



origin  
DOORS AND WINDOWS

# Bi-fold Door Specification File





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# Specification Overview

## Thermally Broken Aluminium Bi-folding Door

External view of the  
Origin Bi-fold Door (open-out)



Internal view of the  
Origin Bi-fold Door (open-out)





## Profile Specification

Outer Frame Depth	75mm
Sash Depth	59mm
Individual Sash Sightline	72mm
Track Height (not including rebate)	50mm
Weathered Threshold Height (including 18mm upstand)	68mm
Non-weathered Threshold Height	50mm
Mobility Threshold Height	20mm

## Features

- ▶ Up to a 20-year guarantee\*\*
- ▶ The doors are bottom running and incorporate a unique free glide carriage assembly, which uses acetal rollers with sealed SKF stainless steel bearings on an 8mm hardened stainless steel axle
- ▶ Chamfered bead internally and externally
- ▶ Packaged in kit form for easy transportation and installation
- ▶ 8-point locking system and includes chamfered 20mm linear bolts and deep throw 25mm security hooks
- ▶ Thumbturn option available
- ▶ Each door comes with three solid zinc security hinges
- ▶ Finger pull handle option to facilitate operation of even numbered door sets from the outside

## Options and extras

- ▶ Single, French, Bi-fold and Moving Corner Bi-Fold Doors available
- ▶ Accommodates double and triple glazing, with unit sizes of 24mm, 28mm or 32mm
- ▶ Weathered, non-weathered or mobility (Class 4A) thresholds are available\*
- ▶ Open-in or open-out options
- ▶ Cill options available: 95, 155, 180 and 225mm (see page 53)
- ▶ Available in over 150 RAL colours
- ▶ Stainless steel or colour-coded running gear
- ▶ Standard or 3-star keyed cylinder options
- ▶ Hinge colours: black, white, stainless steel finish or colour coded
- ▶ Gasket colours: black, white, light grey, graphite grey, light oak bronze or chestnut brown
- ▶ Door-to-window coupling available
- ▶ 2500EA and 5000EA trickle vents available
- ▶ Marine finish option
- ▶ Comprehensive handle range, including colour matched options

\*Mobility threshold is only available on Single and French Doors.

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

Full terms and conditions can be found on the Origin website - [origin-global.com/terms-and-conditions](https://origin-global.com/terms-and-conditions).

Specification overview

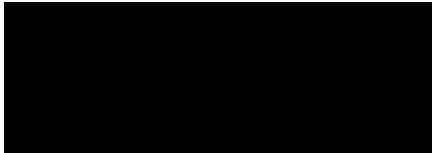
Origin’s Popular Colours are available on our ‘Your Lead Time, Not Ours’ delivery promise, meaning your doors could be available in as little as 24-hours



Dark Silver Metallic (9007M)



Black Grey (7021M)



Jet Black (9005M)



Slate Grey (7015M)



Light Silver Metallic (9006M)



Hipca White (9910G and 9910M)



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 doors then operate on a 3-week lead time

Lead Times

Popular colour doors:	24-hours
Special colour doors:	3-weeks
Dual colour doors:	3-weeks

“YOUR  
LEAD TIME,  
NOT OURS”

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](http://origin-global.com)

Even the gasket or Q-lon colour is your choice

Door Colour	Recommended Q-Lon Colour
A. 7015M and 9007M	Graphite Grey
B. 7016M	Anthracite Grey
C. 9005M and 7021M	Black
D. 9006M	Light Grey
E. 9910G and 9910M	White
F. Natural Oak and Golden Oak	Light Oak
G. Walnut	Bronze
H. Mahogany	Chestnut Brown



A. Graphite Grey



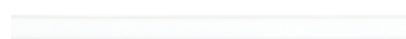
B. Anthracite Grey



C. Black



D. Light Grey



E. White



F. Light Oak



G. Bronze



H. Chestnut Brown

# Security

## Origin's Multi-Point Lock

All lead doors greater than 1125mm tall contain the Origin multi-point lock

The Origin multi-point lock offers 8-points of locking and is part of the reason our overall door system is PAS24 certified\*

In the image below, you will see 6-points of locking. We then add a shoot bolt that goes into the top and bottom track, resulting in a total of 8-points of locking



## Barrels

In addition to our standard barrel, we have 2 optional upgrade barrels for added security. Choose either the ATK barrel which is certified to 3-Star British Kite Mark or our most secure option, the 3-Star British Kite Mark ABS barrel with coded magnetic keys.

3-Star ATK Barrel



3-Star British Kite Marked ABS Barrel\*\* with coded magnetic keys

\*PAS23/PAS24 is certified when a 3 star barrel is selected.

\*\*The ABS barrel is only available on single doors.

# Optional Extras

## Trickle Vents

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

Should it be required, the Origin Door can be specified with discreetly designed trickle vents which are installed through the top track for additional ventilation, ensuring the doors meet and surpass building regulations.



Internal view



External View

*Trickle vents on our bi-fold can only be fitted through the top track or through the frame extender.*

## Thresholds – weathered, non-weathered and mobility

Weathered and non-weathered options are available, so you can pick the right option for to cater for your customer's needs. A mobility threshold option is only available on single doors and French doors.



## Optional Extras

### Door Restrictor

We offer either a 90 degree or 135-degree door restrictor that will help hold the door in place while being operated.



### Cills

Choose from our 4 cill options which can also be powder-coated to match the doors.



95mm cill



150mm cill



180mm cill



225mm cill

### Handles

Choose from a selection of elegant handle styles that have been designed and manufactured with the same care and dedication as every other door component. You can specify from our popular aluminium range or our premium stainless-steel range. Our stainless steel handles, slave handles and D-handles are able to be specified in stainless steel or in a colour coded RAL option.

#### Premium stainless steel range



Solid stainless steel lever handle with separate escutcheon  
(Style 253/280)



Solid stainless steel lever handle with separate escutcheon  
(Style 251/280)



Solid stainless steel lever handle with separate escutcheon  
(Style 301/280)



Solid stainless steel lever handle with separate escutcheon  
(Style 303/280)



Solid stainless steel handle with long back plate  
(Style 253/270)

#### Popular aluminium range



Security handle lever white  
(YSHLL-WH)



Security handle lever chrome  
(YSHLL-PC)



Security handle lever black  
(YSHLL-BL)



Security handle lever gold  
(YSHLL-PG)

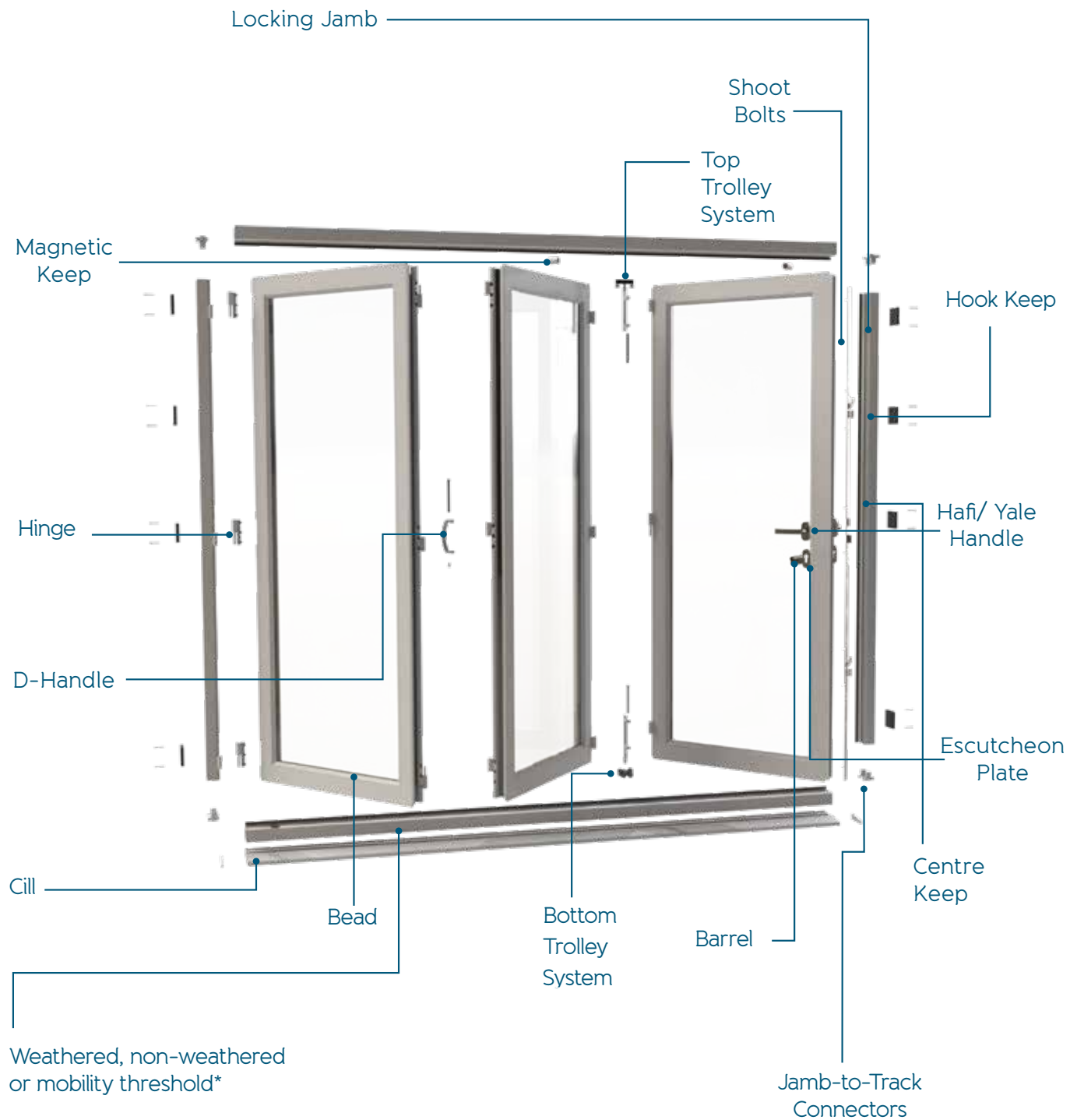


D handle



Slave handle

# Door Make-Up



\*Mobility threshold is only available on Single and French Doors

# Performance and Limitations

## Origin Thermal Ratings

## u-Value

Origin Bi-Fold Door Double Glazed	1.6 W/(m <sup>2</sup> K)
Origin Bi-Fold Door Triple Glazed (with krypton)	1.3 W/(m <sup>2</sup> K)
Origin Bi-Fold Door Triple Glazed (with argon)	1.5 W/(m <sup>2</sup> K)
Energy Rating	up to C

## Weather Rating

## Doors up to 2699mm

## Doors over 2700mm

Air Permeability	600pa, Class 4	600pa Class 3
Resistance to Wind Load	1200pa, Class A3	800pa, Class A2
Water Tightness	Class 9A	Class 5A
Exposure Category	1200 Special	800 Special

## Performance Testing

PAS 24

Passed 50,000 lead door cycles and 10,000 full cycles, equating to 25 years of use

## Accreditation

ISO 9001 and ISO 14001



## Building Regulation Requirements

New Build  
and Extensions 2.0 W/(m<sup>2</sup>K)

Replacements 1.8 W/(m<sup>2</sup>K)

Energy Rating E or better

All doors must conform to these requirements.

## Size limitations

	Width	Height
Minimum door panel (mm)		
Even No. Same Direction	700	1000
Odd No. Same Direction	400	1000
Maximum door panel (mm)		
Standard	1200	3000
With multi-point lock (mm)		
Minimum	N/A	1125
Maximum	N/A	3000

► Maximum steel deflection -3mm

## Thermal Efficiency

The Origin Doors Range exceeds British Building Regulation requirements for optimum thermal efficiency. With u-Values as low as 1.3, the Origin Door comprises of some of the most sophisticated weather-tight seals to ensure the elements stay out.

See pages 14-20 for more information on thermal efficiency and weather ratings.



origin

Bi-fold Doors

Certificate of thermal simulation

PRODUCT:	ORIGIN BI-FOLD DOOR
SIM - SOFTWARE:	WIN ISO 2D PRO
GLASS CENTRE PANE U-VALUE:	0.5 W/M2K
INSULATION:	STANDARD
PROFILE SPEC:	FRAME - P991 (STANDARD TRACK), P992 (JAMB), SASH - P993/994
BEAD:	32MM
GLASS SPEC:	4mm CLEAR - 10mm 90% KRYPTON - 4mm PLANITHERM 4SII - 10mm 90% KRYPTON - 4mm PLANITHERM 4SII
SPACER BAR:	SWISSPACER ULTIMATE

THERMAL TRANSMITTANCE:  
1.3W/m2K

TESTED BY: David Ginger (Product Compliance Director)  
DATE: 05/02/2015  
SIGNED: 

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

Email: [enquiry@origin-global.com](mailto:enquiry@origin-global.com) | Web: [www.origin-global.com](http://www.origin-global.com)

Origin Global HQ, Stuart House, Castle Estate, Coronation Road,  
Cressex Business Park, High Wycombe, Buckinghamshire, HP12 3TA

OFDL\_18.80.1



DOORS AND WINDOWS

# Certificate of thermal simulation

PRODUCT:	ORIGIN BI-FOLD DOOR
SIM - SOFTWARE:	WIN ISO 2D PRO
GLASS CENTRE PANE U-VALUE:	0.8 W/M2K
INSULATION:	STANDARD
PROFILE SPEC:	FRAME - P991 (STANDARD TRACK), P992 (JAMB), SASH - P993/994
BEAD:	32MM
GLASS SPEC:	4mm CLEAR - 10mm 90% ARGON - 4mm PLANITHERM 4SII - 10mm 90% ARGON - 4mm PLANITHERM 4SII
SPACER BAR:	SWISSPACER ULTIMATE

THERMAL TRANSMITTANCE:

1.5W/m2K

TESTED BY: David Ginger (Product Compliance Director)

DATE: 05/02/2015

SIGNED:



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

Email: [enquiry@origin-global.com](mailto:enquiry@origin-global.com) | Web: [www.origin-global.com](http://www.origin-global.com)

Origin Global HQ, Stuart House, Castle Estate, Coronation Road,  
Cressex Business Park, High Wycombe, Buckinghamshire, HP12 3TA

OFDL\_18.811

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DOORS AND WINDOWS

Bi-fold Doors

Certificate of thermal simulation

PRODUCT:	ORIGIN BI-FOLD DOOR
SIM - SOFTWARE:	WIN ISO 2D PRO
GLASS CENTRE PANE U-VALUE:	1.0 W/M2K
INSULATION:	STANDARD
PROFILE SPEC:	FRAME - P991 (STANDARD TRACK), P992 (JAMB), SASH - P993/994
BEAD:	24MM OR 28MM
GLASS SPEC:	4mm CLEAR - 16/20mm 90% ARGON - 4mm PLANITHERM 4SII
SPACER BAR:	SWISSPACER ULTIMATE

THERMAL TRANSMITTANCE:

1.6W/m2K

TESTED BY:

David Ginger (Product Compliance Director)

DATE:

05/02/2015

SIGNED:



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DOORS AND WINDOWS

# Certificate of thermal simulation


PRODUCT:	ORIGIN BI-FOLD DOOR
SIM - SOFTWARE:	WIN ISO 2D PRO
GLASS CENTRE PANE U-VALUE:	1.2 W/M2K
INSULATION:	STANDARD
PROFILE SPEC:	FRAME - P991 (STANDARD TRACK), P992 (JAMB), SASH - P993/994
BEAD:	28MM
GLASS SPEC:	4mm CLEAR - 16/20mm 90% ARGON - 4mm PLANITHERM TOTAL+
SPACER BAR:	SWISSPACER ULTIMATE

THERMAL TRANSMITTANCE:

1.8W/m2K

TESTED BY: David Ginger (Product Compliance Director)

DATE: 01/12/2014

SIGNED: 

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

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Origin Global HQ, Stuart House, Castle Estate, Coronation Road,  
Cressex Business Park, High Wycombe, Buckinghamshire, HP12 3TA

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DOORS AND WINDOWS

Bi-fold Doors

Certificate of thermal simulation

PRODUCT:	ORIGIN BI-FOLD DOOR
SIM - SOFTWARE:	WIN ISO 2D PRO
GLASS CENTRE PANE U-VALUE:	1.2 W/M2K
INSULATION:	STANDARD
PROFILE SPEC:	FRAME - P991 (STANDARD TRACK), P992 (JAMB), SASH - P993/994
BEAD:	24MM
GLASS SPEC:	4mm DIAMANT - 16/20mm 90% ARGON - 4mm PLANITHERM TOTAL+
SPACER BAR:	SWISSPACER ULTIMATE

THERMAL TRANSMITTANCE:

D

TESTED BY: David Ginger (Product Compliance Director)

DATE: 01/12/2014

SIGNED: 

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

Email: [enquiry@origin-global.com](mailto:enquiry@origin-global.com) | Web: [www.origin-global.com](http://www.origin-global.com)

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OFDL\_18.77.1

  
DOORS AND WINDOWS

# Classification of weather tightness

PRODUCT TESTED: Origin Bi-folding Door (up to 2699mm tall)

- Air permeability tests in accordance with BS EN 1026:2000
- Watertightness test in accordance with BS EN 1027:2000
- Wind resistance tests in accordance with BS EN 12211:2000
- Exposure category classification in accordance with BS 6375-1:2009 (clauses ,7 and 8)

## RESULTS:

UK exposure category	Air permeability		Water tightness		Resistance to wind load	
	Class	Maximum test pressure	Class	Maximum test pressure	Class	Maximum test pressure
1200 special	4	600 Pa	9A	600 Pa	A3	1200 Pa

TESTED BY: Build Check Ltd

REFERENCE: W17183-1

DATE: 14/08/2017

Email: [info@origin-global.com](mailto:info@origin-global.com) | Web: [www.origin-global.com](http://www.origin-global.com)

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

OFDL\_18.78.1

**origin**  
DOORS AND WINDOWS

Doors

# Classification of weather tightness

PRODUCT TESTED: Origin Bi-folding Door (up to 3000mm tall)

- Air permeability tests in accordance with BS EN 1026:2000
- Water tightness test in accordance with BS EN 1027:2000
- Wind resistance tests in accordance with BS EN 12211:2000
- Exposure category classification in accordance with BS 6375-1:2009 (clauses ,7 and 8)

## RESULTS:

UK exposure category	Air permeability		Water tightness		Resistance to wind load			
	Class	Maximum test pressure	Class	Maximum test pressure	Class	P1	P2	P3
800	3	600 Pa	5A	200 Pa	A2	800	400	1200

TESTED BY: Build Check Ltd

REFERENCE: W17183-1

DATE: 14/08/2017

Email: [info@origin-global.com](mailto:info@origin-global.com) | Web: [www.origin-global.com](http://www.origin-global.com)

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

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DOORS AND WINDOWS



# Size Guidelines

## Configuration table

approximate opening

number of doors	approximate opening																
	0.6 Metres	1.0 Metres	1.4 Metres	1.8 Metres	2.2 Metres	2.6 Metres	3.0 Metres	3.4 Metres	3.8 Metres	4.2 Metres	4.6 Metres	5.0 Metres	5.4 Metres	5.8 Metres	6.2 Metres	6.6 Metres	7.0 Metres
	1 door																
	2 door																
	3 door																
	4 door																
	5 door																
	6 door																
	7 door																
	8 door																

The above sizes are for guidance only and are subject to glass specification.

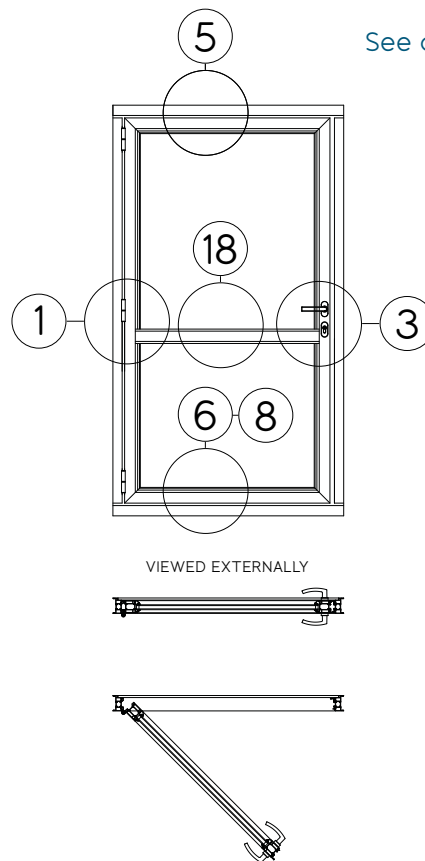
Origin are able to manufacture door sets with more leaves than as shown above. Please contact us directly if you have a specific requirement.

Key:

- Optimum door leaf sizes
- Wide door leaf sizes
- Narrow door leaf sizes

# Master Configurations

## Master Configuration: single door



See configuration key for section detail ►



Single Door

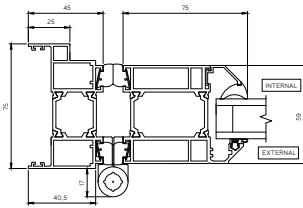
See page 70 for configurations

## Key features

- Origin 8-point locking system
- Is able to be used for an everyday access door

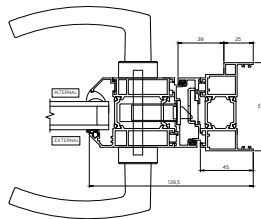
## Configuration Key

1 - Hinge jamb detail



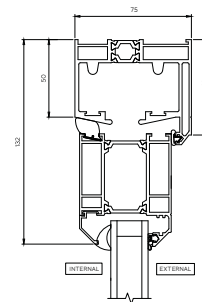
See page 36

3 - Locking jamb detail



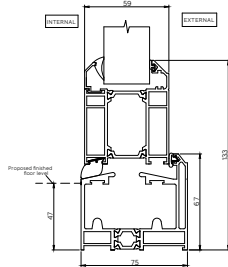
See page 38

5 - Top track detail



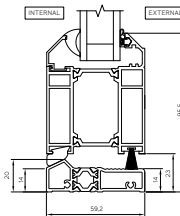
See page 40

6a - Threshold detail on single and French doors



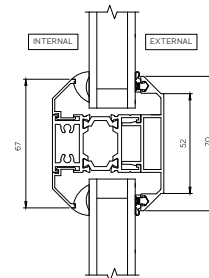
See page 41

8 - Threshold detail - mobility



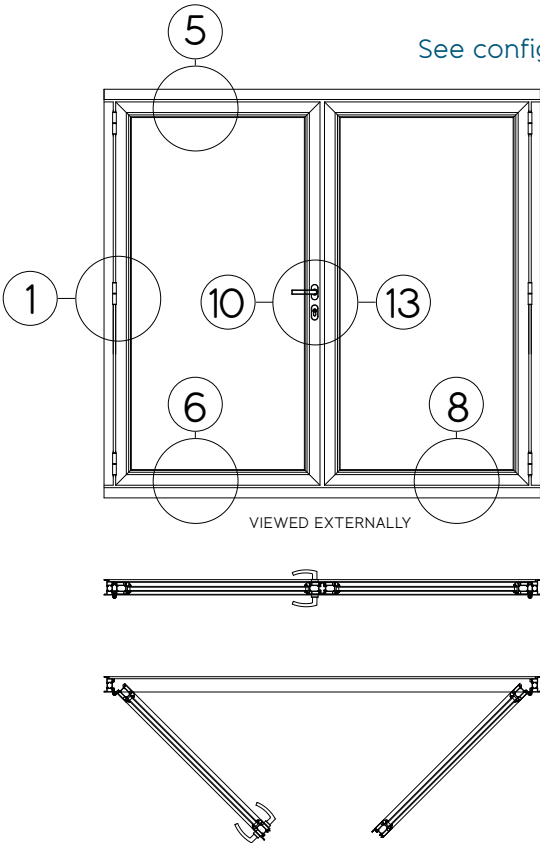
See page 46

18 - Midrail detail



See page 56

Master Configuration: French door



French Door

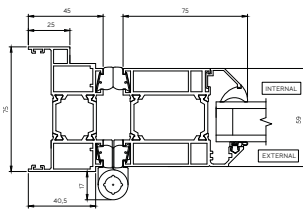
See page 70 for configurations

Key features

► Origin 8-point locking system

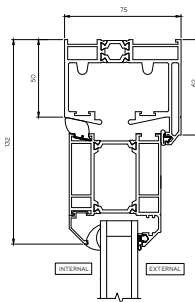
## Configuration Key

1 - Hinge jamb detail



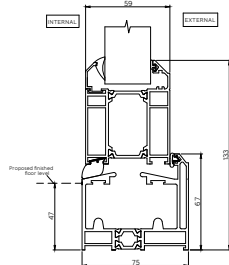
See page 36

5 - Top track detail



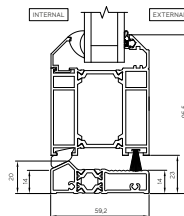
See page 40

6a - Threshold detail on single and French doors



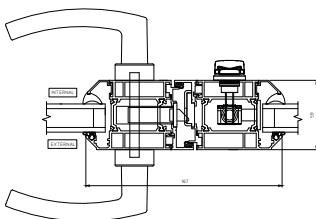
See page 41

8 - Threshold detail - mobility



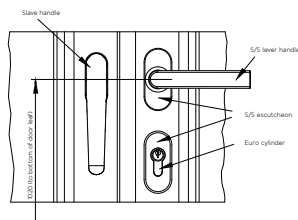
See page 46

10 - Locking slave detail



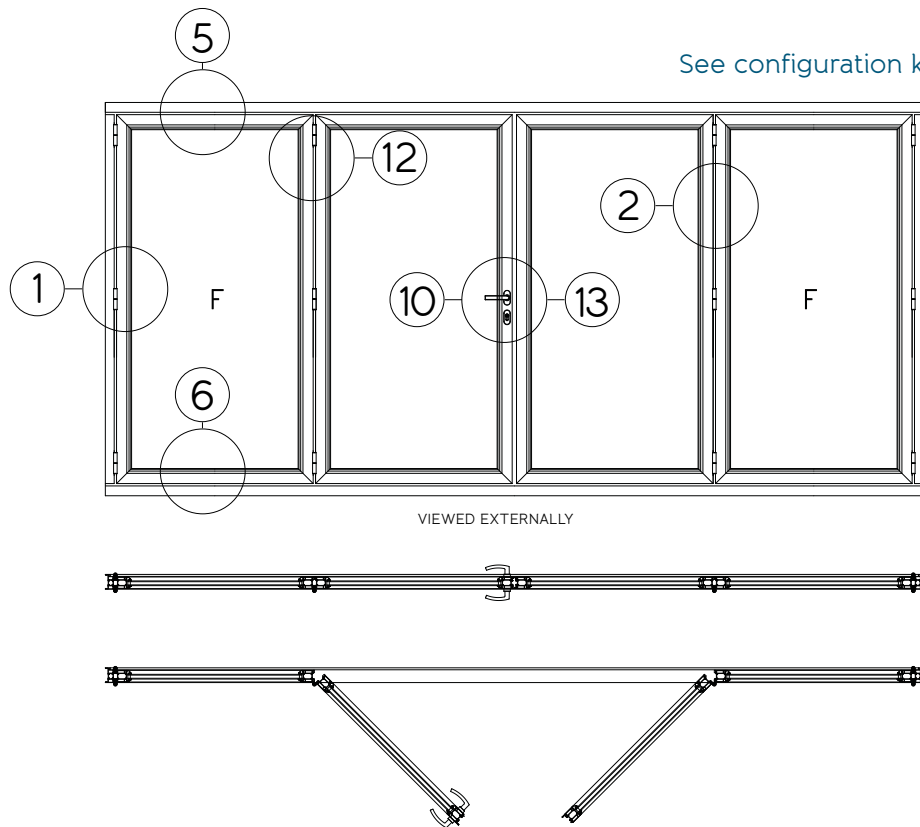
See pages 48

13 - Locking slave handle detail



See page 51

## Master Configuration: French door with fixed panels



French Door with Fixed Panels

See page 70 for configurations

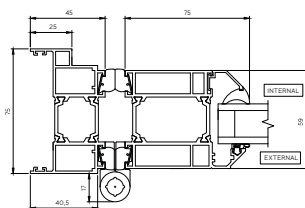
### Key features

- ▶ Origin 8-point locking system
- ▶ Fixed panels and can vary in size
- ▶ Ideal for Juliette balconies

*\*Any fixed panels will be manufactured with dummy hinges for alignment and structural purposes, unless fixed windows are specified which will be coupled to the doors.*

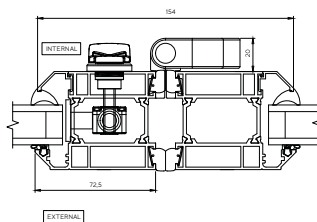
## Configuration Key

### 1 - Hinge jamb detail

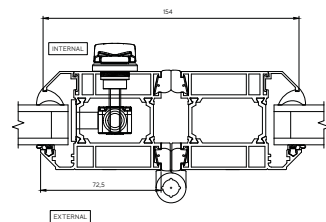


See page 36

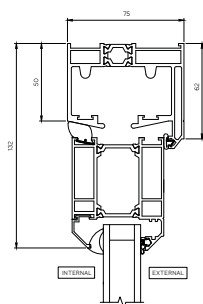
### 2a, 2b - Opening stiles



See page 37

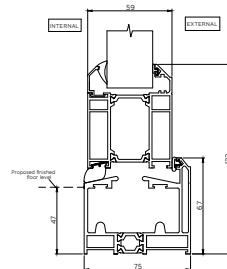


### 5 - Top track detail



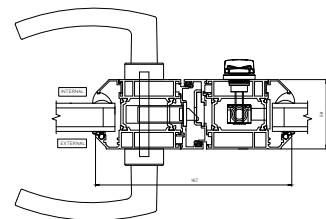
See page 40

### 6a - Threshold detail on single and French doors



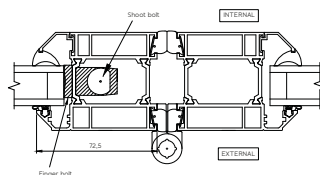
See page 41

### 10 - Locking slave detail



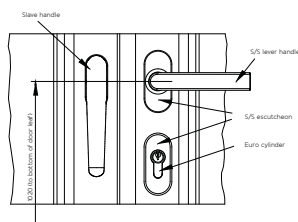
See pages 48

### 12 - Concealed bolt sash locking



See page 50

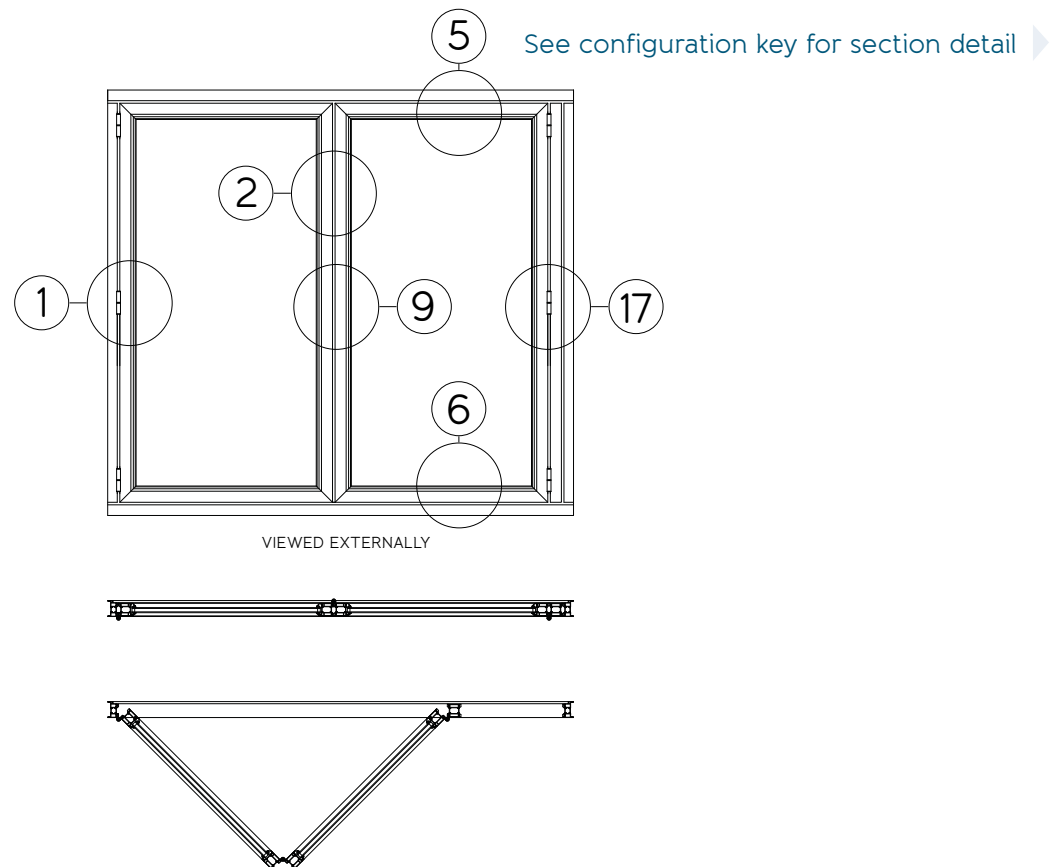
### 13 - Locking slave handle detail



See page 51

## Master Configuration: 2+0

Master drawing and all technical detail drawings are also applicable to the following configurations: 4+0, 6+0, 8+0



2 Door Left

4+0



6+0



8+0

See page 70 for configurations

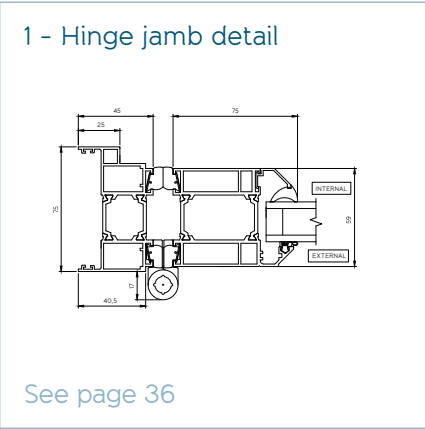
## Key features

- ▶ All doors open-in the same direction
- ▶ No multi-point lock available on this configuration
- ▶ Requires a mullion



## Configuration Key

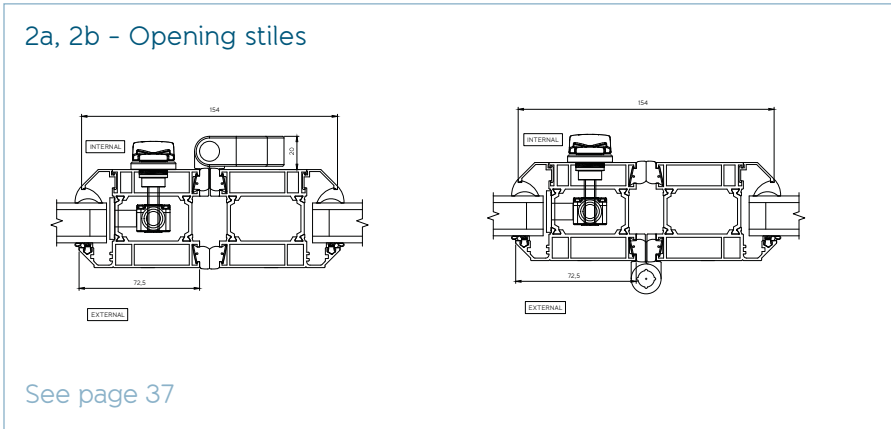
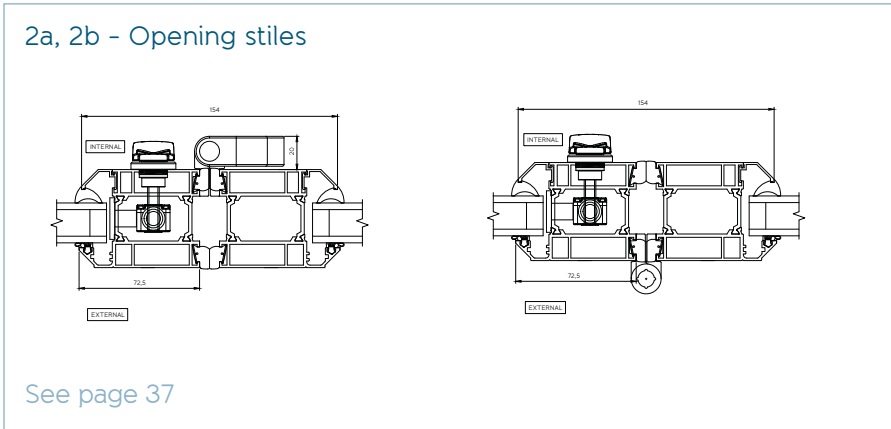
# 1 - Hinge jamb detail



See page 36

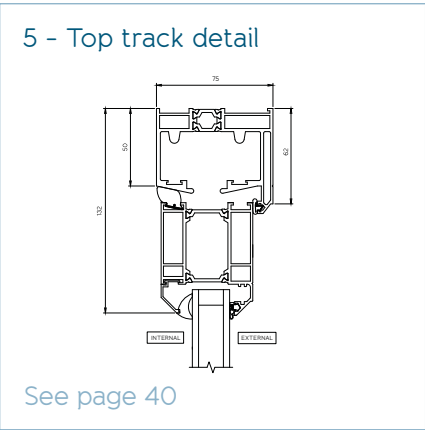
## 2a, 2b - Opening stiles

The image contains two technical drawings of window opening stiles, labeled 2a and 2b. Both drawings show a cross-section of the stile with a width of 154 units. Drawing 2a shows a stile with a height of 72.5 units and a depth of 72 units. It features a central opening with a handle and a lock mechanism. Drawing 2b shows a stile with a height of 72.5 units and a depth of 72 units. It features a central opening with a handle and a lock mechanism. Both drawings are labeled 'INTERNAL' and 'EXTERNAL' to indicate the orientation of the opening.



