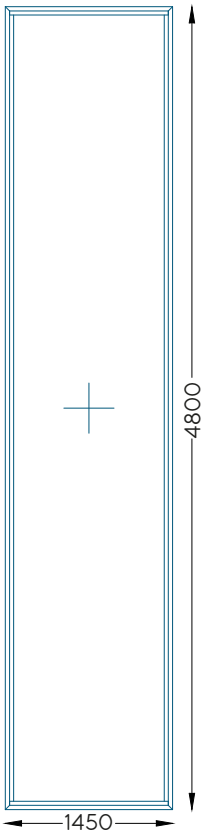


Maximum fixed width and area

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

Maximum width: 4800mm

Example 2

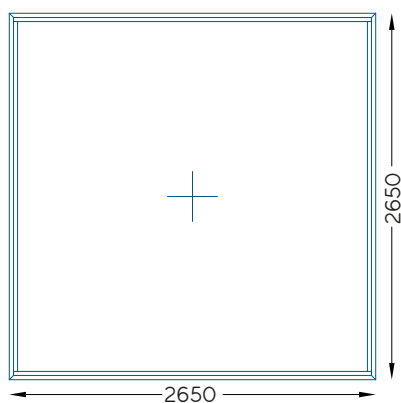


Maximum fixed height and area

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

Maximum height: 4800mm

Example 3



Maximum fixed area

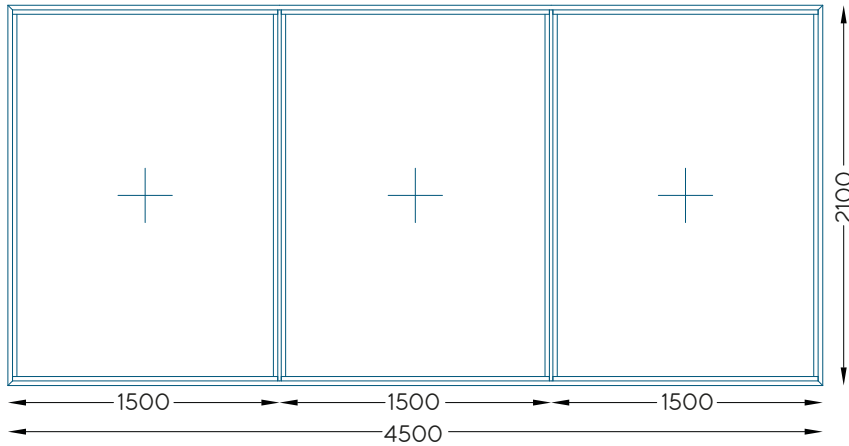
Maximum area: 2650mm x 2650mm = approx 7m²

Maximum height: 2650mm

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

Maximum Mullion/ Transom Length

Example 1



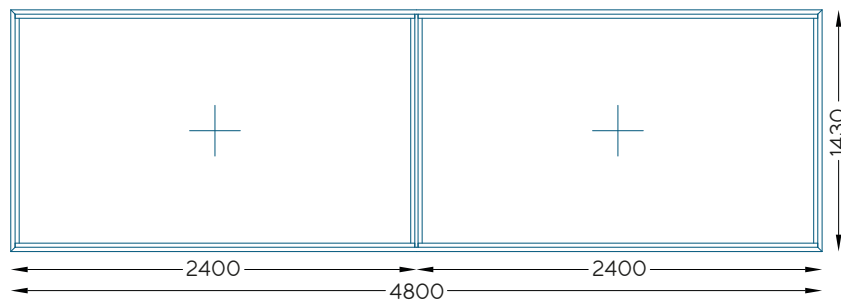
Maximum mullion length and glazed area next to a mullion/ transom

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



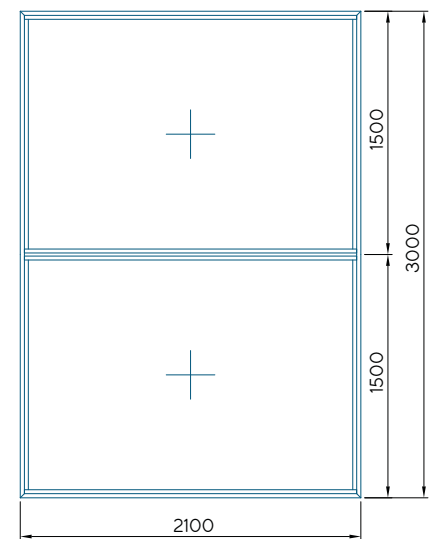
Maximum glazed area next to a mullion or transom

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



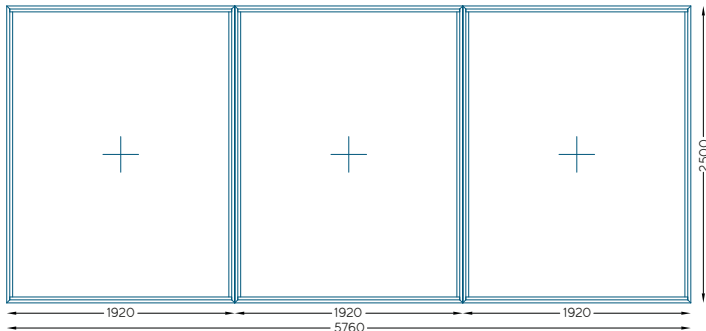
Maximum transom

Transom under maximum width of 2100mm

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

Maximum Coupled Length

Example 1

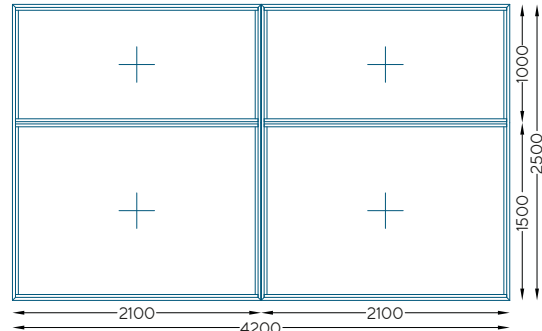


Maximum coupled height with maximum individual glazed area

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



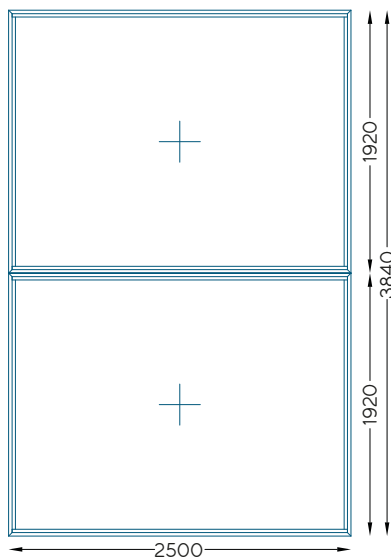
Maximum coupled height with a maximum transom

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

Maximum coupled height: 2500mm

Maximum transom length: 2100mm

Example 3

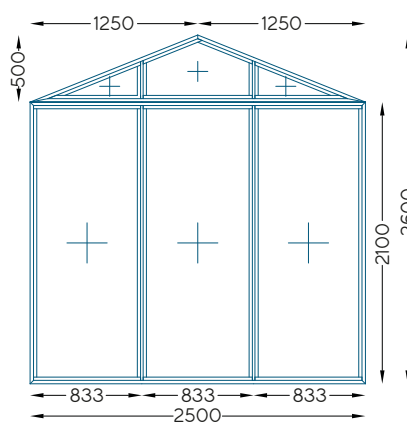


Maximum coupled width

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

Maximum coupled length: 2500mm

Example 4



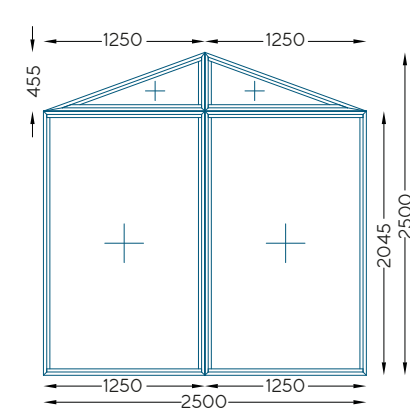
Maximum coupled gable width, minimum gable corner angle and maximum mullion

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

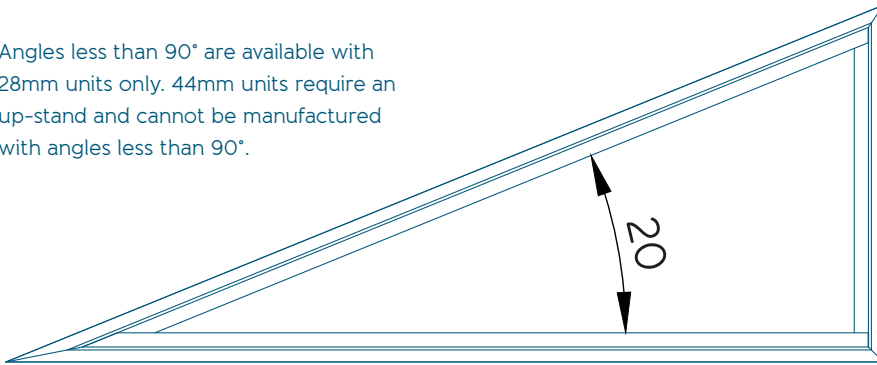
Maximum coupled width and height: 2500mm

Tightest gable corner angle: 20°

Gables

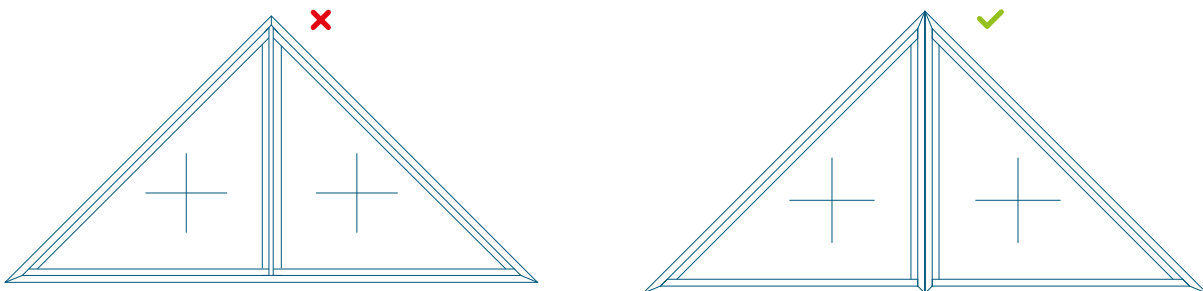
Minimum gable angle: 20°

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:

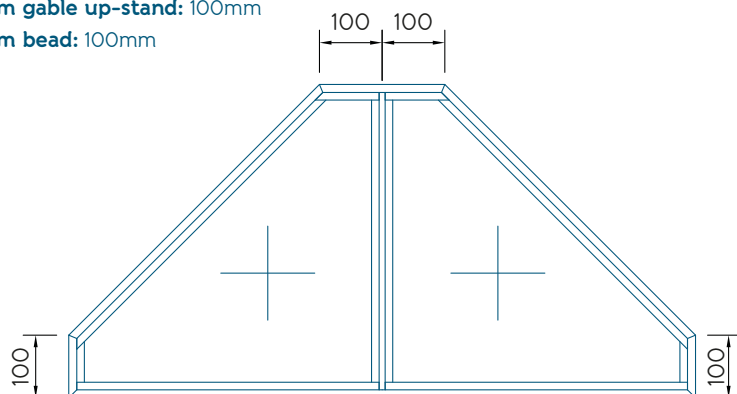


In this instance, the gable must be made out of two parts and coupled together.

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.

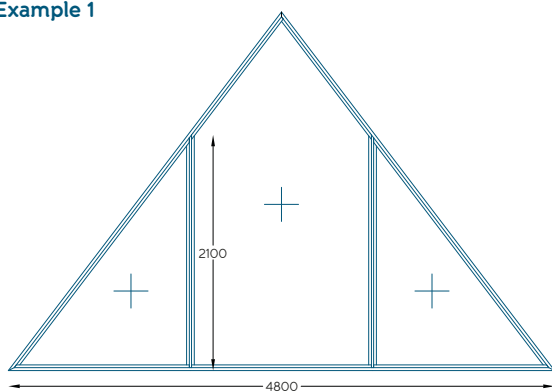
Maximum Gable Size

Maximum mullion length: 2100mm

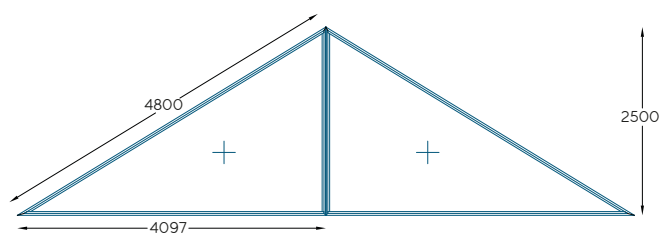
Maximum profile length: 4800mm

Maximum coupled length: 2500mm

Example 1

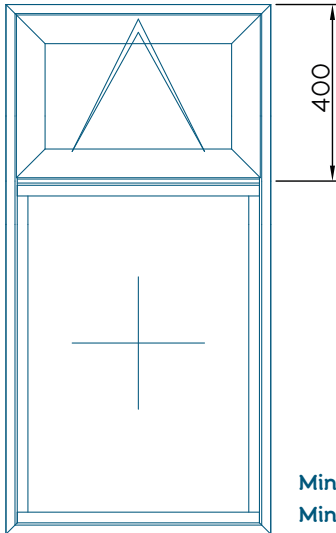


Example 2



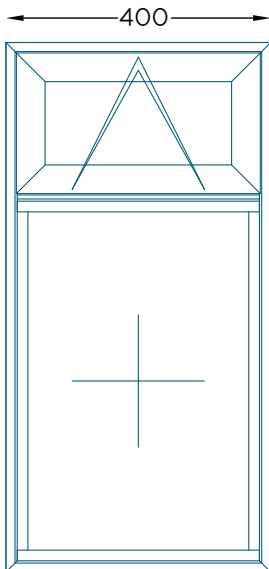
Technical Drawings

Minimum Transom Drop



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

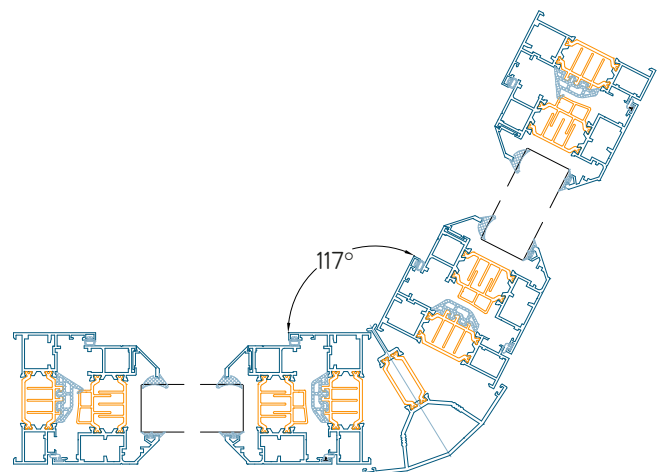
Minimum Sash Width With Trickle Vent



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

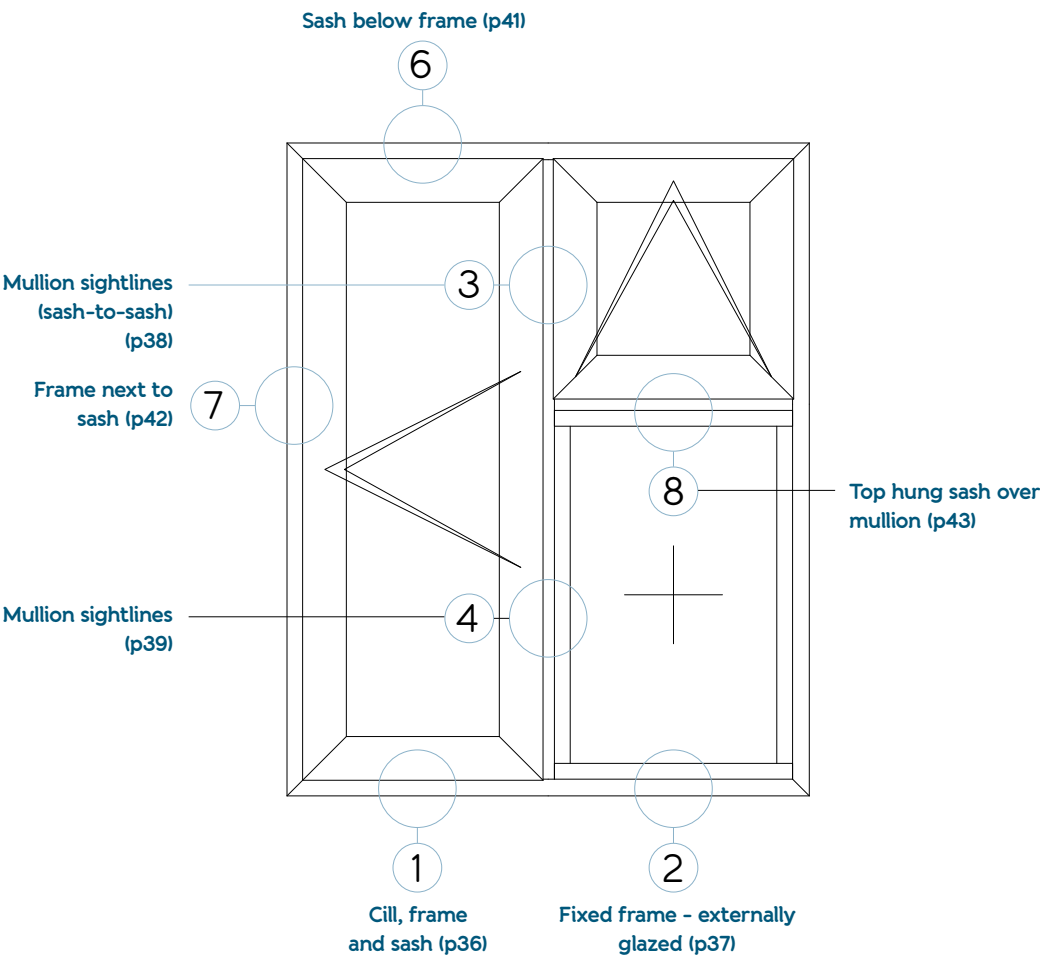
Bay Window Tightest Angle

Tightest bay angle: 117°

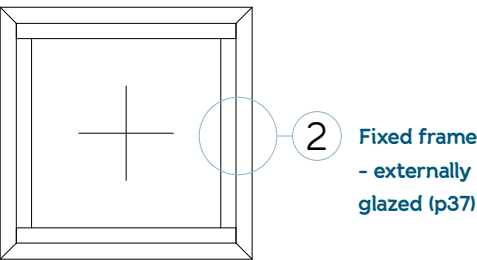


*Minimum airflow requirements to be adhered to as per building regulations.

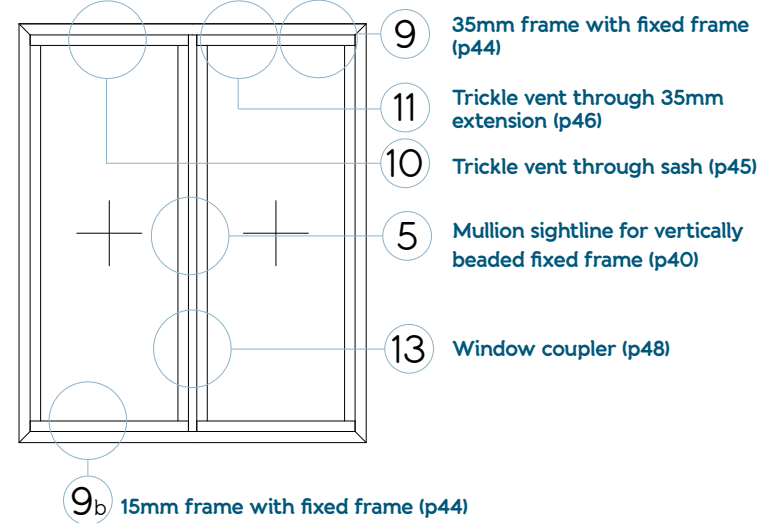
Casement



Fixed

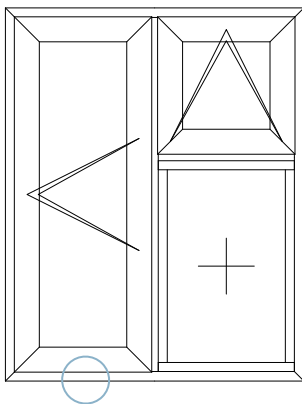
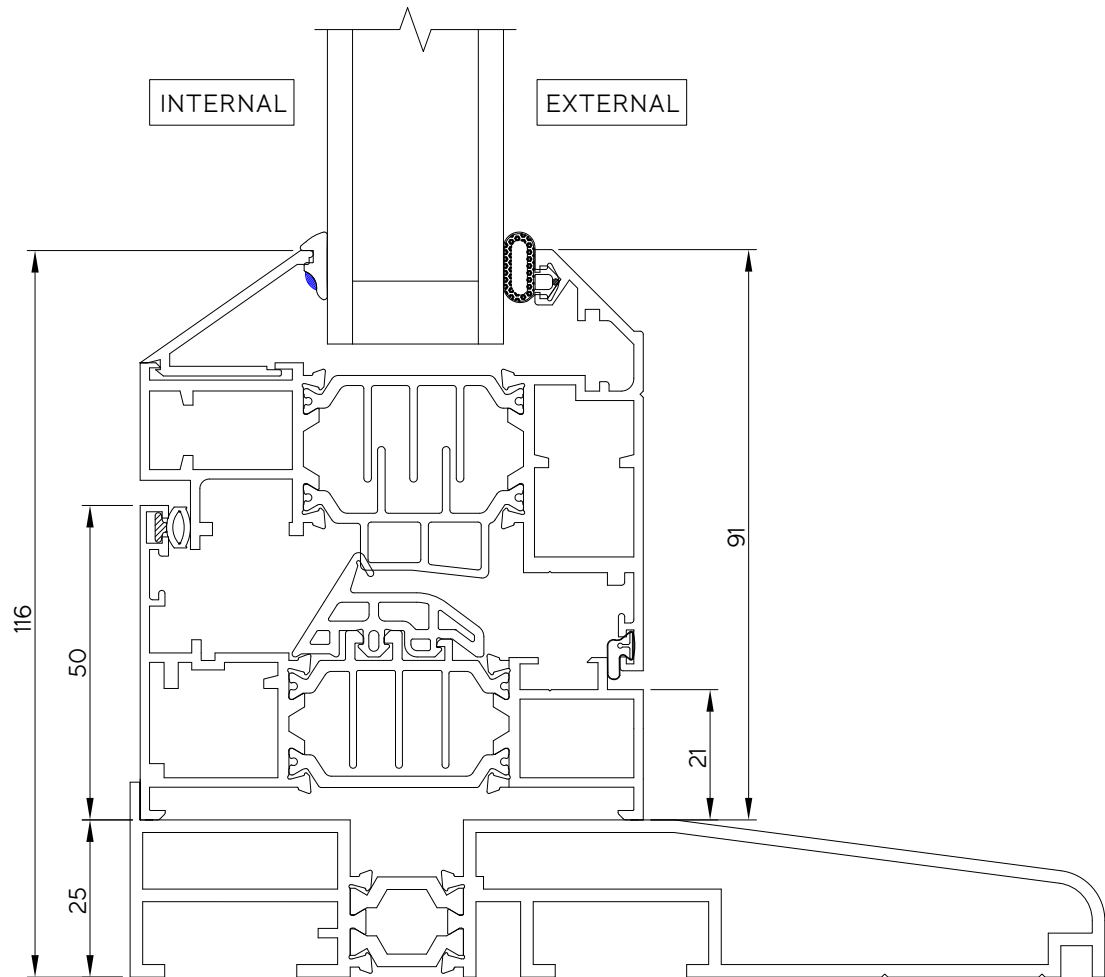


Mullion sightlines for fixed frames

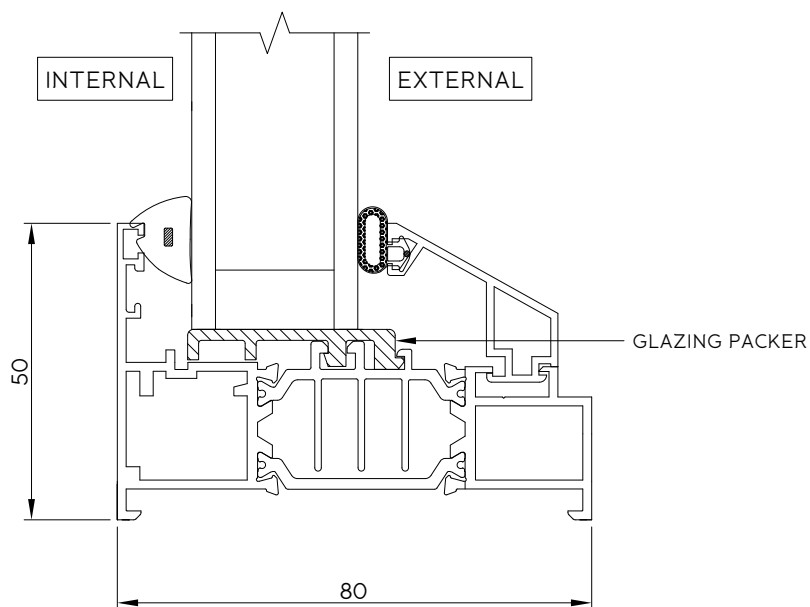


1

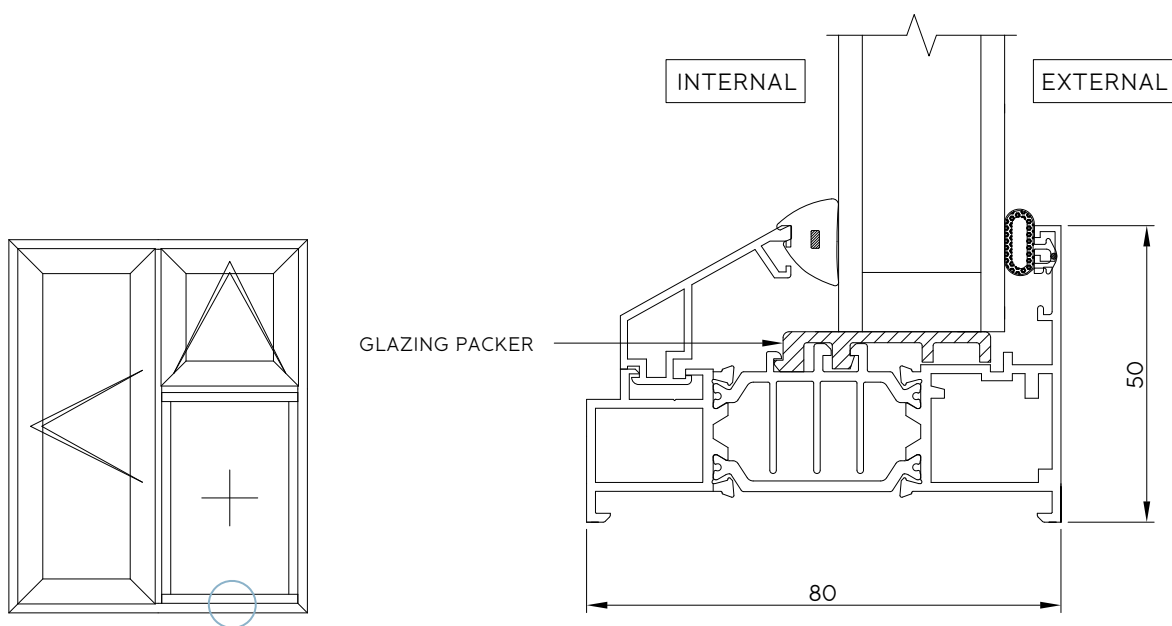
Cill, Frame and Sash



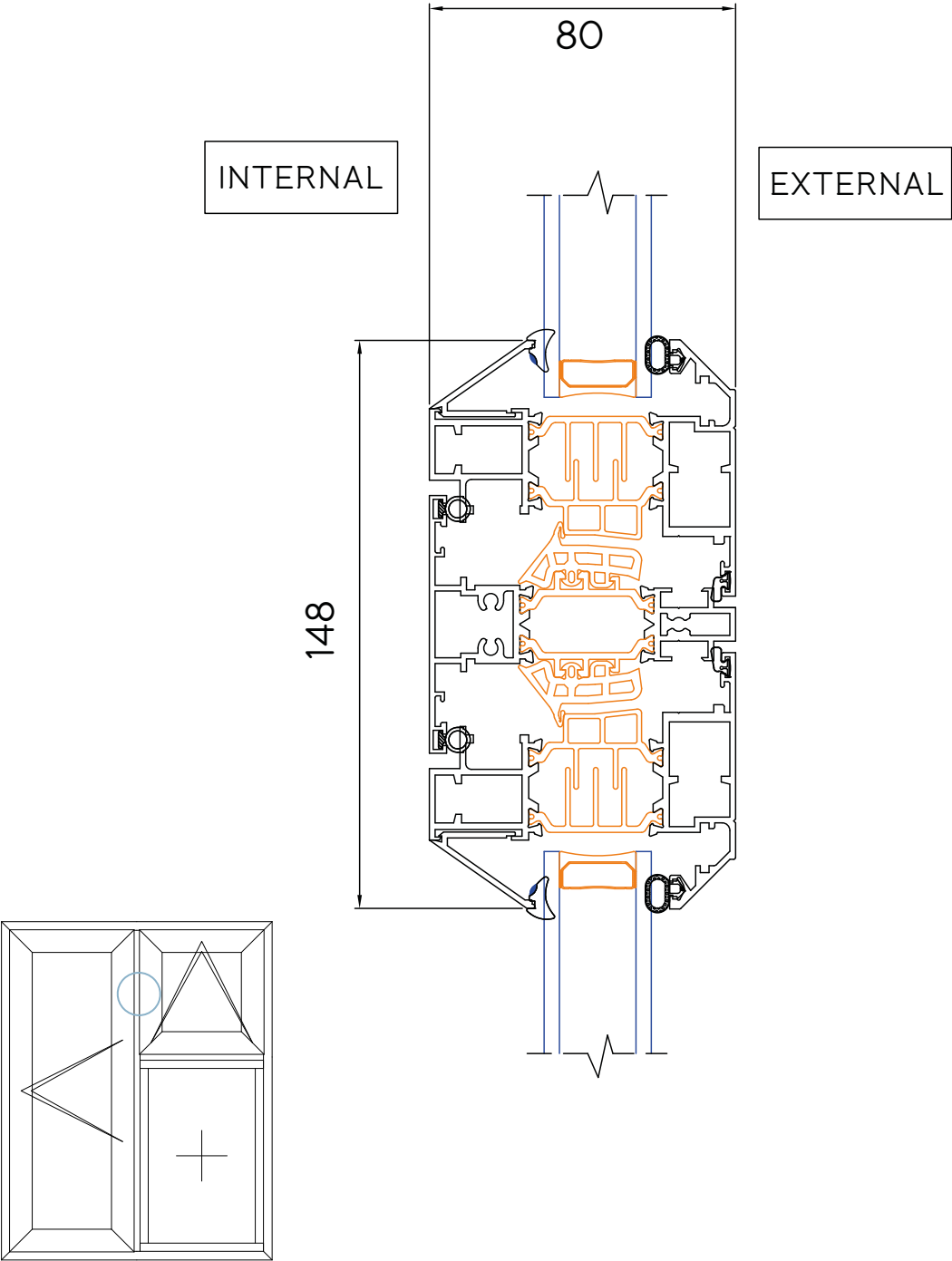
2a Fixed Frame - External Bead



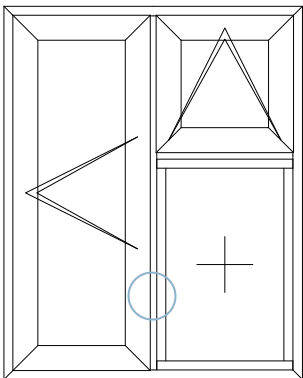
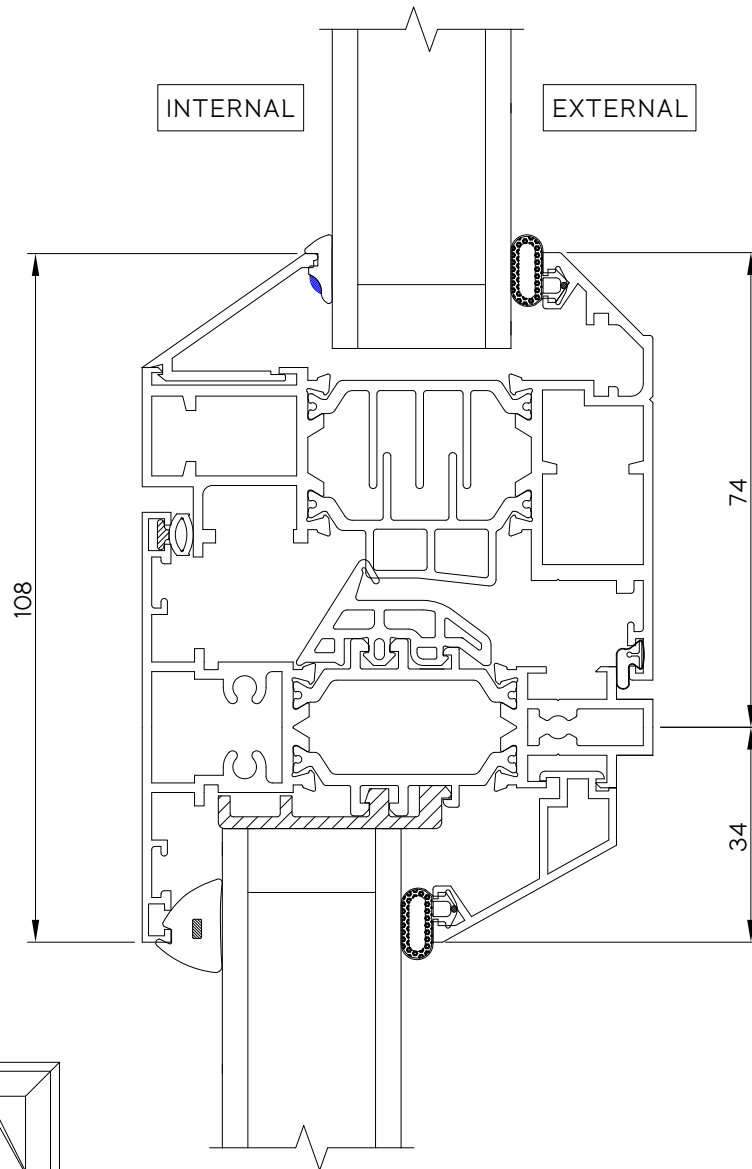
2b Fixed Frame - Internal Bead



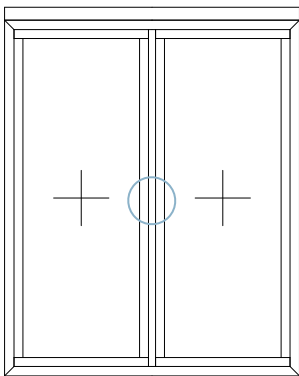
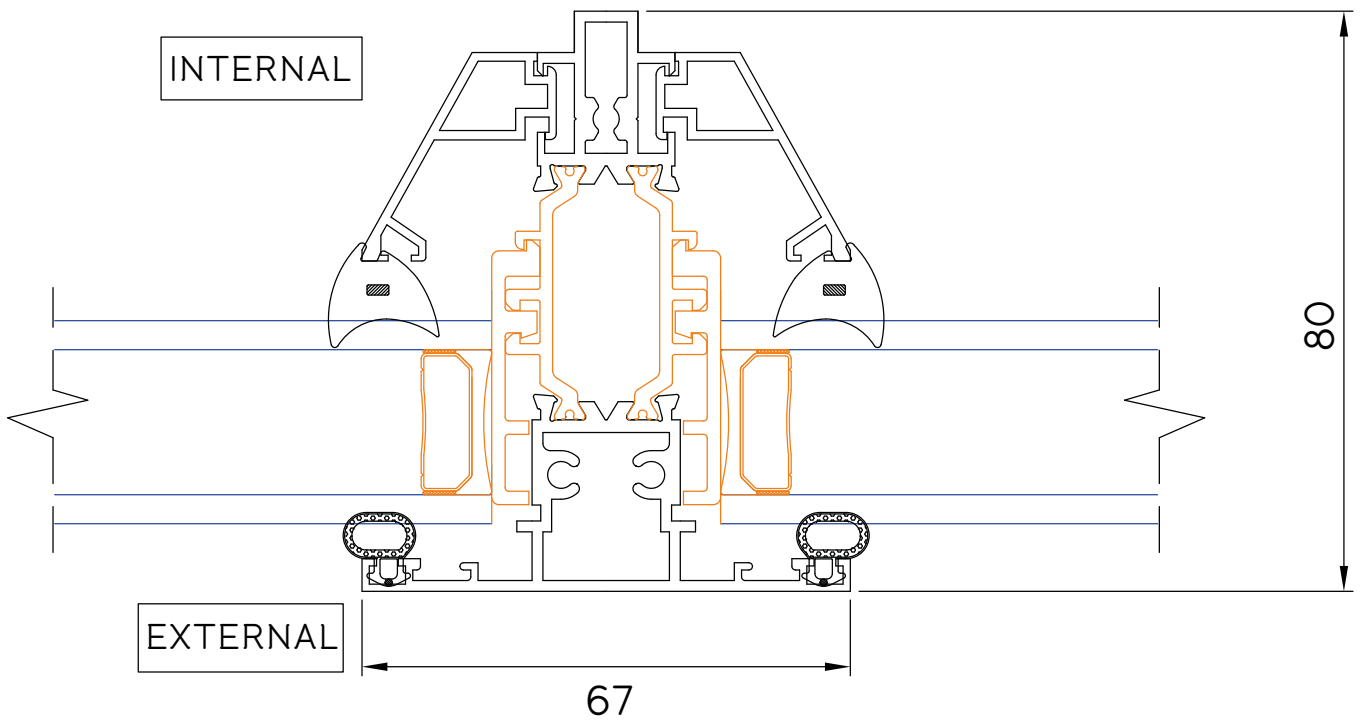
3 Mullion Sightlines - Sash-To-Sash



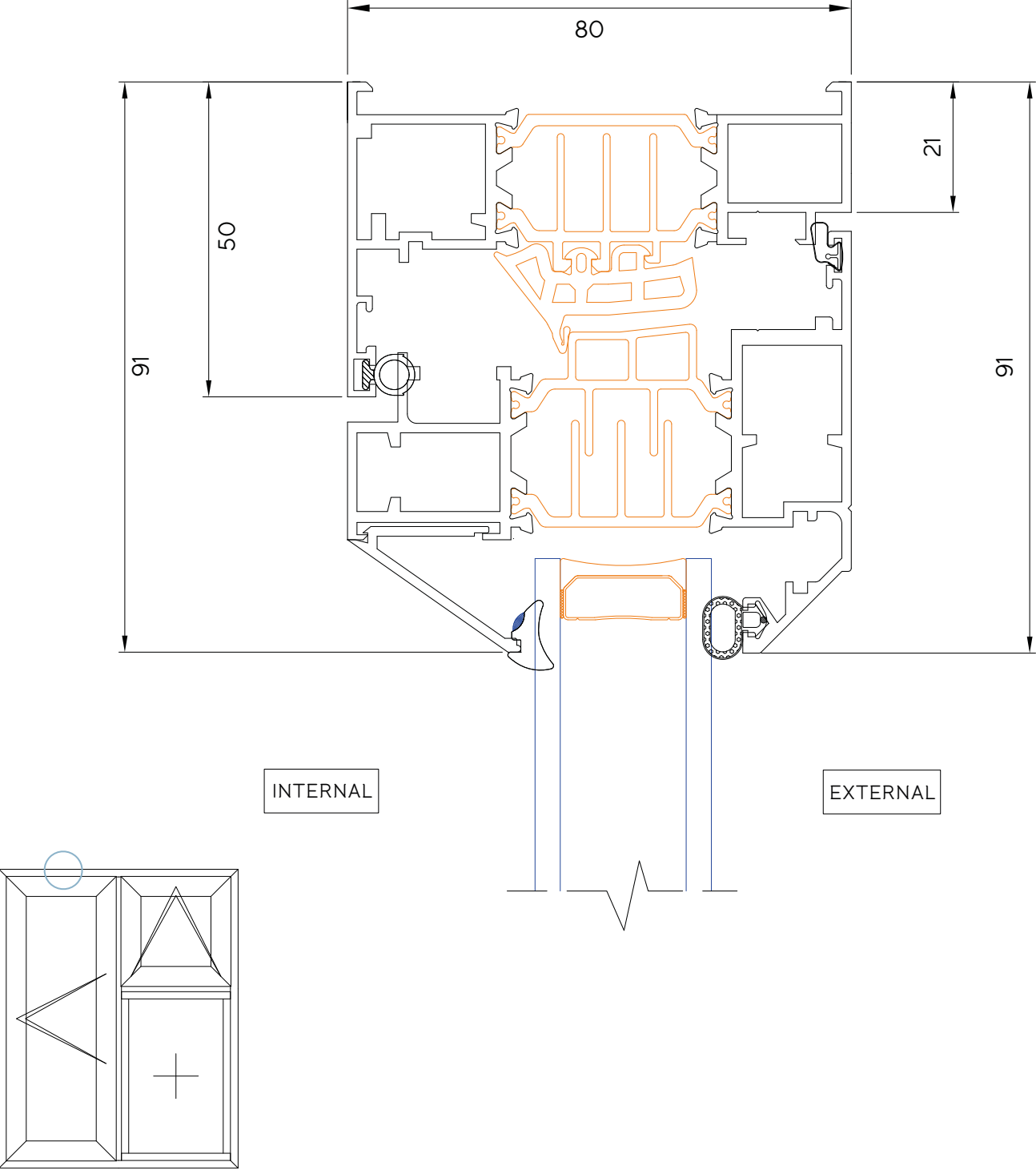
4 Mullion Sightlines - Sash-To-Fixed



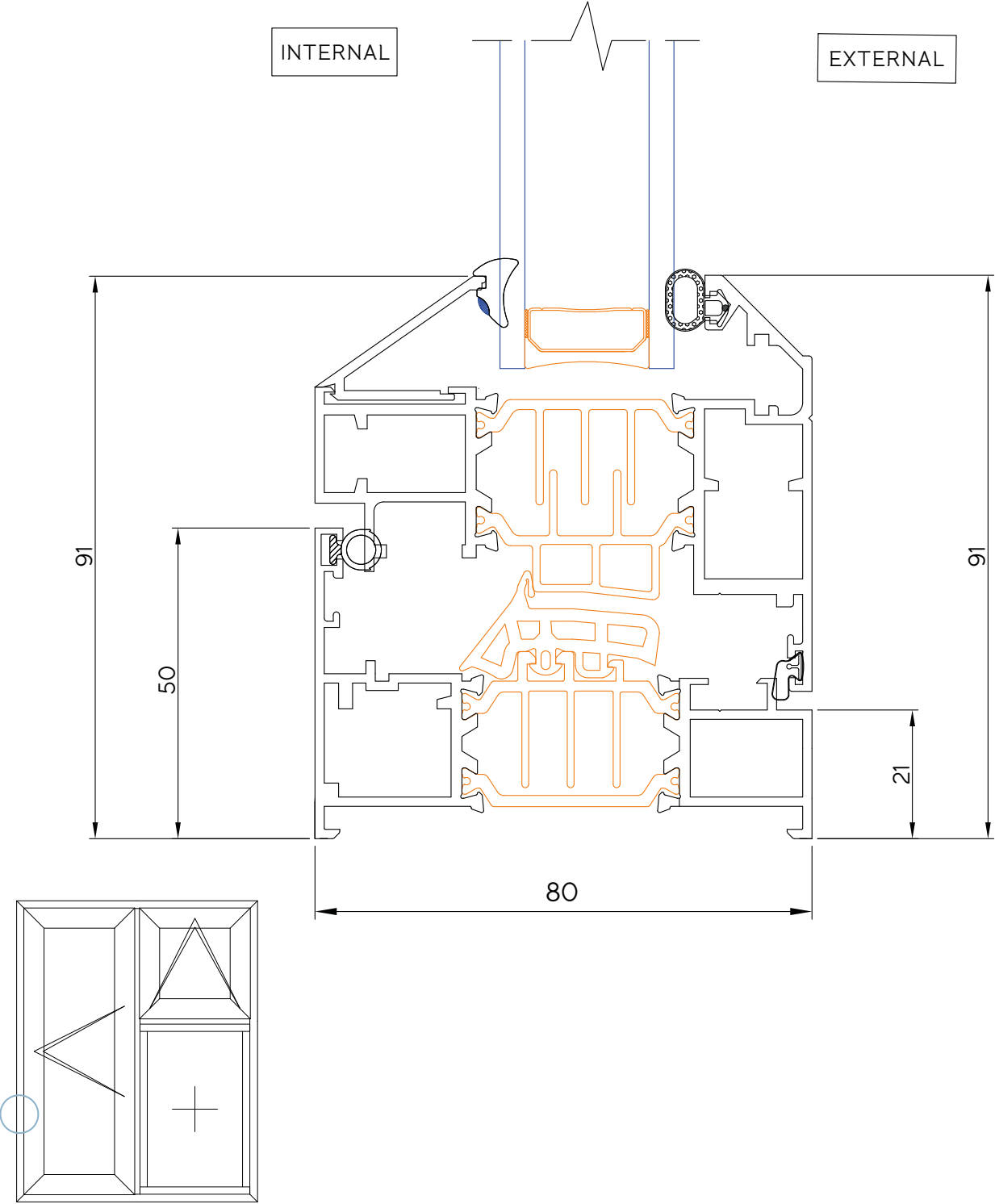
5 Mullion Sightlines For Internally Beaded Fixed Frames