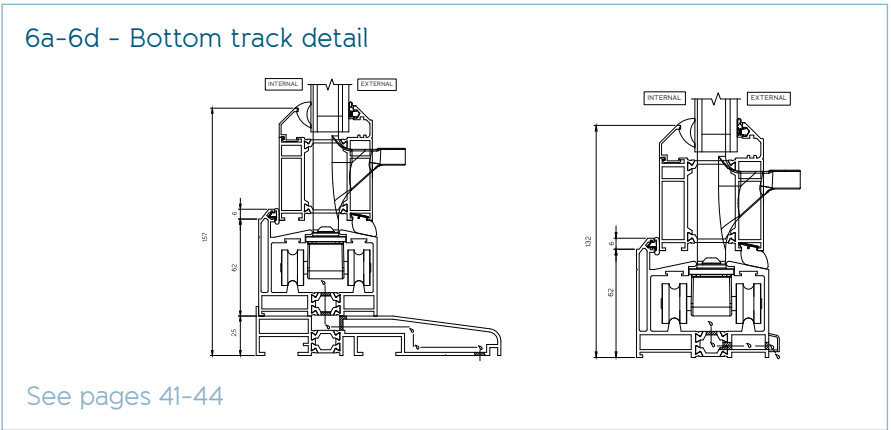
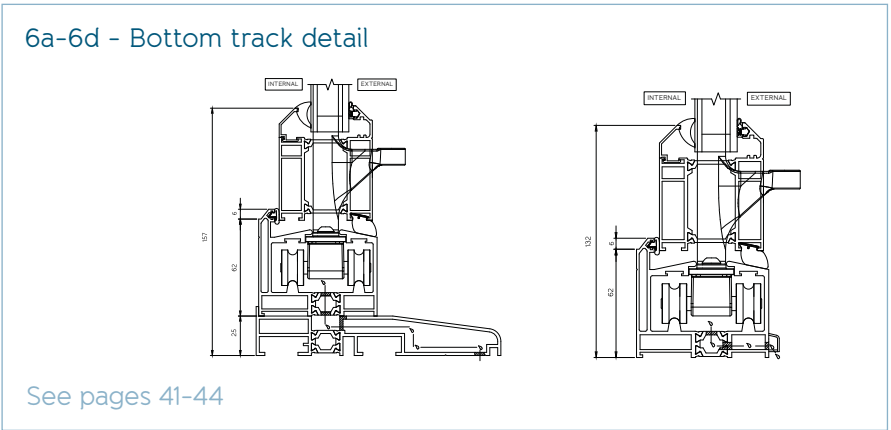
See page 37

Technical drawing of a top track detail. The drawing shows a cross-section of a track system with internal and external components. Dimensions are indicated: 75 (width), 19 (height of the top section), and 12 (height of the bottom section). Labels 'INTERNAL' and 'EXTERNAL' are present at the bottom of the drawing.



See page 40

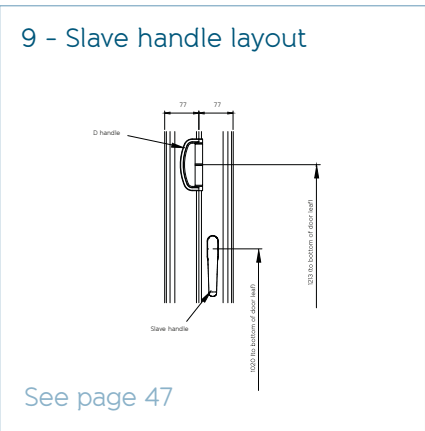
## 6a-6d - Bottom track detail



See pages 41-44

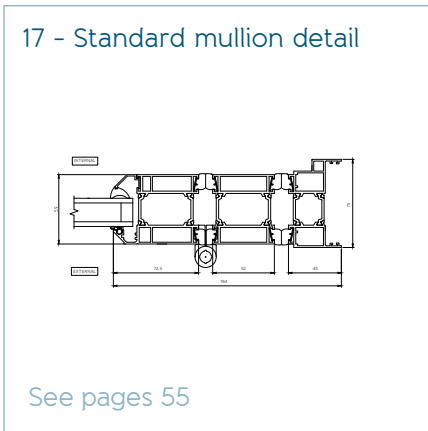
## 9 - Slave handle layout

Diagram illustrating the slave handle layout. The diagram shows a vertical door with two handles. The top handle is labeled "D handle" and the bottom handle is labeled "Slave handle". The distance between the centerlines of the two handles is marked as "1000 (to bottom of door rail)". The distance from the top of the door to the centerline of the top handle is marked as "77". The distance from the centerline of the top handle to the centerline of the bottom handle is marked as "77". A dimension line on the right indicates "125 (to bottom of door rail)".



See page 47

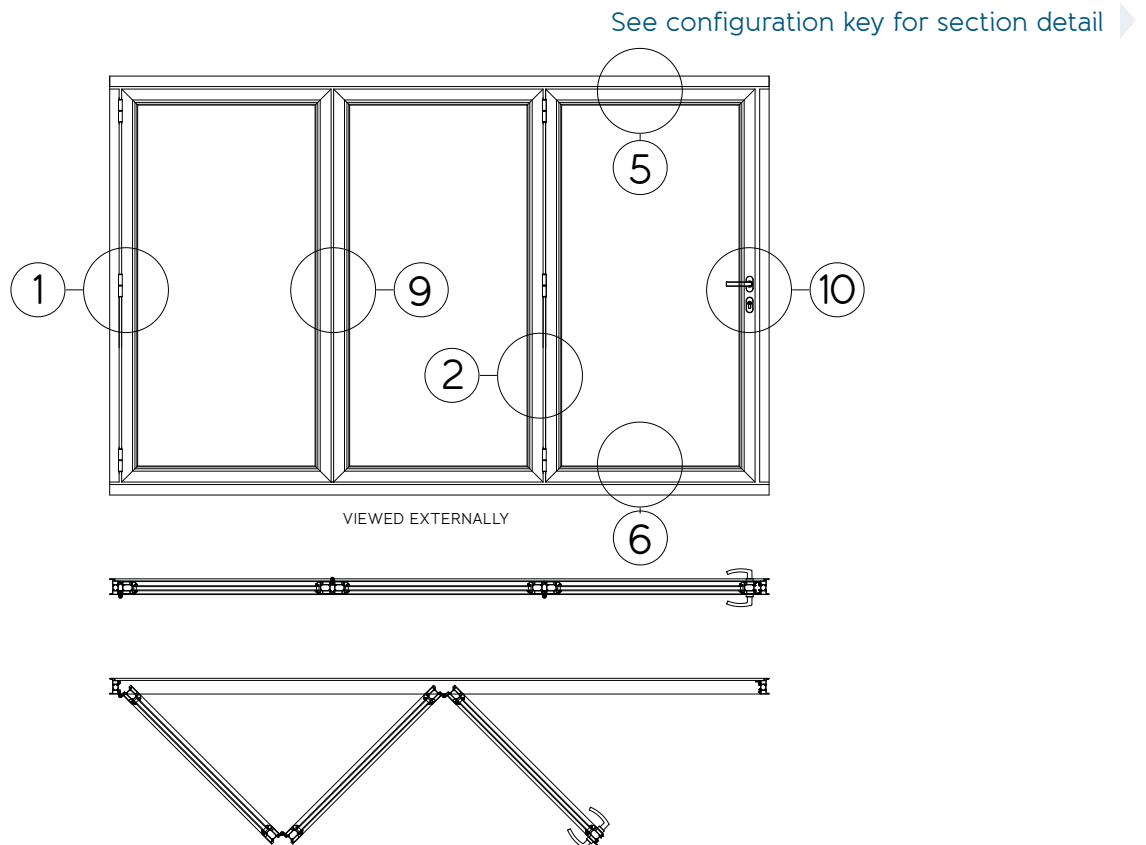
## 17 - Standard mullion detail



See pages 55

## Master Configuration: 3+0

Master drawing and all technical detail drawings are also applicable to the following configurations: 5+0, 7+0



3 Door Left



5+0



7+0

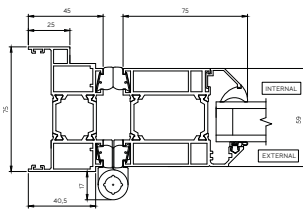
See page 70 for configurations

## Key features

- Origin 8-point locking system
- Everyday access door
- All doors open-in the same direction

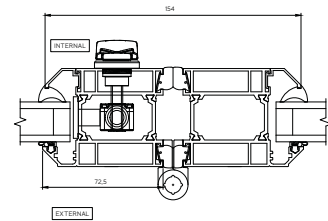
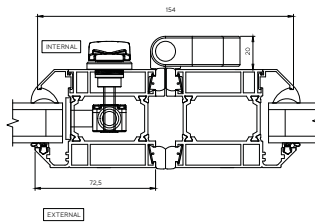
## Configuration Key

### 1 - Hinge jamb detail



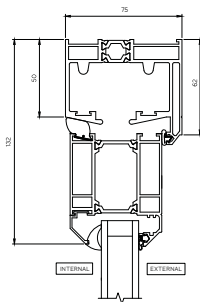
See page 36

### 2a, 2b - Opening stiles



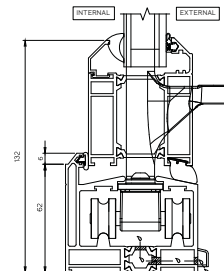
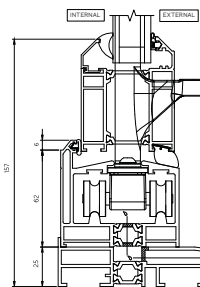
See page 37

### 5 - Top track detail



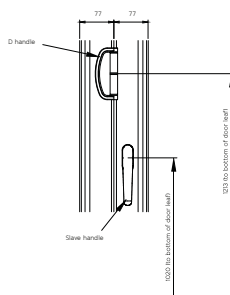
See page 40

### 6a-6d - Bottom track detail



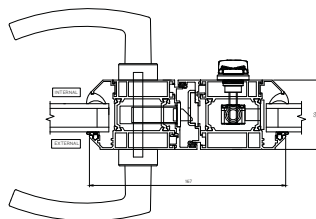
See pages 41-44

### 9 - Slave handle layout



See page 47

### 10 - Locking slave detail

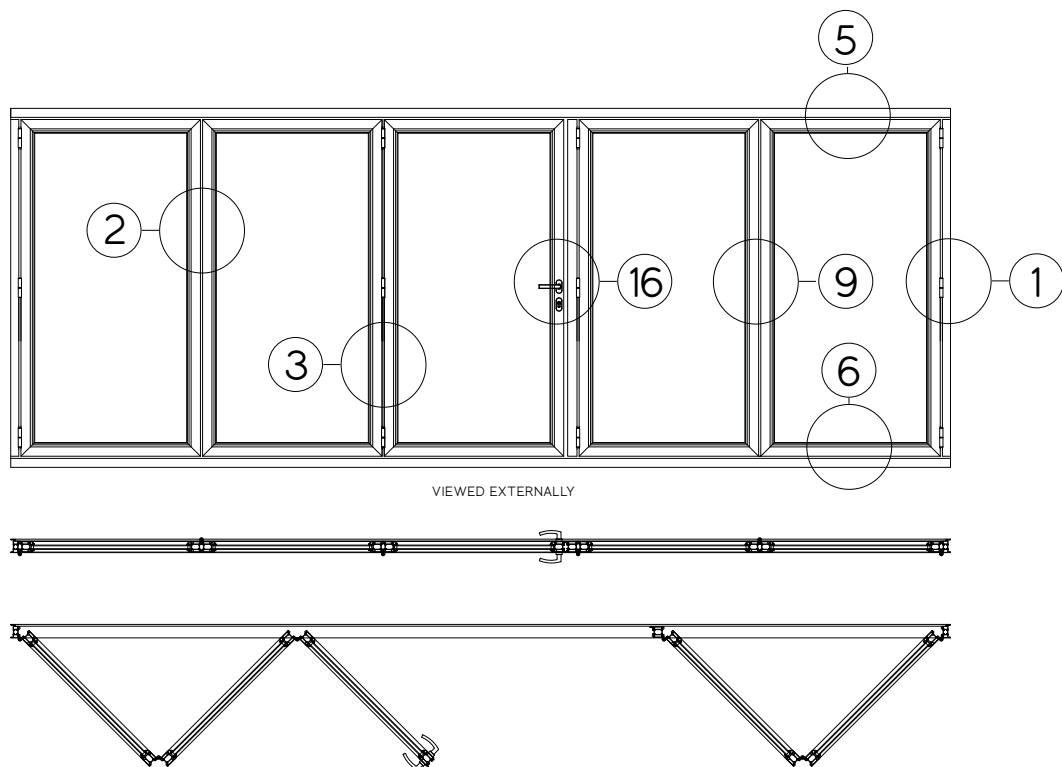


See pages 48

Master Configuration: 3+2

Master drawing and all technical detail drawings are also applicable to the following configurations: 2+1, 4+1, 6+1, 4+3

See configuration key for section detail ►



3+2



2+1



4+1



6+1

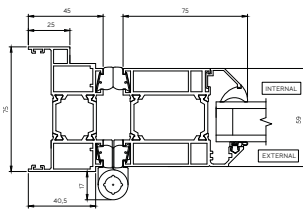
See page 70 for configurations

## Key features

- Origin 8-point locking system
- Everyday access door
- Doors open to both sides

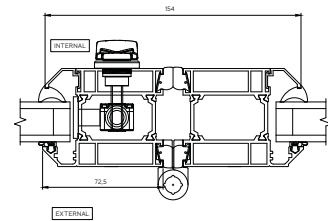
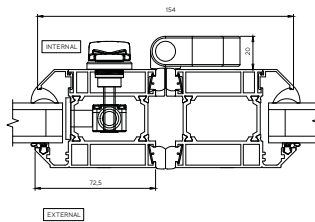
## Configuration Key

### 1 - Hinge jamb detail



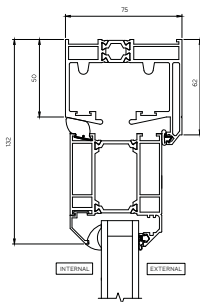
See page 36

### 2a, 2b - Opening stiles



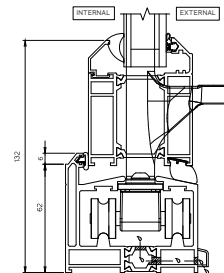
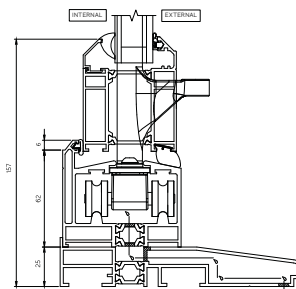
See page 37

### 5 - Top track detail



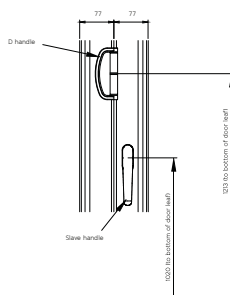
See page 40

### 6a-6d - Bottom track detail



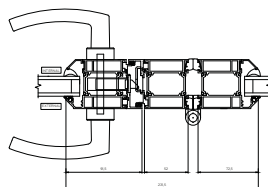
See pages 41-44

### 9 - Slave handle layout



See page 47

### 16 - Locking mullion detail

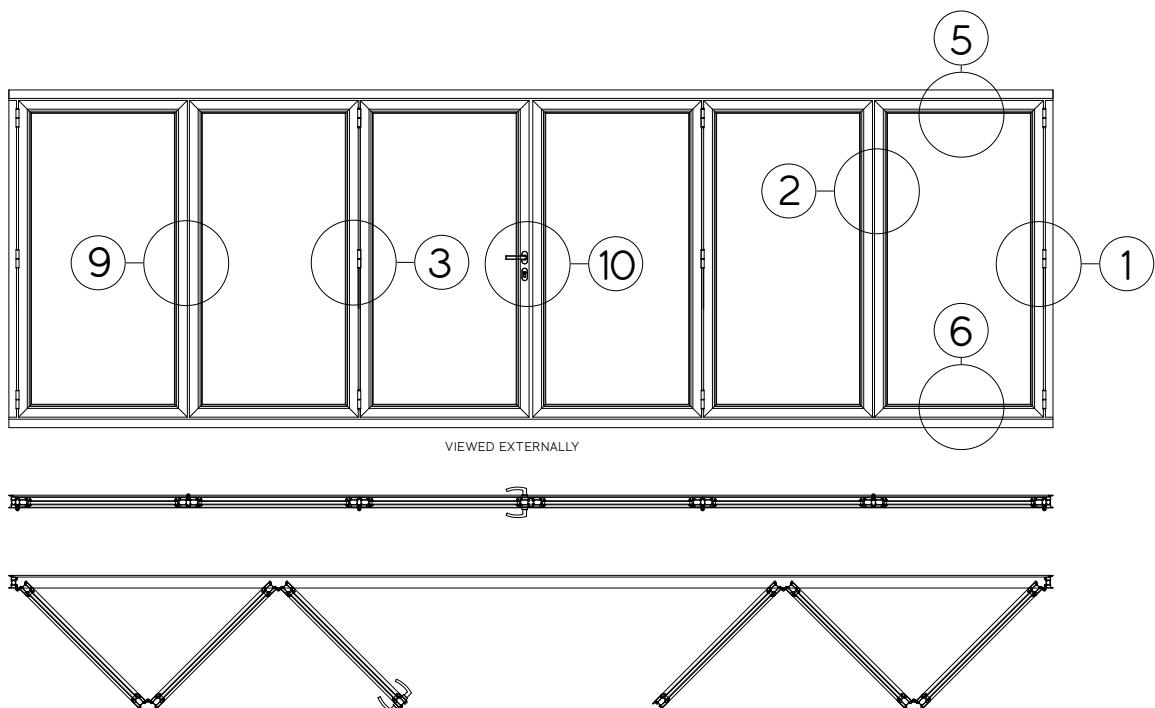


See page 54

## Master Configuration: 3+3

Master drawing and all technical detail drawings are also applicable to the following configurations: 3+1, 5+1, 5+3

See configuration key for section detail ►



3+3

3+1

5+1

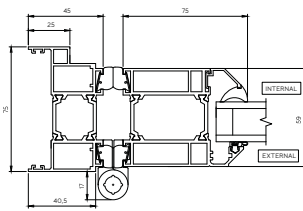
See page 70 for configurations

## Key features

- Origin 8-point locking system
- Everyday access door
- Lead door and slave door can behave as French doors

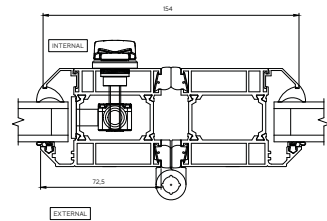
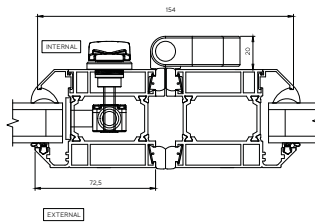
## Configuration Key

### 1 - Hinge jamb detail



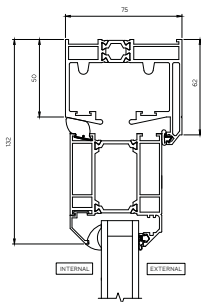
See page 36

### 2a, 2b - Opening stiles



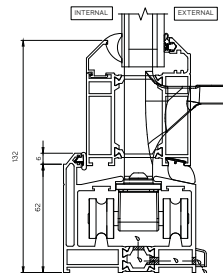
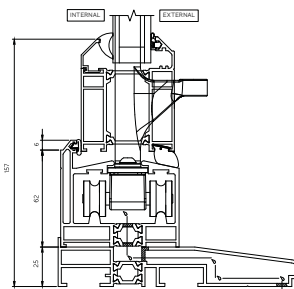
See page 37

### 5 - Top track detail



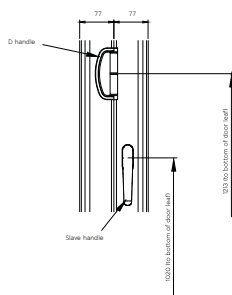
See page 40

### 6a-6d - Bottom track detail



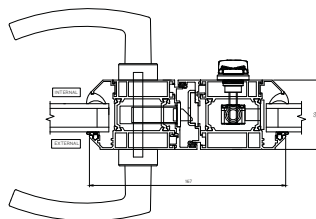
See pages 41-44

### 9 - Slave handle layout



See page 47

### 10 - Locking slave detail



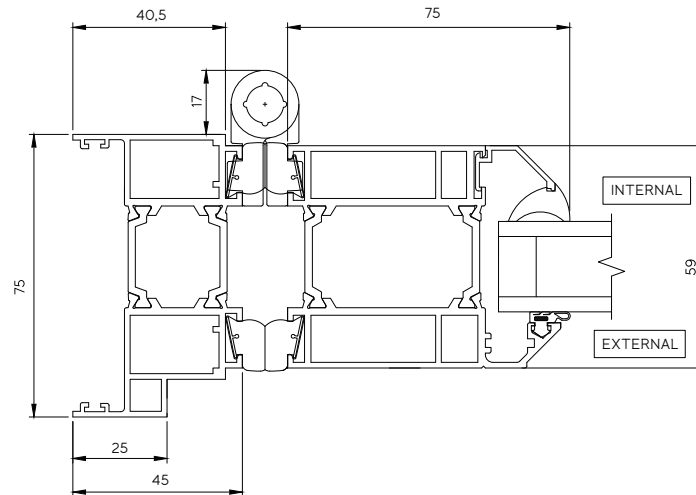
See pages 48

# Technical Drawings

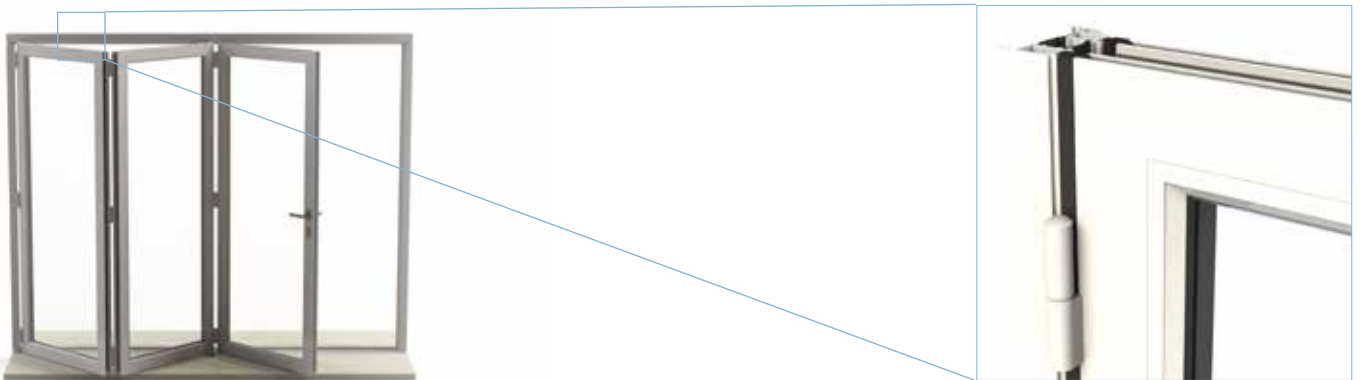
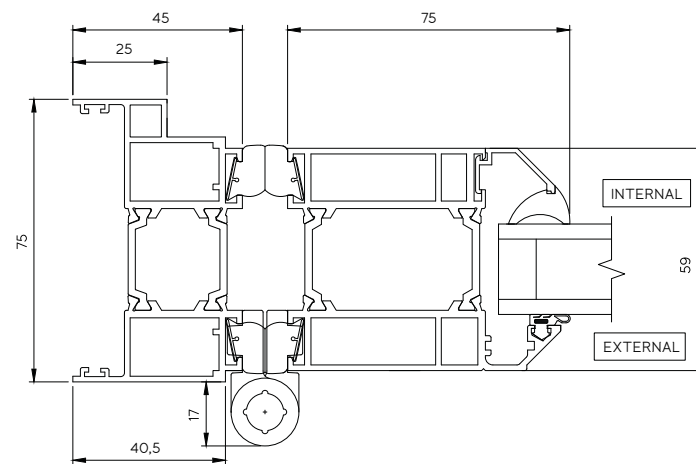
1a-1b

Hinge jamb detail

Open-in



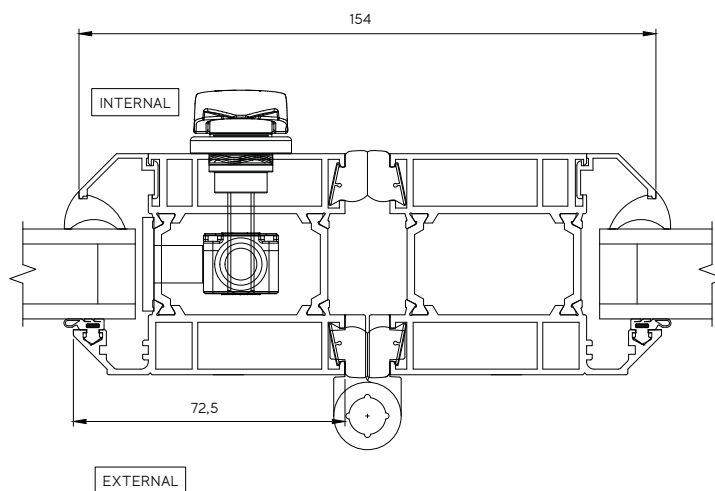
Open-out



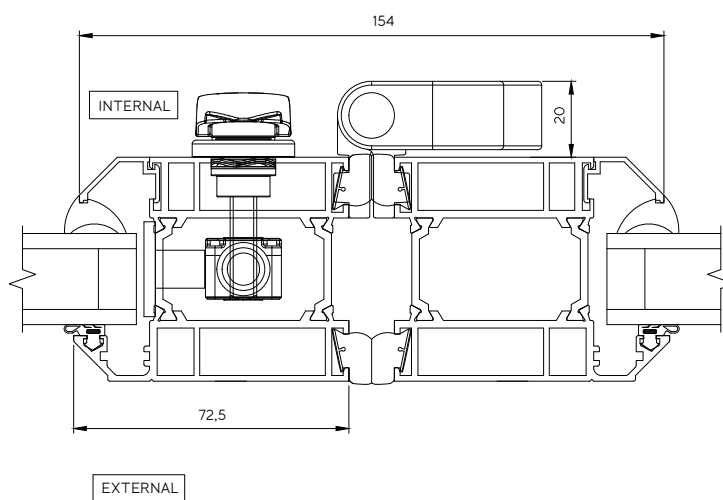


## 2a-2b Opening stiles

Open-in

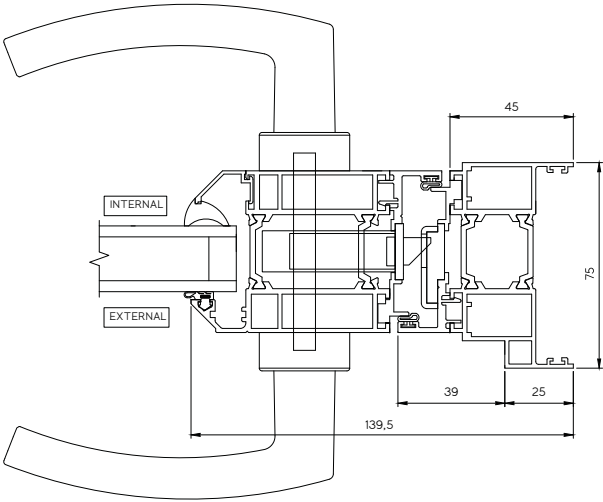


Open-out

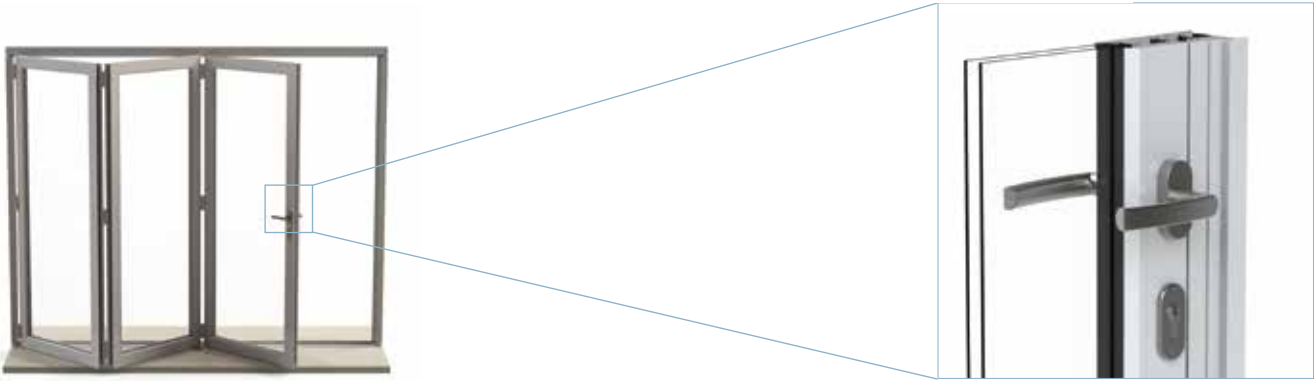
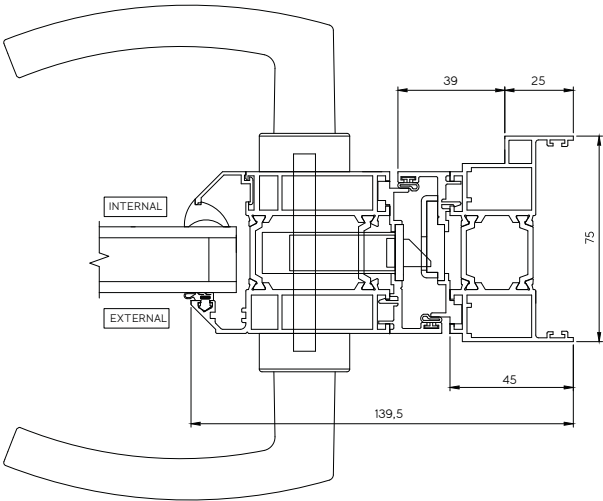