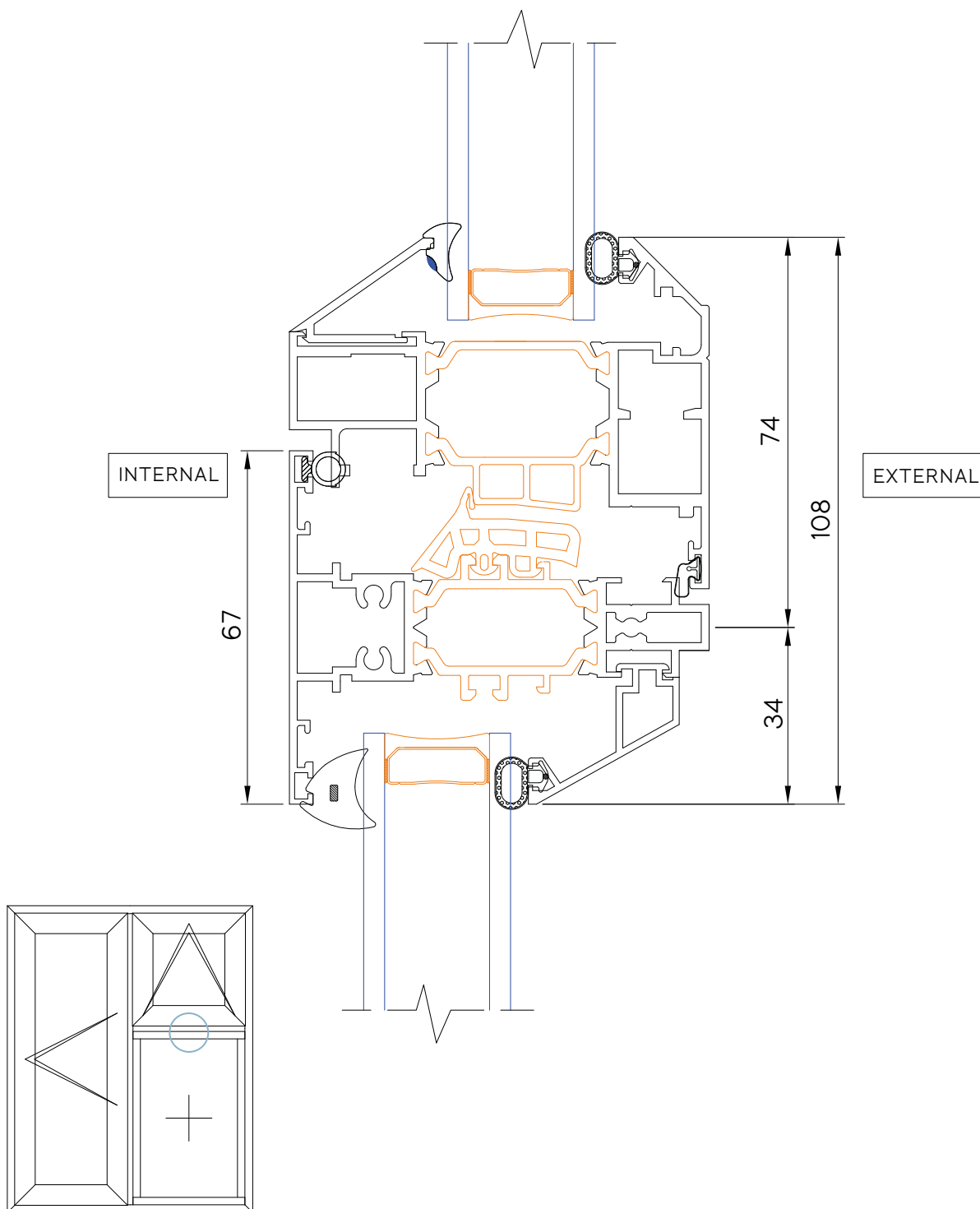
6 Sash Below Frame



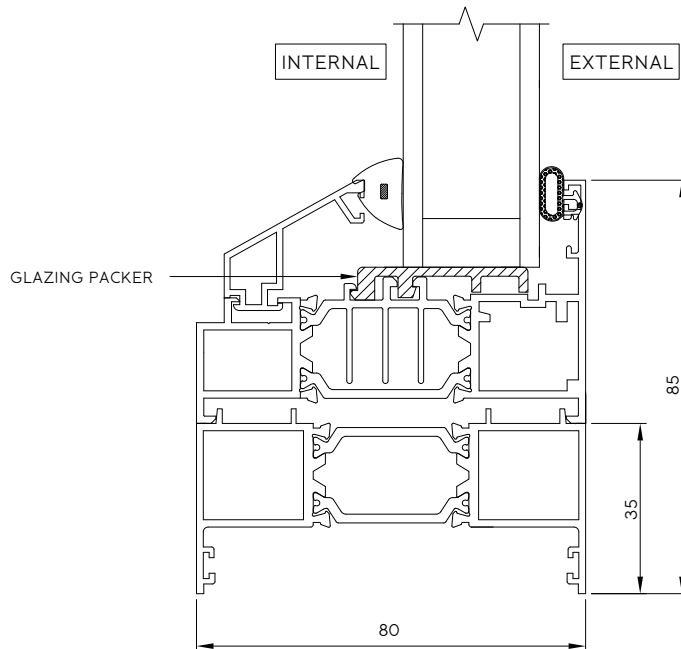
7 Frame Next To Sash



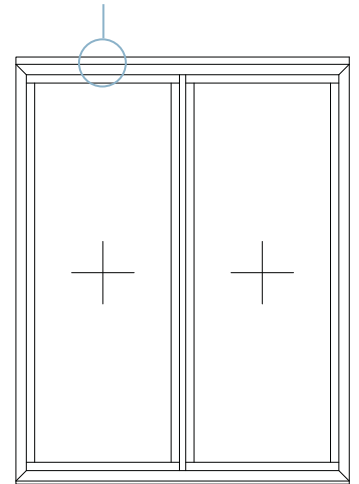
8 Top Hung Sash Over Mullion



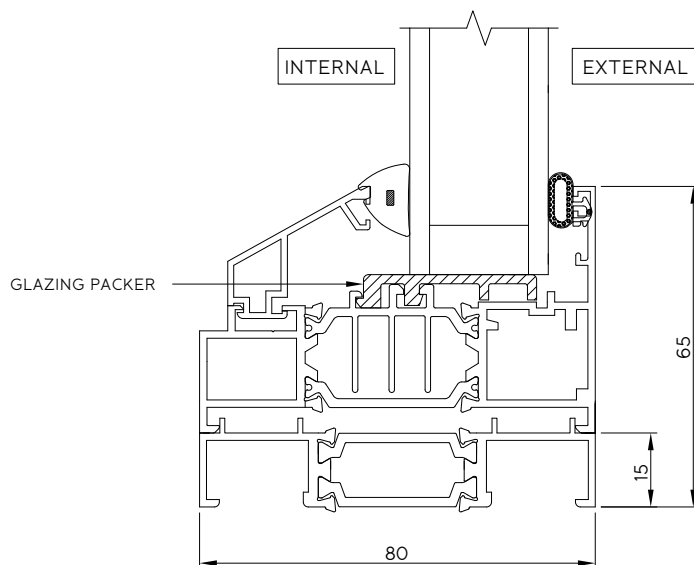
9 35mm Frame Extension



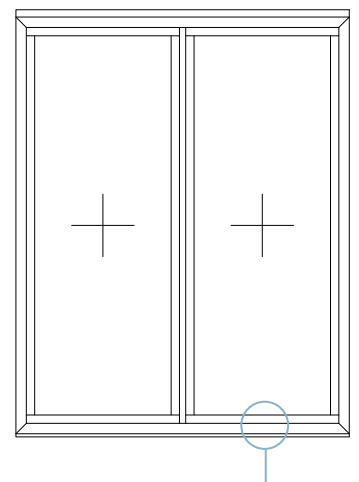
35mm frame extension with fixed frame



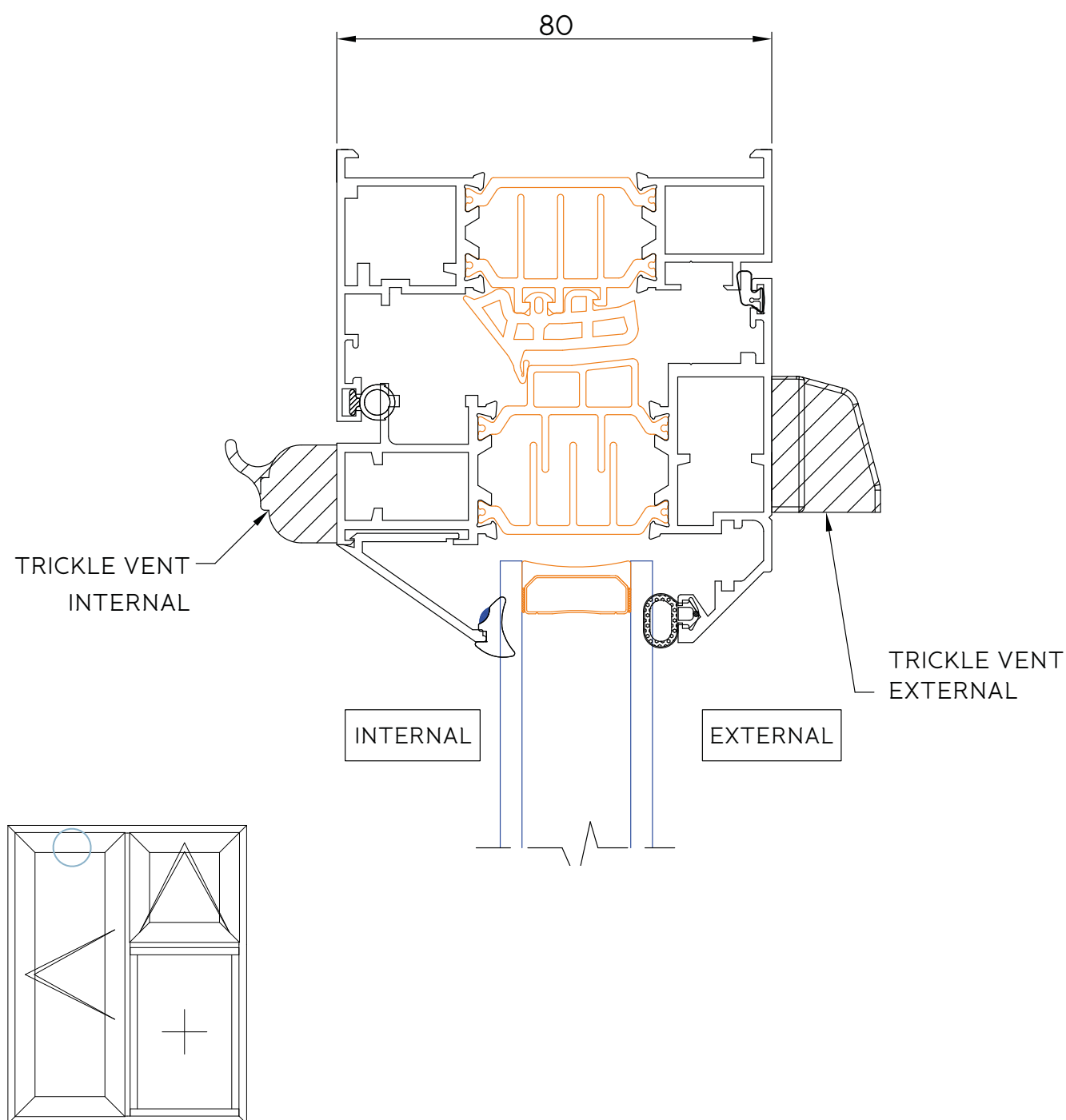
9b 15mm Frame Extension



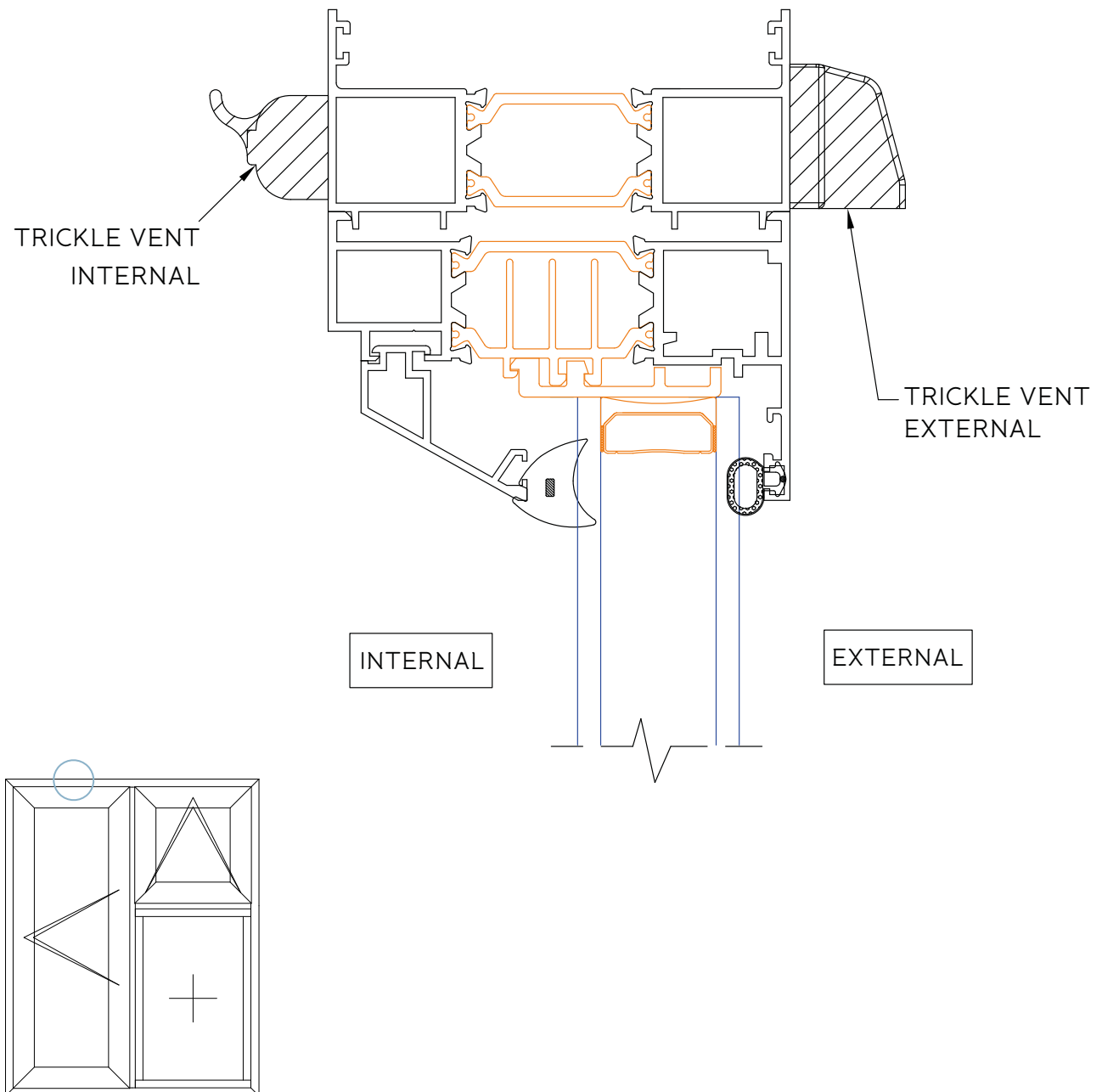
15mm frame extension



10 Trickle Vent Through Sash

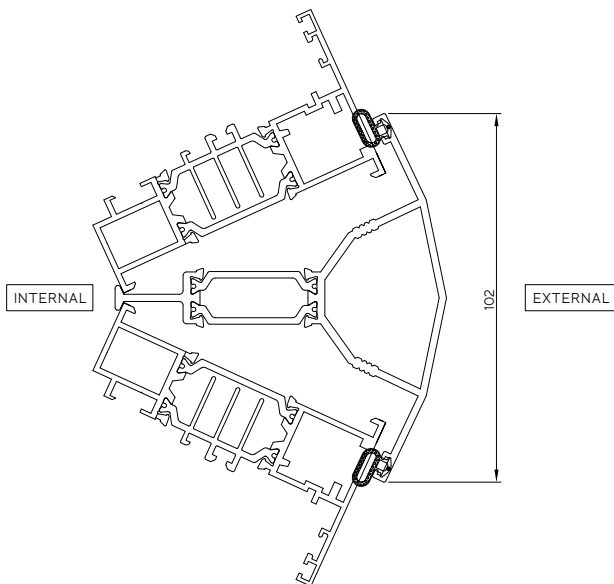


11 Trickle Vent Through 35mm Frame Extension

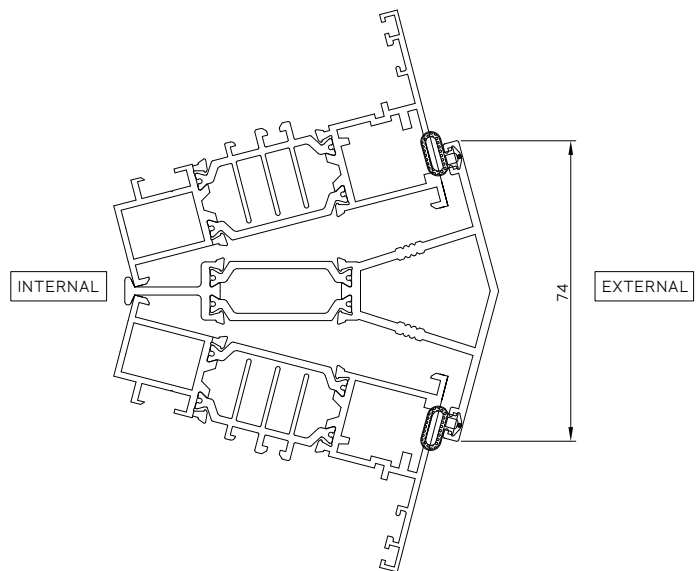


12 Variable Bay Mullion

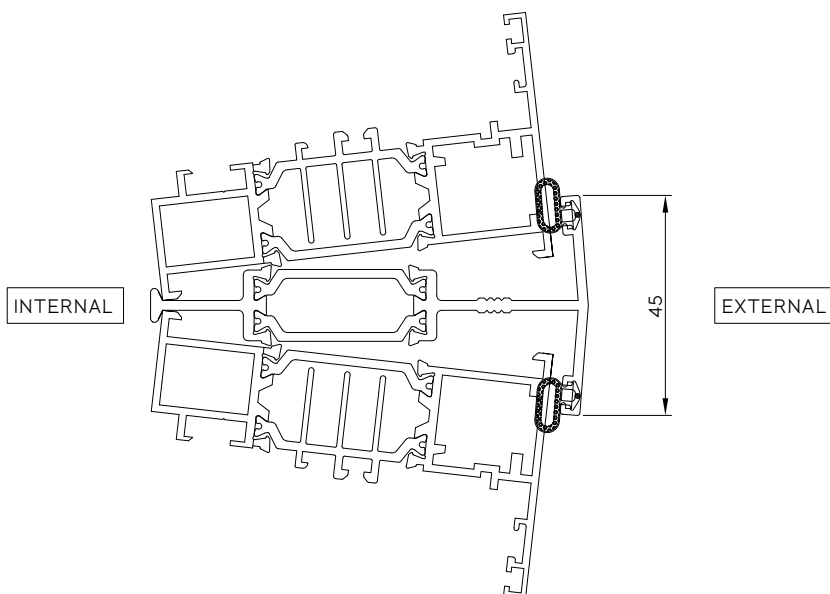
Internal angles: 117° - 138°



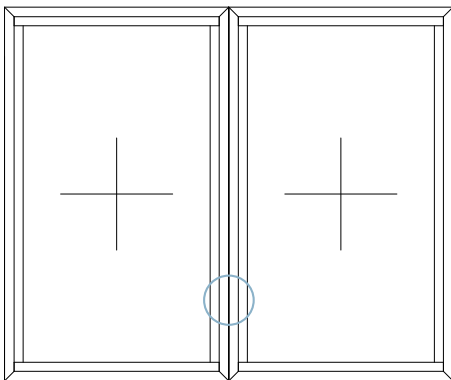
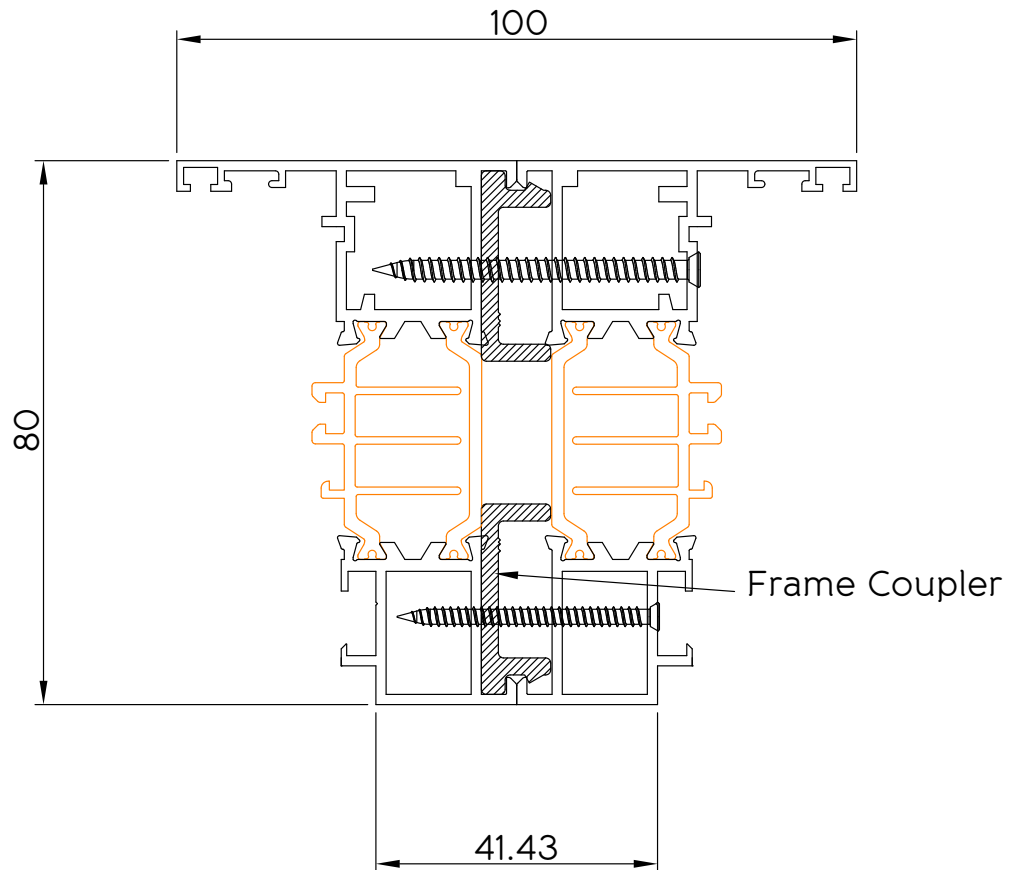
Internal angles: 138° - 159°



Internal angles: 159° - 175°

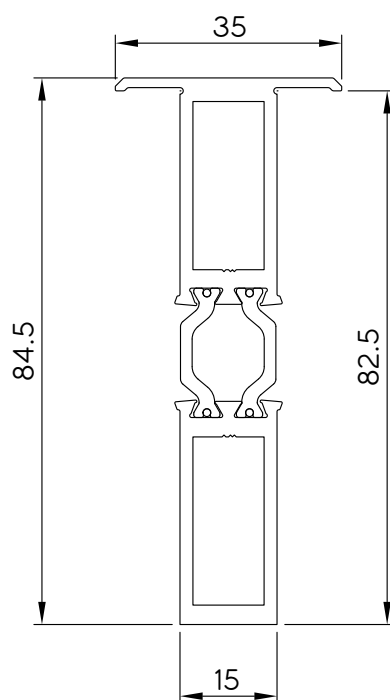


13 Window Coupler

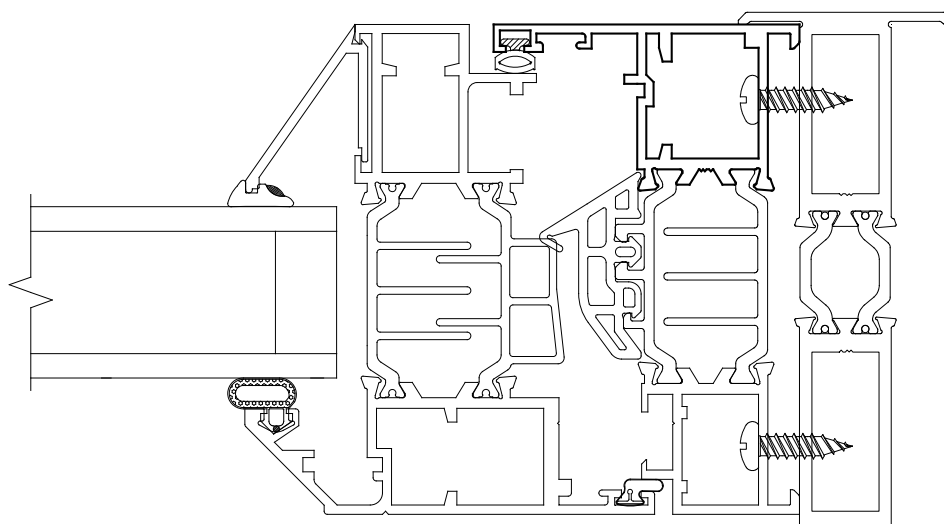


The Window-to-Window Coupler can be used to couple window-to-window only. It can be used across both Origin Window systems.

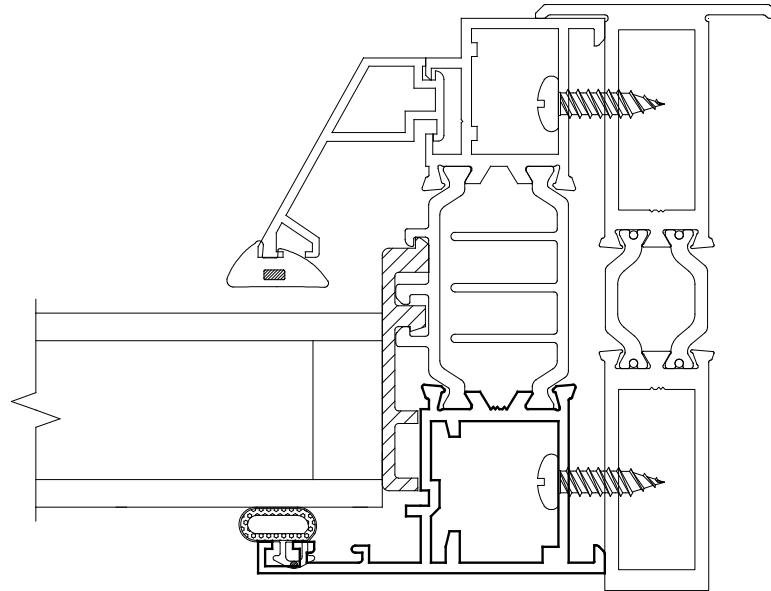
14a Window-to-Window Coupler



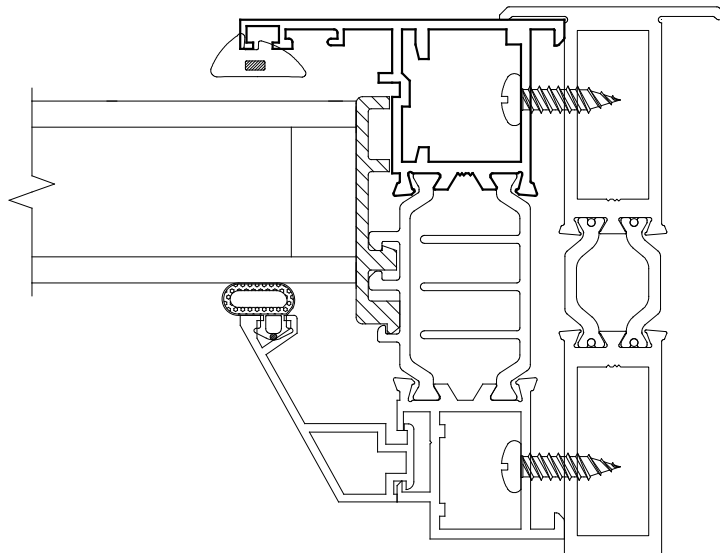
14b Window-to-Window Coupler (Casement)



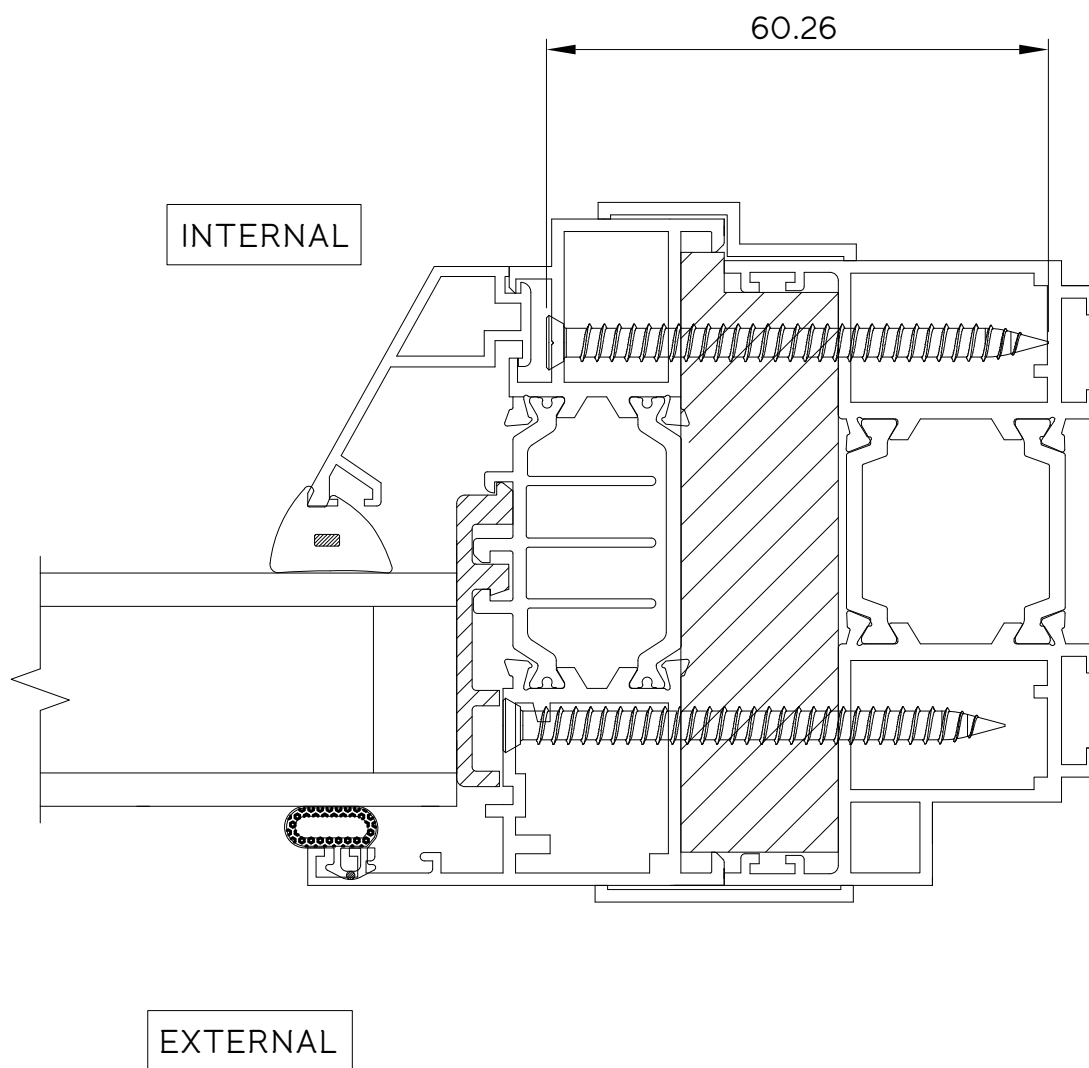
14c Window-to-Window Coupler (Fixed, Internally Glazed)



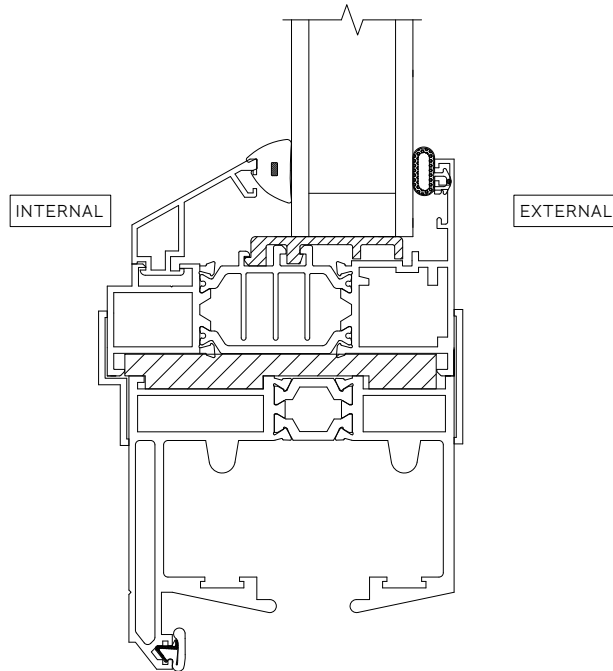
14d Window-to-Window Coupler (Fixed, Externally Glazed)



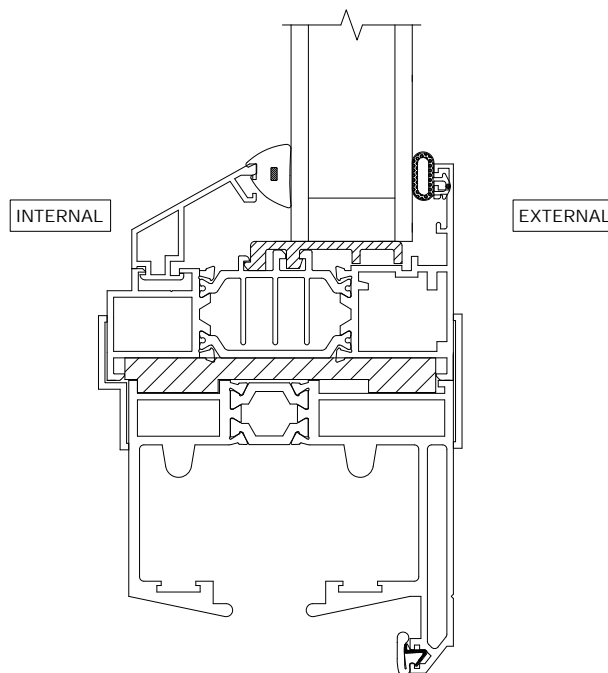
15 Window-To-Door Jamb Coupler



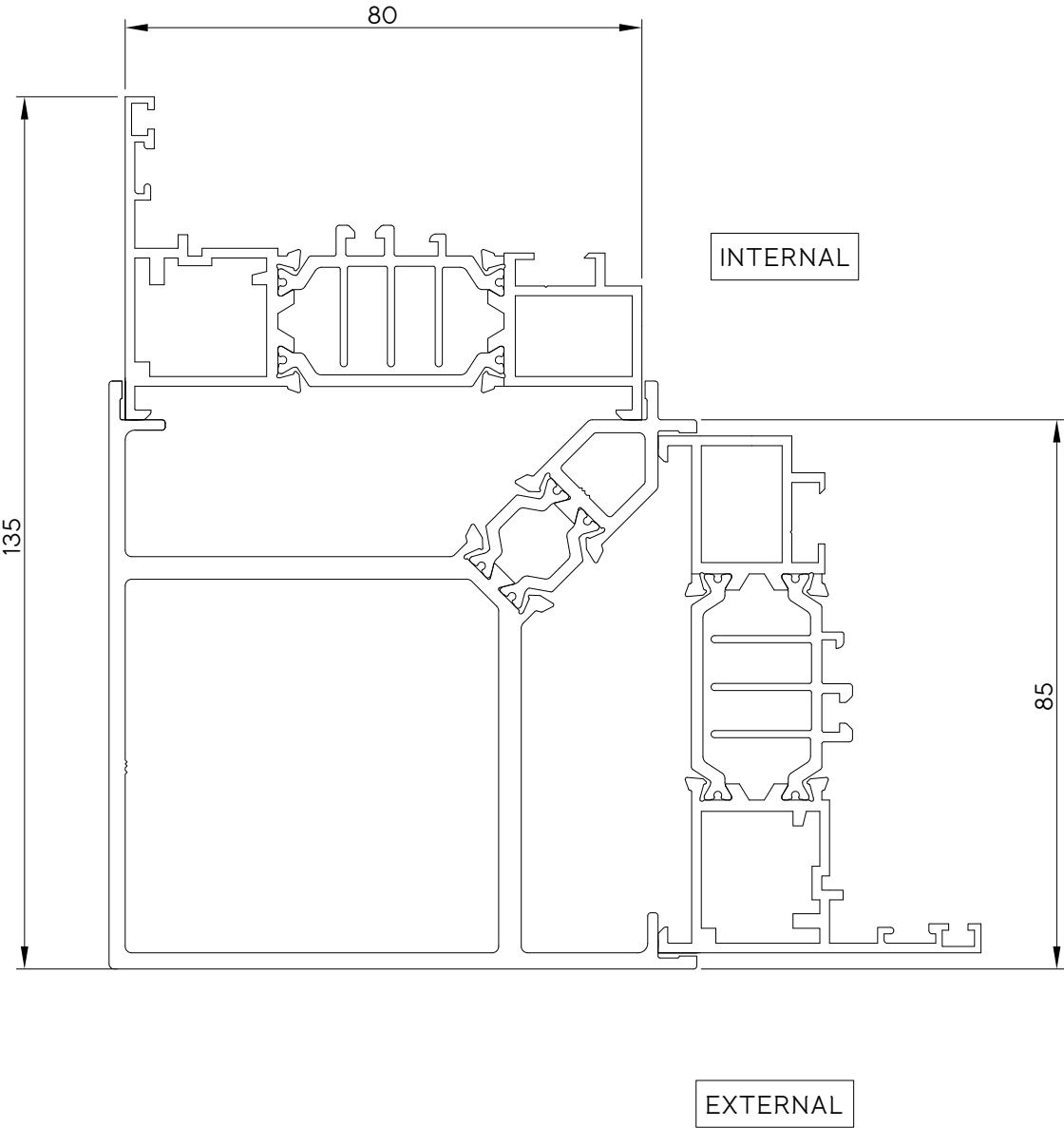
16a Window-To-Door Track Coupler (Open Out)



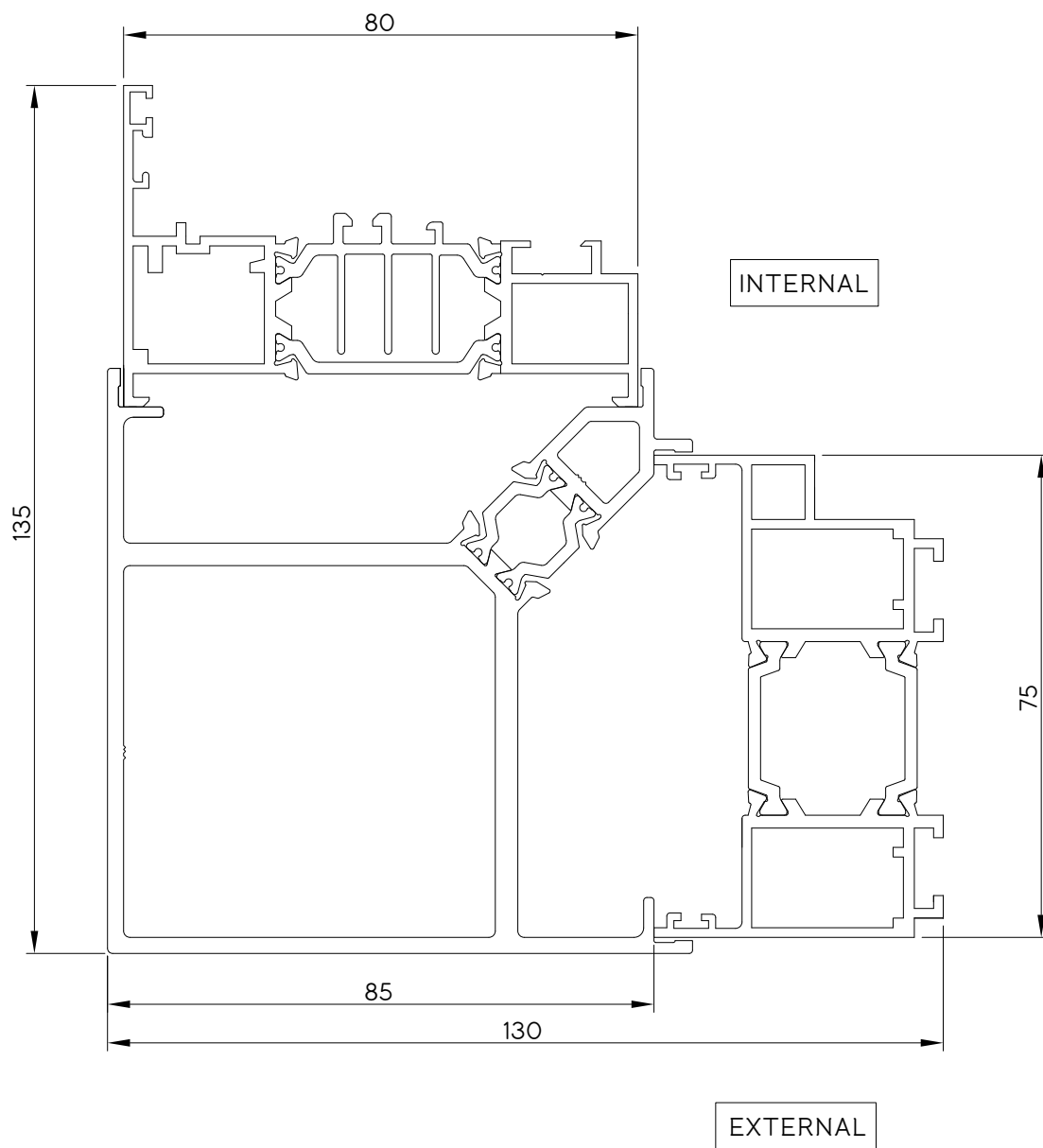
16b Window-To-Door Track Coupler (Open In)



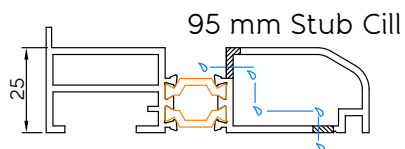
17 Window-To-Window Corner Post



18 Window-To-Door Corner Post

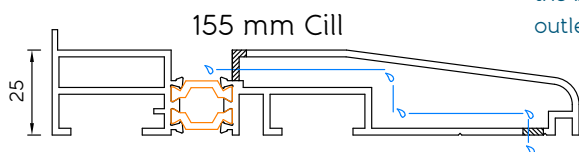


19 Cills, Bead And Trim

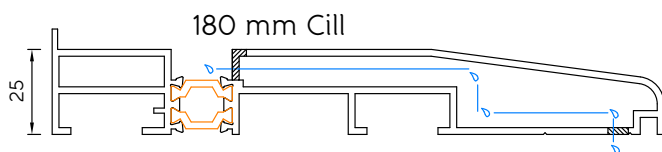


95 mm Stub Cill

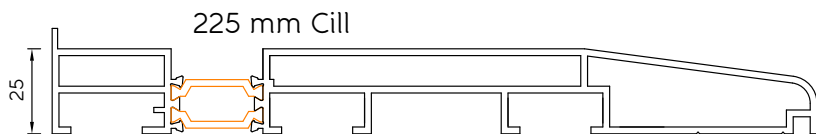
The 95mm stub cill can only be prepared with concealed drainage if the water can drain away towards the outside of the reveal. There must be a gap of at least 20mm between the drainage hole and the substrate in order to ensure the water can drain effectively. The substrate must be sloped to ensure the 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.