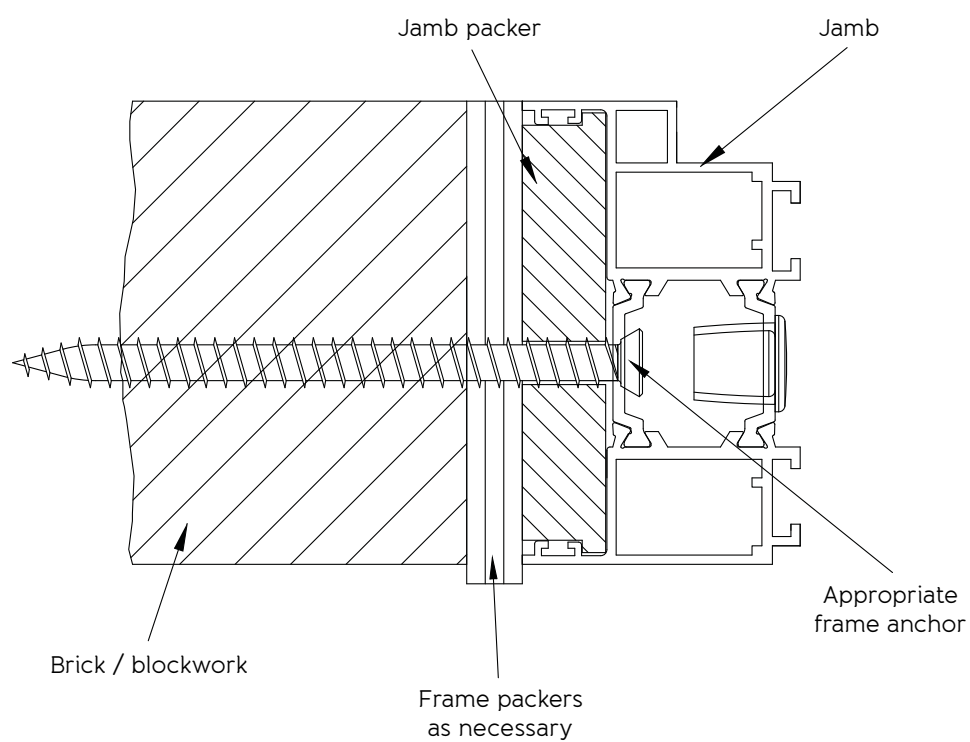
3a-3b    Locking jamb detail

Open-in



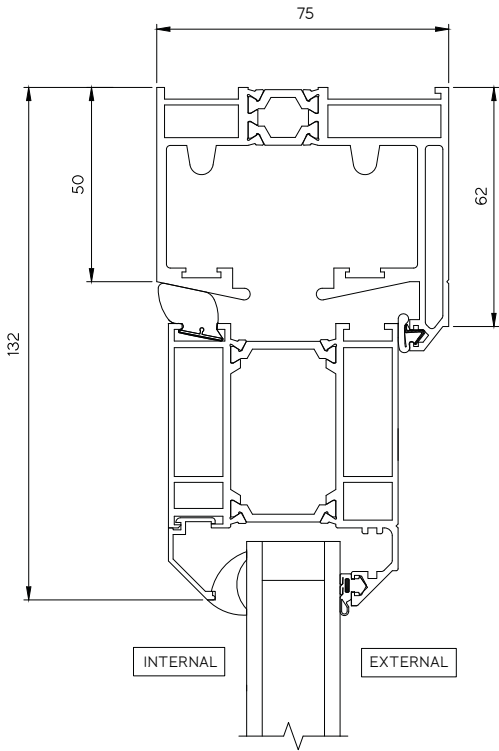
Open-out



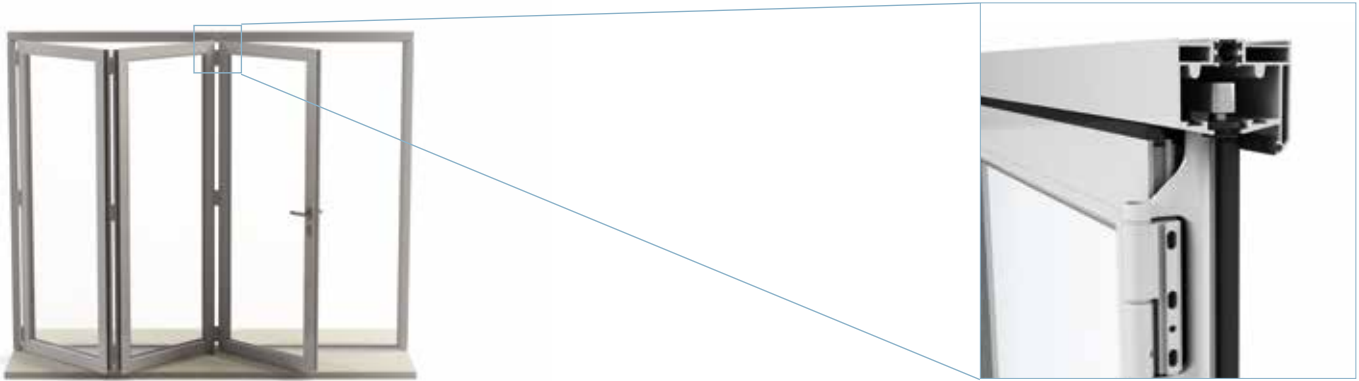
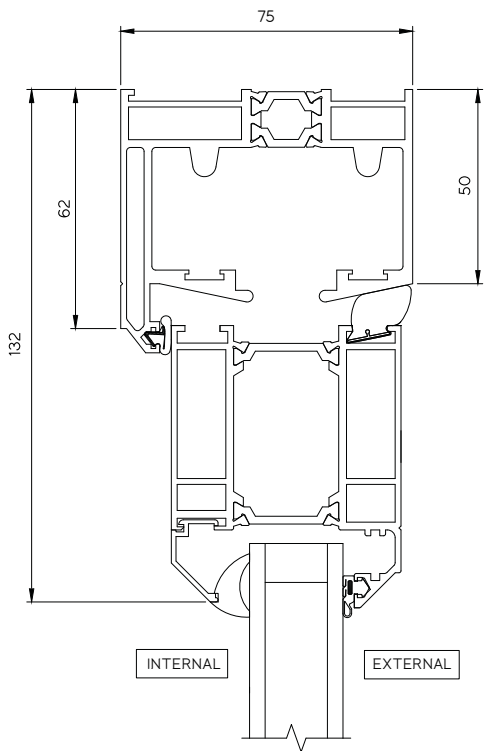


5a-5b Top track detail

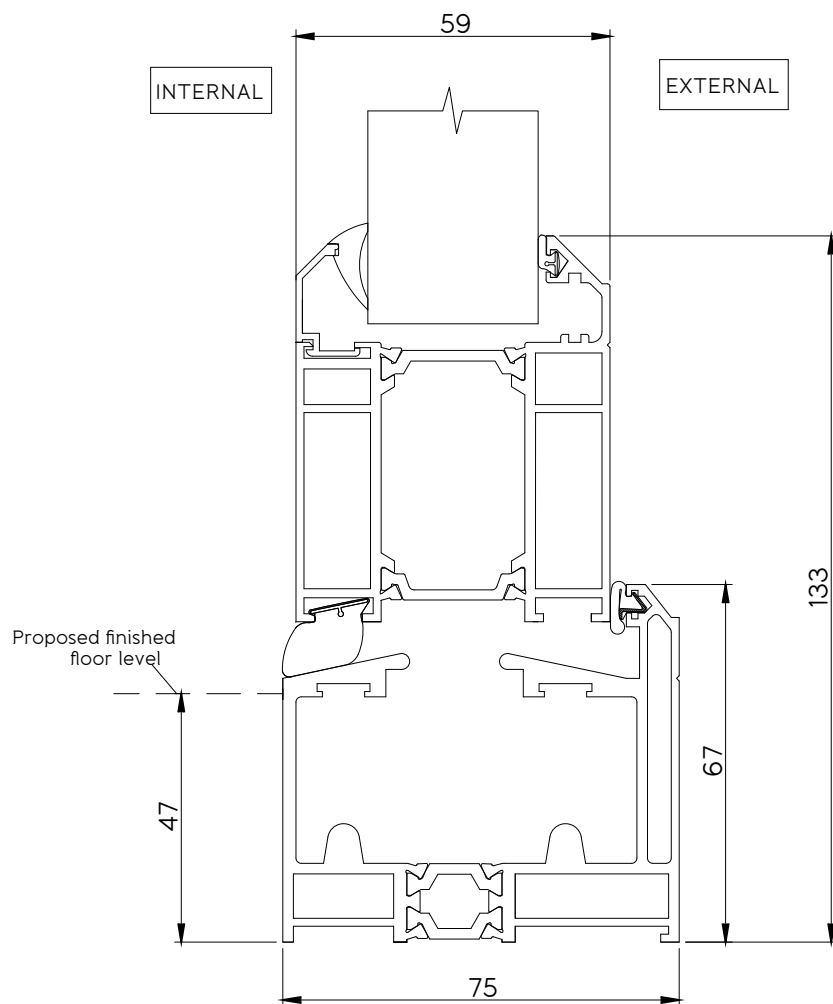
Open-in



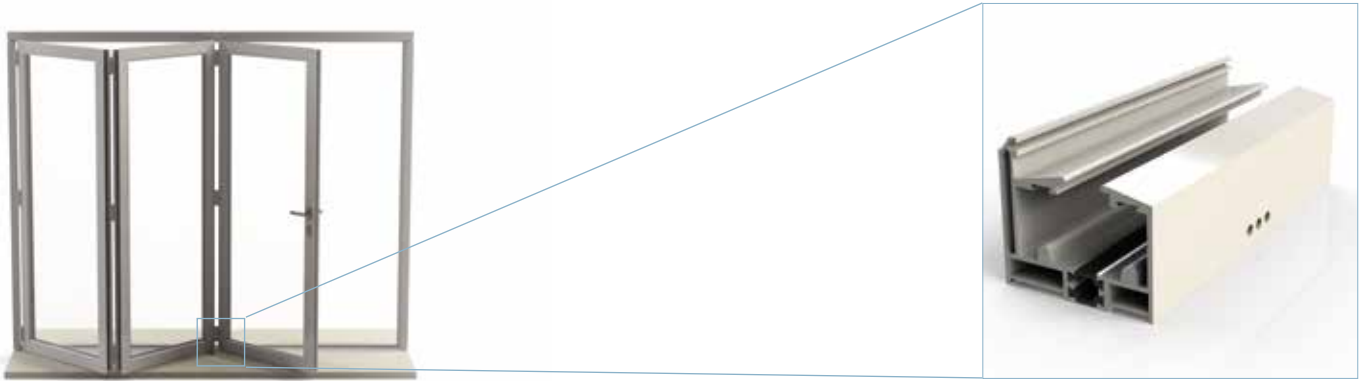
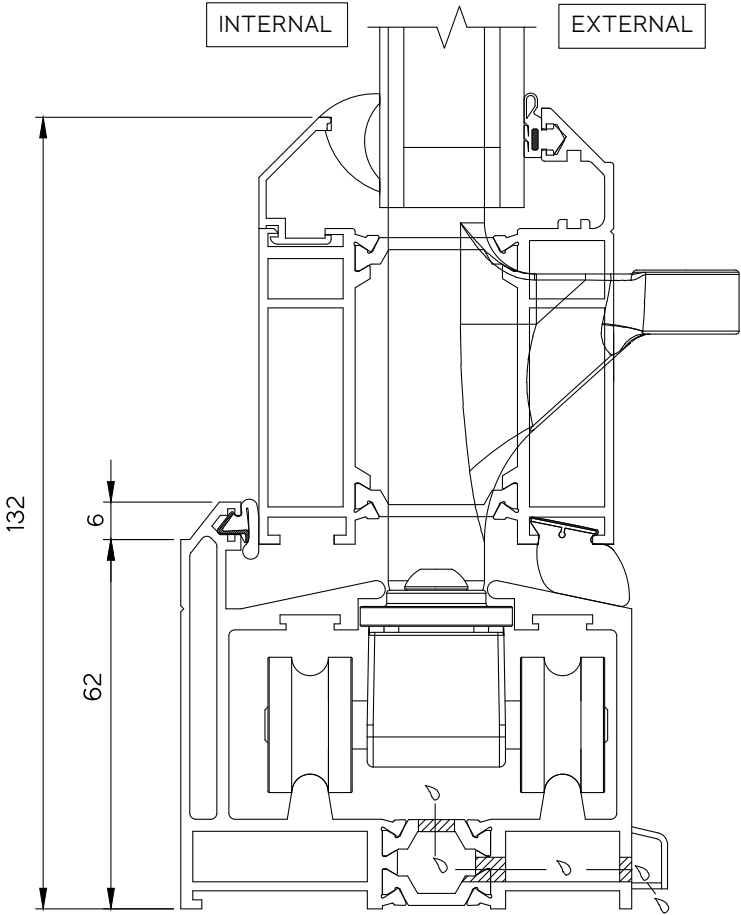
Open-out



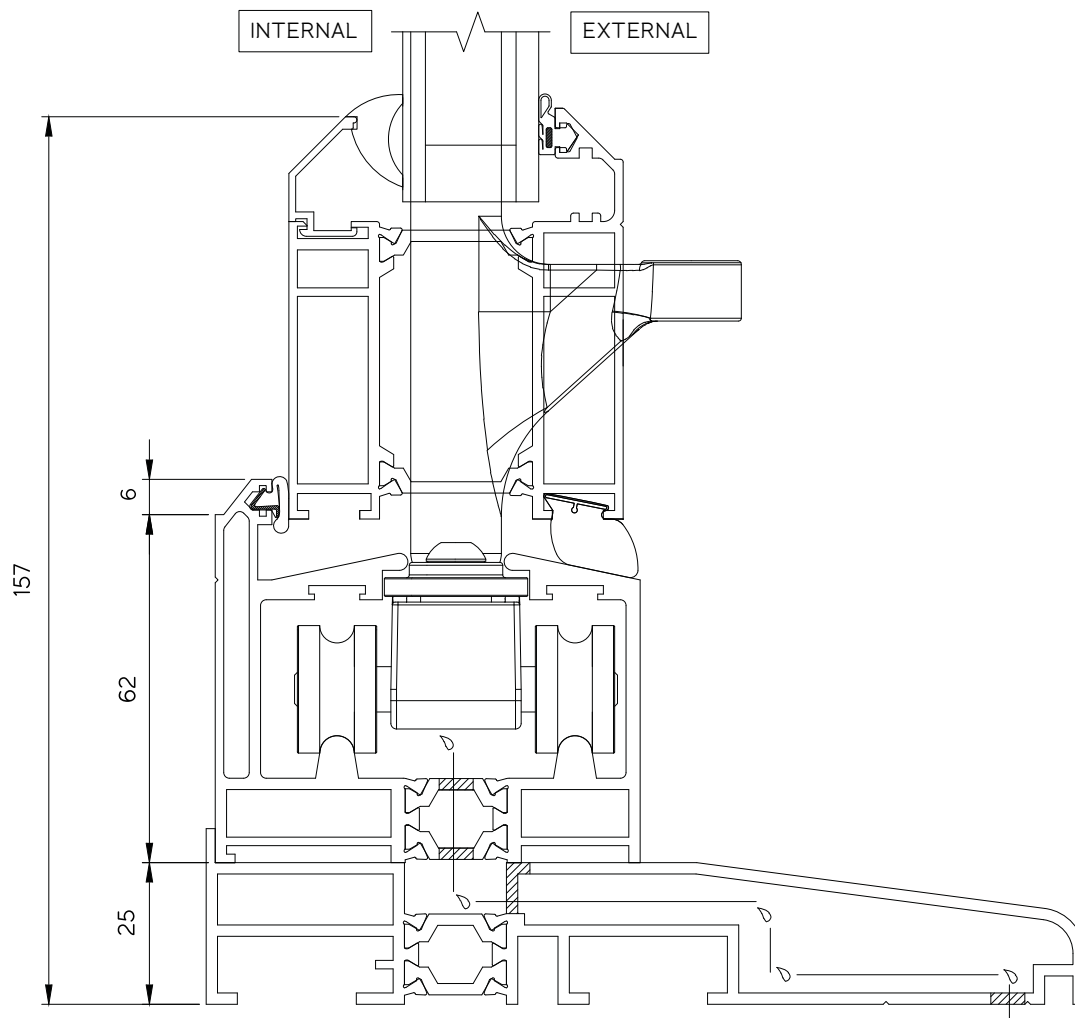
## 6a Threshold detail on single and French doors



6b Face drainage threshold detail

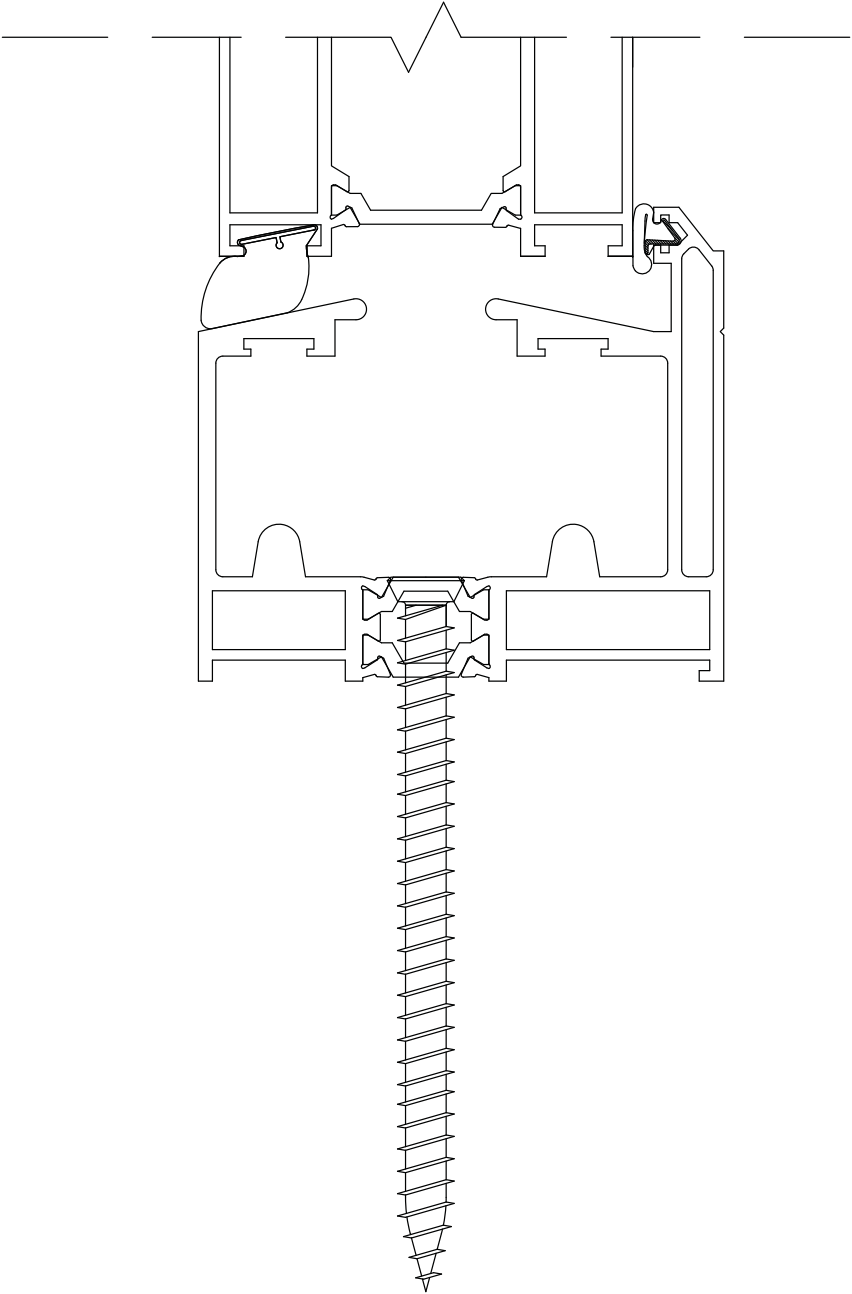


## 6c Concealed drainage threshold detail



6d

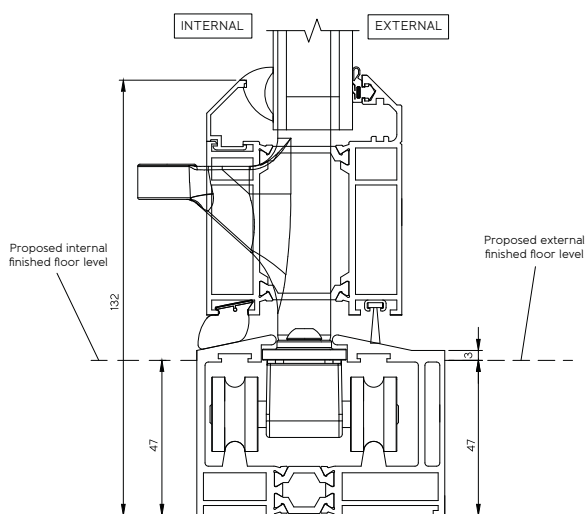
Threshold fixing detail



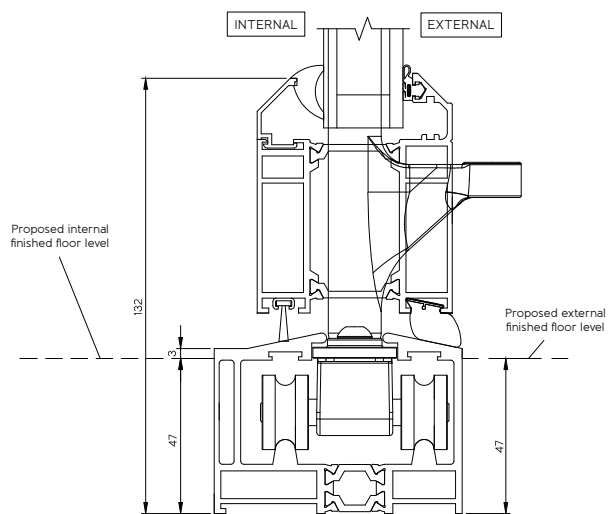


## 7a-7b Non-weathered threshold detail

Open-in

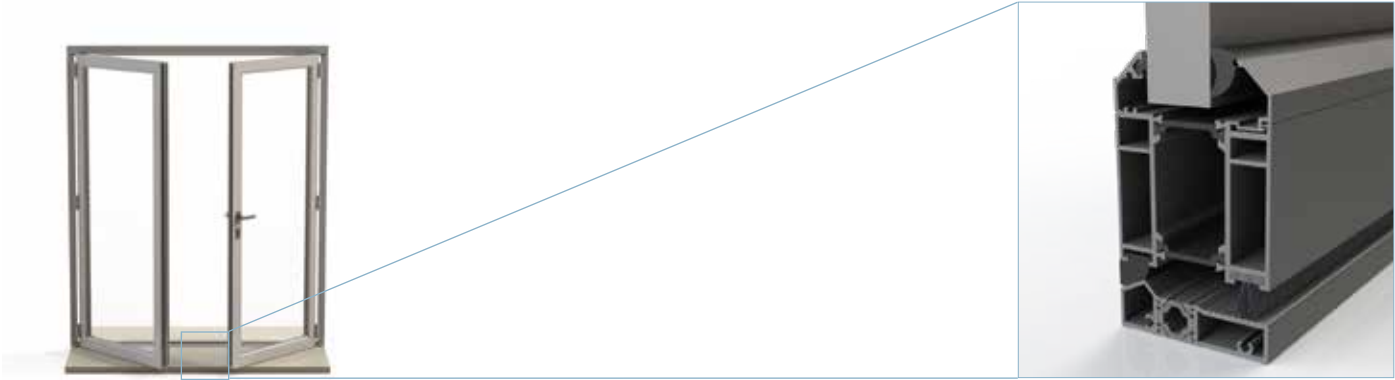
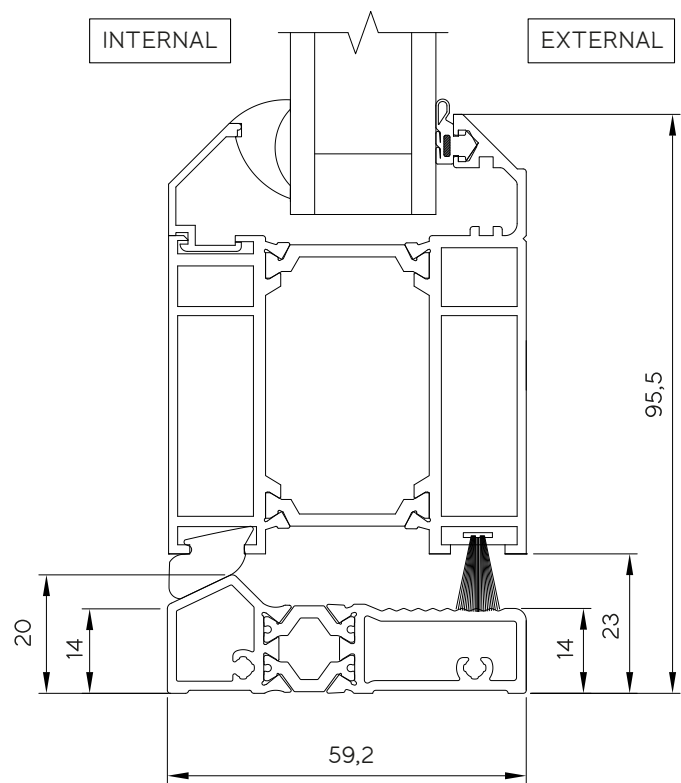


Open-out



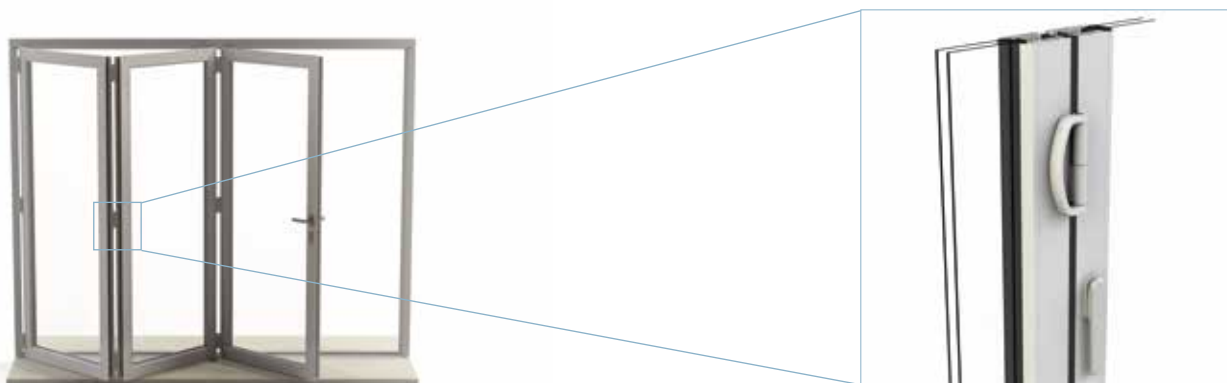
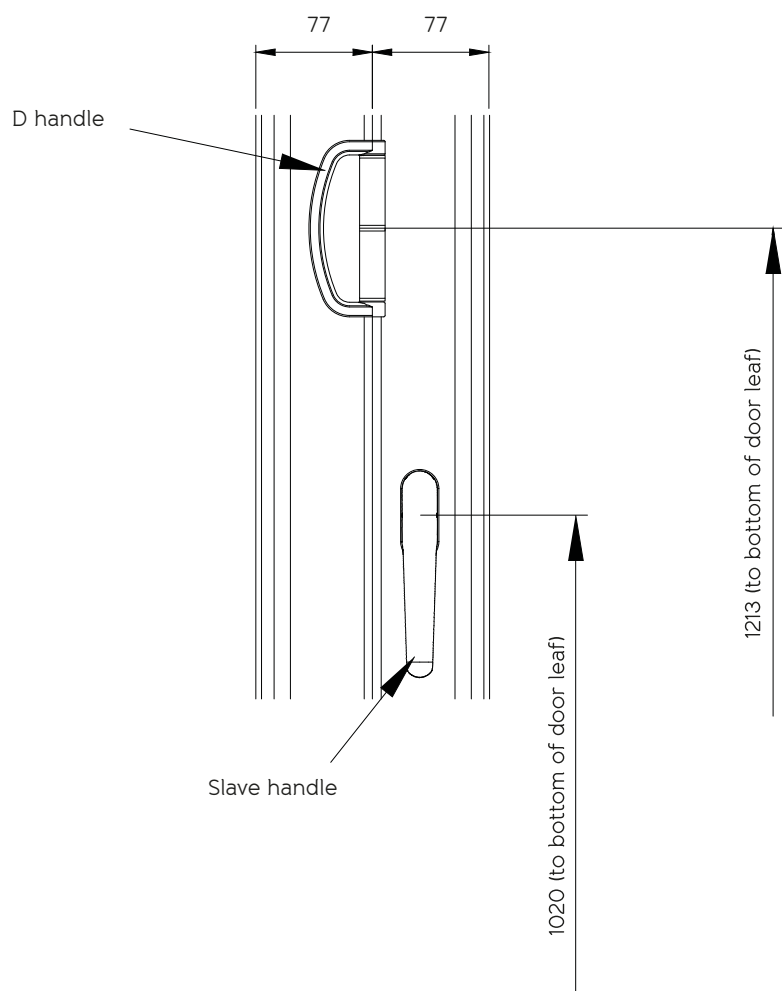
8

Mobility threshold detail



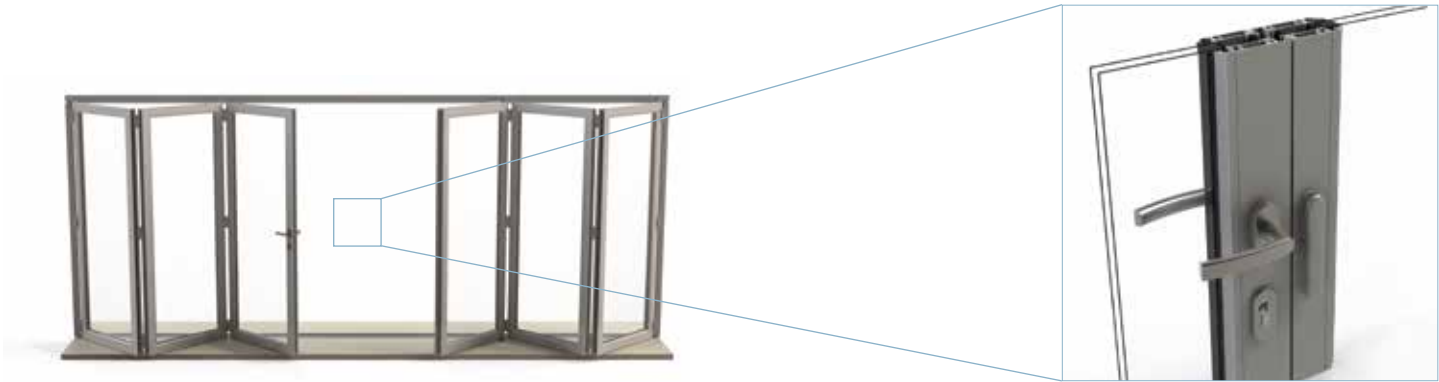
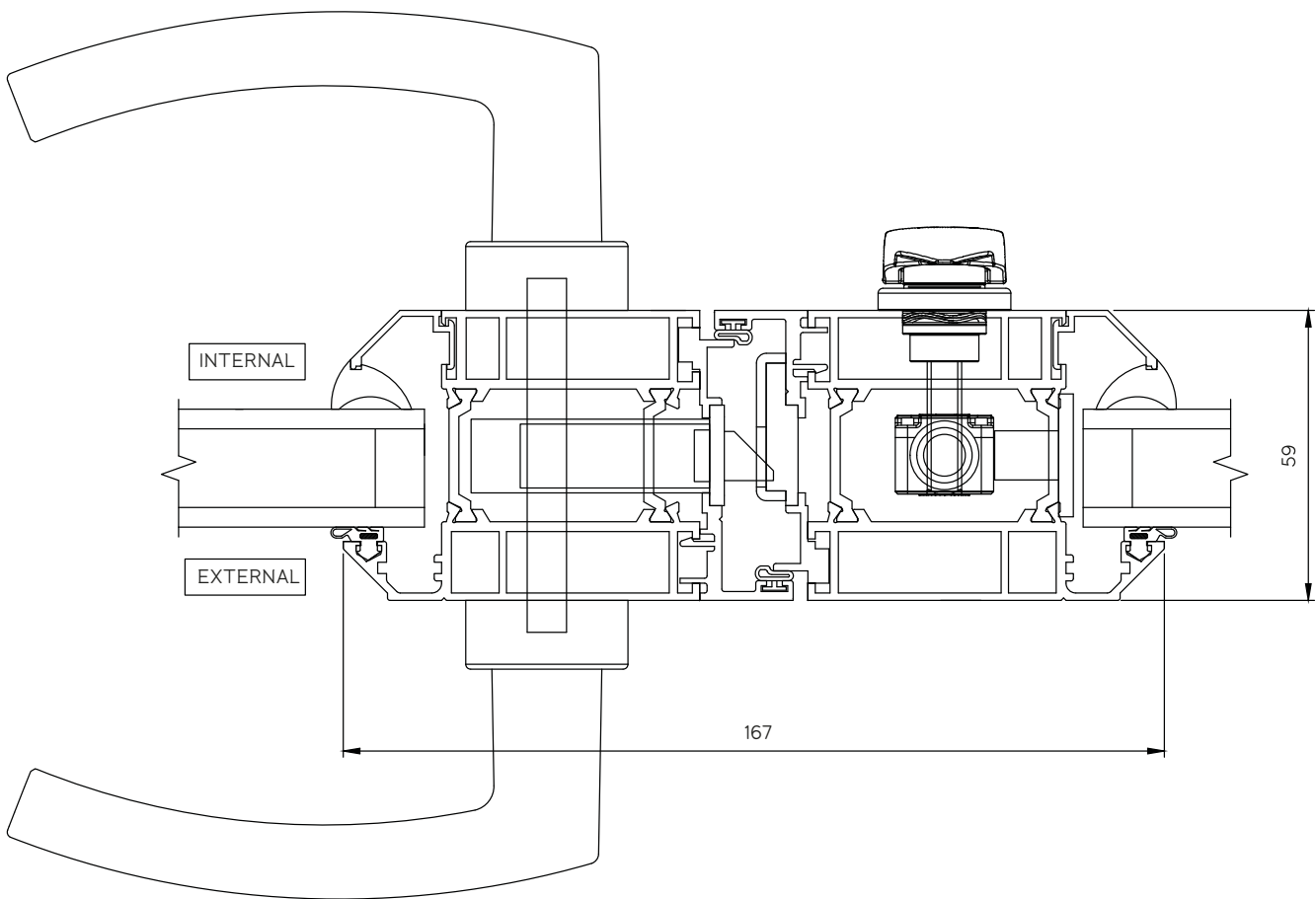
Mobility threshold available on Single and French Doors.