155 mm Cill

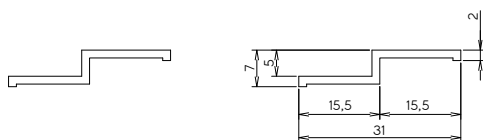


180 mm Cill

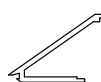


225 mm Cill

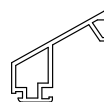
Trims



28mm Sash Bead



28mm Frame Bead



44mm Sash Bead

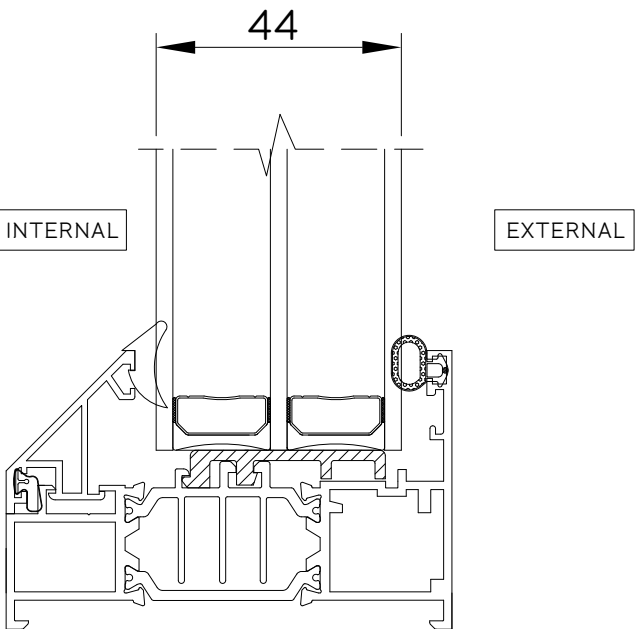
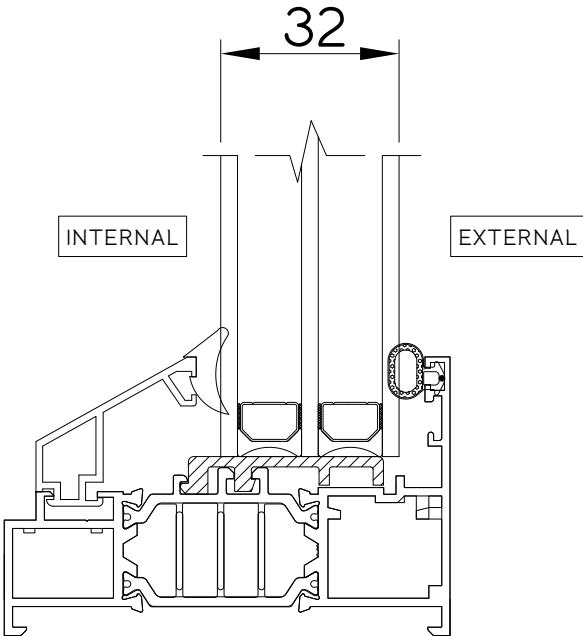
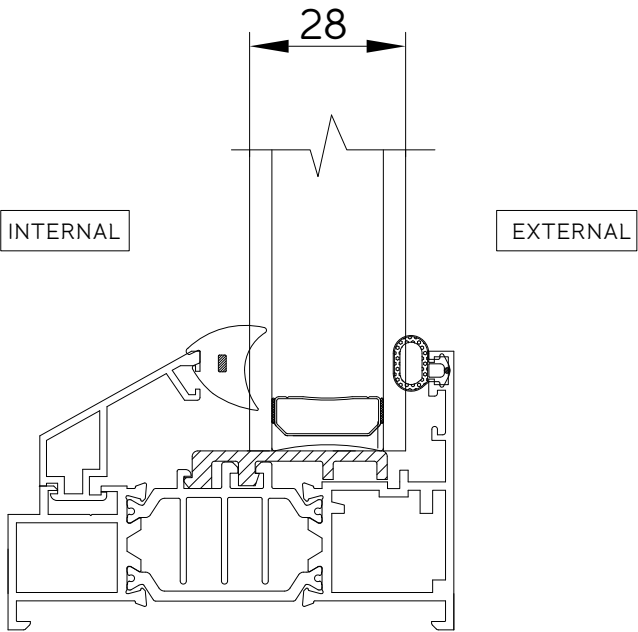


44mm Frame Bead



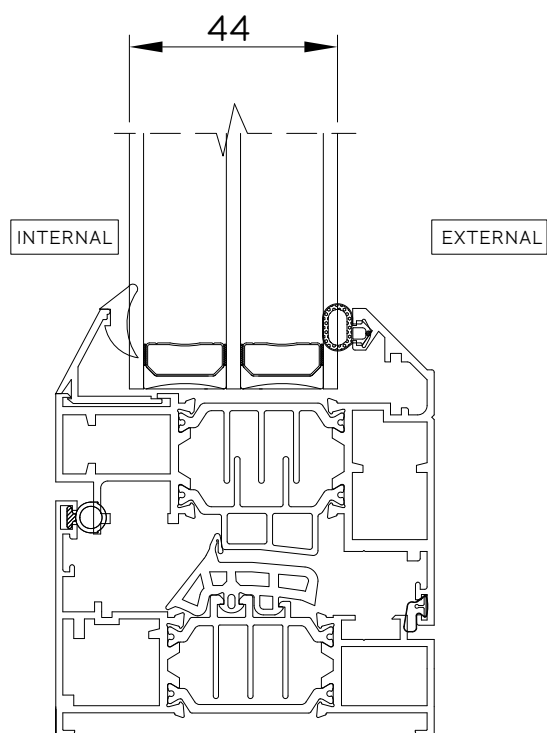
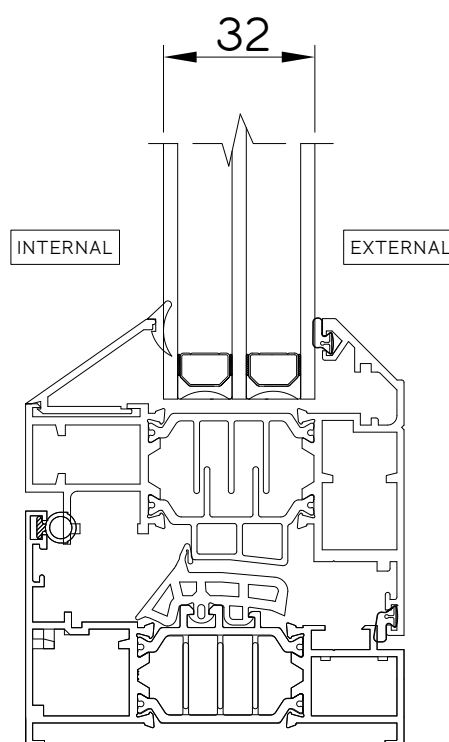
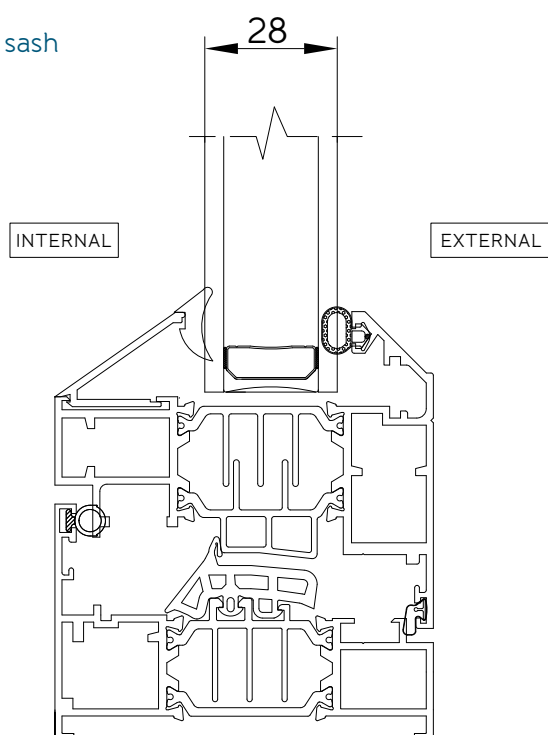
Glazing Options

Fixed frame

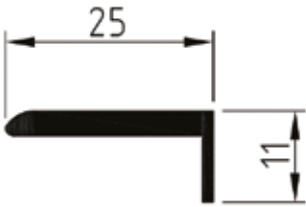


Glazing Options

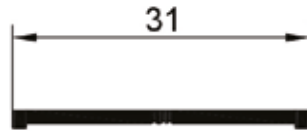
Frame and sash



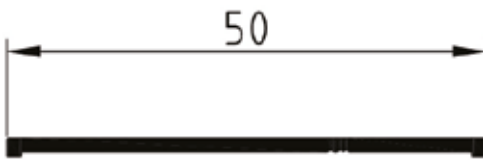
Trim Options



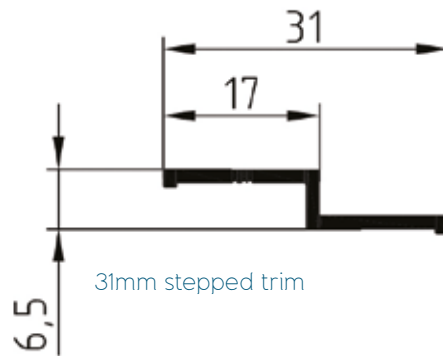
25mm trim



31mm flat trim

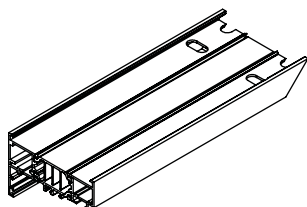


50mm flat trim

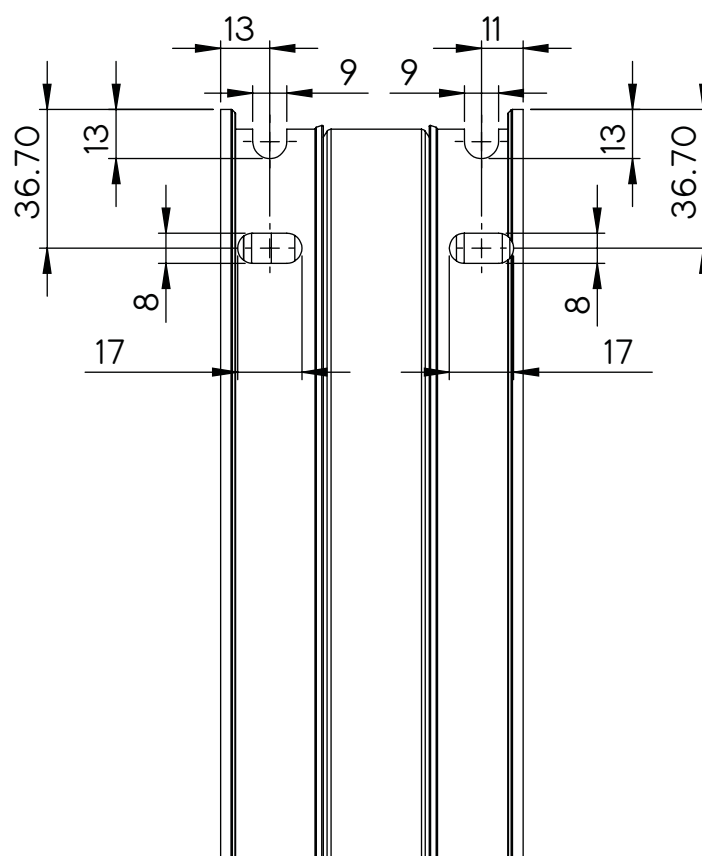
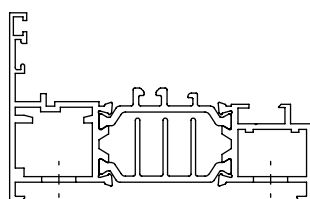


31mm stepped trim

Mechanical Cleat



SCALE 1:5



Gaskets

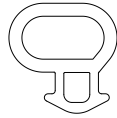
AF032

Closing Gasket



B2018

Glazing Rebate



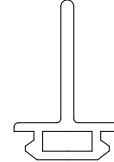
E3434

Glazing Rebate



OG03

Central Gasket



W474

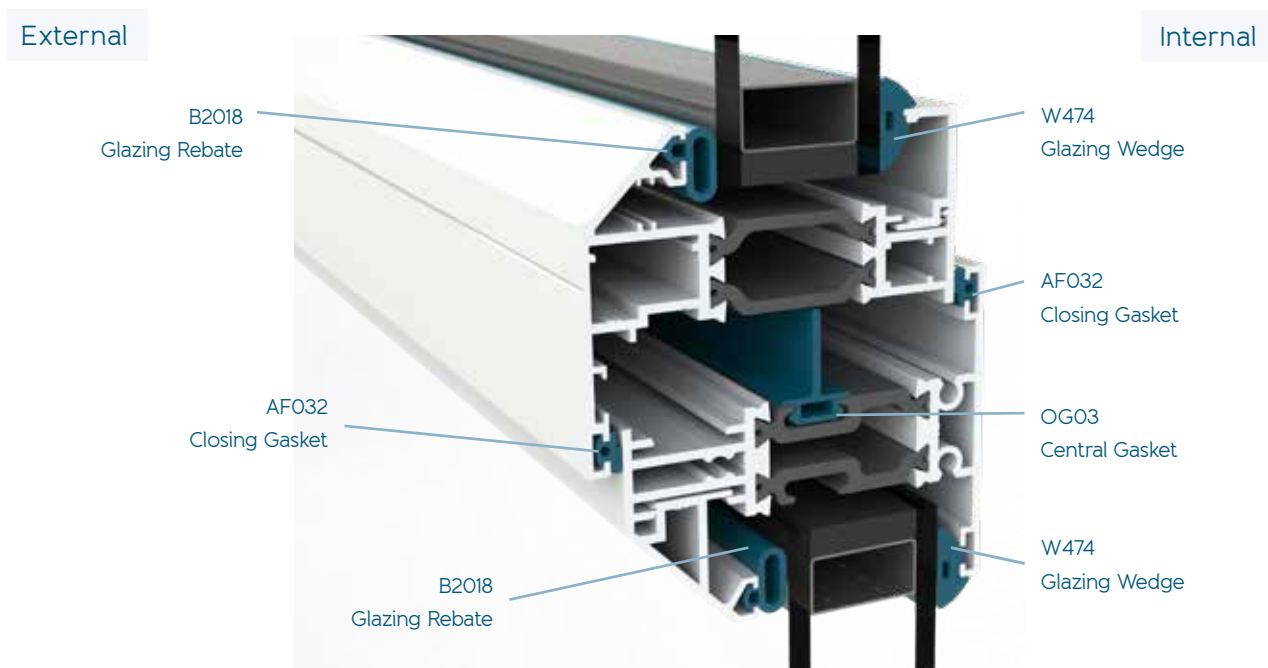
Glazing Wedge



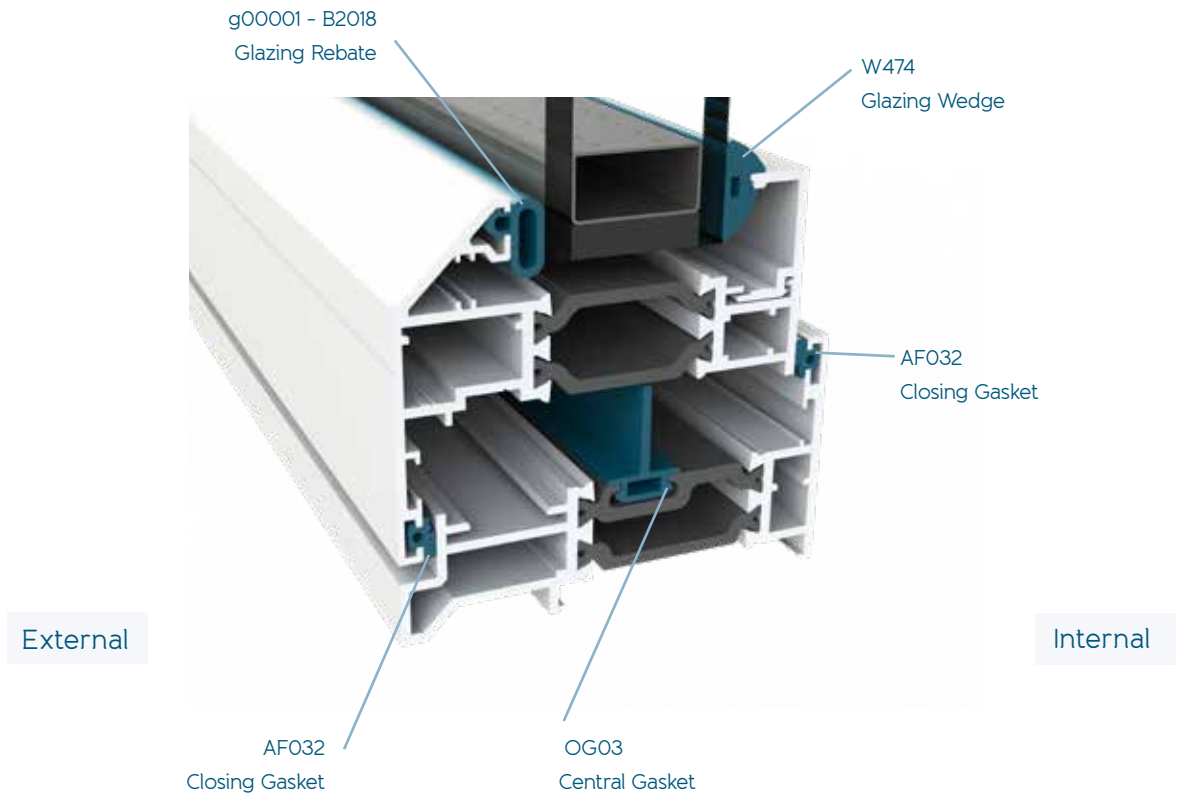
Colour	AF032 (Closing Gasket)	B2018 (Glazing Rebate)	E3434 (Glazing Rebate)	W474 (Glazing Wedge)	OG03 (Central Gasket)
Black	G00114	G00001	G00004	G00040	G00113
White		G00002	G00004	G00041	
Graphite Grey		G00064	G00066		
Light Oak		G00065	G00067	G00076	
Light Grey		G00089	G00071	G00075	
Bronze		G00090	G00072	G00077	
Chestnut Brown		G00091	G00073	G00078	
7015		G00092	G00074	G00068	
7016				G00061	

Cross Sectional Gasket Diagrams

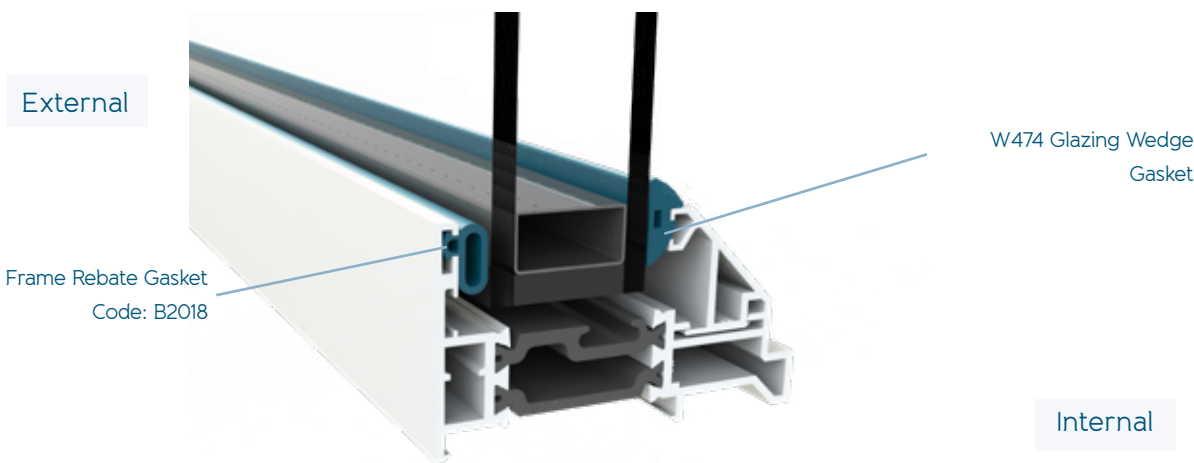
- Colour coded gaskets to be offered as an optional extra.
- All colours to be mapped across from colours column except 7016. We will use the G00061 for mapping with 'Graphite Grey' for the W474 Glazing Wedge.



Cross Sectional Gasket Diagrams

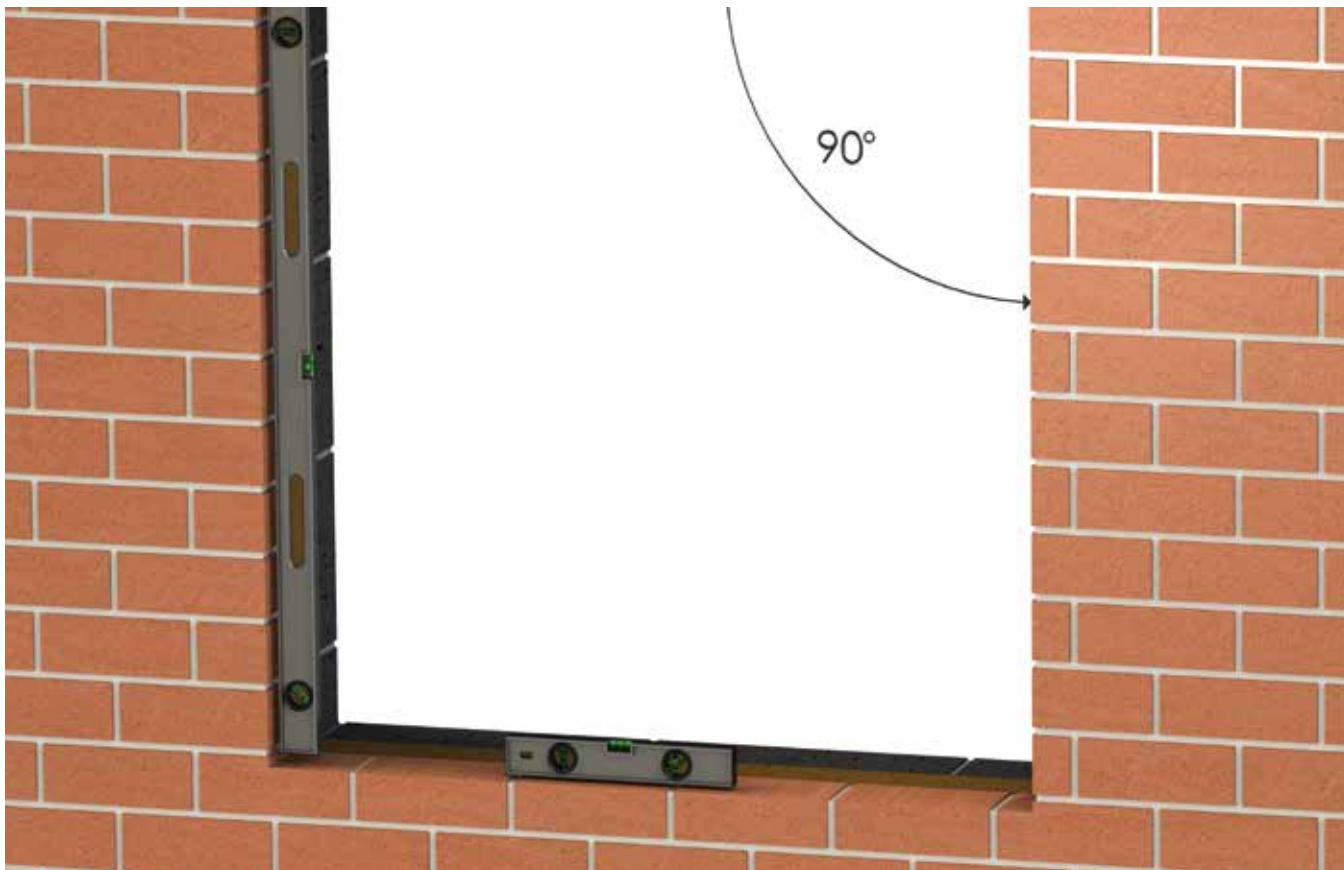


Fixed frame

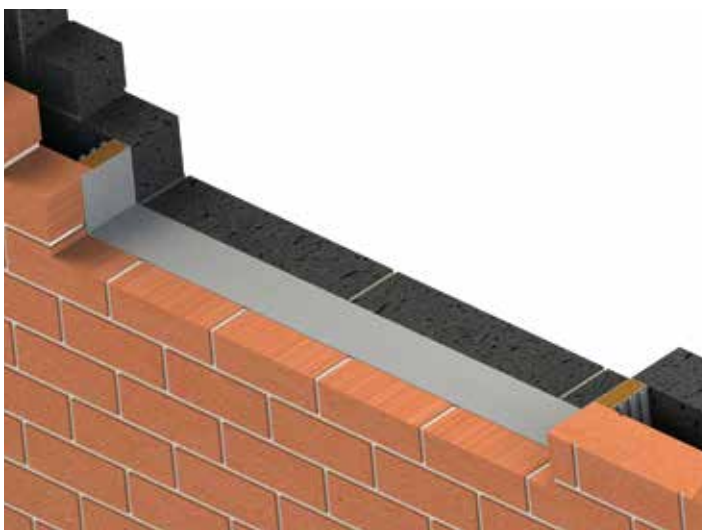


Installation Guide

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)