## 9 Slave handle layout

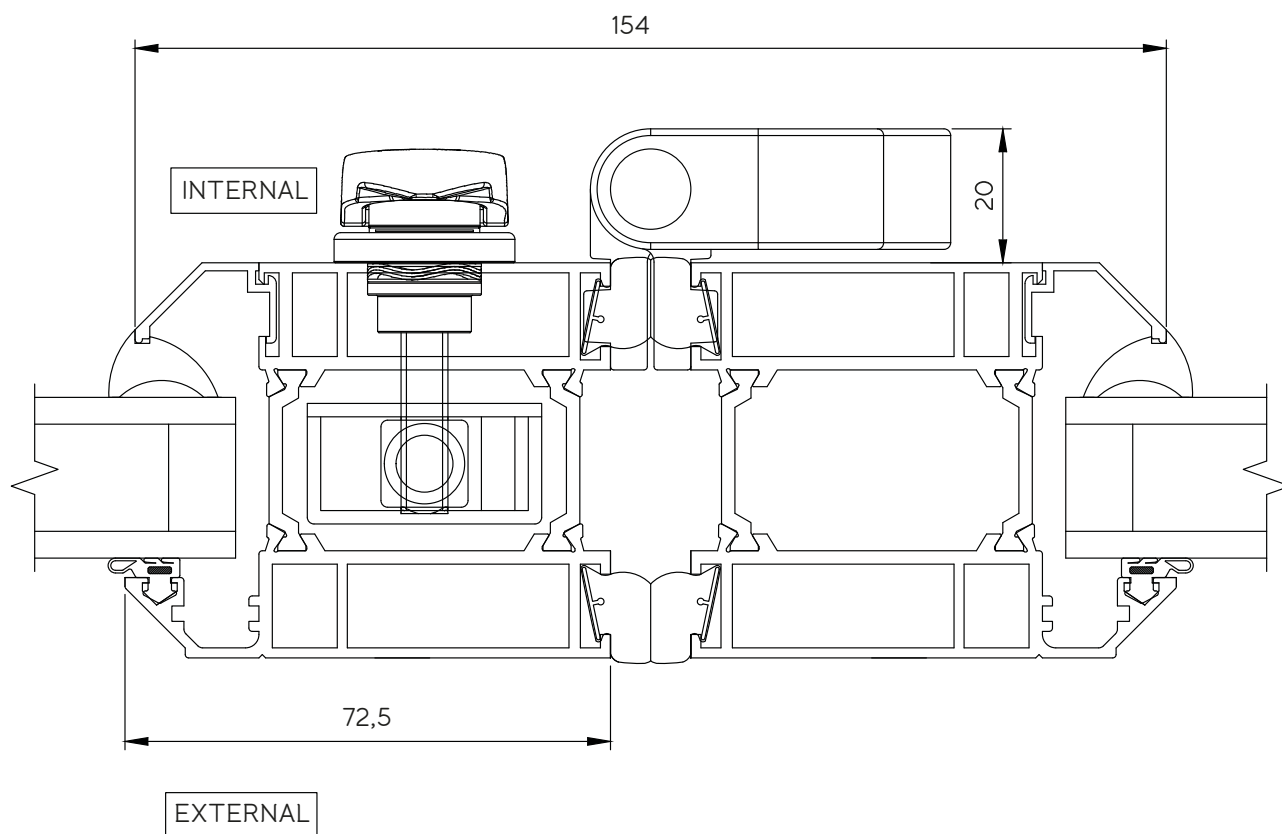


10

Locking slave detail

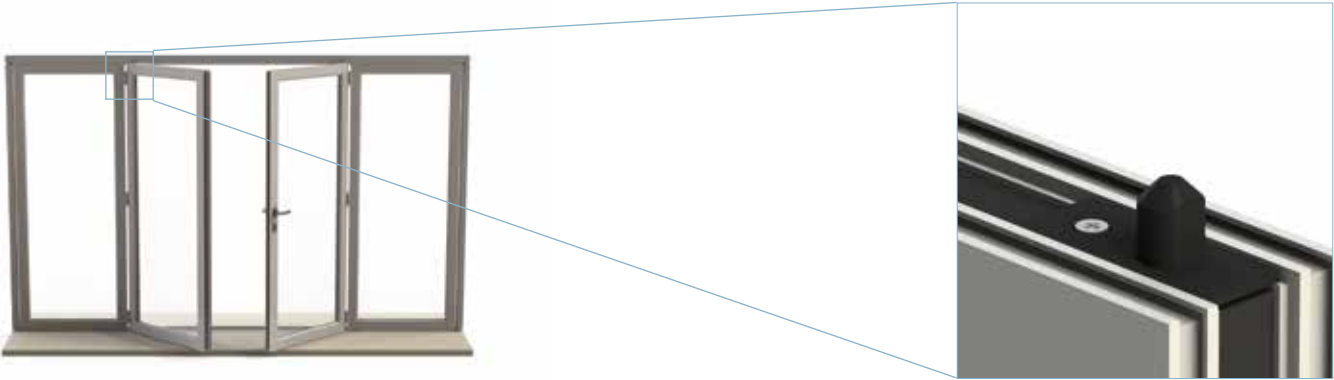
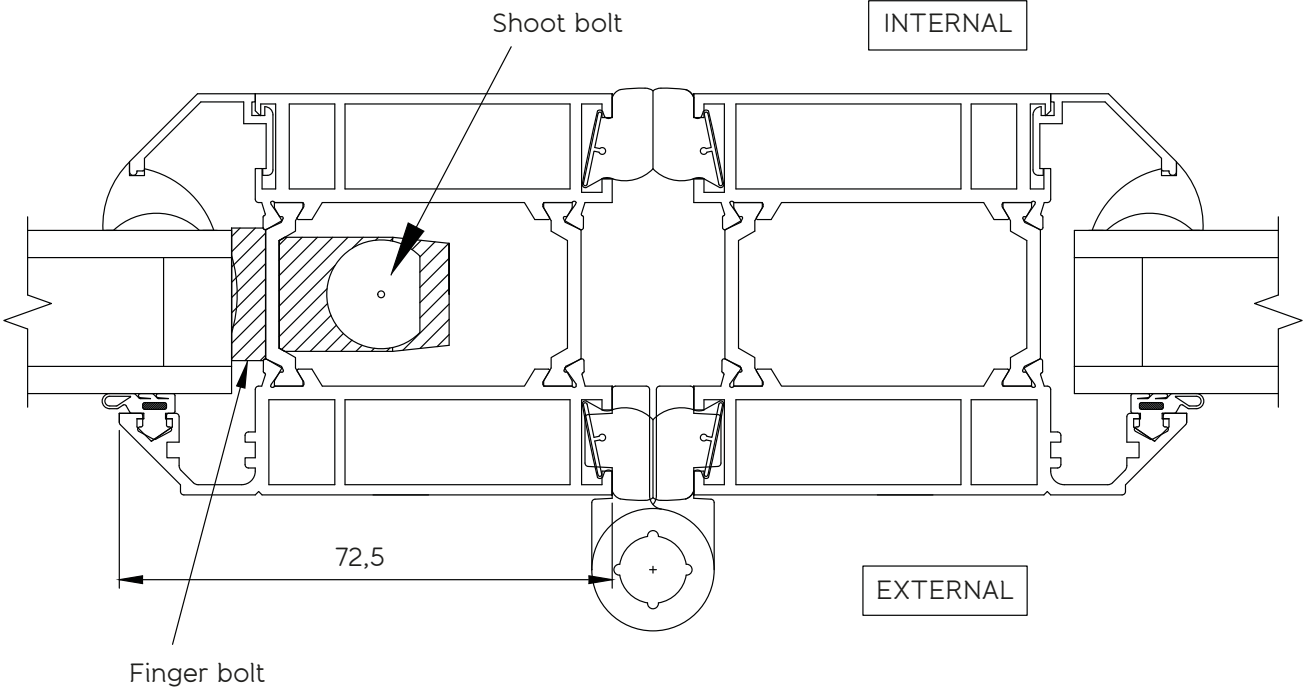


11 Keyed locking slave

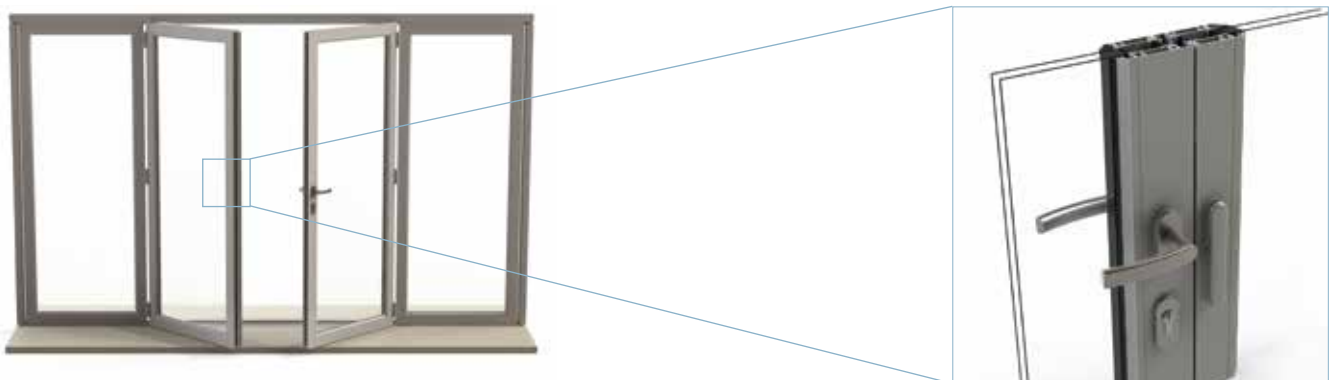
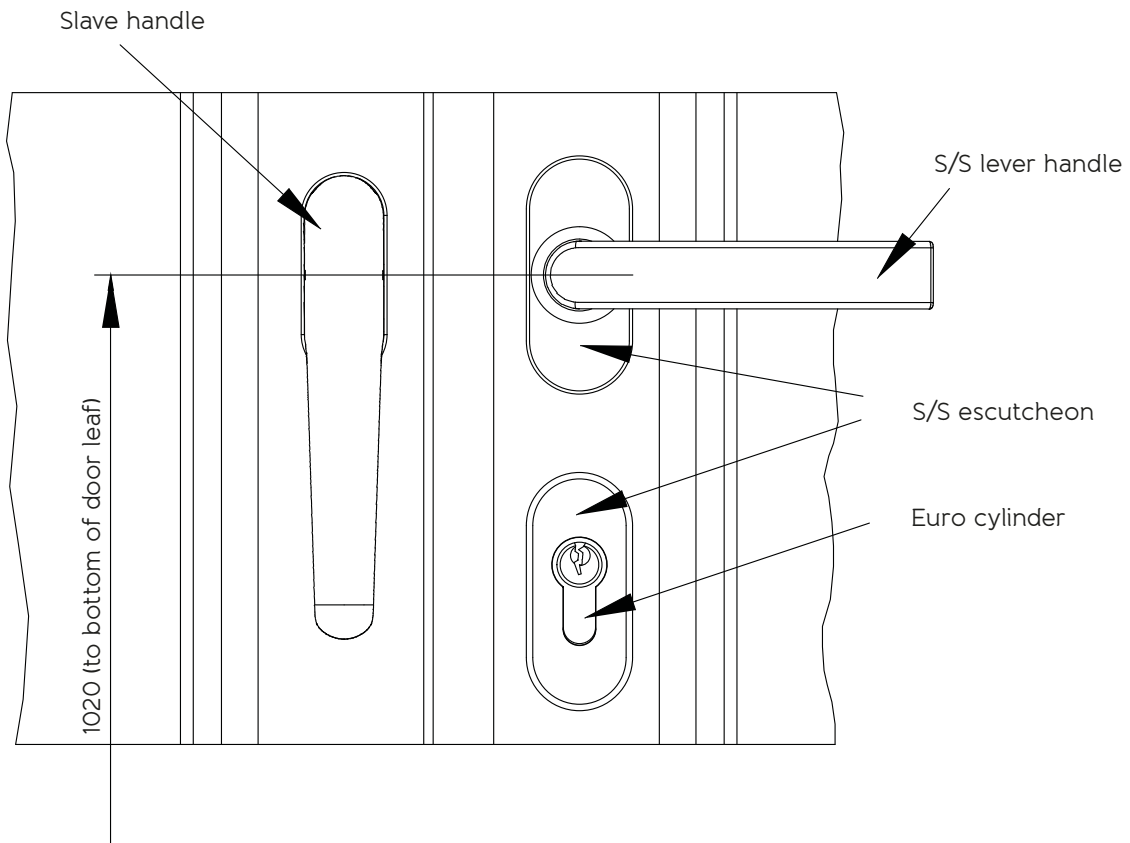


12

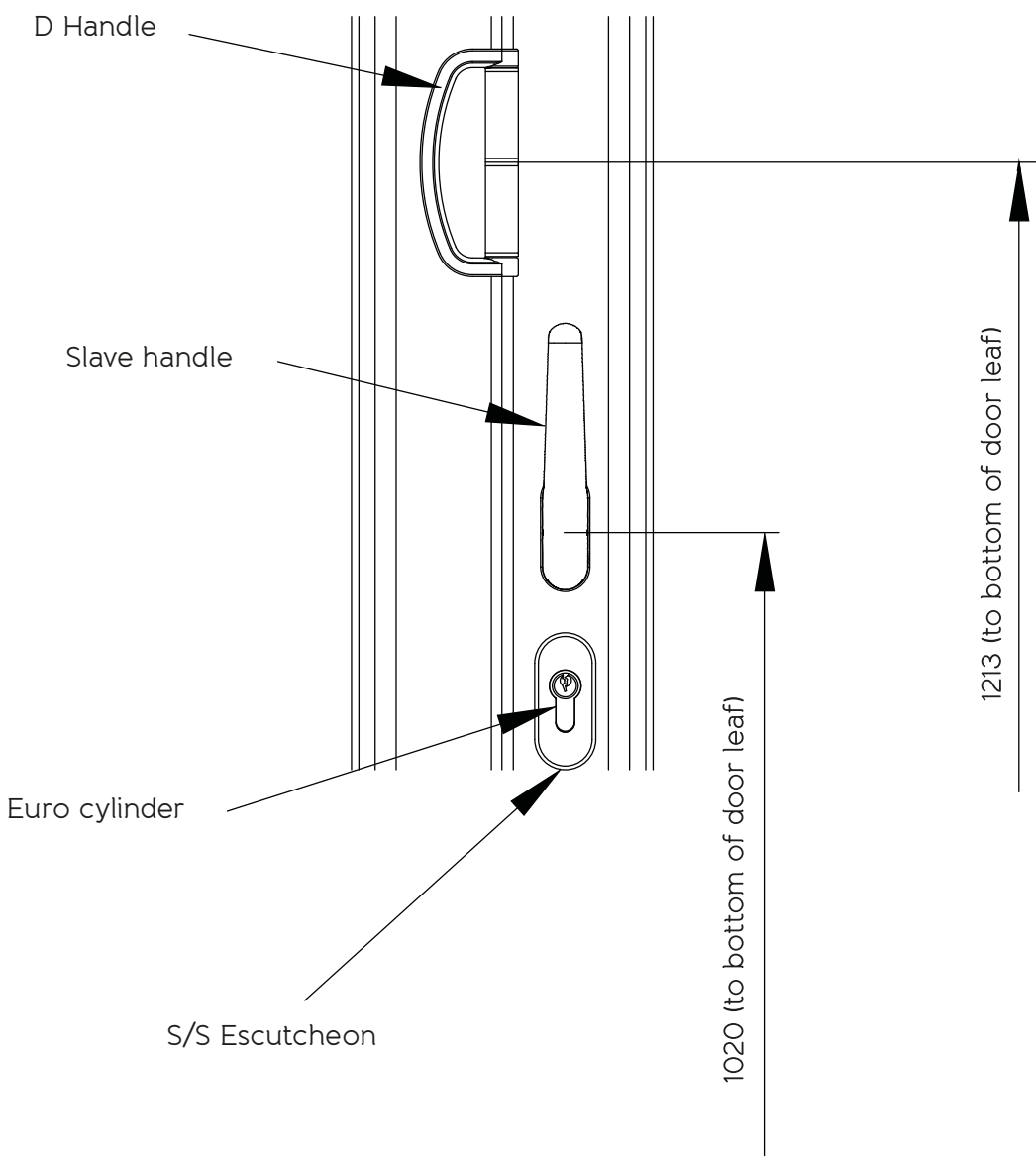
Fixed door concealed locking



## 13 Locking slave handle detail

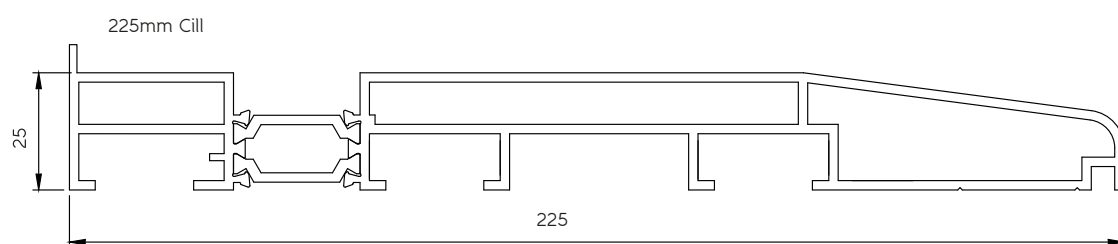
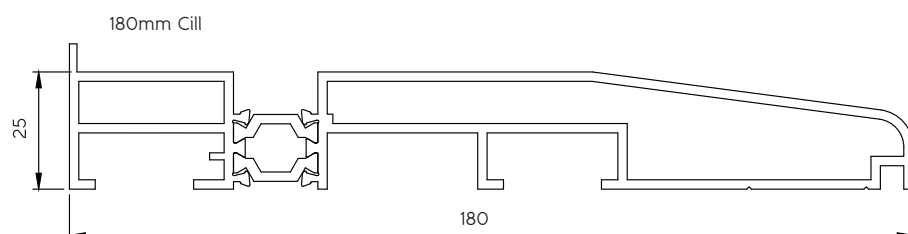
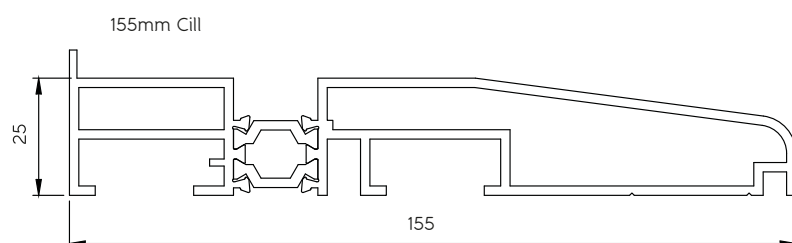
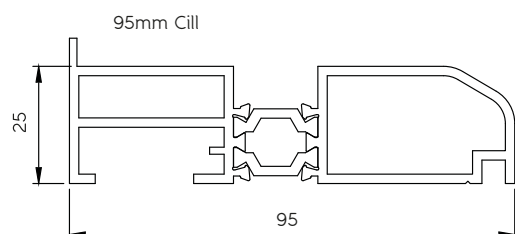


14    Keyed locking slave layout



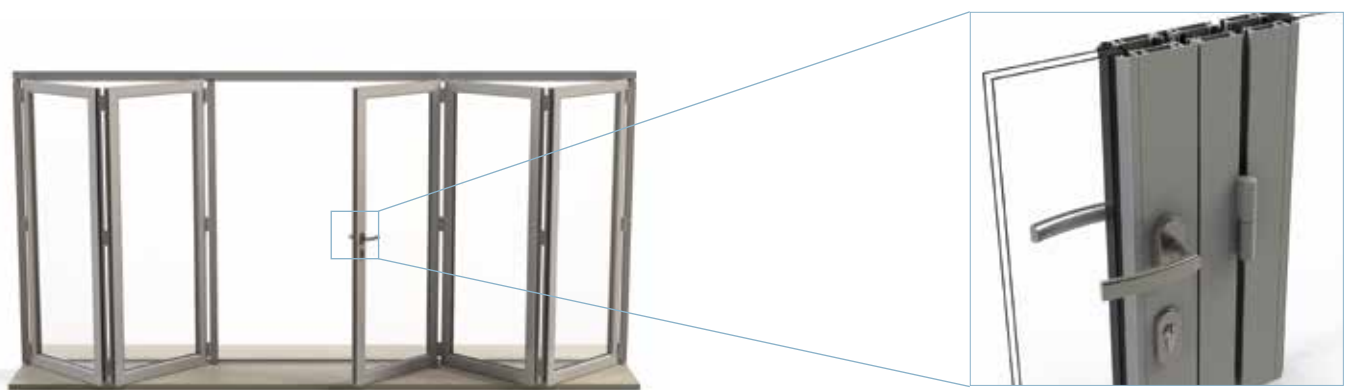
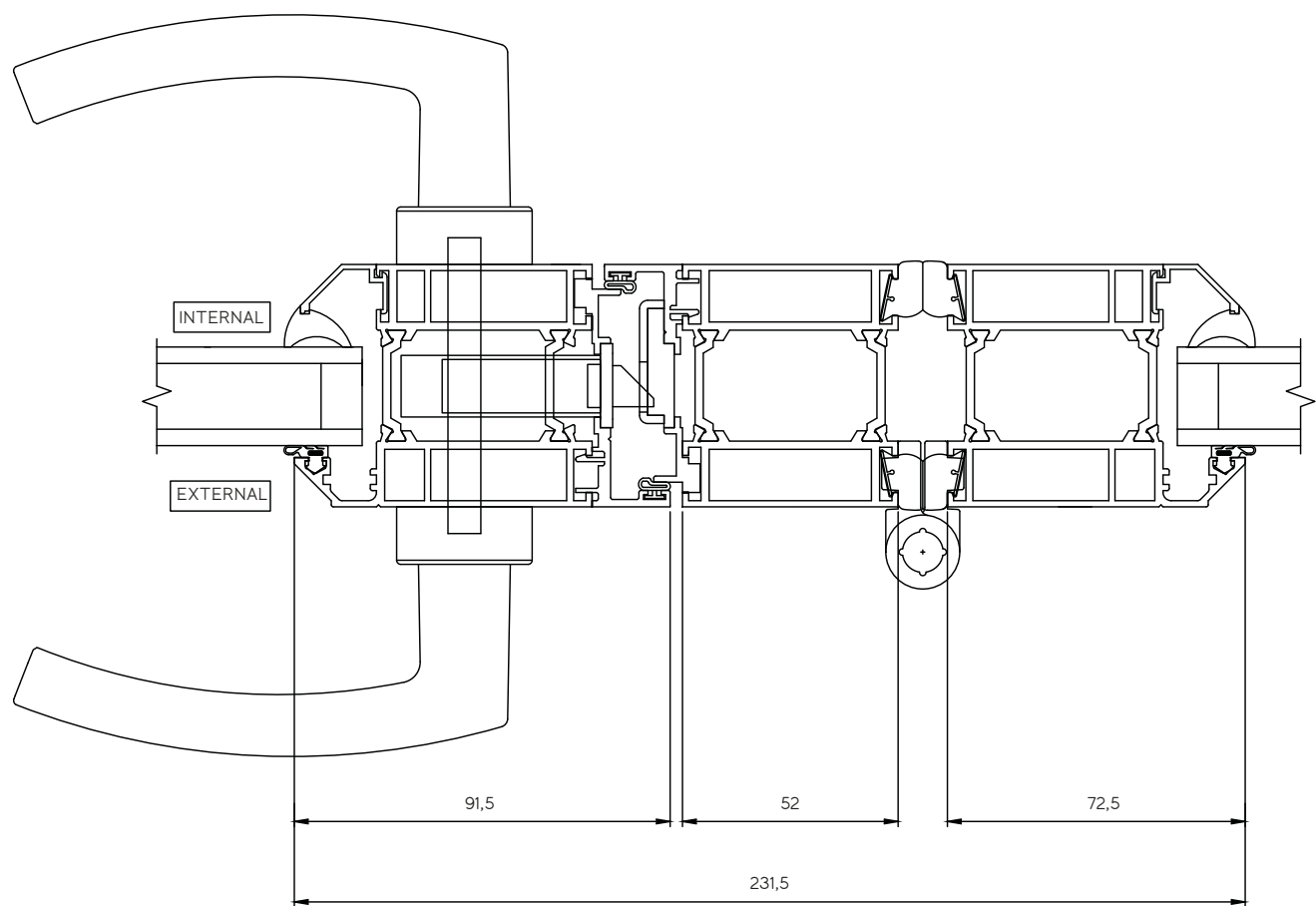


# 15 Cills

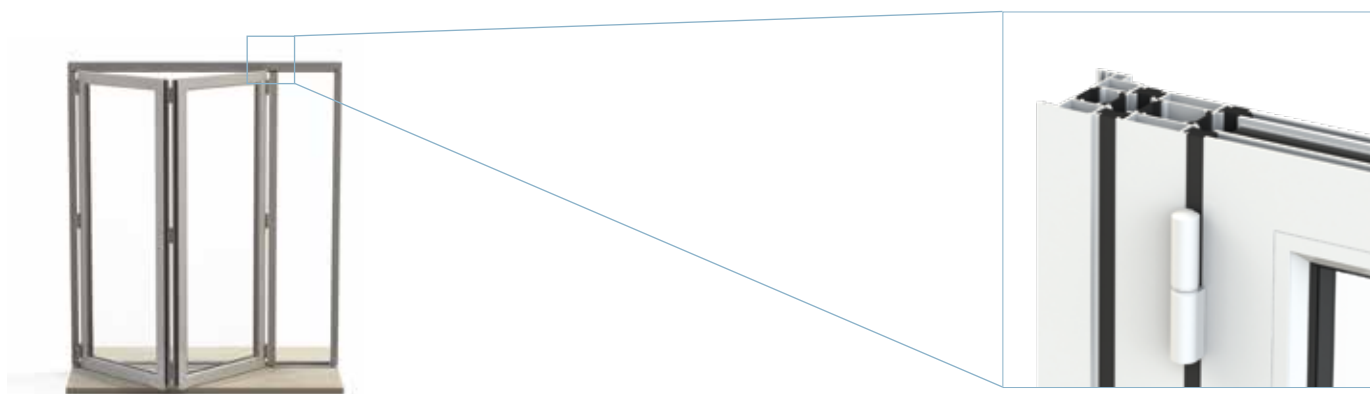
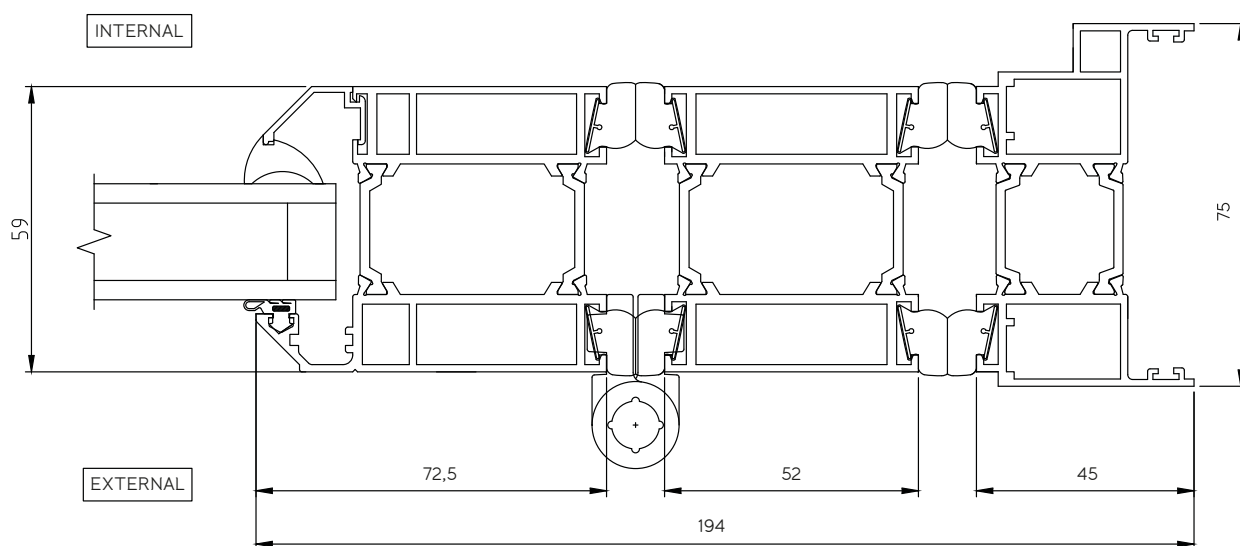


16

Locking mullion detail

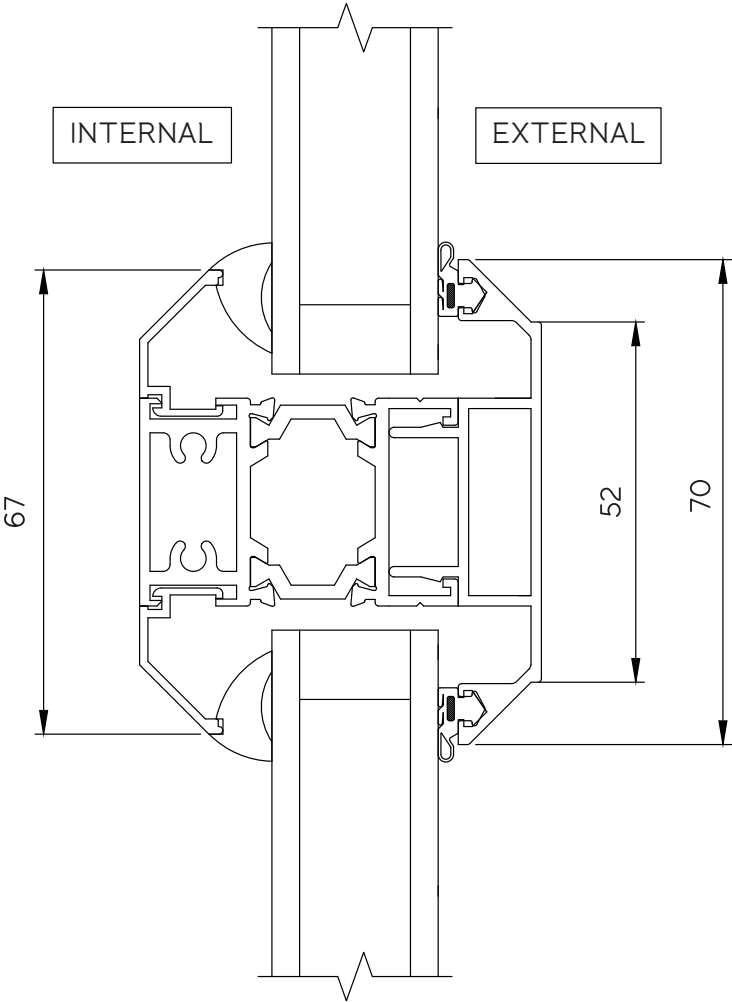


## 17 Standard mullion detail

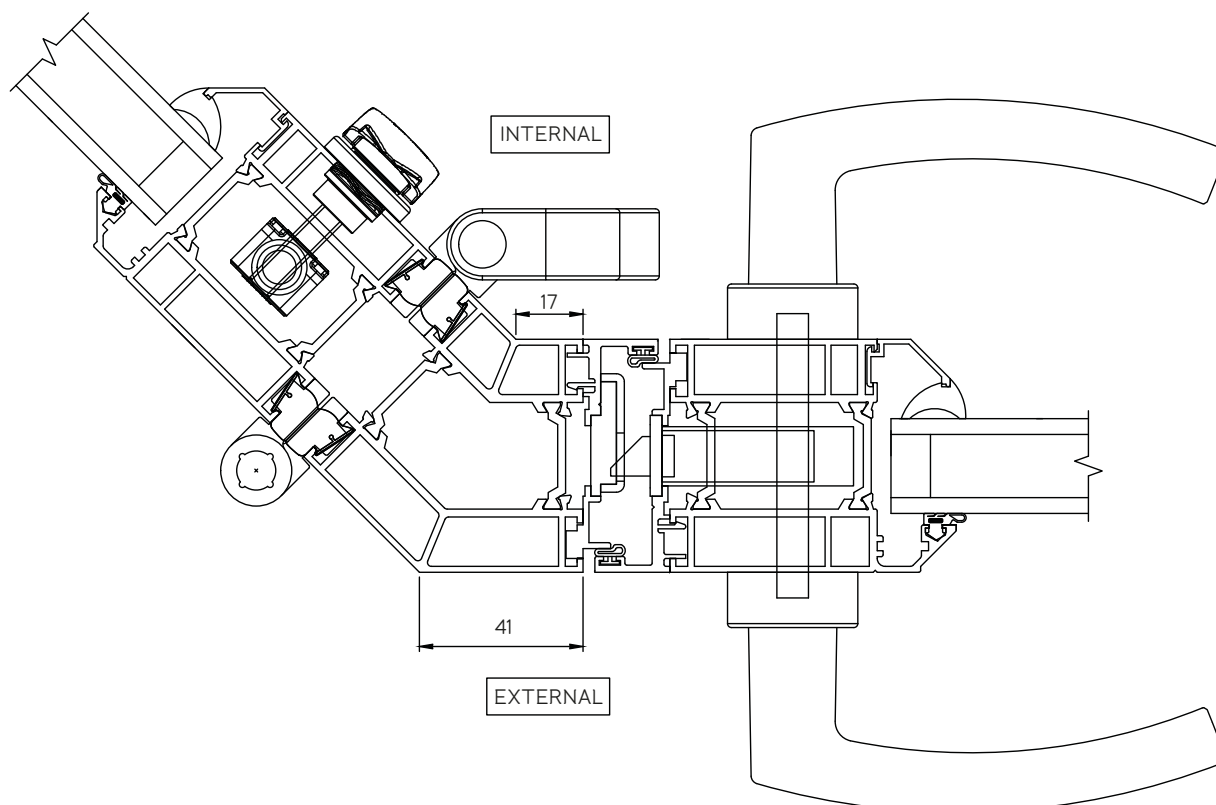


18

Midrail detail

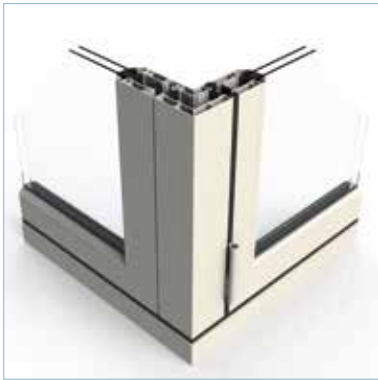
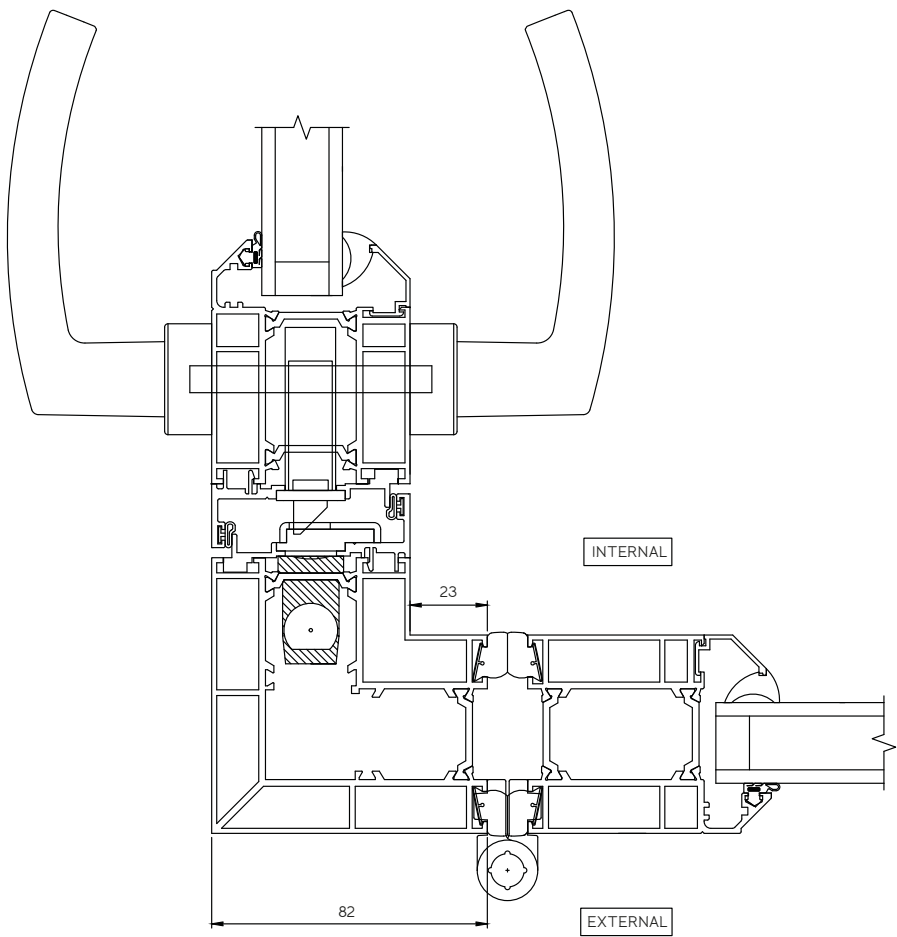


19 135° Moving corner post



20

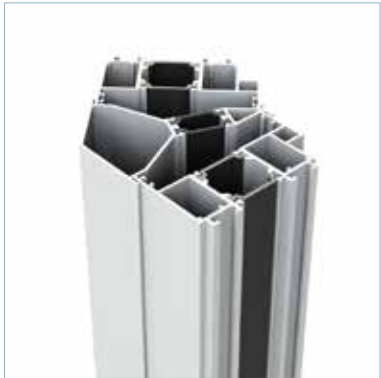
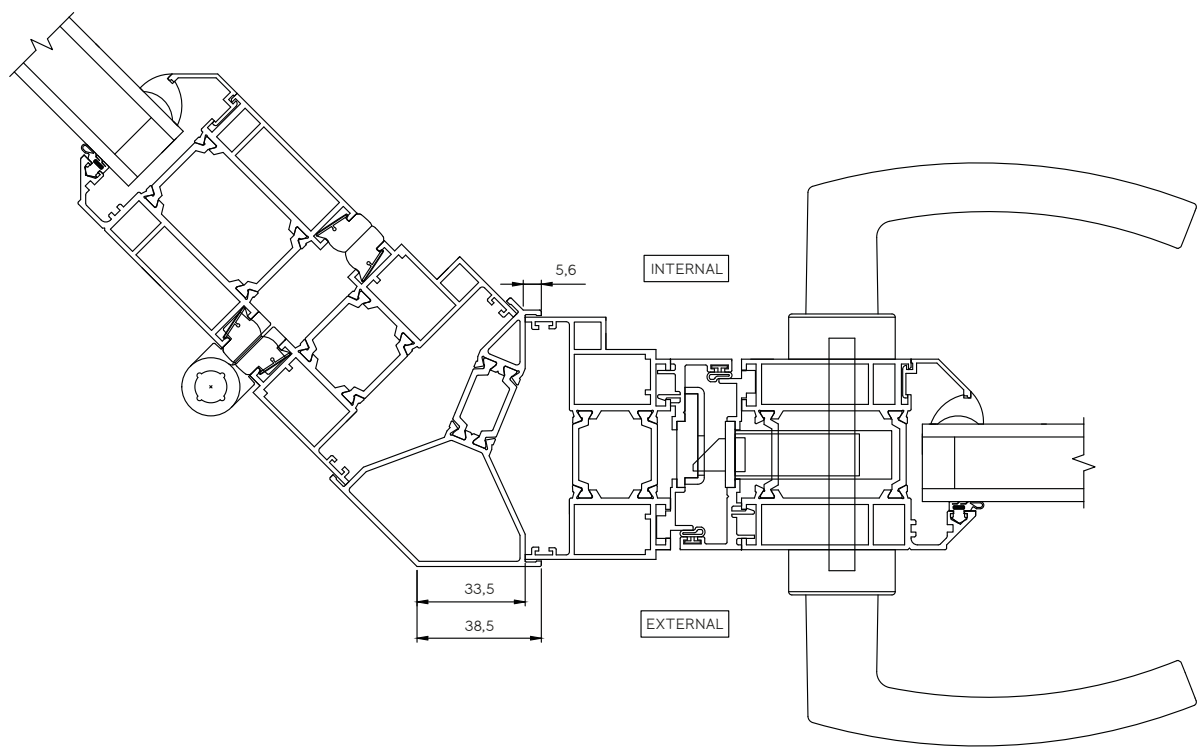
90° Moving corner post



## 21



22 135° Fixed corner post

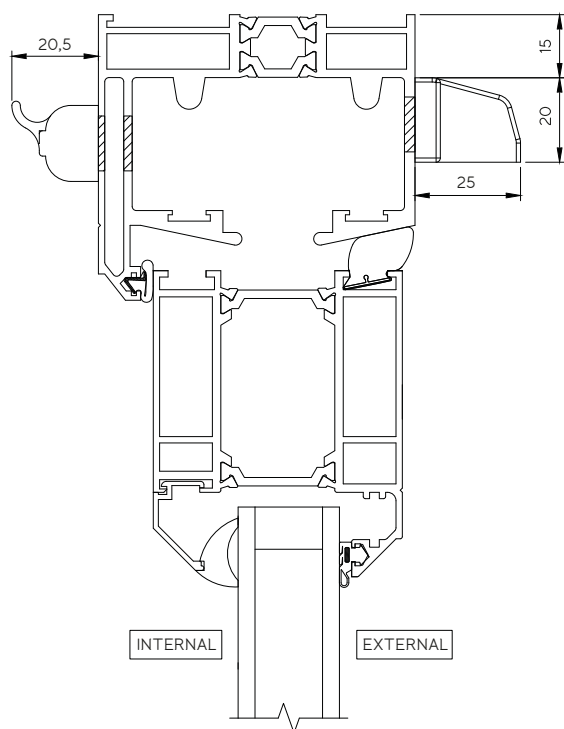




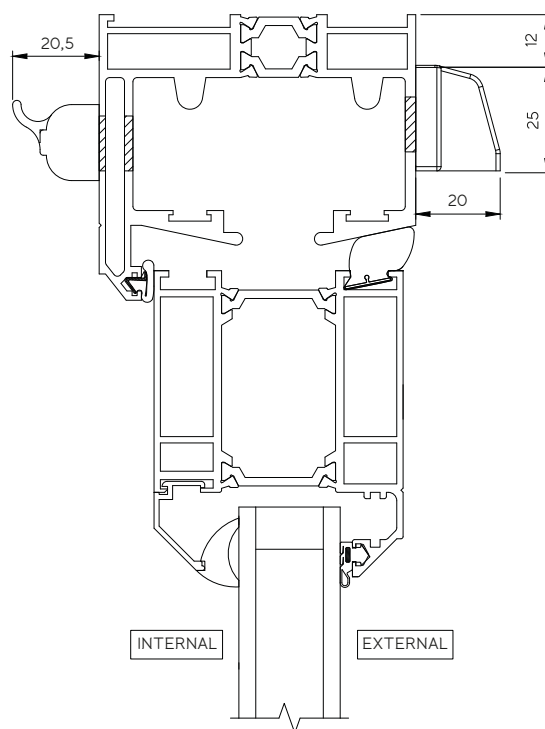
23a - 23b

Trickle vents

20mm



25mm

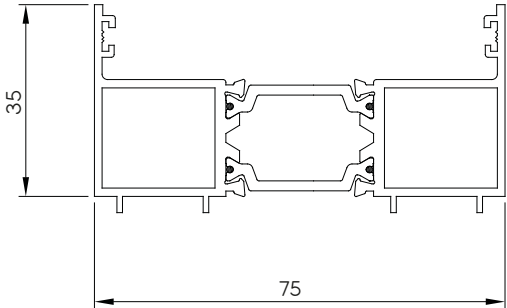


Internal view

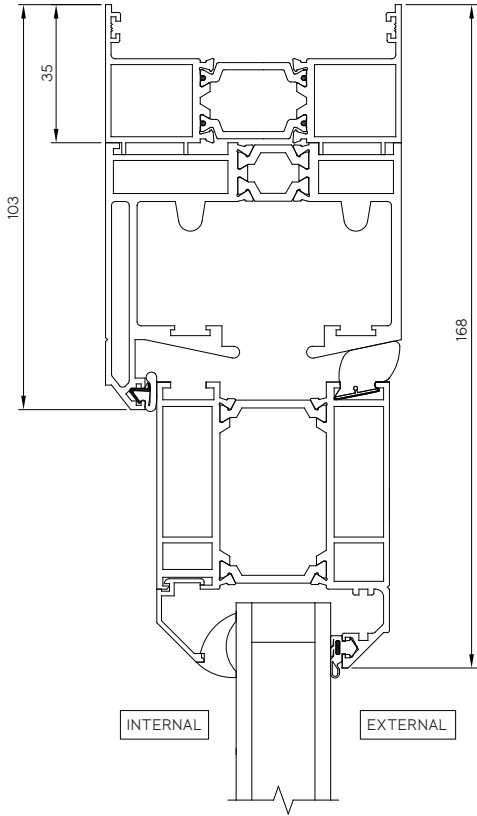


External View

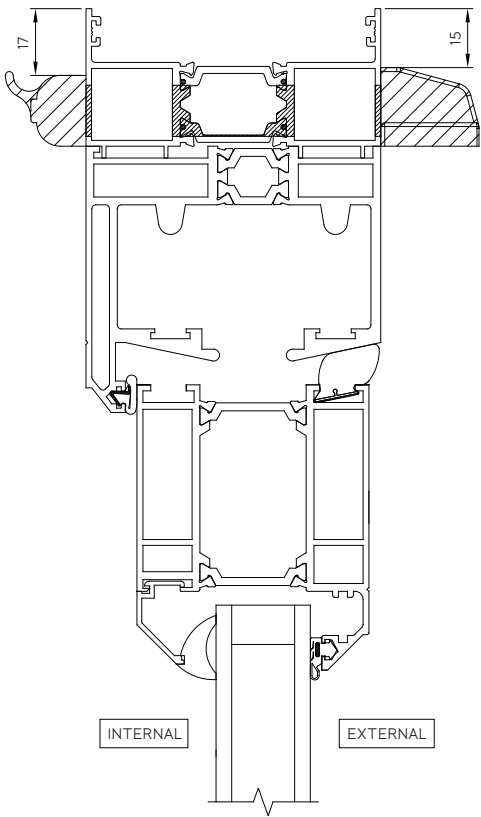
24a Bi-fold frame extender detail



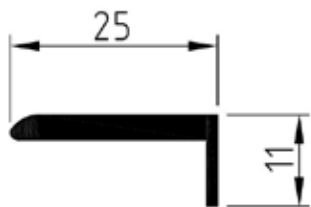
24b Bi-fold frame extender on top track



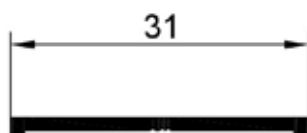
24c Bi-fold frame extender with trickle vent



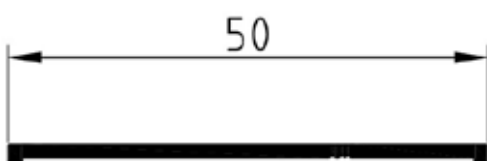
## 25 Trim options



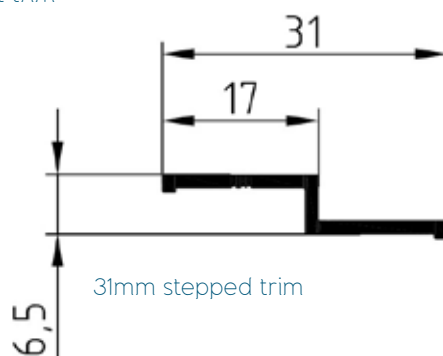
25mm trim



31mm flat trim

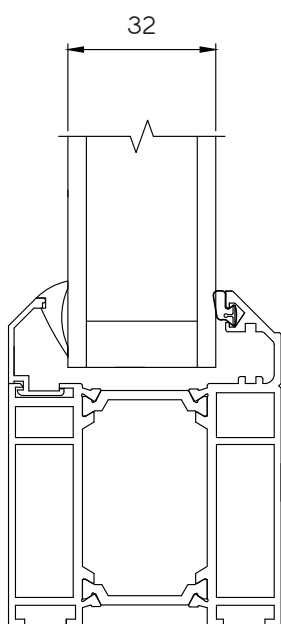


50mm flat trim

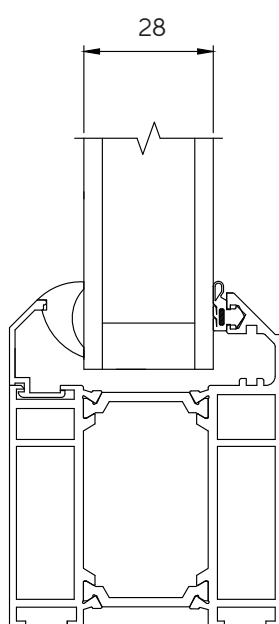


31mm stepped trim

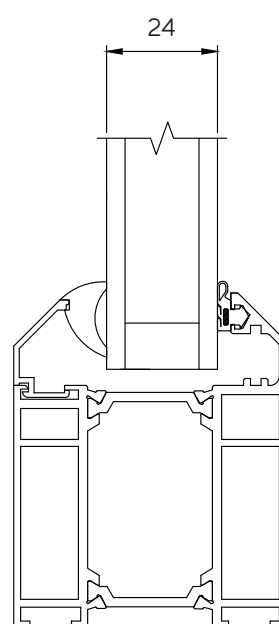
## 26 32mm Glazing unit



## 28mm Glazing unit

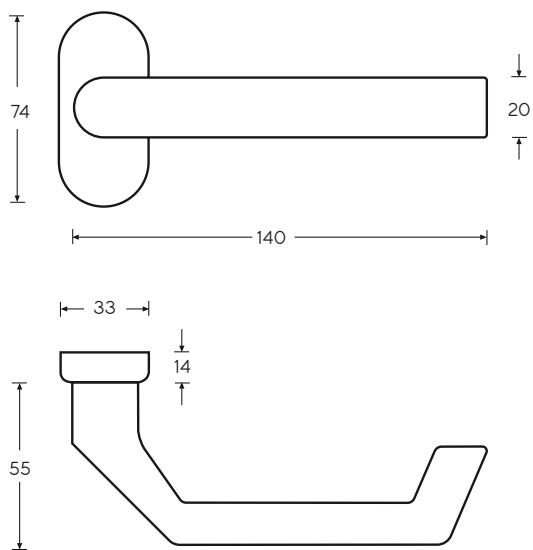


## 24mm Glazing unit

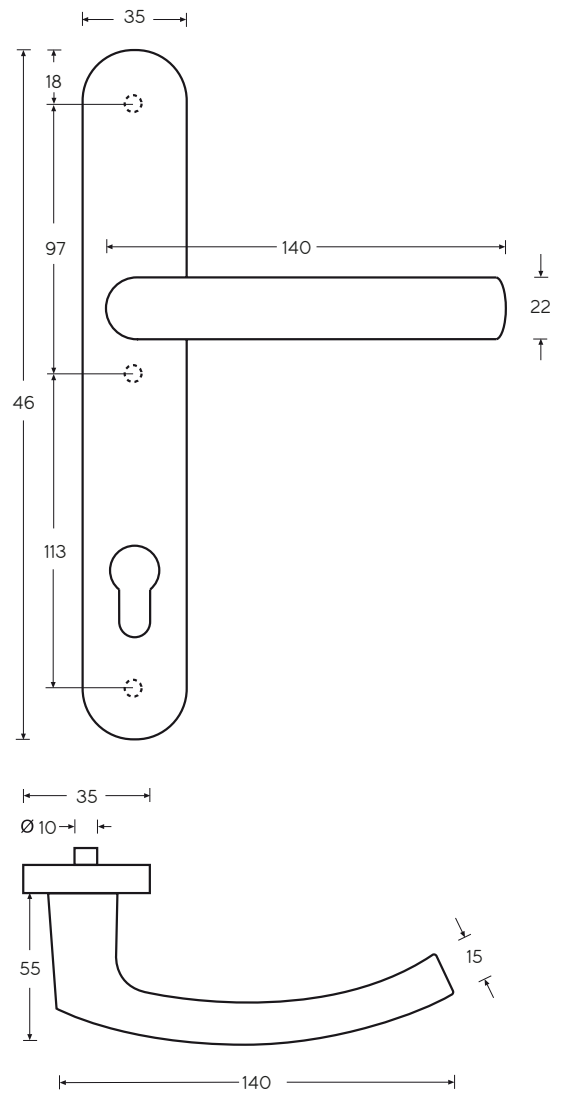


# Handles

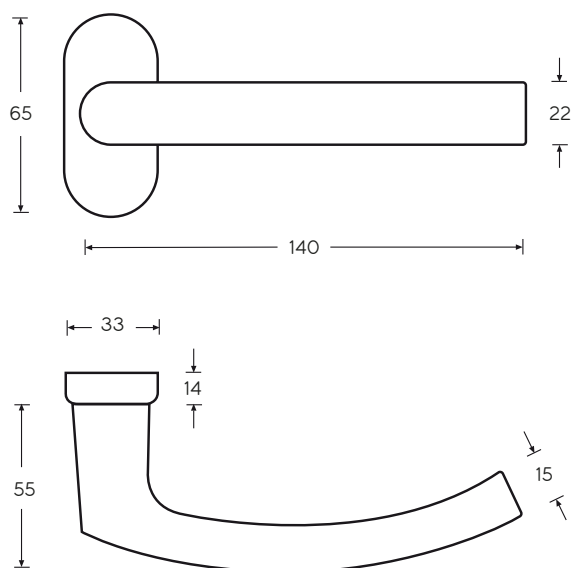
Hafi handle 251/280



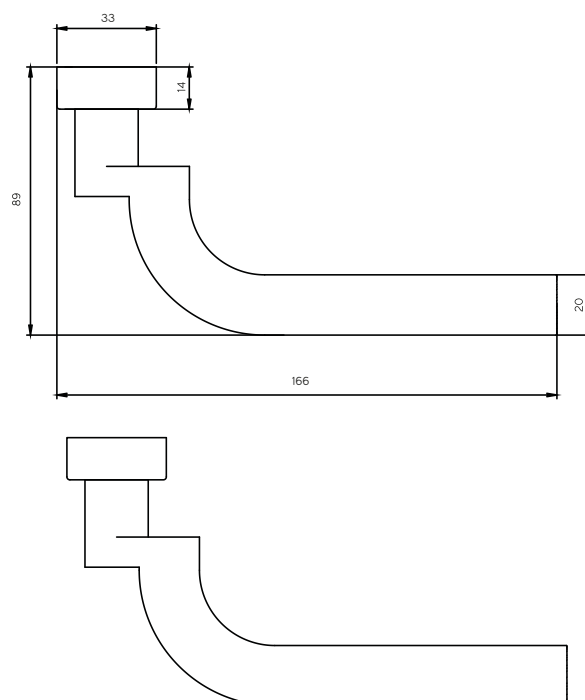
Hafi handle 253/270



Hafi handle 253/280

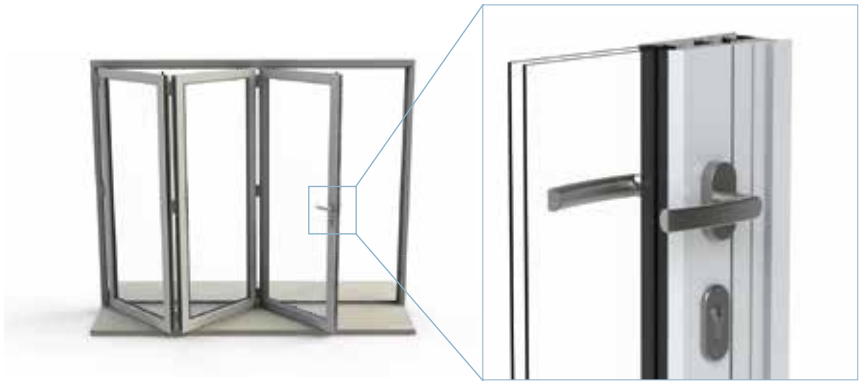
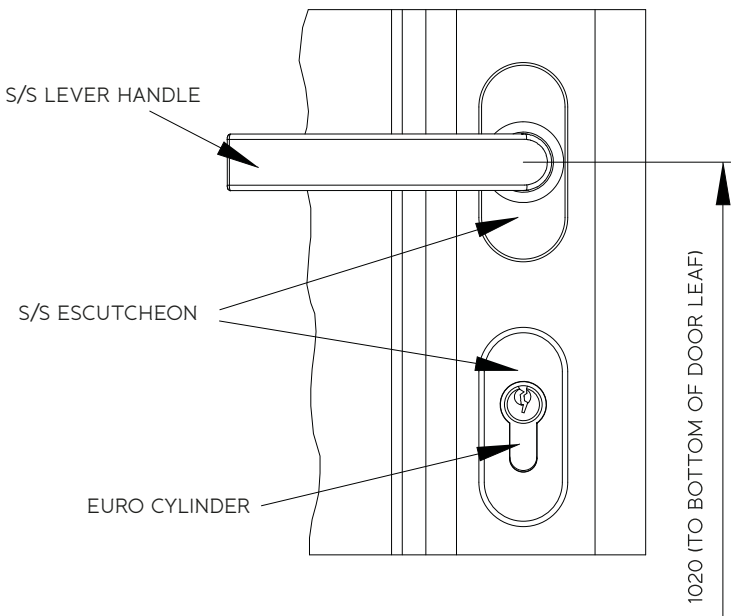
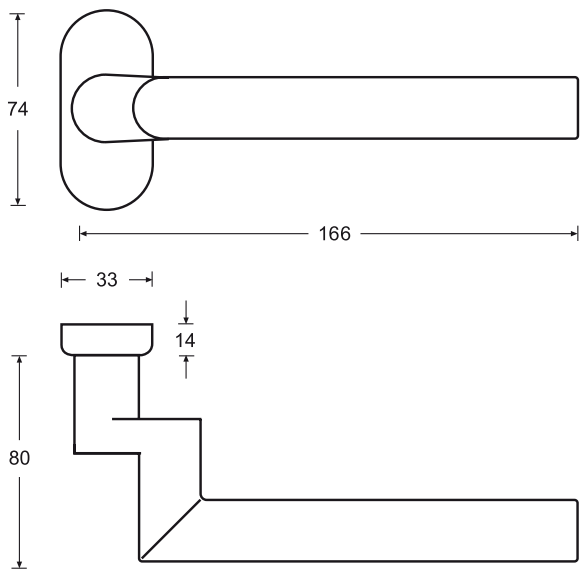


Hafi handle 301/280

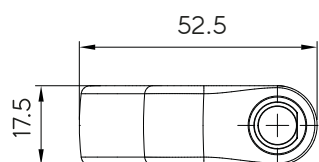
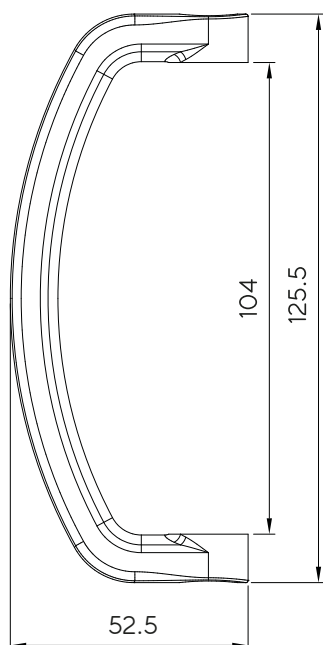


Hafi handle 303/280

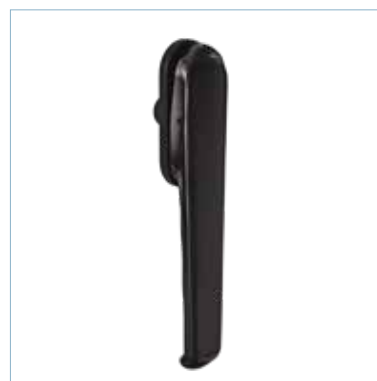
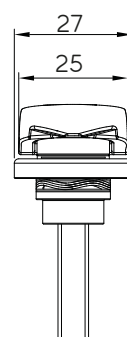
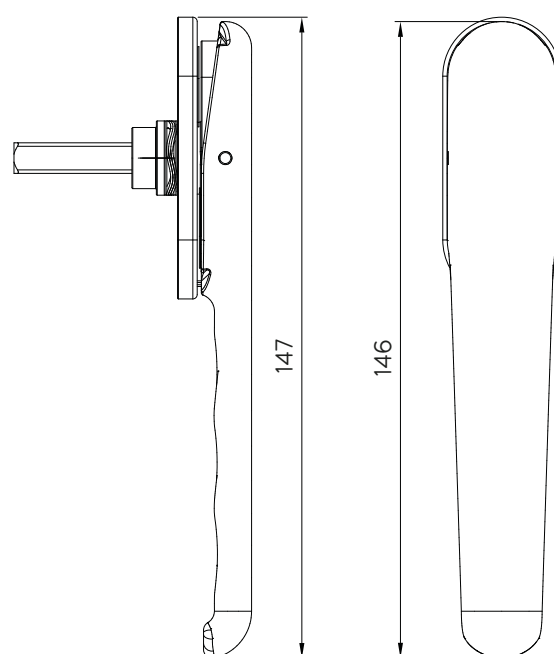
Hafi handle detail



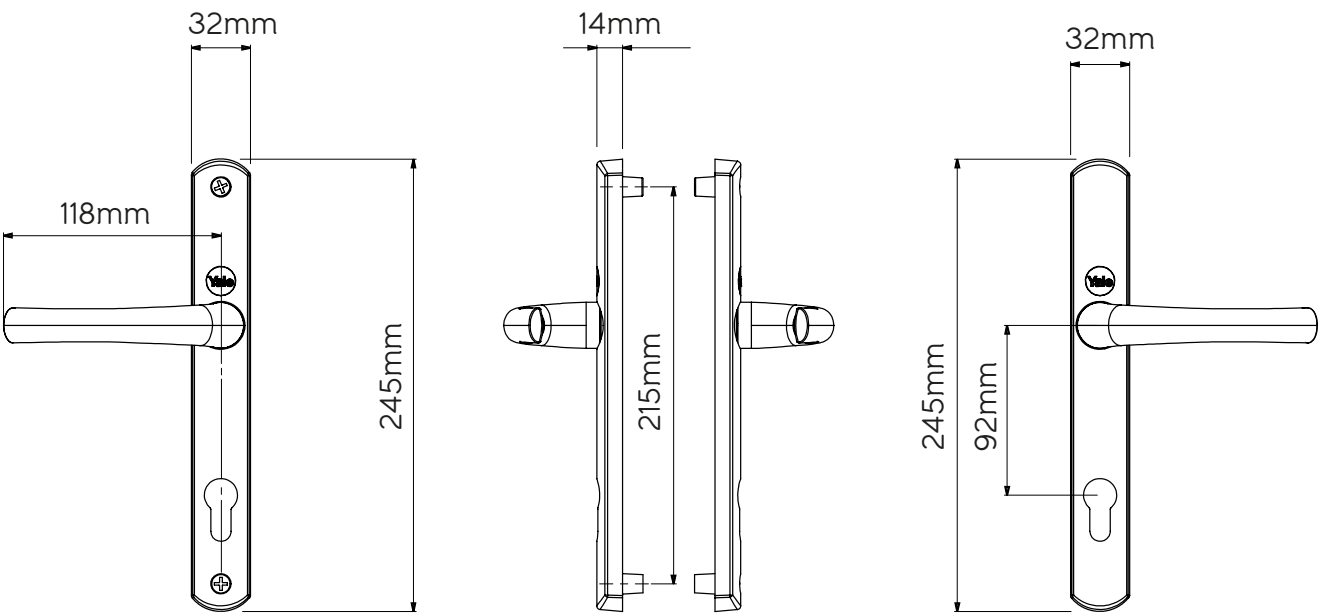
D-handle



Slave handle



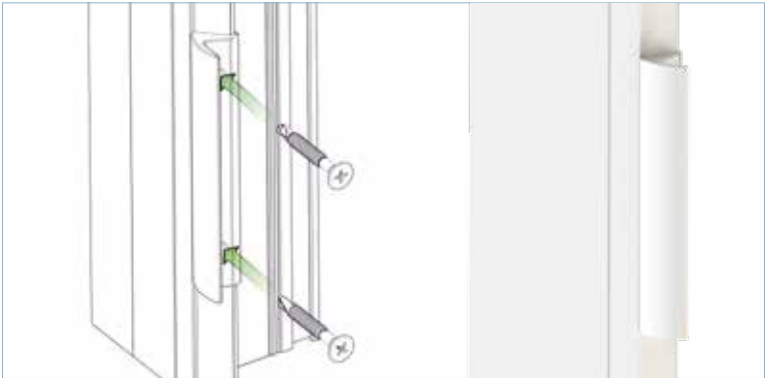
Yale handle



LEVER/LEVER

Available in 4 popular colours:  
white, chrome, black and gold.