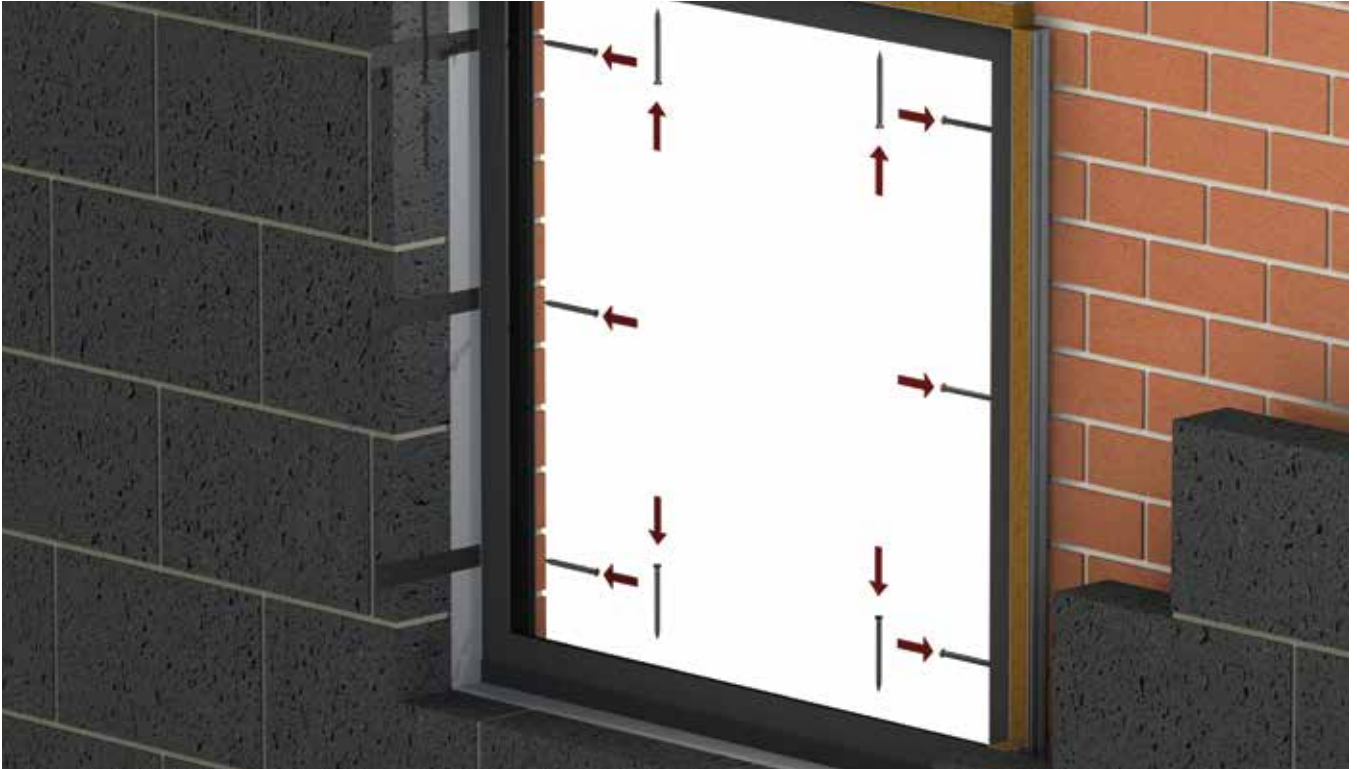


FIG 3

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

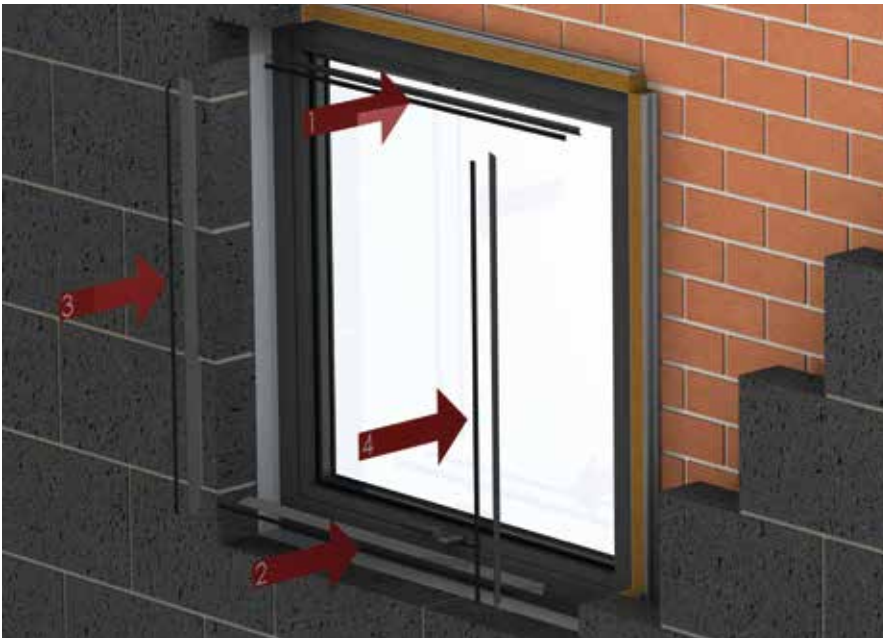


FIG 5

- ▶ **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)

Mechanical Cleat Installation Guide...

- ▶ 1. Ensure all mating faces of profile are sealed with silicone (FIG 1)
- ▶ 2. Insert the mechanical cleats and chevrons provided (FIG 2)
- ▶ 3. Push profile onto cleats and chevrons
- ▶ 4. Tighten cleats with an allen key and ensure barb is against cut out as shown (FIG 3)
- ▶ 5. As cleats are tightened, ensure that the mitres are aligned and no gaps are visible (FIG 4)

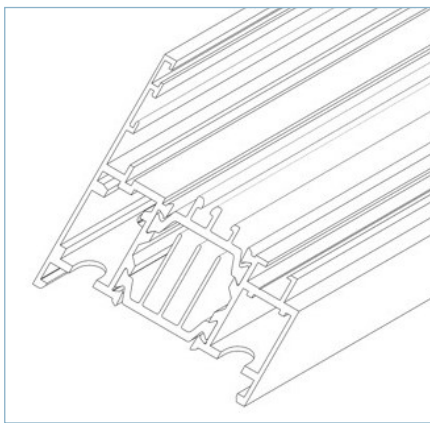


FIG 1

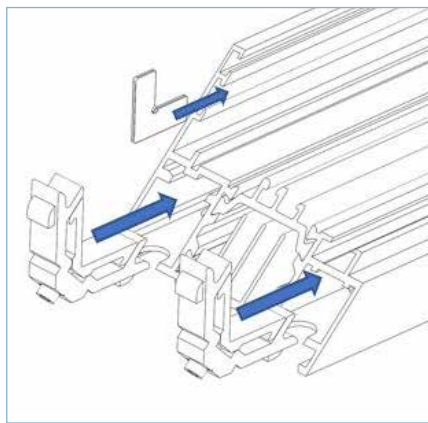


FIG 2

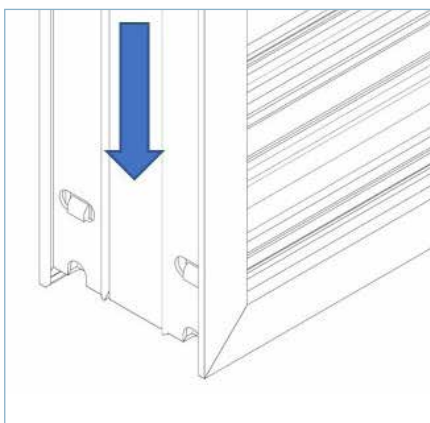
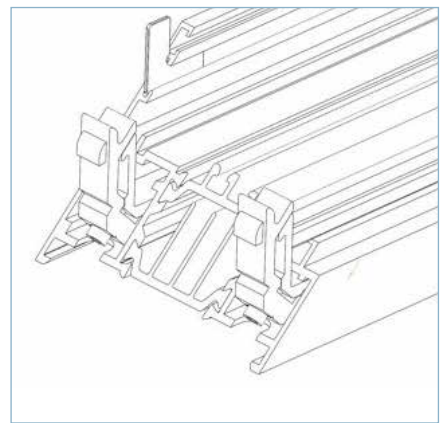


FIG 3

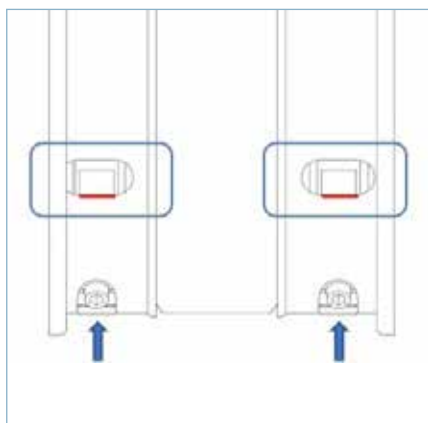


FIG 4

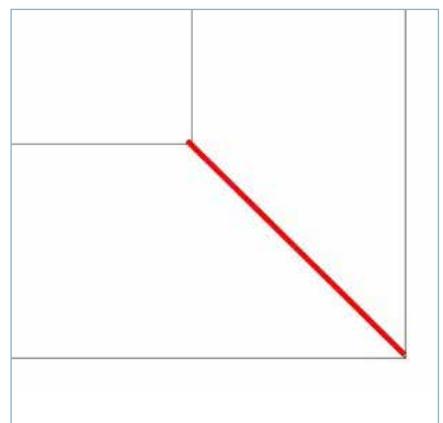
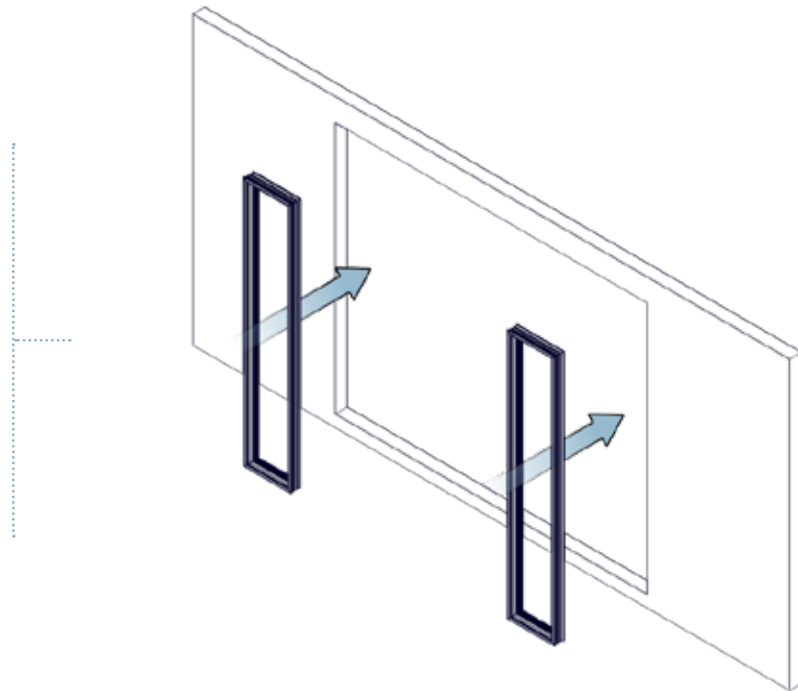


FIG 5

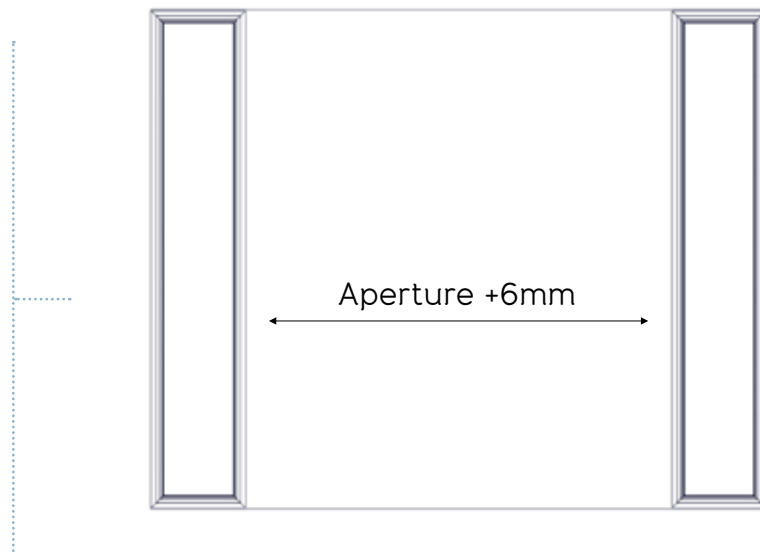
Window-to-jamb Coupler Installation Guide

Install the windows
as described in the
Installation Guide

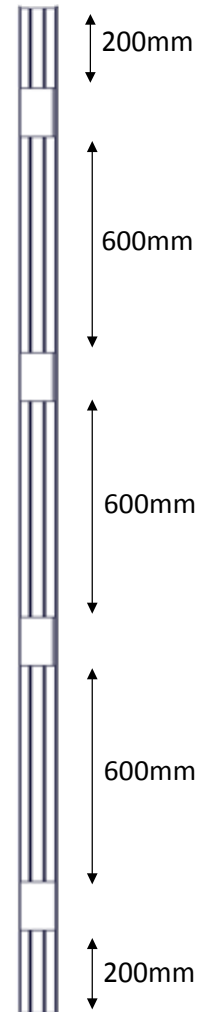
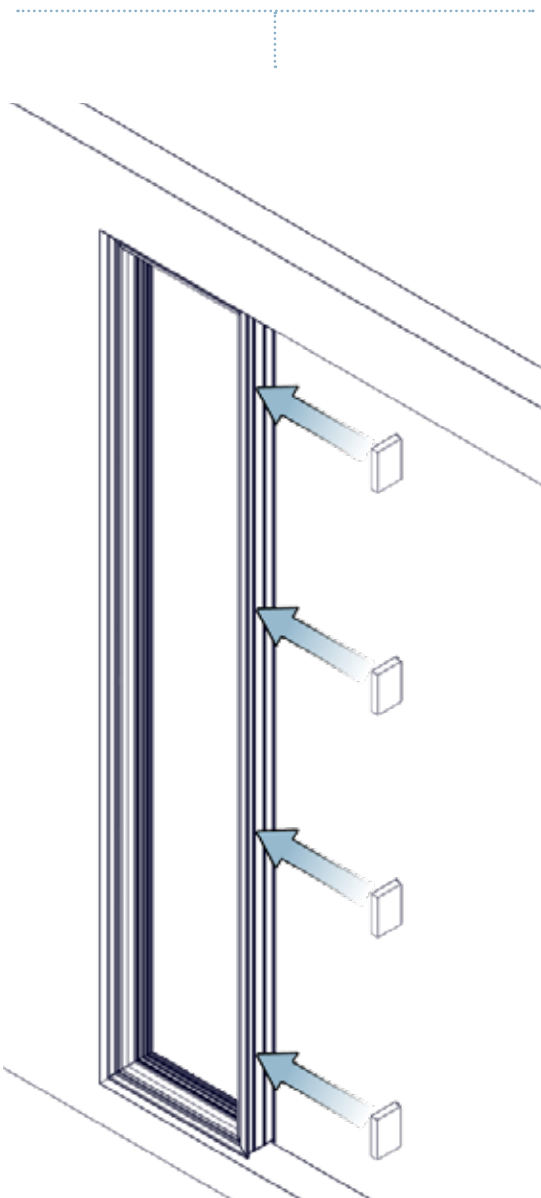


Ensure the remaining
aperture is 6mm wider
than the overall door
set width

Do not install the glass



Install the alignment block into the window frame

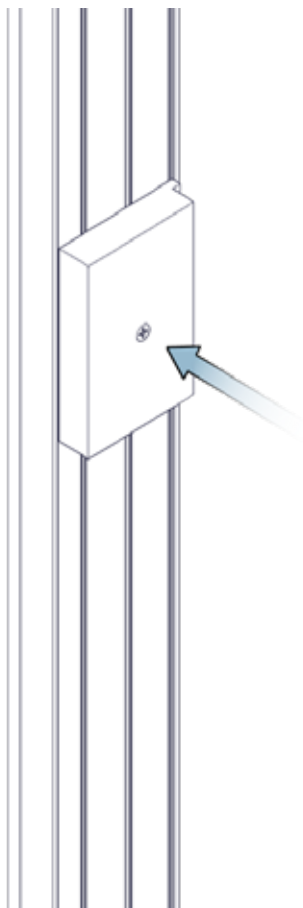
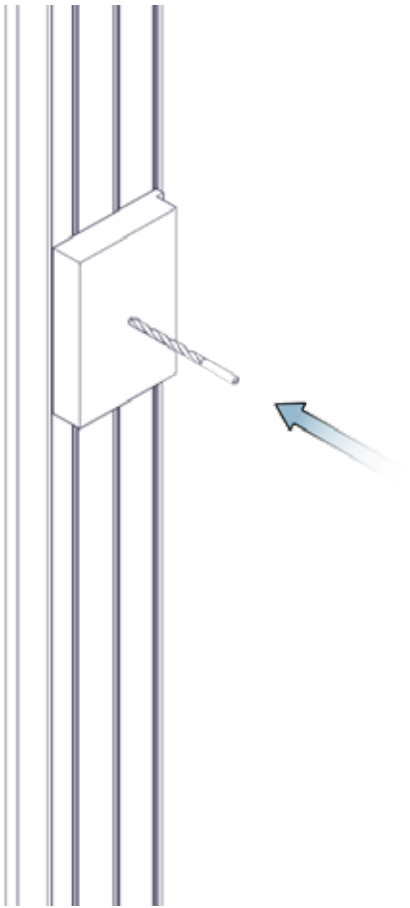


Leave 200mm from each end and evenly space the rest appropriately

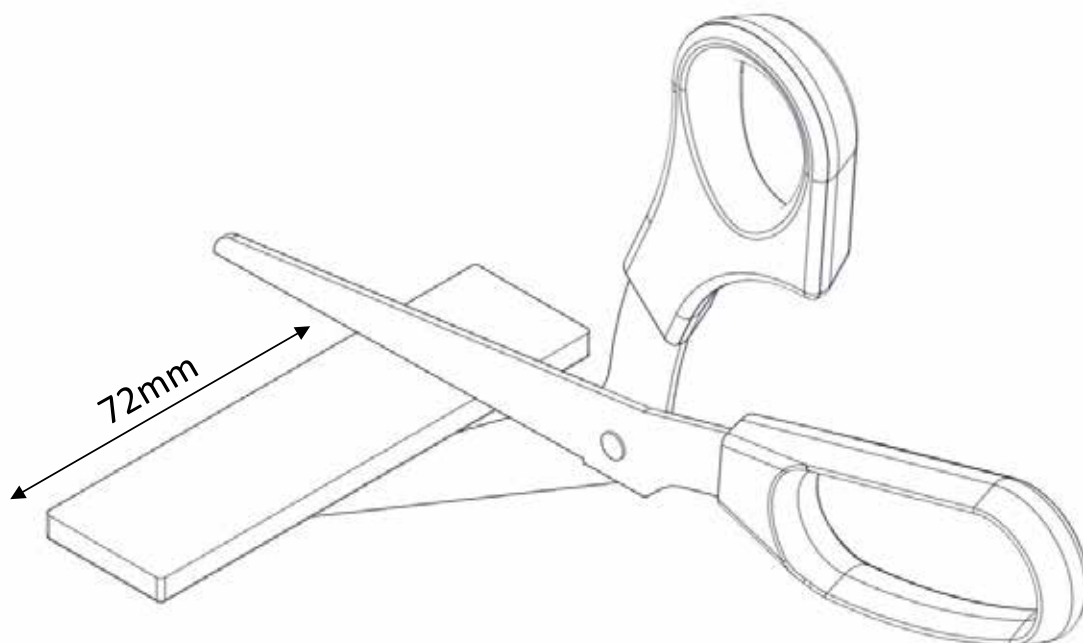
Drill, countersink and fix alignment blocks



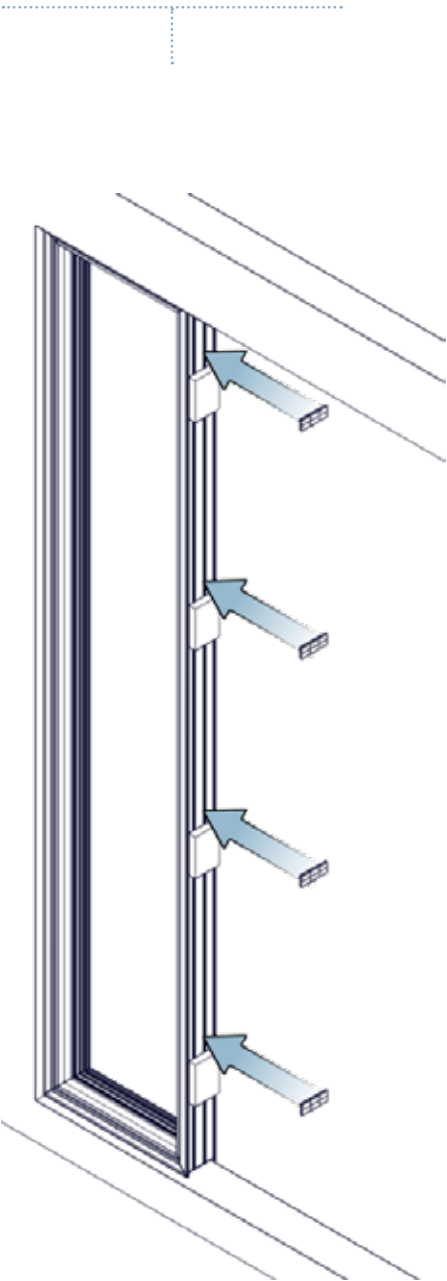
Ensure screw is flush with surface of the block