Finger Pull option





# Gaskets

## Double Glazing Gaskets 24mm and 28mm

Glazing Rebate E3434



Glazing Wedge W474



Sash Side QL9135\*



Locking Rebate QL4636



Track Rebate QL9257



Sash Top and Bottom QL9141\*



## Triple Glazing Gaskets 32mm

Glazing Rebate QL4627



Glazing Wedge W474

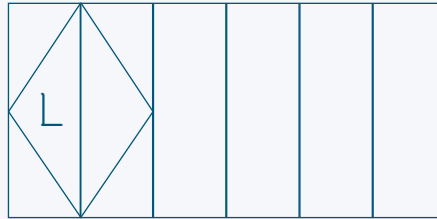


*\*Available in colours mentioned on page 7*

# All Configurations

## Code example

5+1 – OI – L  
**C** **A** **B** **D**



**A** The second number indicates where the lead/ access door is. As 1 is the second number, it means that is where the lead door is. If it had been 1+5, the last pane on the 5 door would be the lead door.

**B** OI = Open-in. OO = Open-out.

**C** The 5 is the number of doors folding the opposite way.

**D** L or R indicates which way the set with the lead door fold as viewed from outside.  
 I.E - 5+1 – OI – L means the 1 door is folding to the left.

## 1 Door Configuration



0+1 – OO – L

Other variations: 1+0 – OI – L  
 0+1 – OI – R  
 0+1 – OO – R

## 2 Door Configurations



2+0 – OO – L

Other variations: 2+0 – OI – L  
 2+0 – OI – R  
 2+0 – OO – R



1+1 – OO – L

Other variations: 1+1 – OI – L  
 1+1 – OI – R  
 1+1 – OO – R

## 3 Door Configurations



3+0 – OO – L










Other variations: 3+0 – OI – L  
 3+0 – OI – R  
 3+0 – OO – R












2+1 – OO – L

Other variations: 2+1 – OI – L  
 2+1 – OI – R  
 2+1 – OO – R













#### 4 Door Configurations

	IN  OUT 	4+0 – OO – L	Other variations: 4+0 – OI – L 4+0 – OI – R 4+0 – OO – R
	IN  OUT 	3+1 – OO – L	Other variations: 3+1 – OI – L 3+1 – OI – R 3+1 – OO – R
	IN  OUT 	1+3 – OO – L	Other variations: 1+3 – OI – L 1+3 – OI – R 1+3 – OO – R

#### 5 Door Configurations













	IN  OUT 	5+0 – OO – L	Other variations: 5+0 – OI – L 5+0 – OI – R 5+0 – OO – R
	IN  OUT 	2+3 – OO – L	Other variations: 2+3 – OI – L 2+3 – OI – R 2+3 – OO – R
	IN  OUT 	4+1 – OO – L	Other variations: 4+1 – OI – L 4+1 – OI – R 4+1 – OO – R

#### 6 Door Configurations













	IN  OUT 	6+0 – OO – L	Other variations: 6+0 – OI – L 6+0 – OI – R 6+0 – OO – R
	IN  OUT 	5+1 – OO – L	Other variations: 5+1 – OI – L 5+1 – OI – R 5+1 – OO – R
	IN  OUT 	1+5 – OO – L	Other variations: 1+5 – OI – L 1+5 – OI – R 1+5 – OO – R
	IN  OUT 	3+3 – OO – L	Other variations: 3+3 – OI – L 3+3 – OI – R 3+3 – OO – R

## All Configurations

### 7 Door Configurations

	IN  OUT 	$7+0 - \text{OO} - \text{L}$	Other variations: $7+0 - \text{OI} - \text{L}$ $7+0 - \text{OI} - \text{R}$ $7+0 - \text{OO} - \text{R}$
	IN  OUT 	$6+1 - \text{OO} - \text{L}$	Other variations: $6+1 - \text{OI} - \text{L}$ $6+1 - \text{OI} - \text{R}$ $6+1 - \text{OO} - \text{R}$
	IN  OUT 	$2+5 - \text{OO} - \text{L}$	Other variations: $2+5 - \text{OI} - \text{L}$ $2+5 - \text{OI} - \text{R}$ $2+5 - \text{OO} - \text{R}$
	IN  OUT 	$4+3 - \text{OO} - \text{L}$	Other variations: $4+3 - \text{OI} - \text{L}$ $4+3 - \text{OI} - \text{R}$ $4+3 - \text{OO} - \text{R}$

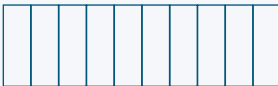











### 8 Door Configurations

	IN  OUT 	$8+0 - \text{OO} - \text{L}$	Other variations: $8+0 - \text{OI} - \text{L}$ $8+0 - \text{OI} - \text{R}$ $8+0 - \text{OO} - \text{R}$
	IN  OUT 	$7+1 - \text{OO} - \text{L}$	Other variations: $7+1 - \text{OI} - \text{L}$ $7+1 - \text{OI} - \text{R}$ $7+1 - \text{OO} - \text{R}$
	IN  OUT 	$1+7 - \text{OO} - \text{L}$	Other variations: $1+7 - \text{OI} - \text{L}$ $1+7 - \text{OI} - \text{R}$ $1+7 - \text{OO} - \text{R}$
	IN  OUT 	$5+3 - \text{OO} - \text{L}$	Other variations: $5+3 - \text{OI} - \text{L}$ $5+3 - \text{OI} - \text{R}$ $5+3 - \text{OO} - \text{R}$
	IN  OUT 	$3+5 - \text{OO} - \text{L}$	Other variations: $3+5 - \text{OI} - \text{L}$ $3+5 - \text{OI} - \text{R}$ $3+5 - \text{OO} - \text{R}$

## 9 Door Configurations

	IN  OUT	9+0 – OO – L	Other variations: 9+0 – OI – L 9+0 – OI – R 9+0 – OO – R
	IN  OUT	8+1 – OO – L	Other variations: 8+1 – OI – L 8+1 – OI – R 8+1 – OO – R
	IN  OUT	2+7 – OO – L	Other variations: 2+7 – OI – L 2+7 – OI – R 2+7 – OO – R
	IN  OUT	6+3 – OO – L	Other variations: 6+3 – OI – L 6+3 – OI – R 6+3 – OO – R
	IN  OUT	4+5 – OO – L	Other variations: 4+5 – OI – L 4+5 – OI – R 4+5 – OO – R

## 10 Door Configurations

	IN  OUT	10+0 – OO – L	Other variations: 10+0 – OI – L 10+0 – OI – R 10+0 – OO – R
	IN  OUT	9+1 – OO – L	Other variations: 9+1 – OI – L 9+1 – OI – R 9+1 – OO – R
	IN  OUT	1+9 – OO – L	Other variations: 1+9 – OI – L 1+9 – OI – R 1+9 – OO – R
	IN  OUT	7+3 – OO – L	Other variations: 7+3 – OI – L 7+3 – OI – R 7+3 – OO – R
	IN  OUT	3+7 – OO – L	Other variations: 3+7 – OI – L 3+7 – OI – R 3+7 – OO – R
	IN  OUT	5+5 – OO – L	Other variations: 5+5 – OI – L 5+5 – OI – R 5+5 – OO – R

## All Configurations

### Corner Configurations

IC = Internal Corner EC = External Corner



1+1 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

1+1 – OO – R – EC

1+1 – OI – L – EC

1+1 – OO – L – IC

1+1 – OO – R – IC

1+1 – OI – L – IC



2+1 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

2+1 – OO – R – EC

2+1 – OI – L – EC

2+1 – OO – L – IC

2+1 – OO – R – IC

2+1 – OI – L – IC



1+3 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

1+3 – OO – R – EC

1+3 – OI – L – EC

1+3 – OO – L – IC

1+3 – OO – R – IC

1+3 – OI – L – IC



3+1 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

3+1 – OO – R – EC

3+1 – OI – L – EC

3+1 – OO – L – IC

3+1 – OO – R – IC

3+1 – OI – L – IC



4+1 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

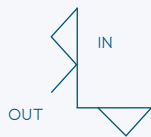
4+1 – OO – R – EC

4+1 – OI – L – EC

4+1 – OO – L – IC

4+1 – OO – R – IC

4+1 – OI – L – IC



3+2 – OO – L – EC

Other variations:  
3+2 – OO – R – EC

OI – R – IC  
3+2 – OI – L – EC

OI – R – EC  
3+2 – OO – L – IC

3+2 – OO – R – IC

3+2 – OI – L – IC



1+5 – OO – L – EC

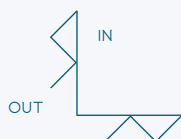
Other variations:  
1+5 – OO – R – EC

OI – R – IC  
1+5 – OI – L – EC

OI – R – EC  
1+5 – OO – L – IC

1+5 – OO – R – IC

1+5 – OI – L – IC



3+3 – OO – L – EC

Other variations:  
3+3 – OO – R – EC

OI – R – IC  
3+3 – OI – L – EC

OI – R – EC  
3+3 – OO – L – IC

3+3 – OO – R – IC

3+3 – OI – L – IC



5+1 – OO – L – EC

Other variations:  
5+1 – OO – R – EC

OI – R – IC  
5+1 – OI – L – EC

OI – R – EC  
5+1 – OO – L – IC

5+1 – OO – R – IC

5+1 – OI – L – IC



6+1 – OO – L – EC

Other variations:  
6+1 – OO – R – EC

OI – R – IC  
6+1 – OI – L – EC

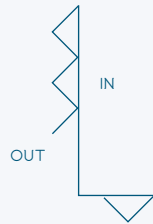
OI – R – EC  
6+1 – OO – L – IC

6+1 – OO – R – IC

6+1 – OI – L – IC

## All Configurations

### Corner Configurations



2+5 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

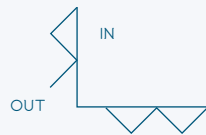
2+5 – OO – R – EC

2+5 – OI – L – EC

2+5 – OO – L – IC

2+5 – OO – R – IC

2+5 – OI – L – IC



4+3 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

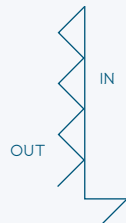
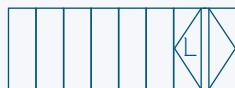
4+3 – OO – R – EC

4+3 – OI – L – EC

4+3 – OO – L – IC

4+3 – OO – R – IC

4+3 – OI – L – IC



1+7 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

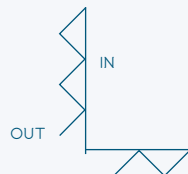
1+7 – OO – R – EC

1+7 – OI – L – EC

1+7 – OO – L – IC

1+7 – OO – R – IC

1+7 – OI – L – IC



3+5 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

3+5 – OO – R – EC

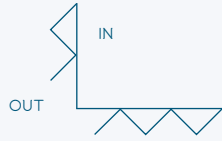
3+5 – OI – L – EC

3+5 – OO – L – IC

3+5 – OO – R – IC

3+5 – OI – L – IC





5+3 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

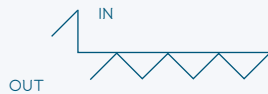
5+3 – OO – R – EC

5+3 – OI – L – EC

5+3 – OO – L – IC

5+3 – OO – R – IC

5+3 – OI – L – IC



7+1 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

7+1 – OO – R – EC

7+1 – OI – L – EC

7+1 – OO – L – IC

7+1 – OO – R – IC

7+1 – OI – L – IC



8+1 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

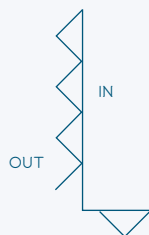
8+1 – OO – R – EC

8+1 – OI – L – EC

8+1 – OO – L – IC

8+1 – OO – R – IC

8+1 – OI – L – IC



2+7 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

2+7 – OO – R – EC

2+7 – OI – L – EC

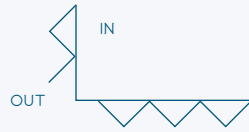
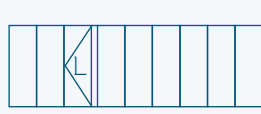
2+7 – OO – L – IC

2+7 – OO – R – IC

2+7 – OI – L – IC

## All Configurations

### Corner Configurations



6+3 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

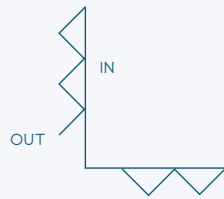
6+3 – OO – R – EC

6+3 – OI – L – EC

6+3 – OO – L – IC

6+3 – OO – R – IC

6+3 – OI – L – IC



4+5 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

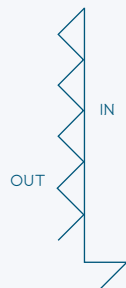
4+5 – OO – R – EC

4+5 – OI – L – EC

4+5 – OO – L – IC

4+5 – OO – R – IC

4+5 – OI – L – IC



1+9 – OO – L – EC

Other variations:

OI – R – IC

OI – R – EC

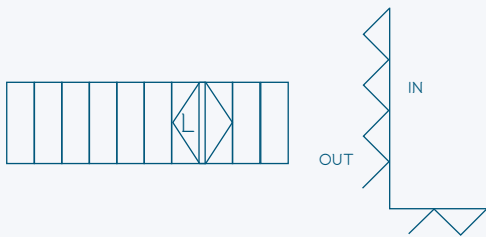
1+9 – OO – R – EC

1+9 – OI – L – EC

1+9 – OO – L – IC

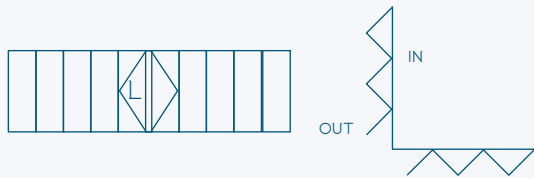
1+9 – OO – R – IC

1+9 – OI – L – IC



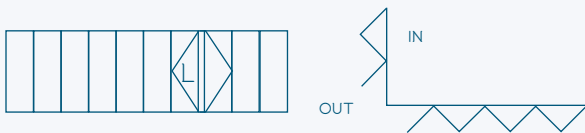
3+7 – OO – L – EC

Other variations:      OI – R – IC              OI – R – EC  
 3+7 – OO – R – EC      3+7 – OI – L – EC      3+7 – OO – L – IC      3+7 – OO – R – IC      3+7 – OI – L – IC



5+5 – OO – L – EC

Other variations:      OI – R – IC              OI – R – EC  
 5+5 – OO – R – EC      5+5 – OI – L – EC      5+5 – OO – L – IC      5+5 – OO – R – IC      5+5 – OI – L – IC



7+3 – OO – L – EC

Other variations:      OI – R – IC              OI – R – EC  
 7+3 – OO – R – EC      7+3 – OI – L – EC      7+3 – OO – L – IC      7+3 – OO – R – IC      7+3 – OI – L – IC



9+1 – OO – L – EC

Other variations:      OI – R – IC              OI – R – EC  
 9+1 – OO – R – EC      9+1 – OI – L – EC      9+1 – OO – L – IC      9+1 – OO – R – IC      9+1 – OI – L – IC

## All Configurations

### Wrapping Corner Configurations



1+2 (0+3) – OO – R – EC

Other variations:

OI – R – IC

OI – R – EC

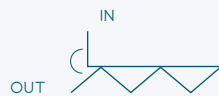
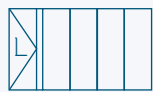
1+2 – OO – L – EC

1+2 – OI – L – EC

1+2 – OO – L – IC

1+2 – OO – R – IC

1+2 – OI – L – IC



1+4 (0+5) – OO – R – EC

Other variations:

OI – R – IC

OI – R – EC

1+4 – OO – L – EC

1+4 – OI – L – EC

1+4 – OO – L – IC

1+4 – OO – R – IC

1+4 – OI – L – IC



1+6 (0+7) – OO – R – EC

Other variations:

OI – R – IC

OI – R – EC

1+6 – OO – L – EC

1+6 – OI – L – EC

1+6 – OO – L – IC

1+6 – OO – R – IC

1+6 – OI – L – IC



1+8 (0+9) – OO – R – EC

Other variations:

OI – R – IC

OI – R – EC

1+8 – OO – L – EC

1+8 – OI – L – EC

1+8 – OO – L – IC

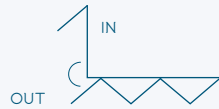
1+8 – OO – R – IC

1+8 – OI – L – IC



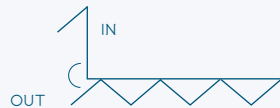
2+2 (1+3) – OO – R – EC

Other variations:    OI – R – IC            OI – R – EC  
 2+2 – OO – L – EC    2+2 – OI – L – EC    2+2 – OO – L – IC    2+2 – OO – R – IC    2+2 – OI – L – IC



2+4 (1+5) – OO – R – EC

Other variations:    OI – R – IC            OI – R – EC  
 2+4 – OO – L – EC    2+4 – OI – L – EC    2+4 – OO – L – IC    2+4 – OO – R – IC    2+4 – OI – L – IC



2+6 (1+7) – OO – R – EC

Other variations:    OI – R – IC            OI – R – EC  
 2+6 – OO – L – EC    2+6 – OI – L – EC    2+6 – OO – L – IC    2+6 – OO – R – IC    2+6 – OI – L – IC

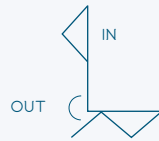


2+8 (1+9) – OO – R – EC

Other variations:    OI – R – IC            OI – R – EC  
 2+8 – OO – L – EC    2+8 – OI – L – EC    2+8 – OO – L – IC    2+8 – OO – R – IC    2+8 – OI – L – IC

## All Configurations

### Wrapping Corner Configurations



$3+2 (2+3) - \text{OO} - \text{R} - \text{EC}$

Other variations:

OI - R - IC

OI - R - EC

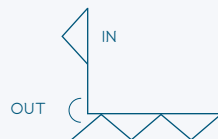
$3+2 - \text{OO} - \text{L} - \text{EC}$

$3+2 - \text{OI} - \text{L} - \text{EC}$

$3+2 - \text{OO} - \text{L} - \text{IC}$

$3+2 - \text{OO} - \text{R} - \text{IC}$

$3+2 - \text{OI} - \text{L} - \text{IC}$



$3+4 (2+5) - \text{OO} - \text{R} - \text{EC}$

Other variations:

OI - R - IC

OI - R - EC

$3+4 - \text{OO} - \text{L} - \text{EC}$

$3+4 - \text{OI} - \text{L} - \text{EC}$

$3+4 - \text{OO} - \text{L} - \text{IC}$

$3+4 - \text{OO} - \text{R} - \text{IC}$

$3+4 - \text{OI} - \text{L} - \text{IC}$



$3+6 (2+7) - \text{OO} - \text{R} - \text{EC}$

Other variations:

OI - R - IC

OI - R - EC

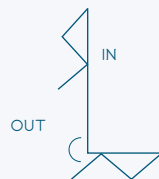
$3+6 - \text{OO} - \text{L} - \text{EC}$

$3+6 - \text{OI} - \text{L} - \text{EC}$

$3+6 - \text{OO} - \text{L} - \text{IC}$

$3+6 - \text{OO} - \text{R} - \text{IC}$

$3+6 - \text{OI} - \text{L} - \text{IC}$



$4+2 (3+3) - \text{OO} - \text{R} - \text{EC}$

Other variations:

OI - R - IC

OI - R - EC

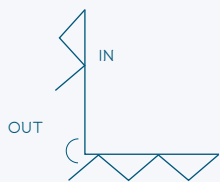
$4+2 - \text{OO} - \text{L} - \text{EC}$

$4+2 - \text{OI} - \text{L} - \text{EC}$

$4+2 - \text{OO} - \text{L} - \text{IC}$

$4+2 - \text{OO} - \text{R} - \text{IC}$

$4+2 - \text{OI} - \text{L} - \text{IC}$



4+4 (3+5) – OO – R – EC

Other variations:

4+4 – OO – L – EC

OI – R – IC

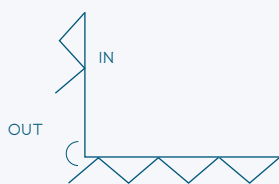
4+4 – OI – L – EC

OI – R – EC

4+4 – OO – L – IC

4+4 – OO – R – IC

4+4 – OI – L – IC



4+6 (3+7) – OO – R – EC

Other variations:

4+4 – OO – L – EC

OI – R – IC

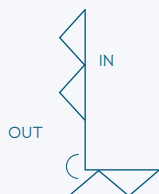
4+4 – OI – L – EC

OI – R – EC

4+4 – OO – L – IC

4+4 – OO – R – IC

4+4 – OI – L – IC



5+2 (4+3) – OO – R – EC

Other variations:

5+2 – OO – L – EC

OI – R – IC

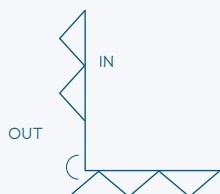
5+2 – OI – L – EC

OI – R – EC

5+2 – OO – L – IC

5+2 – OO – R – IC

5+2 – OI – L – IC



5+4 (4+5) – OO – R – EC

Other variations:

5+4 – OO – L – EC

OI – R – IC

5+4 – OI – L – EC

OI – R – EC

5+4 – OO – L – IC

5+4 – OO – R – IC

5+4 – OI – L – IC

## All Configurations

### Wrapping Corner Configurations

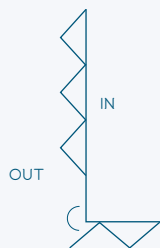
$6+2 (5+3) - OO - R - EC$

Other variations:     $OI - R - IC$                        $OI - R - EC$   
 $6+2 - OO - L - EC$      $6+2 - OI - L - EC$      $6+2 - OO - L - IC$      $6+2 - OO - R - IC$      $6+2 - OI - L - IC$

$6+4 (5+5) - OO - R - EC$

Other variations:     $OI - R - IC$                        $OI - R - EC$   
 $6+4 - OO - L - EC$      $6+4 - OI - L - EC$      $6+4 - OO - L - IC$      $6+4 - OO - R - IC$      $6+4 - OI - L - IC$





7+2 (6+3) – OO – R – EC

Other variations:

OI – R – IC

OI – R – EC

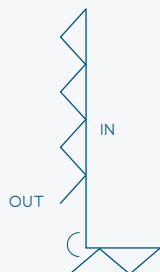
7+2 – OO – L – EC

7+2 – OI – L – EC

7+2 – OO – L – IC

7+2 – OO – R – IC

7+2 – OI – L – IC



8+2 (7+3) – OO – R – EC

Other variations:

OI – R – IC

OI – R – EC

8+2 – OO – L – EC

8+2 – OI – L – EC

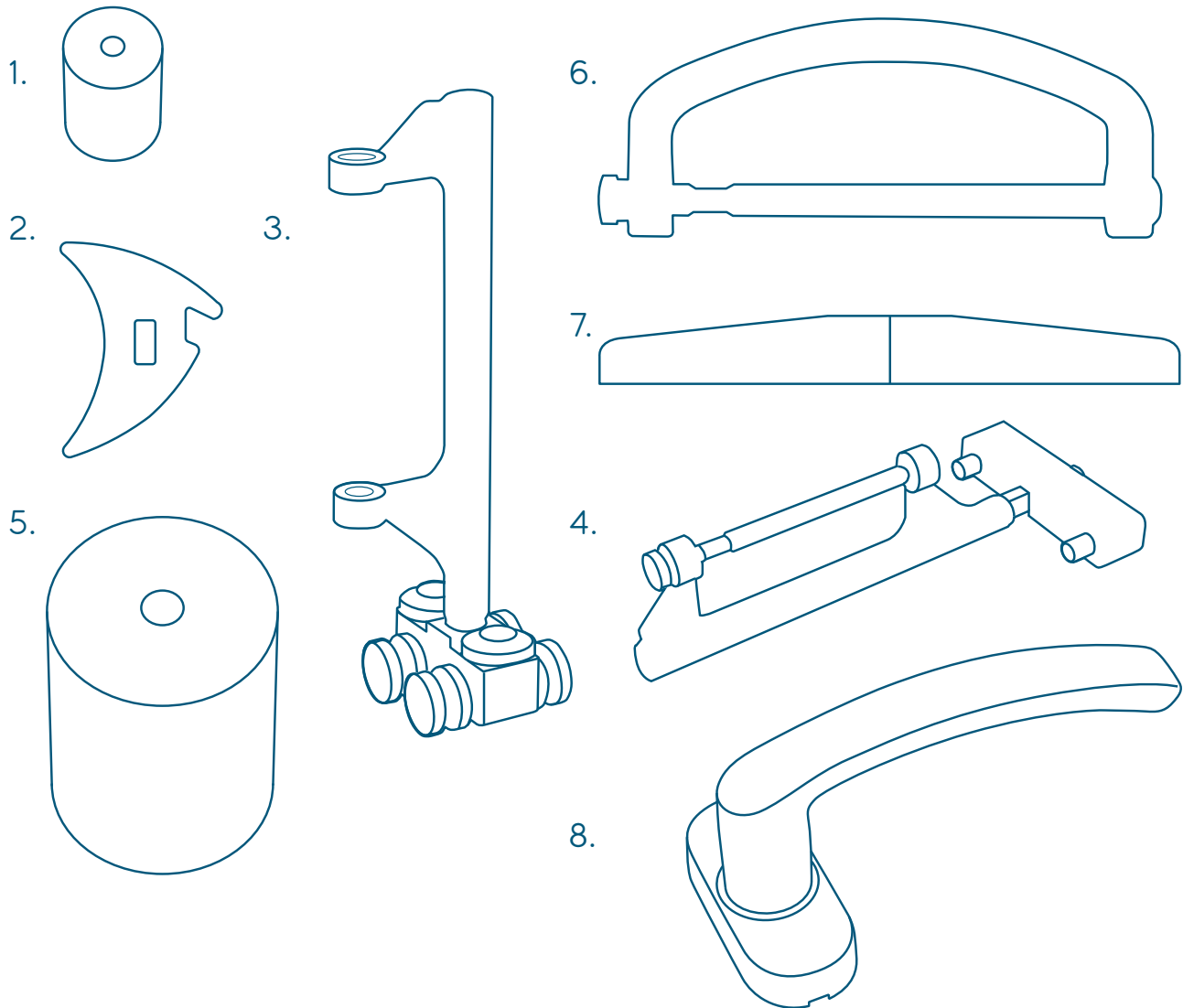
8+2 – OO – L – IC

8+2 – OO – R – IC

8+2 – OI – L – IC

# Bi-fold Door Installation Guide

## Components box



## Contents

- |                     |   |   |
|---------------------|---|---|
| ▶ 1. Fixing plugs   | ▶ 4. Top trolley  | ▶ 6. D-handle                           |
| ▶ 2. Wedge gasket   | ▶ 5. Magnetic keep<br>(x 2 if door height is greater than 2499mm) | ▶ 7. Cill end cap                       |
| ▶ 3. Bottom trolley | ▶ 6. D-handle   | ▶ 8. Long back plate lever/lever handle |

# 1. Tools list

**1.1.** Fixing kit to install up to 8 door leaves, including a selection of packers 1mm-6mm, 35 4mm x 40mm glazing packers and screws.

- ▶ 25mm self-tapping screws
- ▶ Appropriate fixings for lintel
- ▶ Mixed selection of frame packers
- ▶ 4mm glazing packers (min 32mm wide)
- ▶ Appropriate drill bits for drilling lintel and jamb packers
- ▶ 13mm HSS or blade type drill bit
- ▶ Long series 3.5mm drill bit
- ▶ SDS drill with appropriate size drill bits for your preferred frame fixings
- ▶ Battery screwdriver
- ▶ Saw for cutting aluminium cill
- ▶ Long straight edge
- ▶ Long spirit level
- ▶ String line
- ▶ Measuring staff
- ▶ Phillips 2, Pozi 2 and large flat head screw drivers
- ▶ 4mm Allen key
- ▶ 2.5mm Allen key
- ▶ 3mm Allen key
- ▶ Flat bar
- ▶ Plastic/ rubber hammer
- ▶ Glazing paddle
- ▶ Gasket sheers
- ▶ Foam gun
- ▶ Sealant and gun
- ▶ T30 torx key / small 1/4 ratchet with T30 bit

## Note

If it is necessary to pack the outer frame by more than 6mm, a solid plastic or hardwood packer should be used.

## 2. Preparation

- ▶ **2.1.** Measure the opening and check it fits with all measurements on your Origin paperwork.
- ▶ **2.2.** Carefully unpack the tracks and jambs.
- ▶ **2.3.** On the hinge jamb, place a jamb packer level with each hinge. Position the jamb packers within 150mm of corner and 600mm apart on centre.

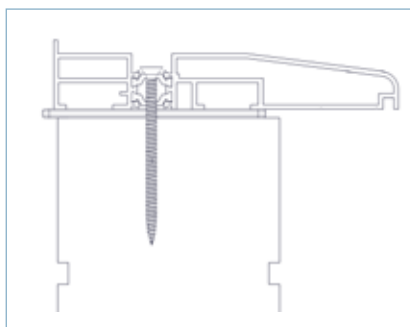
Repeat this for locking jamb.

- ▶ **2.4** On the locking jamb, place a jamb packer 50mm down and 50mm up from the top and bottom of the jamb.
- ▶ **2.5.** Secure jamb packers by inserting a screw either side, see FIG 2A.
- ▶ **2.6.** Spaced at a maximum of 500mm apart, place the correct frame packers along the length of the opening, creating a level, well supported platform for the track/cill to sit.

FIG 2A



FIG 3A



### 3. Cill (if no cill, move to step 4.)

- ▶ **3.1.** Cut the cill to the correct length to fit the opening with or without horns.
- ▶ **3.2.** Using an appropriate sealant, fill the ends of the cill section and install the end caps.
- ▶ **3.3.** Place the cill on the prepared frame packers in the opening.
- ▶ **3.4.** Recheck for level, adjust if necessary.

**NOTE:** Move on to step 4 if the width is under 3600mm.

- ▶ **3.5.** Using a string line, make sure the cill does not have a bow.
- ▶ **3.6.** Fix the cill through the thermal break every 1000mm (shown in FIG 3A) using your preferred fixings. Fill each hole with suitable sealant before inserting the fixing.
- ▶ **3.7.** Recheck for level, adjust if necessary.

#### Note

The cill should be positioned with the back edge overhanging the building cavity; the distance specified by the local authority building regulations.

## 4. Outer frame

- ▶ **4.1.** Joining tracks (if applicable).
- ▶ **4.1.1.** All joints in the track are pre-made in the factory and separated for transport. When joints are pre-made, use a suitable clear sealant to seal the joint.
- ▶ **4.2.** Carefully remove the gasket from each end of the top and bottom track by approximately 200mm.
- ▶ **4.3.** Where possible, lay out the tracks and jambs in the correct positions with all labels facing up, being careful not to scratch the powder coat.
- ▶ **4.4.** Position the jambs into the tracks using the connectors provided as shown in FIG 4A.  
**NOTE:** For mobility thresholds, after completing step 4.4, secure the jambs to the threshold using two of the supplied 3.5mm screws. Seal the mating faces with a suitable sealant.
- ▶ **4.5.** Using a rubber mallet, gently tap the jambs in to the track as shown in FIG 4B.  
**NOTE:** If more than a tap is needed, the connectors are not aligned with the tracks.
- ▶ **4.6.** If applicable, using a suitable sealant, seal along the two ends and back lip of the cill where the bottom track will sit.
- ▶ **4.7.** Install the outer frame and insert frame packers above the top track at each end, compressing tracks, jambs and cill (if fitted), together closing all unwanted gaps and temporarily holding the frame in position as shown in FIG 4C.
- ▶ **4.8.** Make sure the bottom track is pushed up against the lip at the back of the cill (if fitted) and is central in the opening.

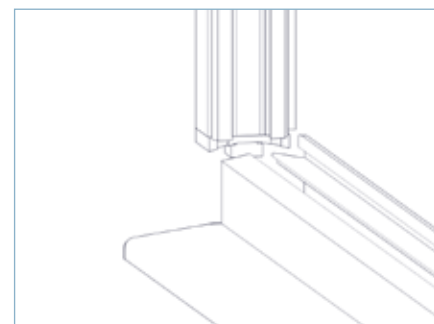


FIG 4A

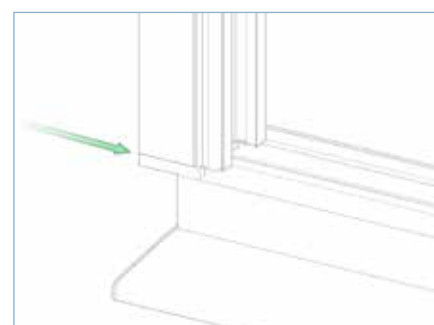


FIG 4B

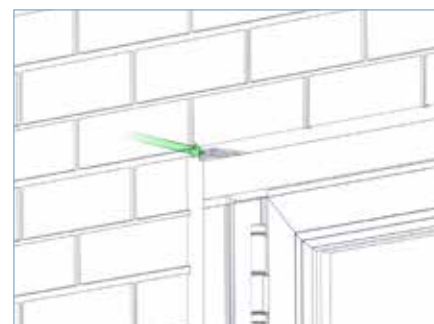


FIG 4C

## 5. Fixing the outer frame

- ▶ **5.1.** Fix the bottom track and cill as shown in FIG 5A. Position the fixings approximately 100mm in from each end of the track and one fixing every door width along the length. If there is no cill, fix the bottom track to the brick/ block below, making sure it is straight and remains level

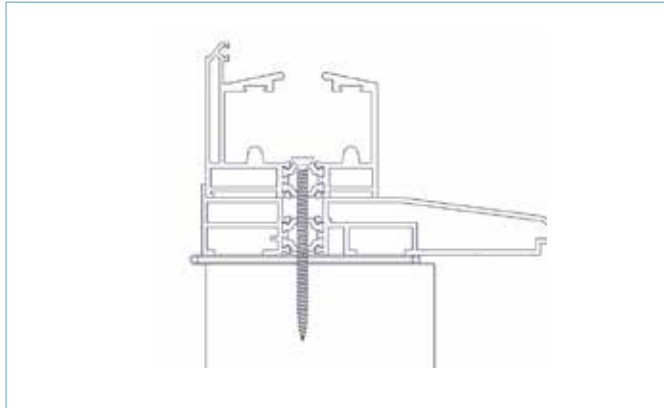


FIG 5A

- ▶ **5.2.** Using a 13mm drill bit, make a hole in the outer layer of polyamide, level with the centre of each jamb packer. This will allow installation of the fixing plug as shown in FIG 5B.

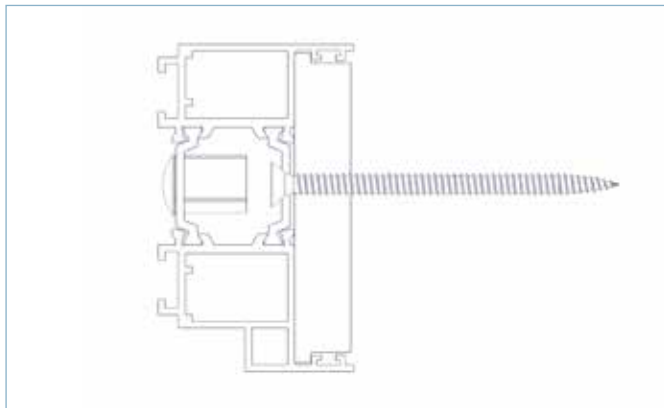


FIG 5B

- ▶ **5.3.** Using the correct size HSS bit for your preferred fixing, drill through each jamb packer. To protect your drill bit, place a putty knife (or similar) between the jamb packer and brick.

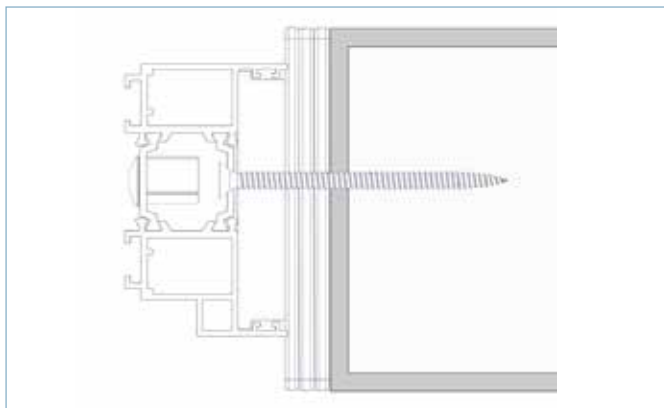


FIG 5C

- ▶ **5.4.** Align the bottom of the jambs with the end of the bottom track. Using frame packers between the jamb packers and the wall, level out the jambs in all directions and fix into position with your preferred fixings as shown in FIG 5C.

### 5. Fixing the outer frame continued

▶ **5.5.** Align the end of the top track with the top of the jamb as shown in FIG 5D.

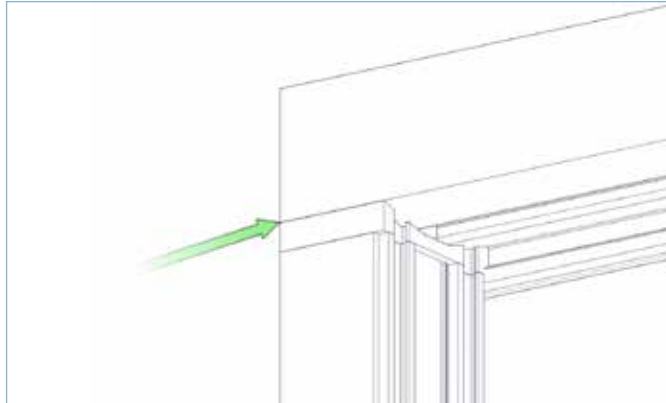


FIG 5D

▶ **5.6.** Install a fixing in the top track approximately 100mm in from the jamb as shown in FIG 5E, being careful not to lift the track from the top of the jamb when the fixing is tightened.

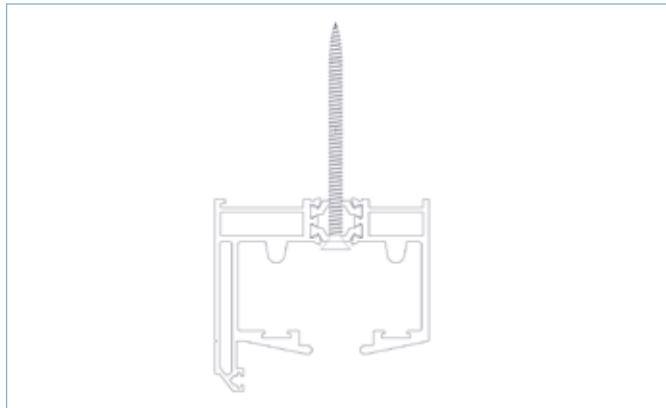


FIG 5E

▶ **5.7.** Using the string line and pinch rod or measuring staff, make sure the track does not bow inside to out, or up and down, as shown in FIG 5F.

▶ **5.8.** Install the remaining fixings into the top track in line with the bottom track fittings, being careful not to bow or twist the track.

▶ **5.9.** Trim and reinstall the track gasket.

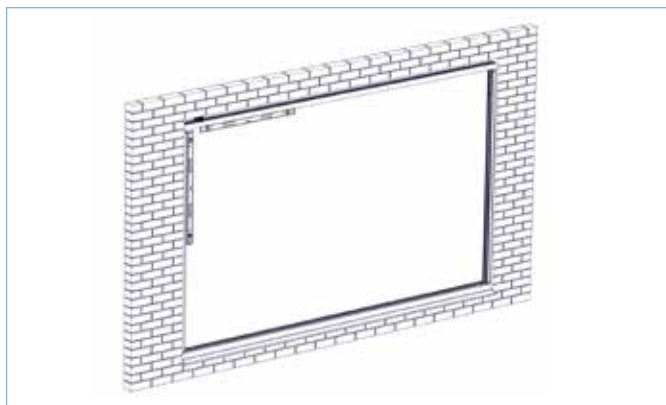


FIG 5F



## 6. Top and bottom trolley

- ▶ **6.1.** Remove the bottom carriage and trolley assembly from its packaging, and using a 4mm frame packer, check the ride height is set correctly as shown in FIG 6A.
- ▶ **6.2.** Place the bottom carriage and trolley assembly into the bottom track as shown in FIG 6B. The trolley should point to the outside if the doors are open-out, and inside if the doors open-in. Repeat this process until all bottom carriage assemblies have been installed.
- ▶ **6.3.** Install all top trolley guide wheels and move down the track to the opposite end. The thicker side of the wheel should be on top as shown in FIG 6C.
- ▶ **6.4.** Insert the top trolley between two guide wheels and lower down to locate the pins into them from above, as shown in FIG 6D and 6E. Repeat this process until all top trolleys are installed.



FIG 6A

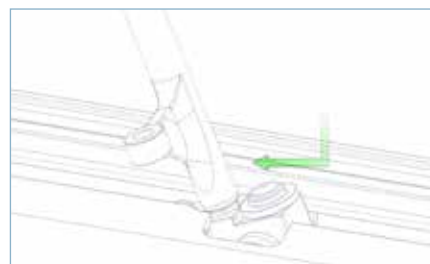


FIG 6B

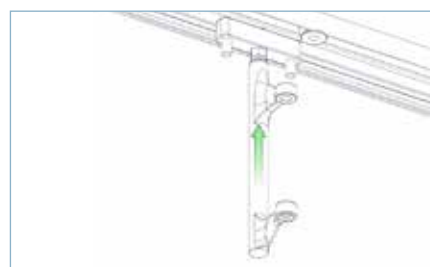


FIG 6D

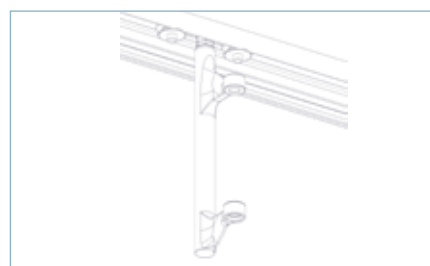


FIG 6E

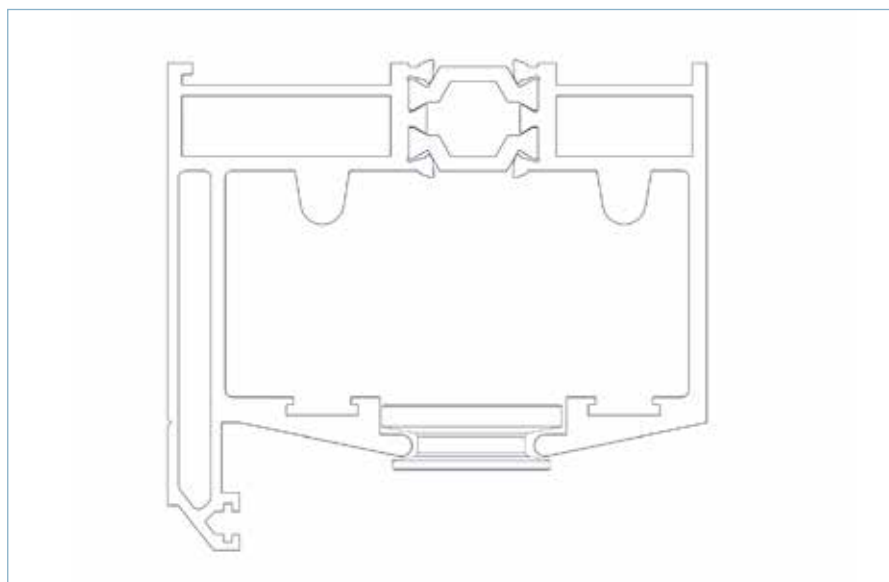


FIG 6C

## 7. Door leaves

- ▶ **7.1.** Locate the trolley pins and bolts from the components bag.
- ▶ **7.2.** Hang the first door on the hinge jamb as shown in FIG 7 A and B with the label at the top and facing out.
- ▶ **7.3.** Hang the second door onto the hinges of the first door, again with the label at the top and facing out as shown in FIG 7C.
- ▶ **7.4.** Close the two doors across the track and lock into place with the slave handle, being careful not to scratch the track as the doors cross it.
- ▶ **7.5.** Hang the third door onto the centre hinge and insert a screwdriver through the top hinge; this will support the door whilst the trolleys are located as seen in FIG 7D.
- ▶ **7.6.** With the third door completely open, locate the bottom trolley around the bottom hinge between the second and third doors.
- ▶ **7.7.** Remove the screw and insert the trolley pin into the bottom trolley and hinge using a plastic hammer to gently tap the pin in fully, being careful to align the hinge and trolley as the pin goes through as shown in FIG 7E.
- ▶ **7.8.** Reinstall the screw and tighten using a t30 Torx key.
- ▶ **7.9.** Remove the screwdriver from the top hinge and locate the top trolley around the hinge.
- ▶ **7.10.** Insert the second trolley pin bolt as described in points 7.8. and 7.9.
- ▶ **7.11.** Repeat steps 7.1 to 7.12 until all door leaves are hung.

### Note

When closing the master/lead door for the first time, ensure that contact with the locking jamb or stile does not occur. If contact occurs, adjust the doors as described in section 14.

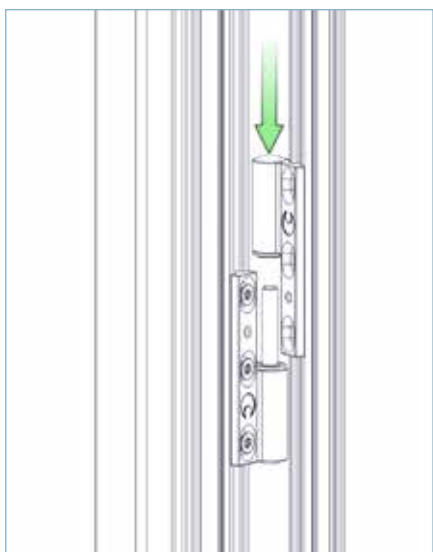


FIG 7A

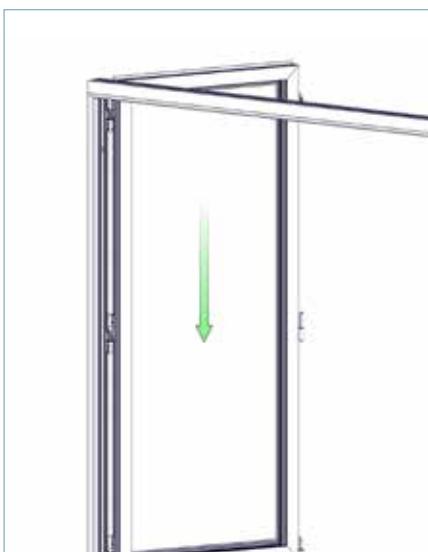


FIG 7B

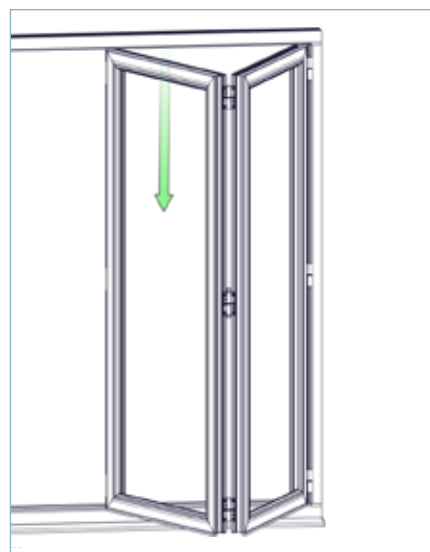


FIG 7C

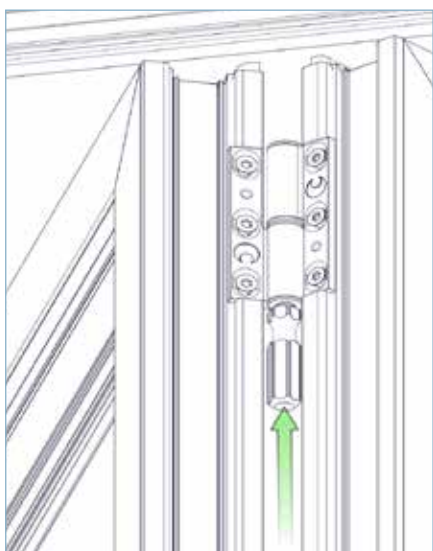


FIG 7D

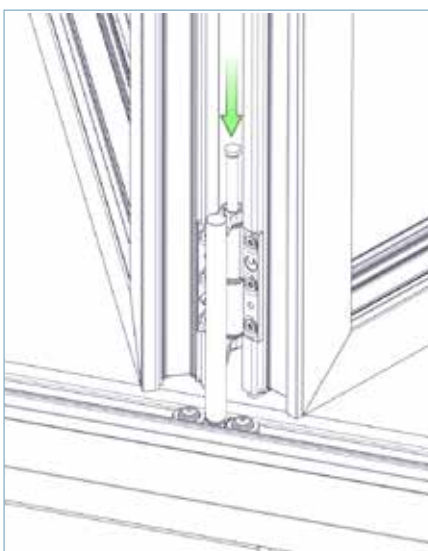


FIG 7E

## 8. False mullion

(even number of doors moving  
in the same direction only)

- ▶ **8.1.** Remove the centre hinge from the mullion.
- ▶ **8.2.** With the last door at 90° to the tracks, locate the top and bottom trolleys around the hinges.
- ▶ **8.3.** Position the mullion into the tracks and slide along to mate with the hinges and trolleys as shown in FIG 8A.
- ▶ **8.4.** Insert both top and bottom trolley pins as described in the previous section.
- ▶ **8.5.** Replace the centre hinge and screws being careful not to cross thread the screws.

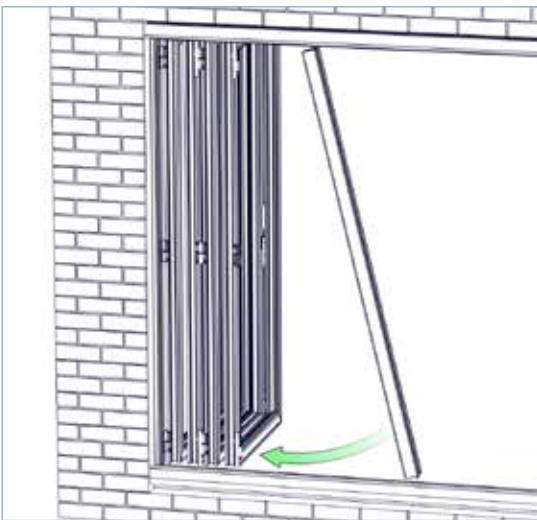


FIG 8A

## 9. Handles

### D-handles (open-out only)

- ▶ **9.1.** Position the D-handle over the centre hinge above the slave handle.
- ▶ **9.2.** Fix the handle top and bottom using the D-handle fixings. These may need a gentle tap to locate the thread.

#### D-handle



#### Hafi handles



(Style 253/280)



(Style 251/280)



(Style 301/280)



(Style 303/280)

### Long Back Plate Lever/ Lever Handles

- ▶ **9.3.** Remove the screws from the lever handle, allowing the two halves to be separated.
- ▶ **9.4.** Insert the spindle and a return spring (if supplied) into the outer part of the handle. (The outer handle will have the thread for the handle screws).
- ▶ **9.5.** Making sure the lever is across the glass, insert the spindle into the lock.
- ▶ **9.6.** Locate the handle around the barrel and flush against the door.
- ▶ **9.7.** Install the internal part of the handle and second return spring (if supplied), again with the lever across the glass.

**NOTE:** Always keep a hand on the external handle to prevent damage.

**NOTE:** It may be necessary to slacken the retaining screw on the barrel to help alignment. Always re tighten.

- ▶ **9.8.** Install the two screws and carefully tighten with a hand screwdriver only.

### Hafi Stainless Steel Handles (separate handle and barrel)

- ▶ **9.9.** Locate the handles and 4 no. 20mmxM5 screws from the components box.
  - ▶ **9.10.** Remove the escutcheons from both handles.
  - ▶ **9.11.** Insert the spindle into one lever and nip the grub screw using a 3mm Allen key.
  - ▶ **9.12.** Install the handle and spindle into the door with the lever across the glass.
  - ▶ **9.13.** Insert the 20mm x M5 screws and tighten using a Pozi 2 hand screwdriver only, being careful not to cross thread the screws.
  - ▶ **9.14.** Install the remaining lever onto the door and secure in place, as described in the previous step and nip the remaining grub screw.
  - ▶ **9.15.** Install both inner and outer escutcheons with the small cut out pointing down.
- NOTE:** It may be necessary to use a rubber mallet to gently tap the escutcheons fully into position.

## 10. Centre hinge

(open-in only)

- ▶ **10.1.** Open the doors and locate the missing centre hinges.
- ▶ **10.2.** Making sure the two halves of the top and bottom hinges are together, install the centre hinge, being careful not to cross thread the screws.

**NOTE:** All hinges will be found in the components box.

## 11. Glazing the doors

- ▶ **11.1.** Close all doors and fully engage the locks.
- ▶ **11.2.** Starting with the door next to the hinge jamb, remove the 4 glazing beads.
- ▶ **11.3.** Place 2 no. 4mm packers (32mm wide minimum) in the bottom of the glazing chamber spaced approximately 50mm in from each corner at 90° to the door, as shown in FIG 11A.
- ▶ **11.4.** Install the glass on to the packers, taking care not to pinch the gasket on the outside.
- ▶ **11.5.** Insert another 4mm packer (32mm wide minimum) to the side of the glass diagonally opposite the toe and heel plate about 50mm up from the corner, making sure to support the inner and outer layers of the glass, as shown in FIG 11B.
- ▶ **11.6.** Using a glazing paddle at the bottom, lift the glass and turn the packer which is diagonally opposite the toe and heel plate so it is in line with the glass, making sure inner and outer layers are supported, as shown in FIG 11B.
- ▶ **11.7.** Remove the second packer from under the glass and insert into the side, at the top of the door diagonally opposite the first two packers, making sure inner and outer layers of glass are supported.
- ▶ **11.8.** Using the glazing paddle, lever the door up and place a 4mm glazing packer (32mm wide minimum) between the top of the glass and the toe and heel plate, making sure both inner and outer layers of the glass are supported.
- ▶ **11.9.** Reinstall all 4 glazing beads starting with the top and bottom.
- ▶ **11.10.** Repeat steps 11.4 to 11.9 until all the glass is in place.

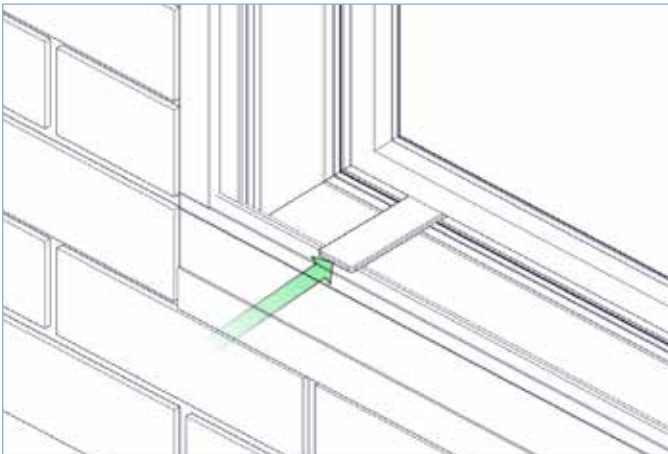


FIG 11A

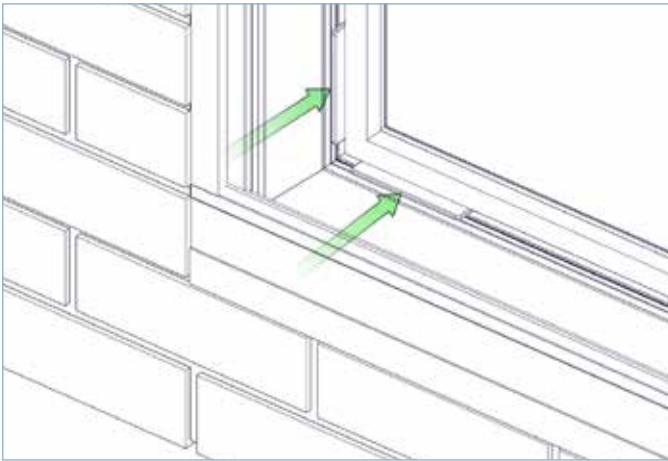


FIG 11B



FIG 11C

## Notes

The packer positions will always be set by the location of the toe and heel plate and will be opposite to the adjoining door, as shown in FIG 11C.

If the glass is not square or stepped, it may be necessary to use a thinner packer between the glass and toe and heel plate. These should always be a minimum of 32mm wide.

## 12. Installing the wedge gasket

- ▶ **12.1.** Starting with the bottom bead, use the glazing paddle to gently lever the bead away from the glass and into the correct position whilst lifting the side beads.
- ▶ **12.2.** Place the gasket between the glass and bead with the concave side against the glass.
- ▶ **12.3.** Feed the gasket behind the side bead until it stops and then continue along the bottom bead compressing the gasket towards the start point.
- ▶ **12.4.** Repeat steps 12.1 to 12.3 with the top bead.
- ▶ **12.5.** Cut a slight angle on the end of the gasket and insert behind the side bead pushing up to meet the top gasket.
- ▶ **12.6.** Continue to feed the gasket along the side bead, compressing towards the starting point.
- ▶ **12.7.** Once the bottom is reached, cut the gasket approximately 5mm past the bottom gasket again with a slight angle to meet the bottom gasket.
- ▶ **12.8.** Repeat steps 12.5 to 12.7 with the remaining side.
- ▶ **12.9.** Repeat steps 12.1 to 12.8 with the remaining doors.

## 13. Toe and heel adjustment

- ▶ **13.1.** If adjustment is needed, you will find a toe and heel device in the top of each door.
- ▶ **13.2.** Open the doors so that you can get access to the toe and heel device at the top of the door. Using a 4mm Allen key, wind the bolt clockwise, causing the side of the door to rise.
- ▶ **13.3.** Re-close the doors and check that they run parallel and evenly to the top and bottom tracks. If they do not, then repeat as necessary.
- ▶ **13.4.** Once you have adjusted the doors, make sure that each toe and heel plate is tight to the glass in each door, this will prevent the doors from settling over time.



## 14. Adjustment

**NOTE:** All adjustment comes from the outer frame.

### Tracks

- ▶ **14.1.** To check the top and bottom tracks are parallel, open all the door leaves completely.
- ▶ **14.2.** At this point, the pins in the centre of the top guide wheel should be fairly flush with the visible face of the guide wheel, as shown in FIG 14A. Move the doors along the track whilst monitoring the pins in the top guide wheels. If the top and bottom tracks are parallel, the visible pin should remain the same as at the start.
- ▶ **14.3.** If the visible pin decreases at any point, the top track will need repacking to raise it up at these points.
- ▶ **14.4.** If the visible pin increases at any point, the top track will need repacking to lower it at these points.

**NOTE:** The bottom track must be well supported and level for the description above to be correct.

### Jambs

- ▶ **14.5.** When the lead door is closed, there should be a visible gap of 4mm between itself and the jamb or locking style, adjust as follows if necessary.\*
- ▶ **14.6.** Remove the two centre fixings from one jamb.
- ▶ **14.7.** Remove the top fixing from that jamb.
- ▶ **14.8.** Repack the top of the jamb to give a 4mm gap between the edge of the lead door and jamb.
- ▶ **14.9.** Replace the fixing in the top of the jamb.
- ▶ **14.10.** Remove the bottom fixing from the jamb.
- ▶ **14.11.** Repack the bottom of the jamb to give a 4mm gap between the edge of the lead door and jamb.
- ▶ **14.12.** Replace the fixing in the bottom of the jamb.
- ▶ **14.13.** Pack and replace the remaining two fixings, keeping the even 4mm gap.

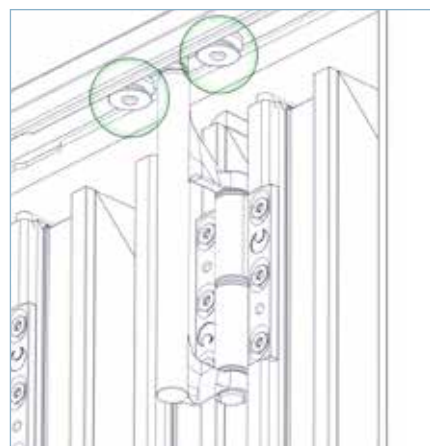


FIG 14A

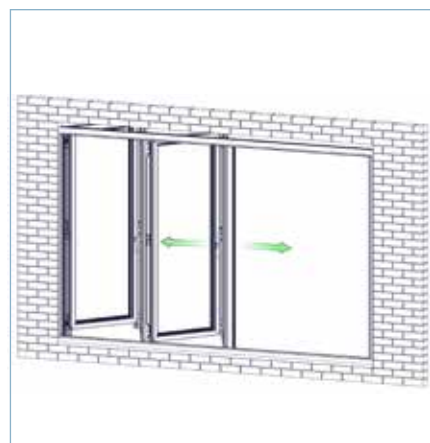


FIG 14B

\*This is temperature dependent. When installing in particularly hot weather, the gap along the slam and rebate may need reducing slightly. In particularly cold weather, this gap may require increasing slightly. This accounts for the minimal potential expansion and contraction with the aluminium profile.

## 15. Magnetic keep

- ▶ **15.1** Locate the magnetic keep from the components box.
- ▶ **15.2** Open the lead door almost 180° until the handle is approximately 10mm from the adjoining door and hold in position.
- ▶ **15.3** Position the complete magnetic keep up between the top of both doors and move along until it is wedged between them, as shown in FIG 15A.

- ▶ **15.4** Using a pencil, mark the magnet holder position on the lead door.

**NOTE:** If the door is above 2700mm, repeat steps 15.2 - 15.4 for the bottom magnetic keep.

- ▶ **15.5** Close the lead door.
- ▶ **15.6** Return the magnet holder to your mark and move up or down to position in the centre of the door profile. The centre of the hole should be 26mm down from the top of the door.
- ▶ **15.7** Using a 3.5mm drill bit, mark the door through the hole in the magnet holder, as shown in FIG15B.
- ▶ **15.8** Remove the holder and using the 3.5mm drill bit, drill a hole on the previously made mark.
- ▶ **15.9** Install the magnet and cover plate.
- ▶ **15.10** Place the two halves of the magnetic keep together.
- ▶ **15.11** Open the lead door against the adjoining door to locate the second half and mark with a pencil.
- ▶ **15.12** Fix in position as previously described.
- ▶ **15.13** Install cover plate.



FIG 15A



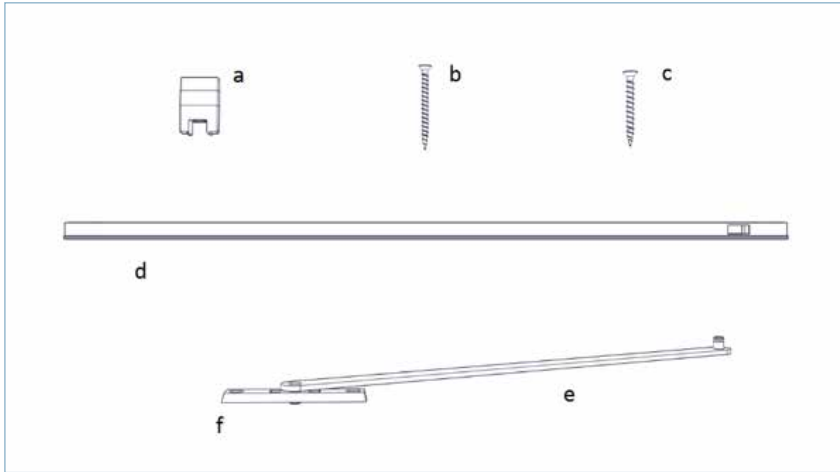
FIG 15B

## 16. Finishing touches

- ▶ **16.1** Insert fixing plugs provided into the 13mm holes drilled into the jambs.
- ▶ **16.2.** Insert the hinge plugs into the top and bottom of all open hinges.
- ▶ **16.3.** We recommend you use expanding foam to fill the gaps between the outer frame and building on all 4 sides.

**NOTE:** The weather seal around the outer frame to the building is the responsibility of the installer. Sealant and trim kits are available from Origin.