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



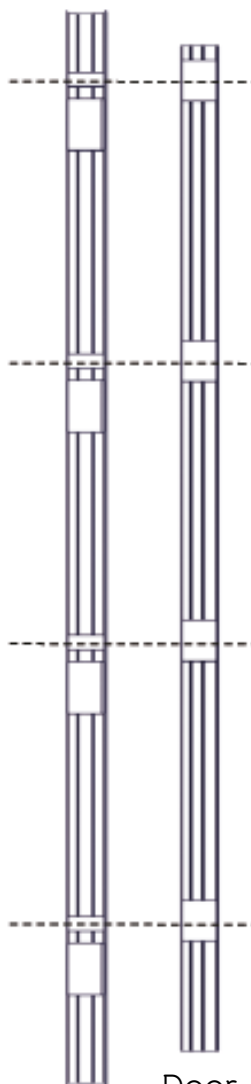
Install the glazing packers



Ensure packers are positioned next to the alignment blocks

Re-position the jamb packers in the jamb

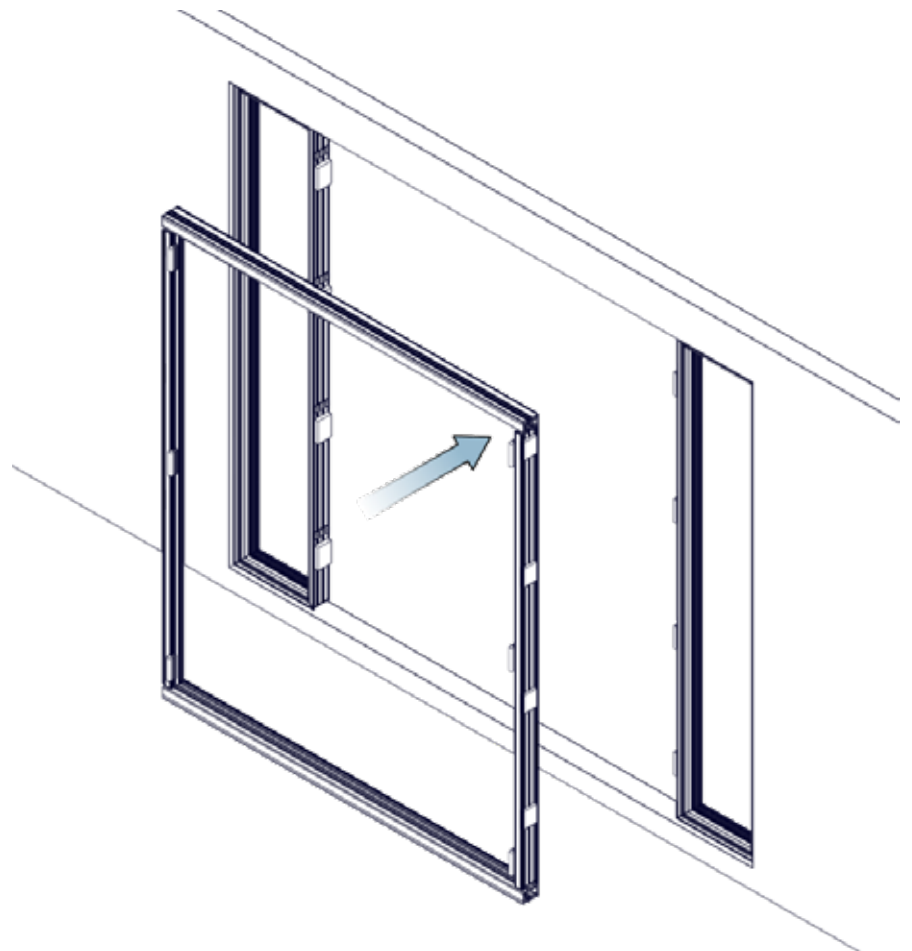
Window
Jamb



Door
Jamb

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

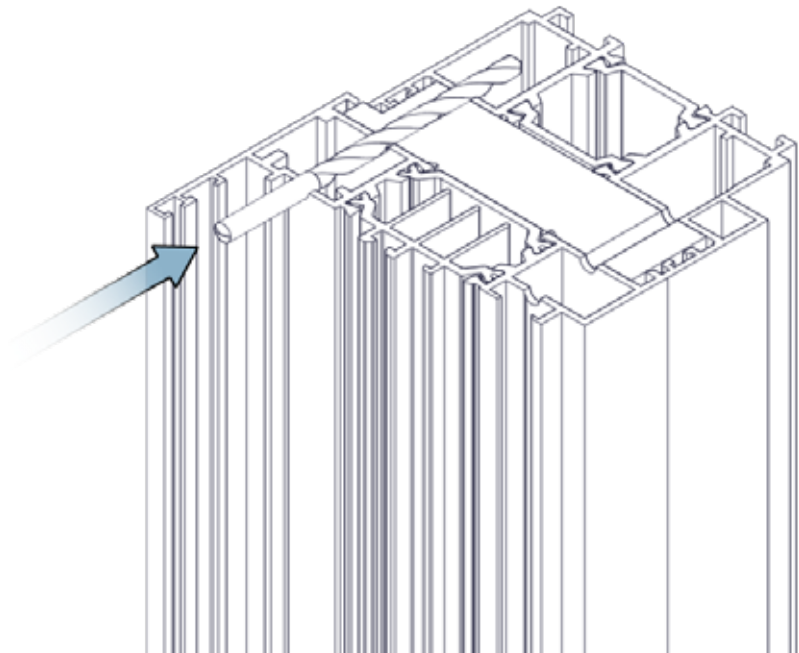
Position the door frame
into the aperture and
pack/ clamp accordingly



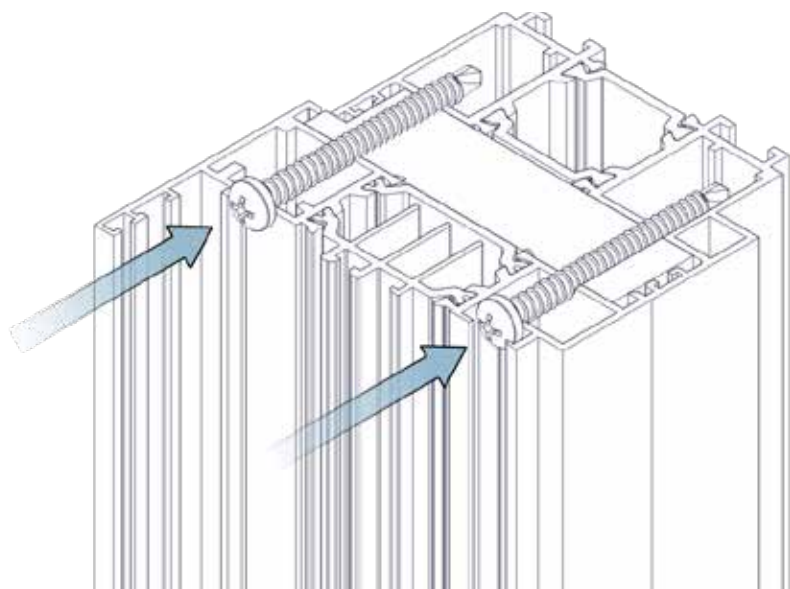


*Do not drill into
gasket chamber*

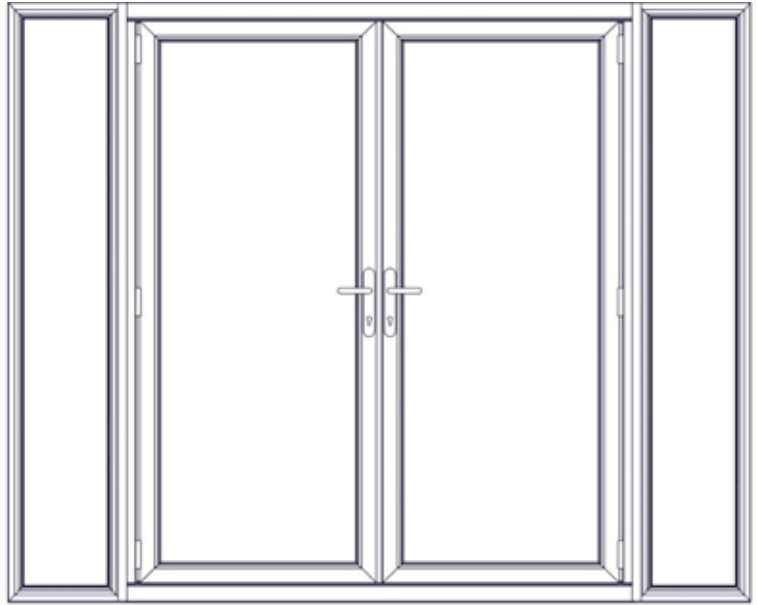
Pre-drill the frame
with a 3mm drill bit as
shown for every jamb
packer used



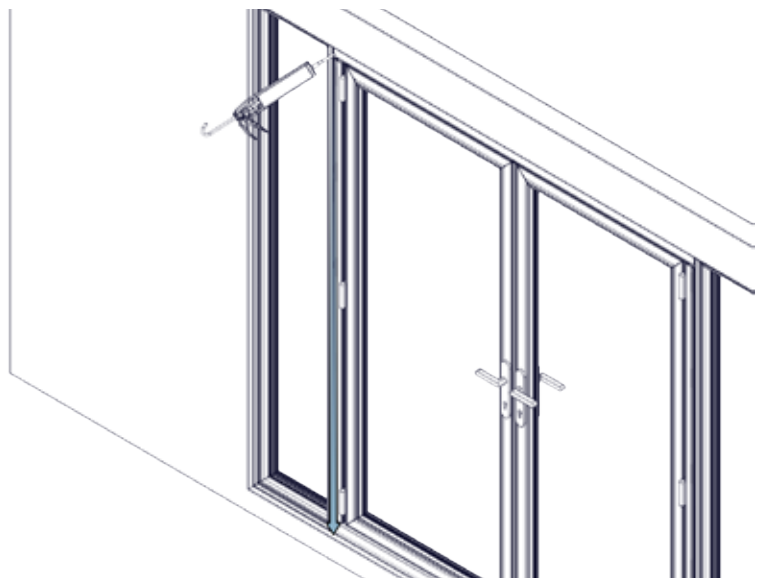
Using supplied screws, fix
the window frame to the
door jamb through the
jamb packers



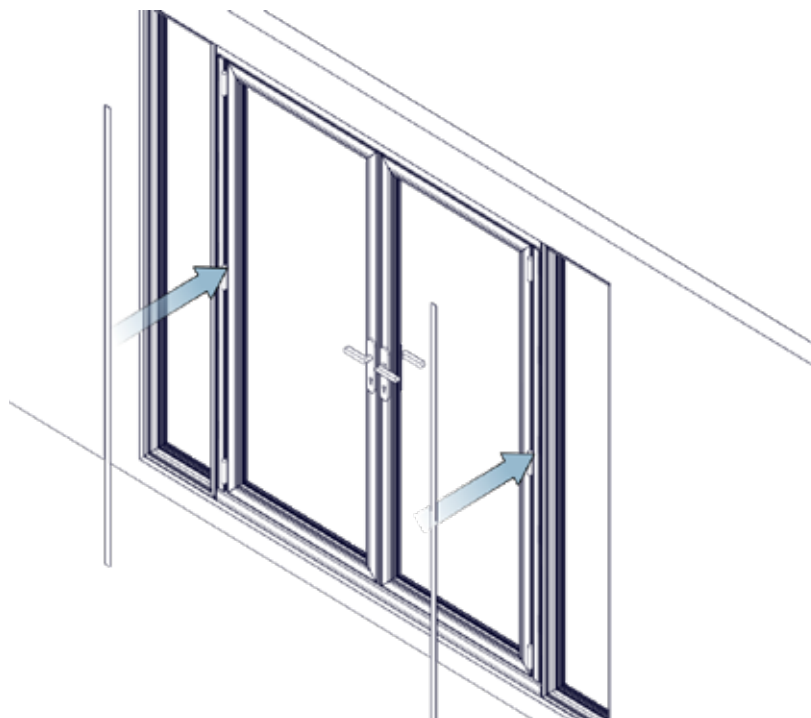
Install door sash,
windows and glass
as described in the
Installation Guide



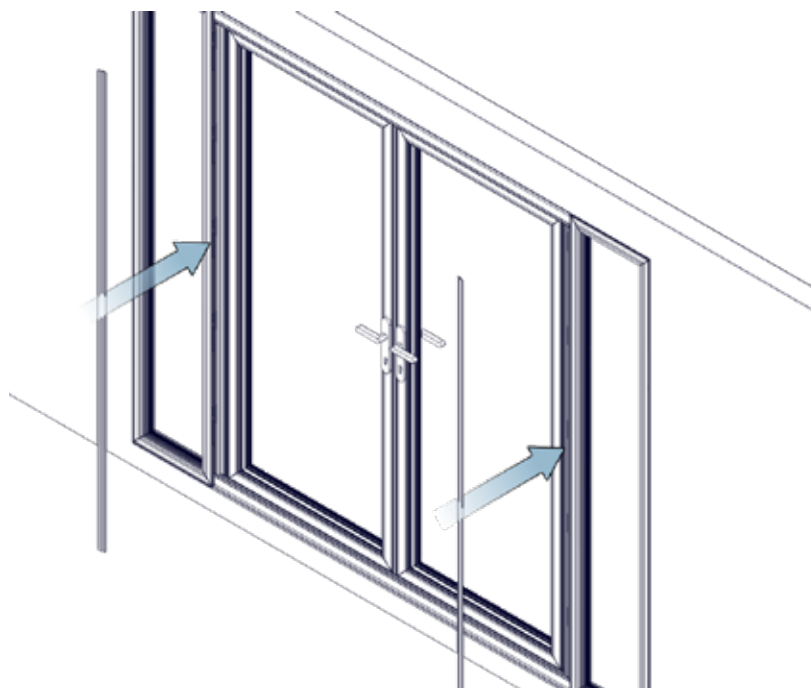
Seal the joint, between the
window and door frame,
making sure the joint is
completely weatherproof



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

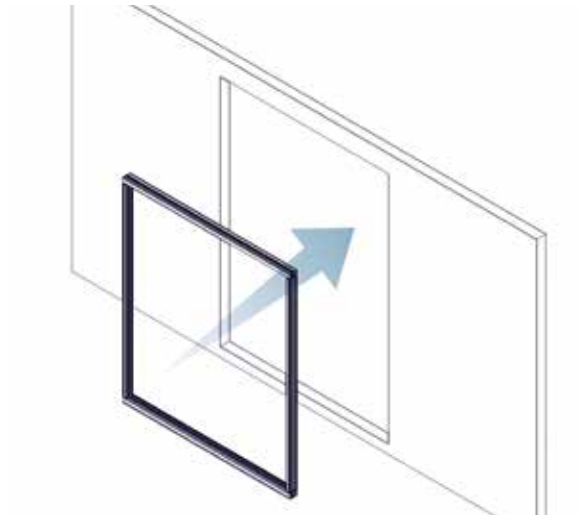


...and out (stepped)

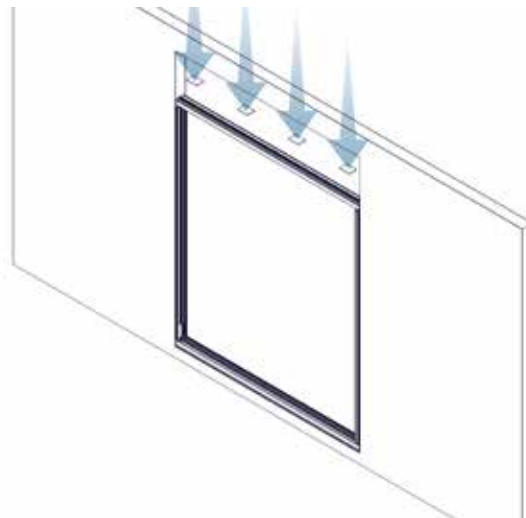


Window-to-track Coupler Installation Guide

Install door jambs and tracks as described in the Installation Guide

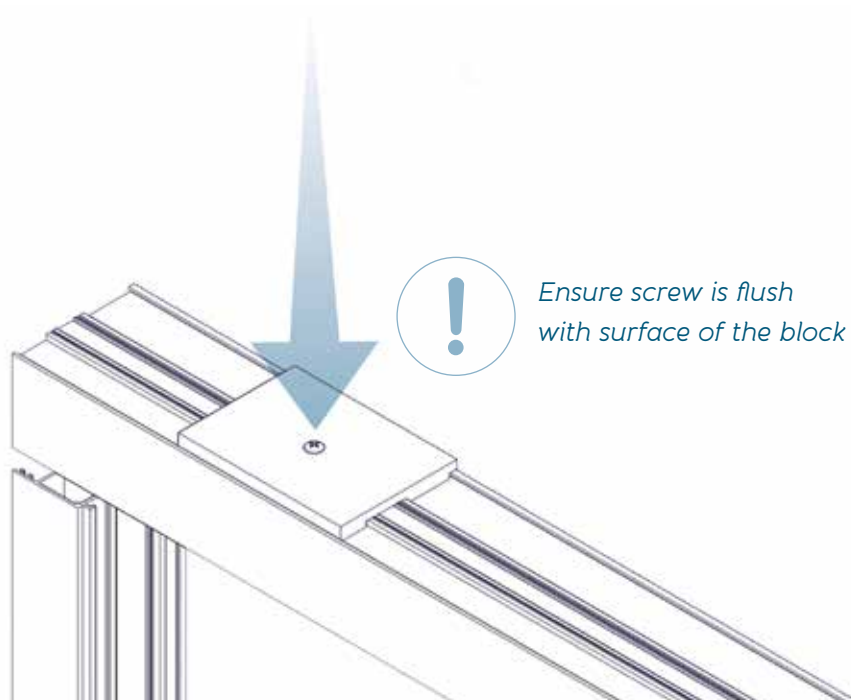
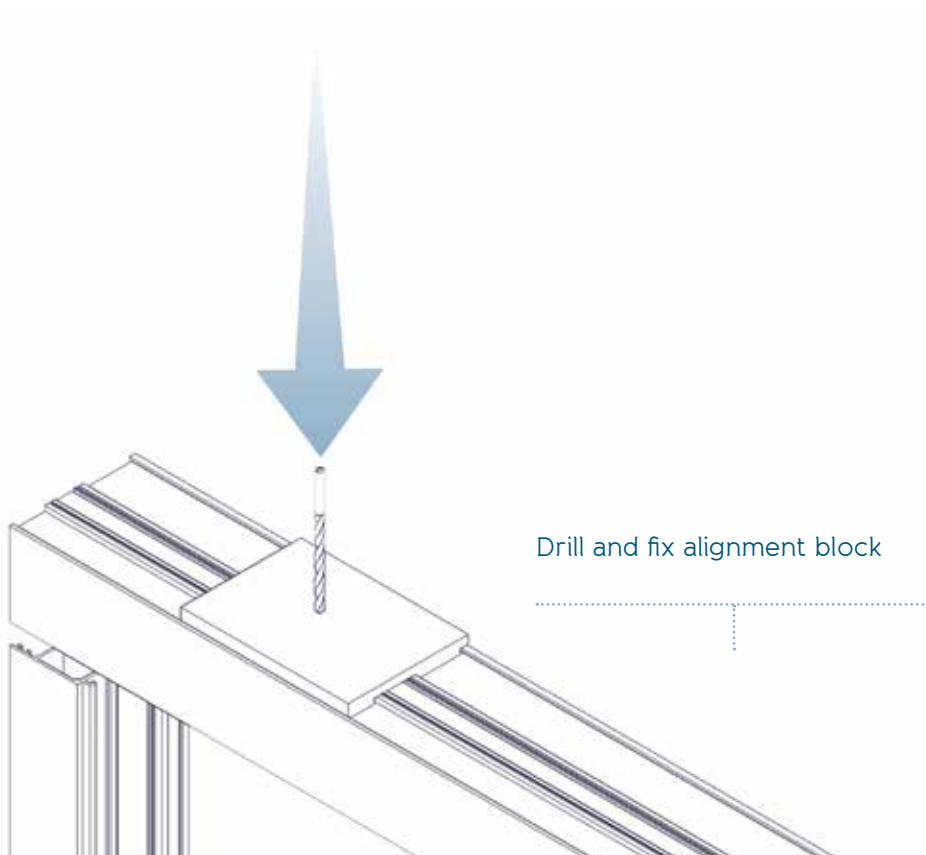


Place fixing blocks along the top track

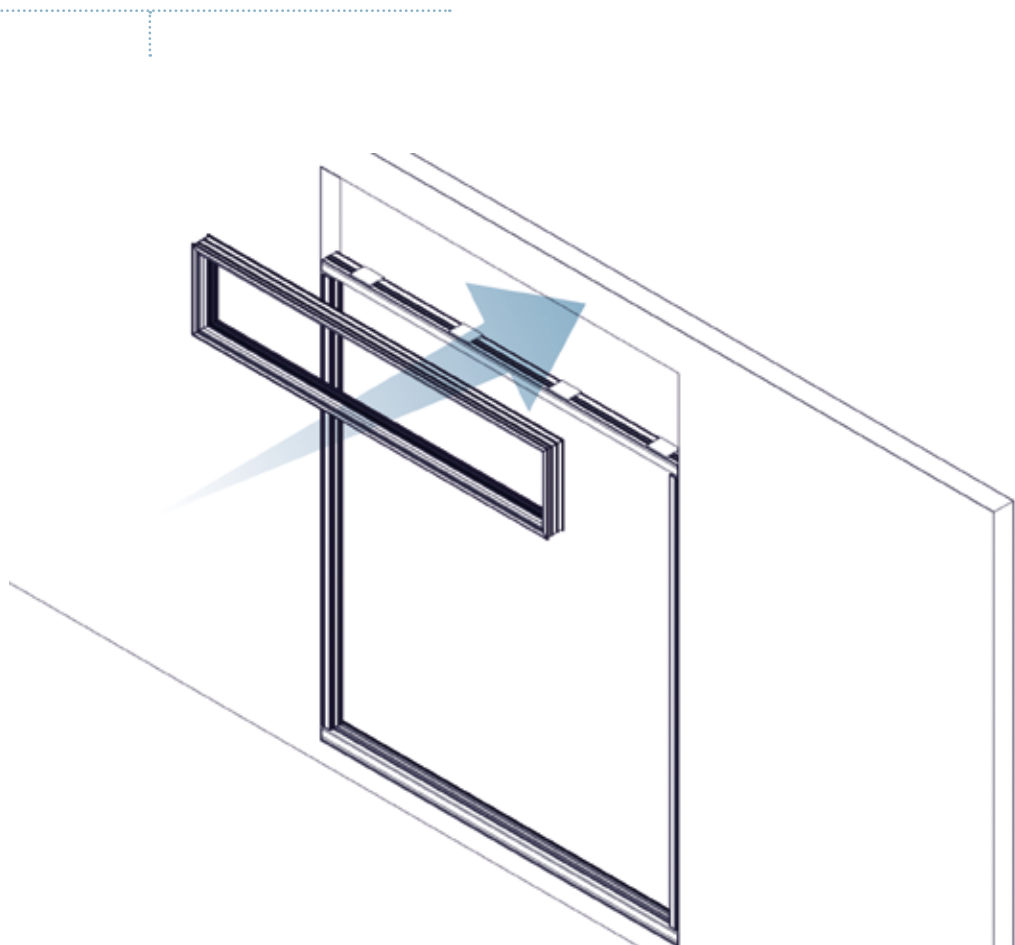


Ensure blocks are spaced evenly as shown

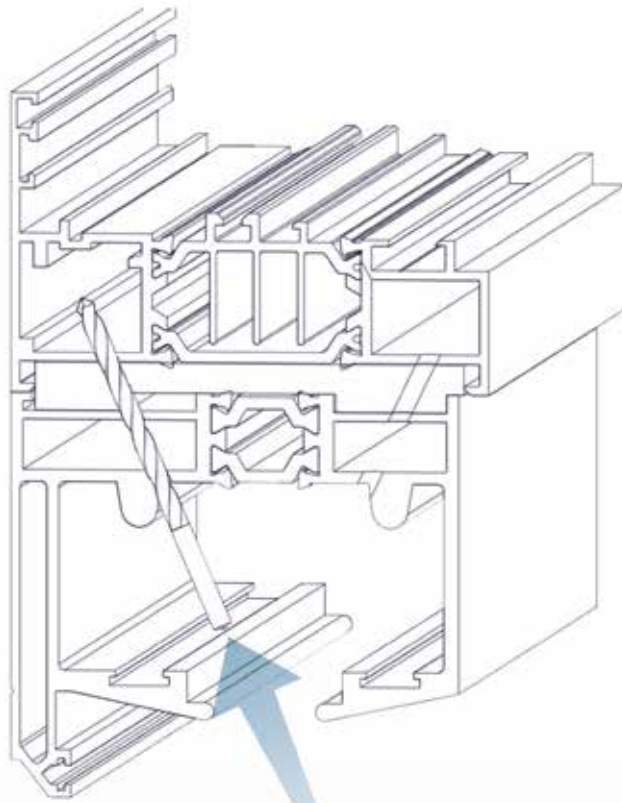




Install window above the door using clamps/
windbags to secure into position

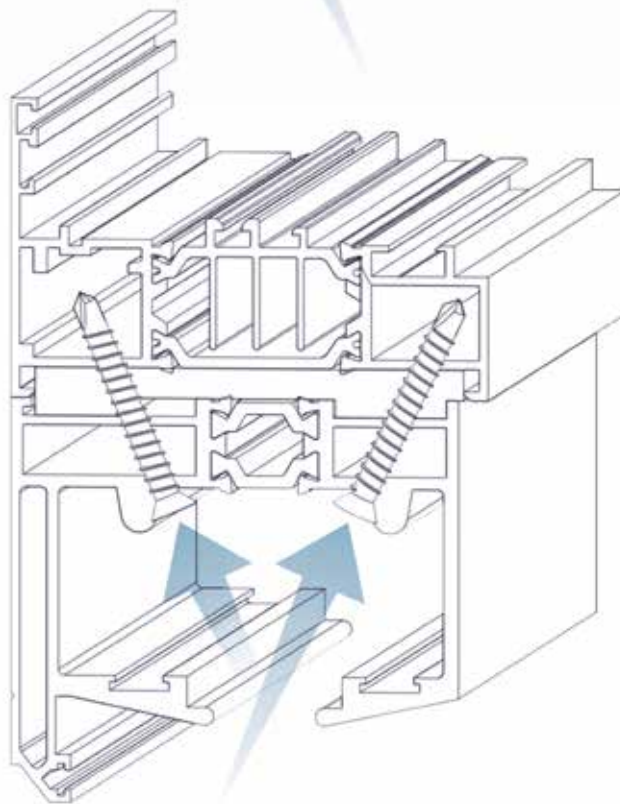


Pre-drill the frame with a 3mm long series drill bit as shown for every alignment block used

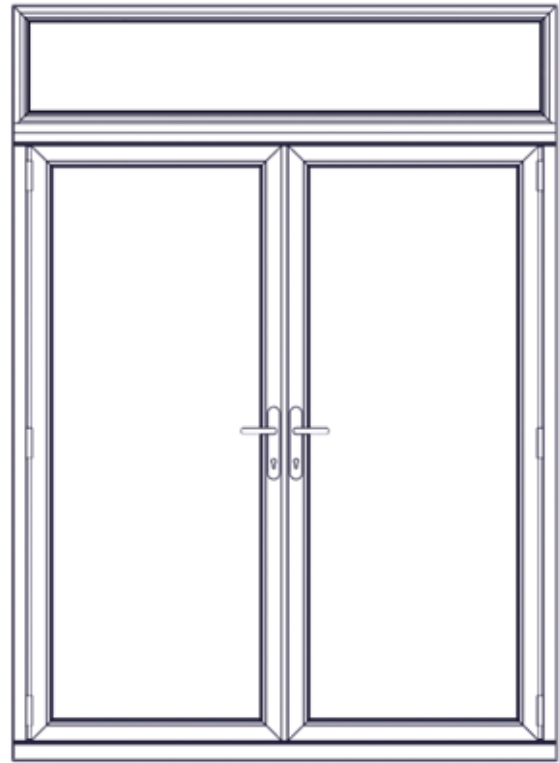


Do not drill into the window cavity

Using screws supplied, fix the track to the window frame



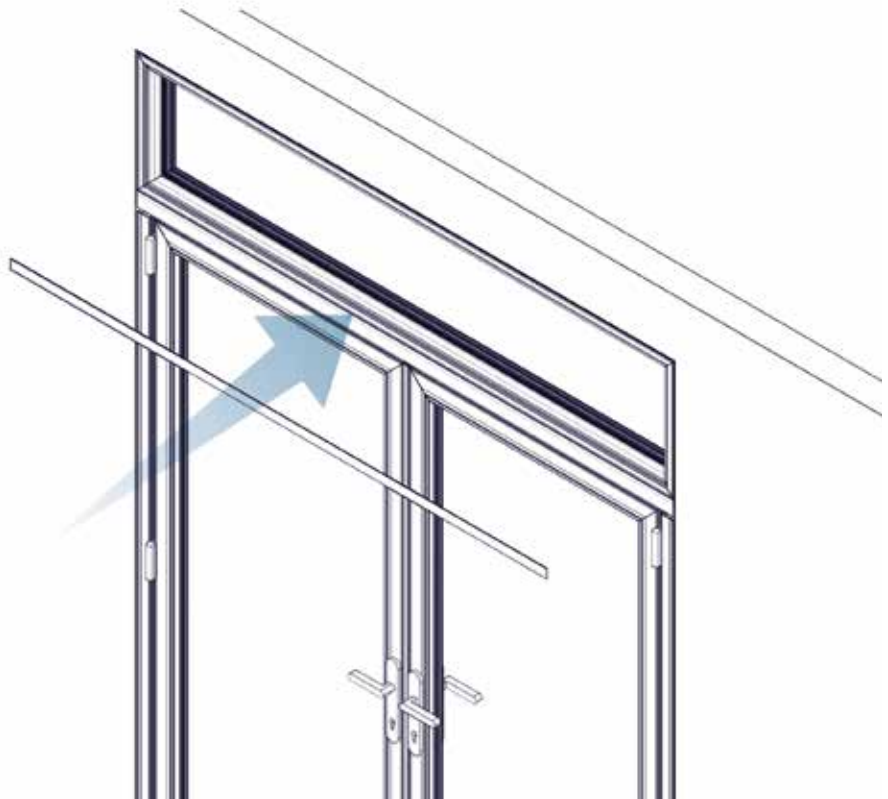
Install door sash,
window and glass
as described in the
Installation Guide



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



Inside



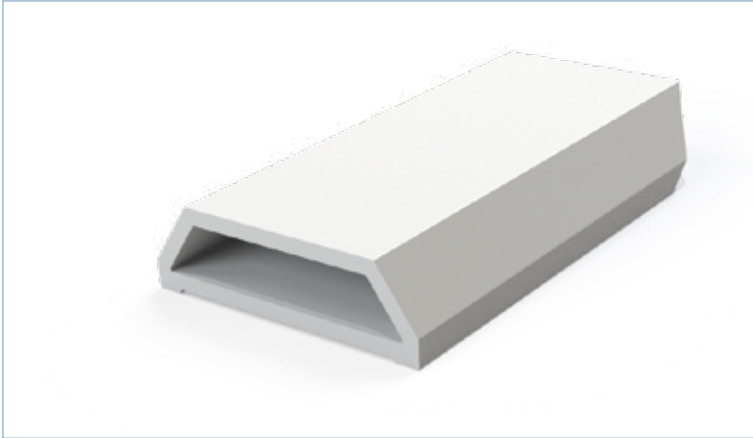
Outside



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



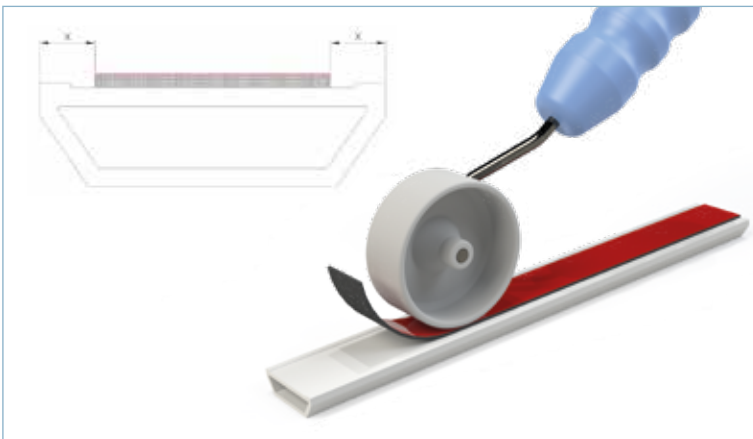
Georgian Bar Installation Guide



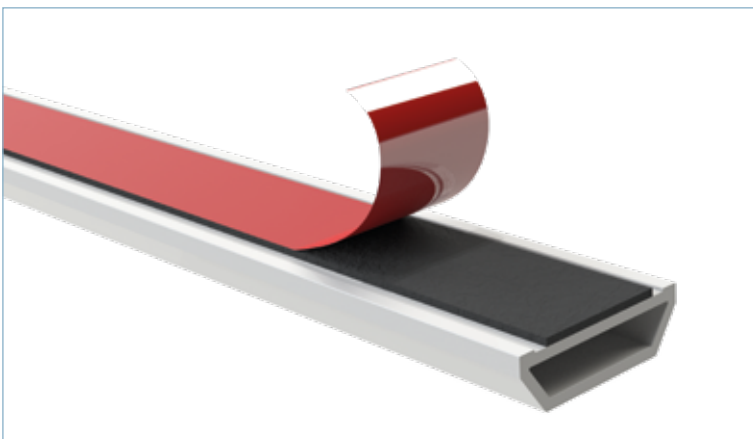
NB: The Georgian bars are supplied as 10m bar lengths (2x5m) with 13m tape. The tape will need to be bonded to the lengths of the bar.

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.



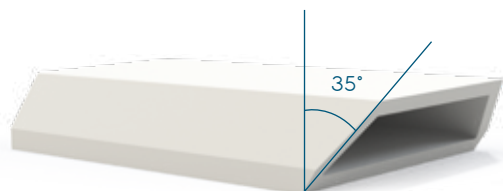
3. Clean the underside of the Georgian bar using a saline solution or primer.
4. Place tape on the underside of the Georgian bar, ensuring it remains central along the bar. It is recommended that a roller is used for this to ensure strongest bond.



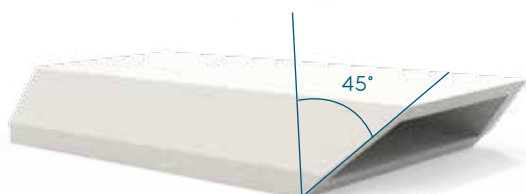
5. Before removing red backing, offer the bars up to the glass and check for size, trim as required.
6. Remove red backing of the tape and press bar firmly onto the glass.

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

Georgian Bar Window Offsets

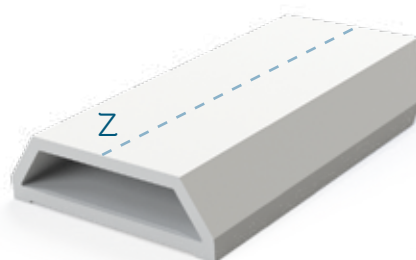
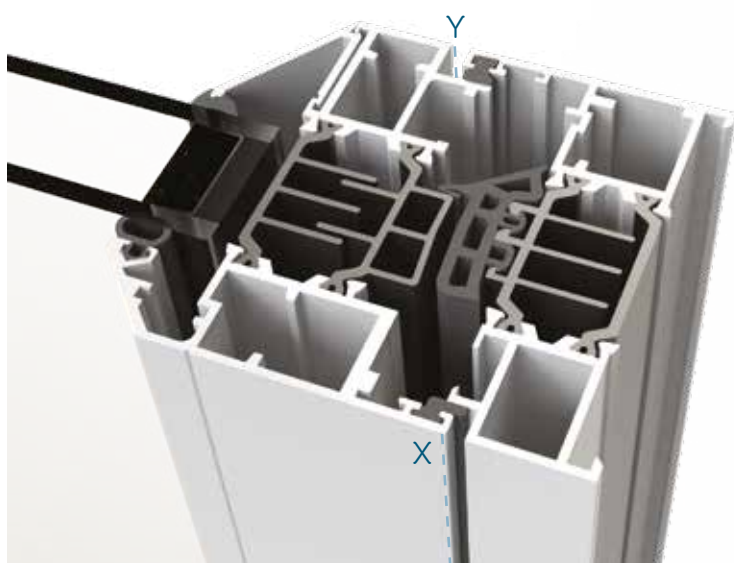
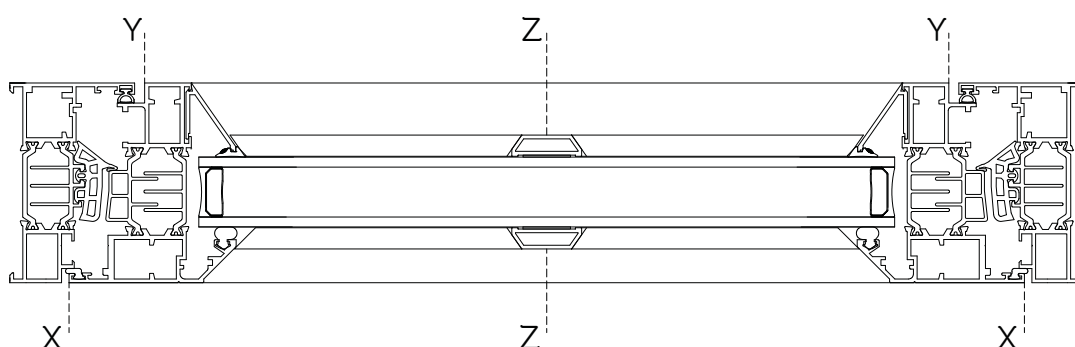


Full lengths	Cut Angle	Approximate Deduction
Sash Rebate to Sash Rebate	45°	X to X - 134mm
28mm Bead	35°	X to X - 138mm
44mm Bead	45°	X to X - 135mm

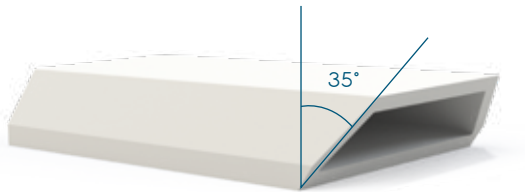


Crossover	Cut Angle	Approximate Deduction
Bar to Bar	35°	Z to Z - 25mm
Rebate to Bar	45° + 35°	X to Z - 81mm
28mm Bead to Bar	45°	Y to Z - 150mm
44mm Bead to Bar	45° + 35°	Y to Z - 149mm

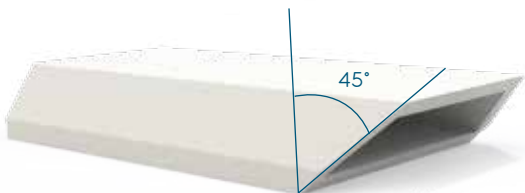
(X to Y dimension = 30mm)



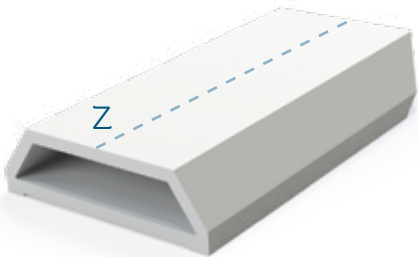
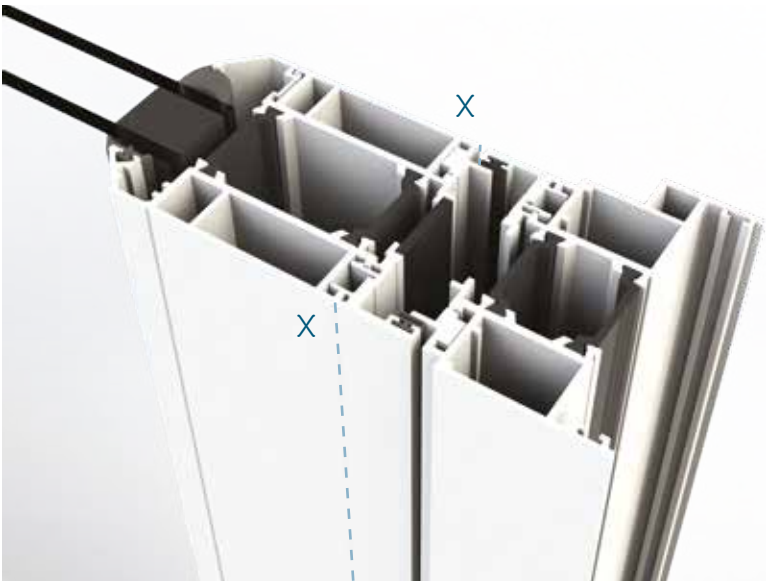
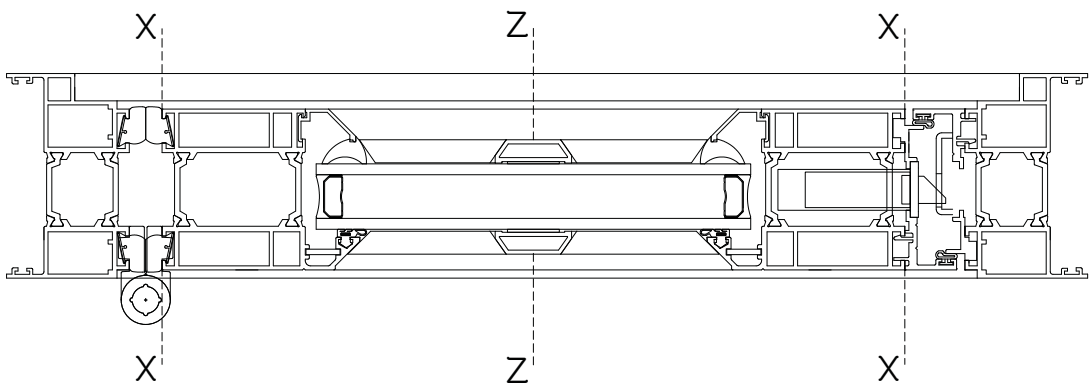
Georgian Bar Door Offsets



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



Accreditations...

At Origin, we pride ourselves on providing best quality products backed by best levels of service and efficiency. Put simply, our aim is to continuously learn, evolve and improve.

We are well known for having rigorously high standards in everything that we do. We're also known for innovation, but we never want to settle: if there's a way that we could do something better, we will find it.

This ethos has been instilled throughout Origin. Whether it's a process, product offering or even the company's sustainability, we have created a culture that encourages continuous improvement.

To demonstrate our commitment and as a way of measuring our performance, we work towards gaining certain prestigious accreditations. Our achievements show a strong moral and ethical intent in how we operate and how we try to do things the best way, not because we are told to do so, but because we think it is the right thing to do.

We'll run through some of these now.

ISO 9001 – Quality Management...

ISO 9001 is an international standard that assesses a company's quality management system. Having first achieved it in 2013, the fact that we still are certified means that we have a track record of consistently providing products and services that meet both customer and regulatory requirements.

It's something that we take very seriously and its influence is integrated into every process. Key areas of this include:

Product quality – To ensure a product's overall manufacture is flawless, we have checks in place to guarantee you the best quality. A few examples are:

- Supply chain – an inspection at the point of delivery and before going into manufacturing. If anything is spotted, it's documented and raised with the supplier.
- Production – there are quality checks at every station, not only to look over the previous person's work, but to review the quality of the overall build.
- Equipment – a robust maintenance schedule for machinery and equipment ensures consistency.
- Pre-delivery – before it is packaged and loaded ready for delivery, there's another thorough check to ensure nothing's happened whilst being moved from station to station.
- Feedback – as part of our mission to always innovate, whether it's from internal or external stakeholders, feedback is imperative. We are very proactive at bringing this type of information back into the business and learning, as it gives us an opportunity to improve.

- Training and development for our employees – meaning we’re better at understanding the good, the bad, and what we can do better.

Secured by Design...

Secured by Design (SBD) is a national, police-backed standard, associated with security and levels of performance for weather, operation and quality on domestic properties. The flagship UK police initiative was originally introduced to help ‘design out’ crime through the use of high-quality, innovative products and market-leading processes.

It recognises that our doors and windows have not only been tested to the required security standards, but that they also adhere to the rigorous test standards required by the police.

This independent certification involves initial testing of the products and regular re-tests, as well as inspections of our manufacturing and production facilities, to ensure the correct processes are maintained constantly over time, providing more secure and reliable products.

In order to be able to apply, we first needed to achieve:

1. PAS 24 (Enhanced Security)
2. BS EN 6375 Part 1 (Weathertightness)
3. BS EN 6375 Part 2 (Operational and Strength Characteristics)
4. BS EN 6375 Part 3 (Basic Security)
5. ISO 9001 (Quality Management)

We’re proud to say that our products passed every one and SBD, so you can feel secure by choosing Origin.

PAS 24...

This is your guarantee that the door sets and windows that we manufacture deliver the right level of security for the buildings they are intended to be part of.

Like most British Standards, PAS 24 is a minimum standard, and it is either a pass or fail test. There isn’t a performance scale for those that are more or less secure, so some of the products that pass will be stronger than the minimum requirement. That’s why we have become Secured by Design accredited. Because it’s a voluntary scheme, we feel it demonstrates our commitment to the security and overall performance of our products.

ISO 14001 – Environmental Management...

Now more than ever, we need to be aware of the impact our operations may have on our environment; the legal obligations we must adhere to, and ensuring we are doing things the right way.

The internationally renowned ISO 14001 accreditation measures the environmental management system that we have in place. It's a subject that's very close to our hearts, which is why working towards this standard was an easy decision.

We care about the resources we use for our products – where they come from and where they end up. To add to this, we aim to be zero waste to landfill and have already put into place many positive changes to make this happen. We want our customers to buy from us with a clear conscience and feel that ISO 14001 can prove that Origin is taking responsibility, acting ethically, legally and exercising best practice in all that we do. Our environmental management system covers:

- Waste management and energy targets – to reduce our consumption and impact on the environment
Helpful hints, tips and reminders are prompted to all staff regularly, so that they can join us in our goal and see how small changes to their work practices can have a big impact.
- Product design and lifecycle – recyclability and sustainability are a design priority for us.
- Supply chain – choosing suppliers that are aligned with our ethos and vision. This is applicable not only when bringing on new suppliers, but also working with existing ones to better their carbon footprint – whether that's minimising packaging, reusing or even our drivers picking up the materials on their routes, rather than a supplier sending their own fleet, we are constantly reviewing how we can improve.





origin
DOORS AND WINDOWS

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