# Door Restrictor Installation Guide



1. Check you have all of the parts

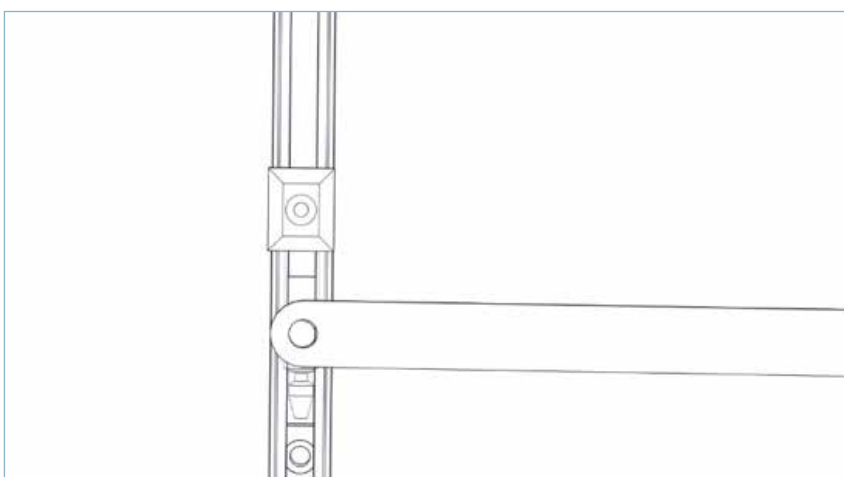
- a. Restrictor Block (x5)
- b. Screws (x4) 5.0 x 60mm
- c. Screws (x3) 5.0 x 45mm
- d. Slider Casing (x1)
- e. Restrictor Bar (x1)
- f. Sash Pivot (x1)

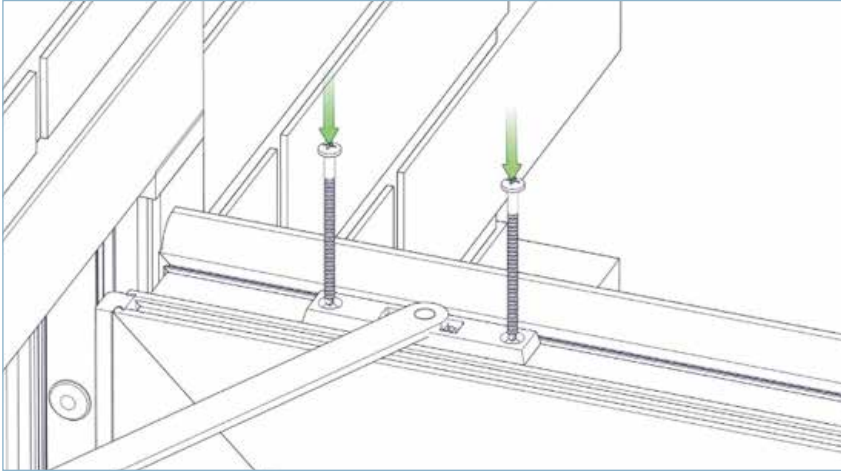


2. Prop the door open to the desired maximum angle.

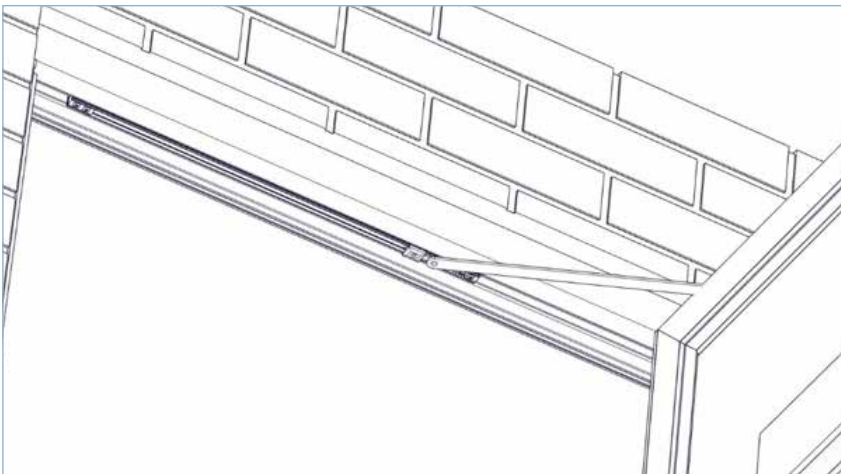


3. Ensure the slider stop is engaged by placing point (A) against a hard surface and pushing down on the restrictor arm. This will require some force and should result in a click. The restrictor arm should no longer be able to slide up and down the slider housing once this step has been completed.

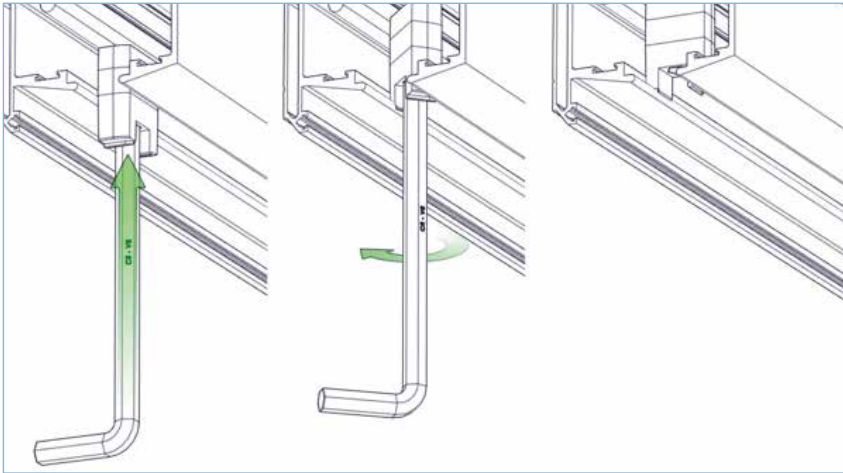




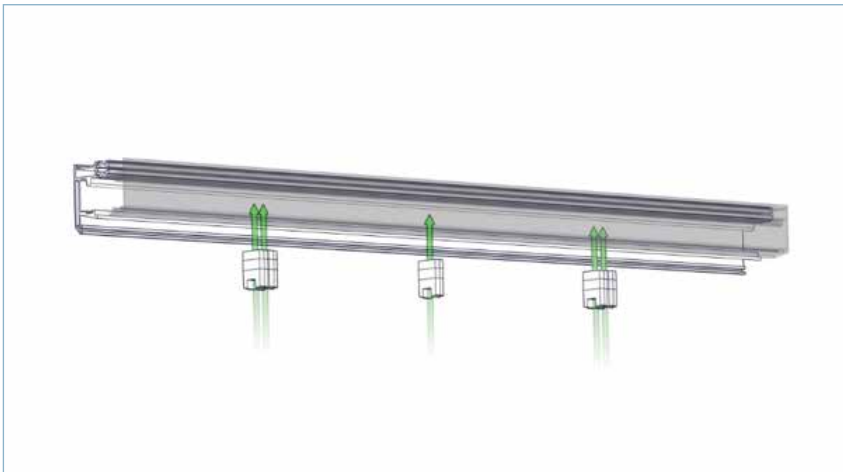
4. Fit the sash pivot to the top of the door, 60mm from the end of the black polyamide strip on the hinge side using two of the 5.0 x 45mm screws provided. The pivot should be fitted so that it butts up to the edge of the polyamide closest to inside of the door.

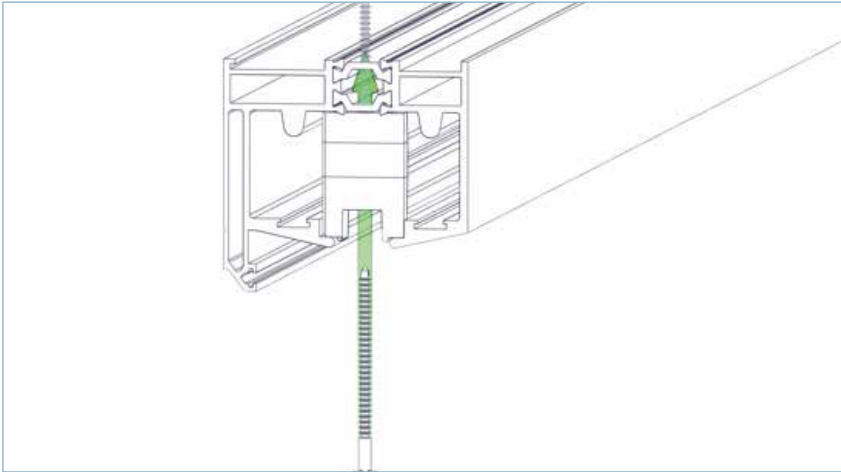


5. Insert the slider casing into the top track making sure it is still connected to the sash pivot, it should only fit in one position. Then, using a non-permanent method, mark the positions of the four screw holes in the slider casing, then move the slider casing out of the way.

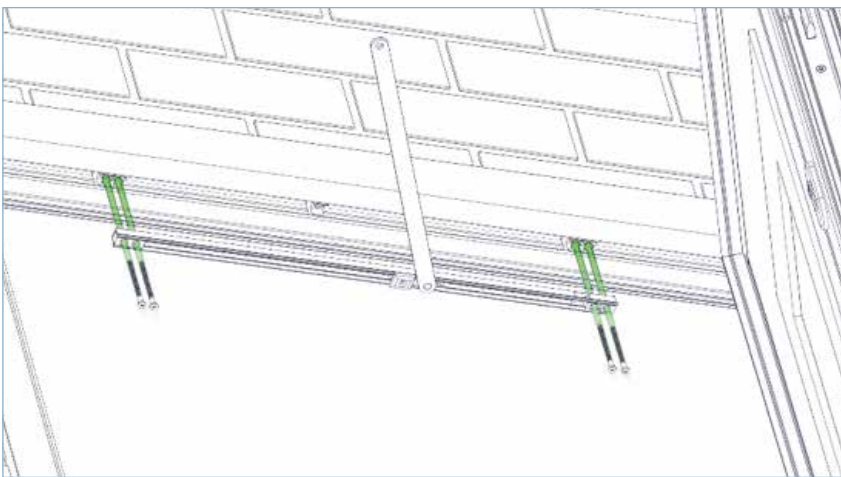


6. Insert four of the restrictor blocks positioned at the points you have marked on the top track. Do this by using an 8mm Allen key to insert the block into the track and twisting 90° clockwise to lock it in to place. The 5th restrictor block is then inserted half way between the other blocks.





7. Using one of the 5.0 x 45mm screws, secure the middle restrictor block as shown.

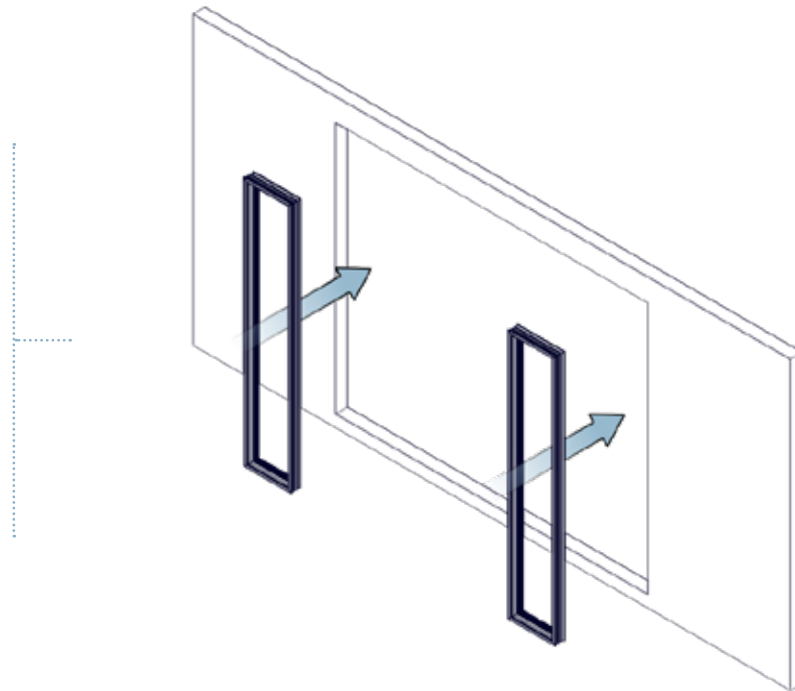


8. Now place the slider casing back into the top track at your marked position, and secure the last 4 restrictor blocks through the slider casing using the 5.0 x 60mm screws as shown. It may help to disconnect the sash pivot at this point for ease of installation. Once the screws have been fitted reconnect the sash pivot. Check the door for proper operation.



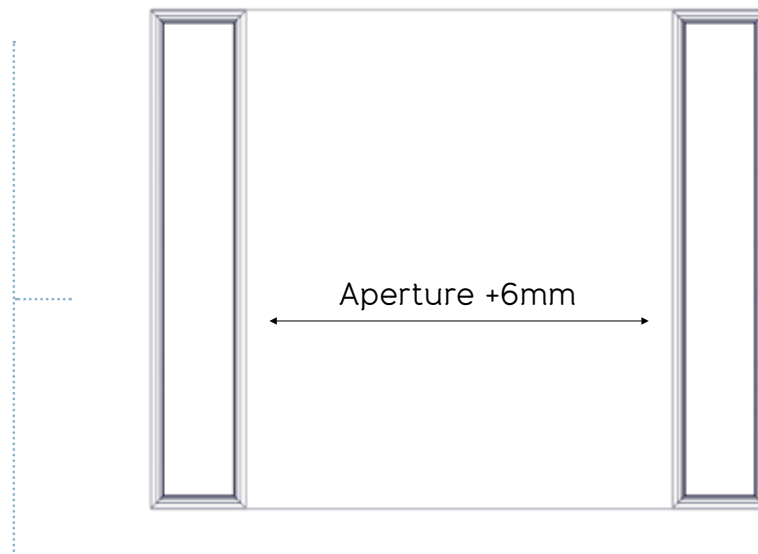
# Window-to-jamb Coupler Installation Guide

Install the windows  
as described in the  
Installation Guide

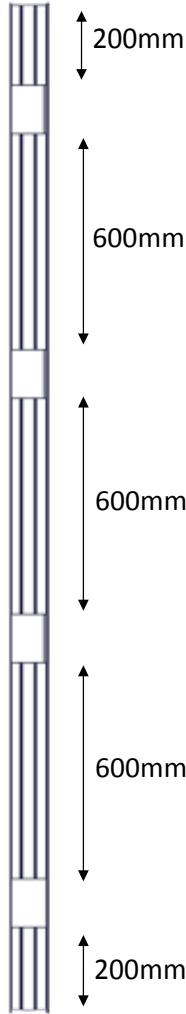
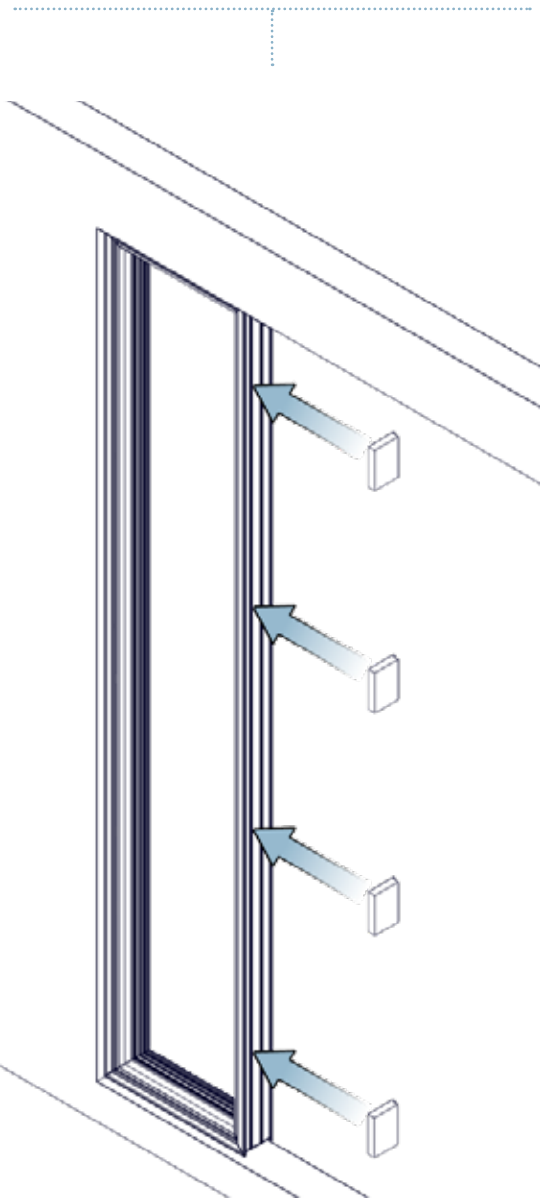


Ensure the remaining  
aperture is 6mm wider  
than the overall door  
set width

*Do not install the glass*



Install the alignment block into the window frame

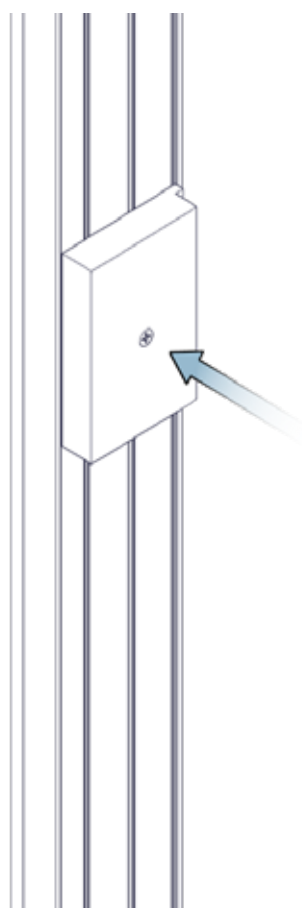
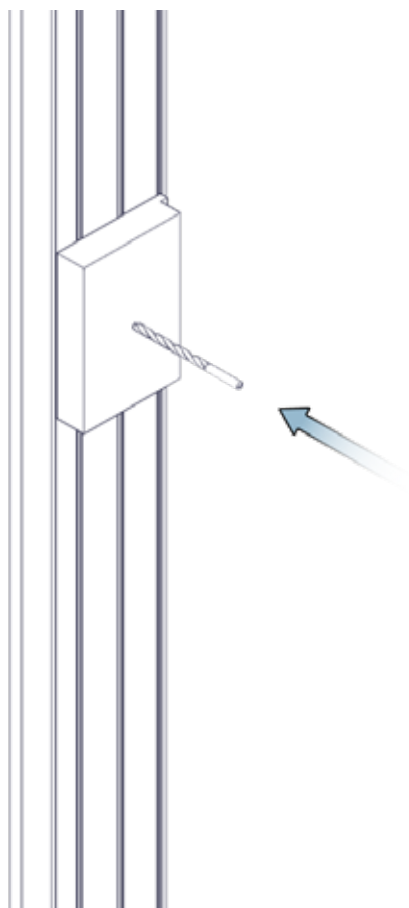


Leave 200mm from each end and evenly space the rest appropriately

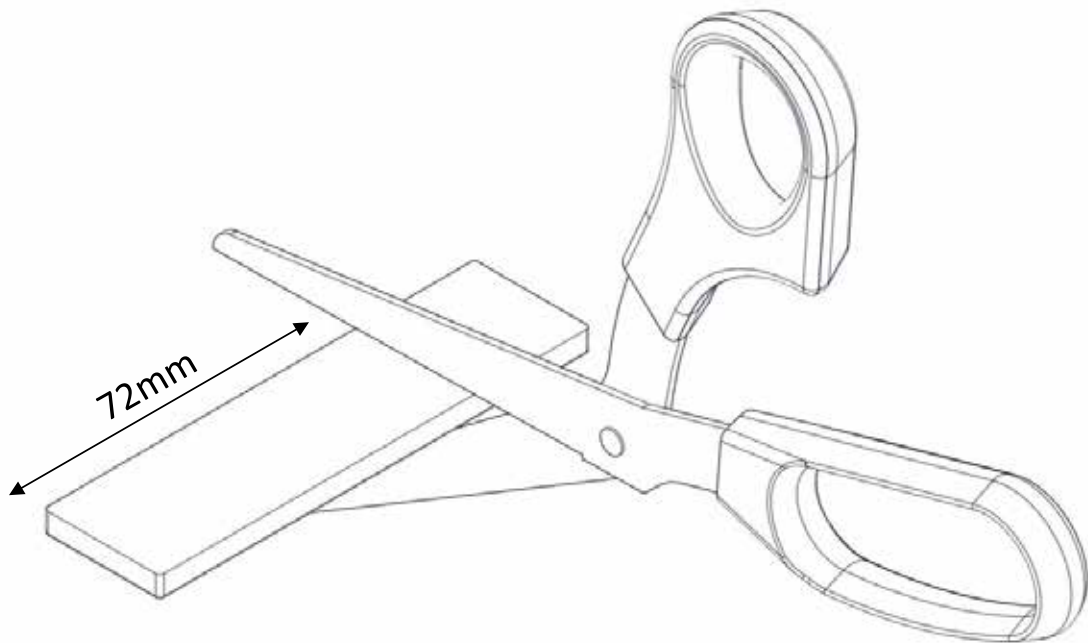
Drill, countersink and fix alignment blocks



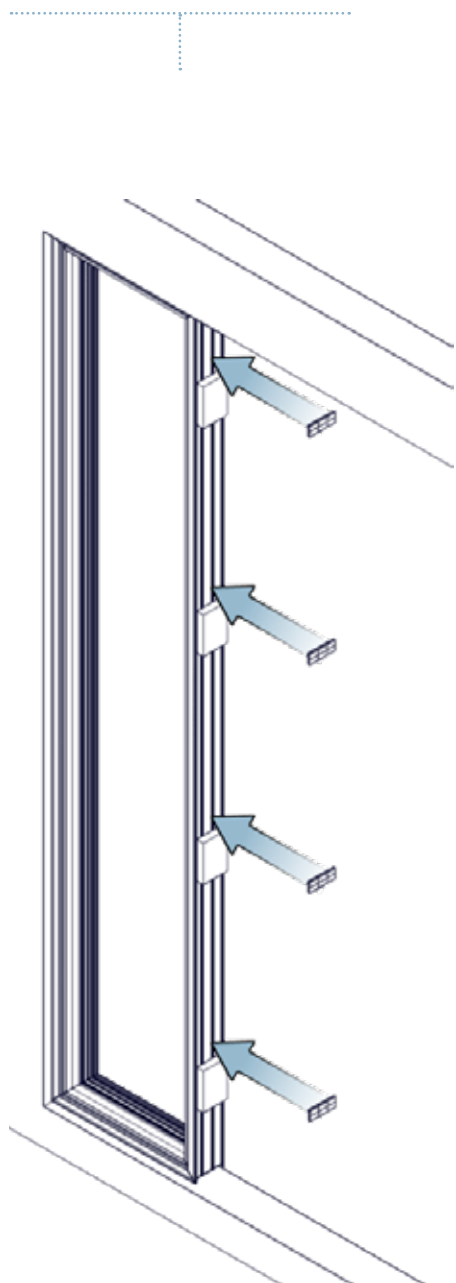
*Ensure screw is flush with surface of the block*



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

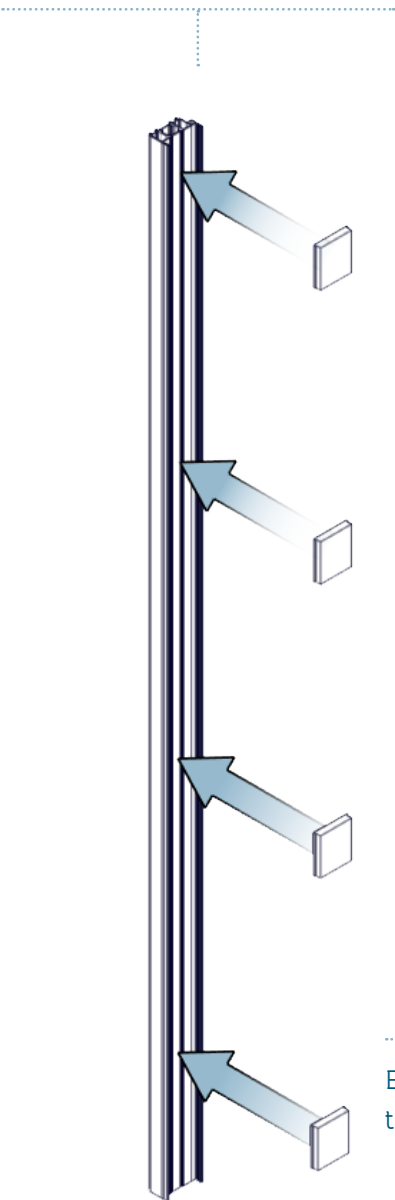


Install the glazing packers

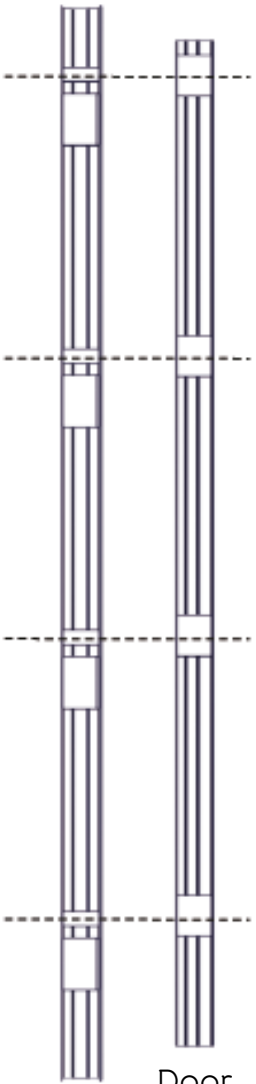


Ensure packers are positioned next to the alignment blocks

Re-position the jamb packers in the jamb



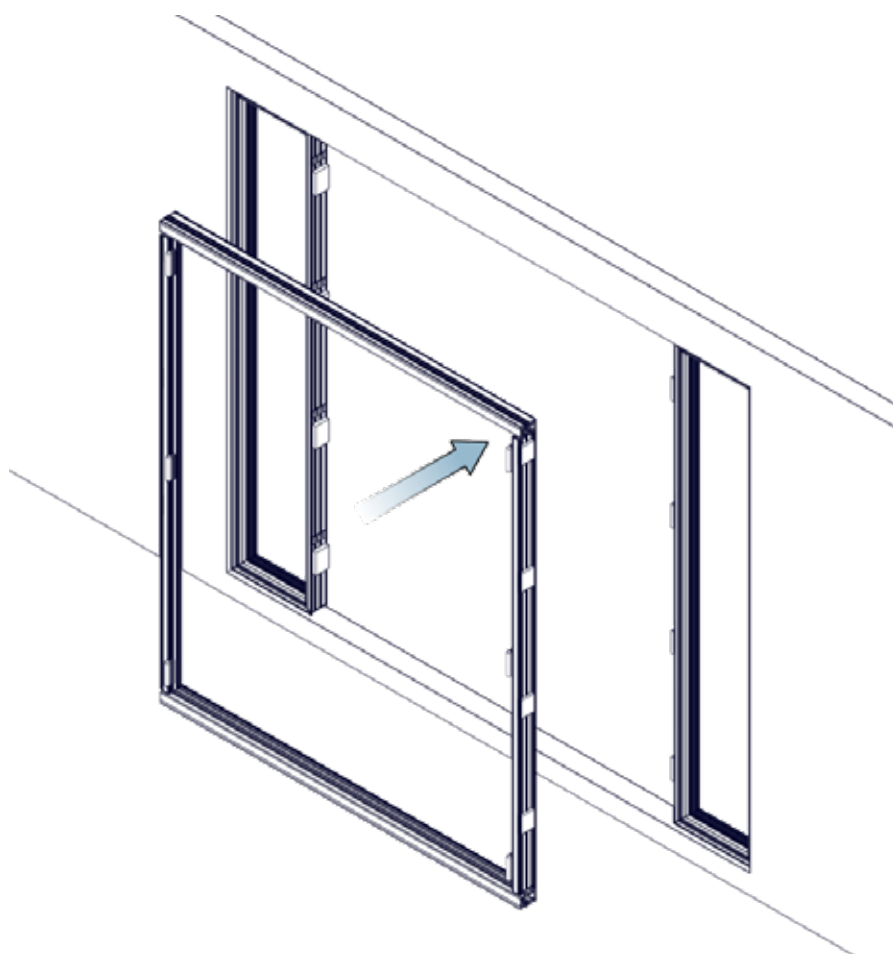
Window  
Jamb



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

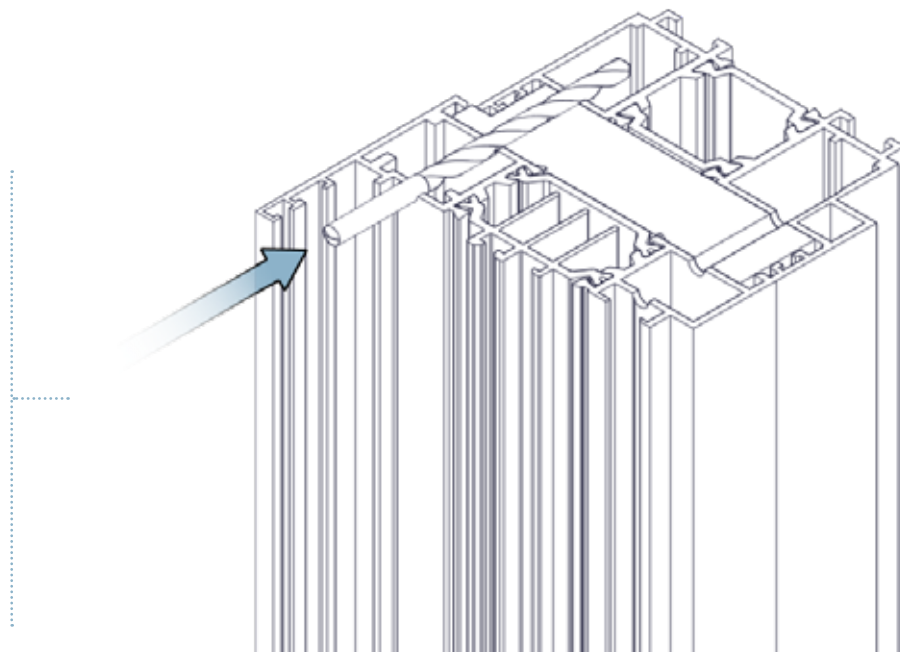


## Window-to-jamb Coupler Installation Guide

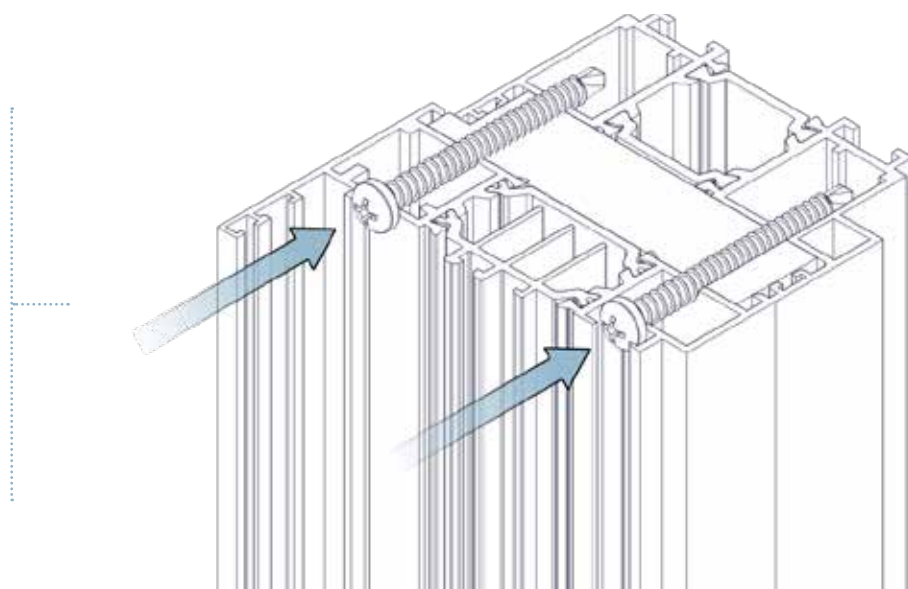


*Do not drill into  
gasket chamber*

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

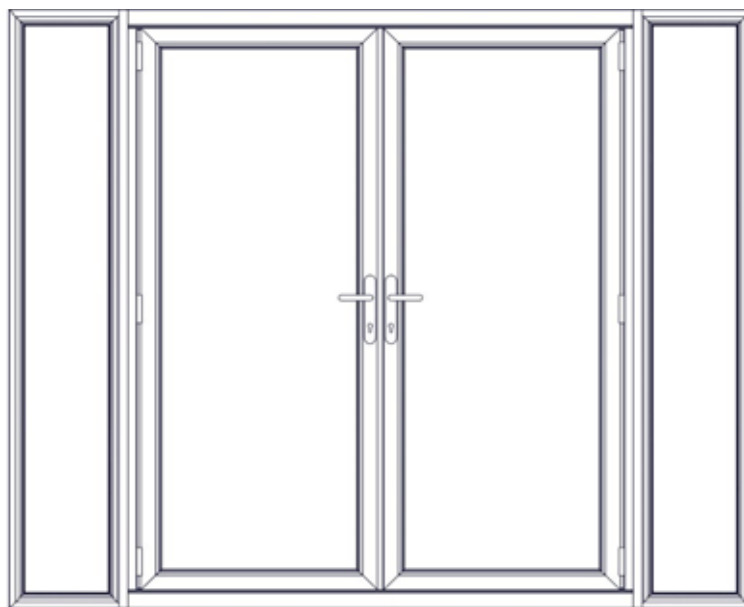


Using supplied screws, fix  
the window frame to the  
door jamb through the  
jamb packers

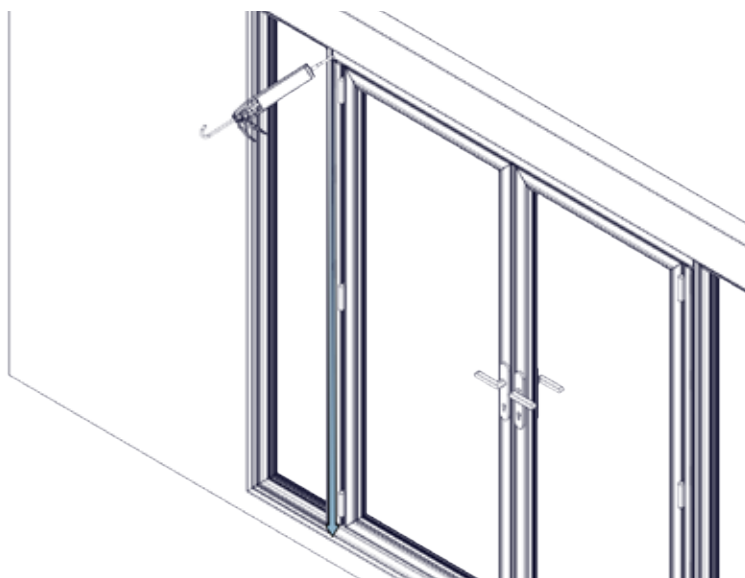




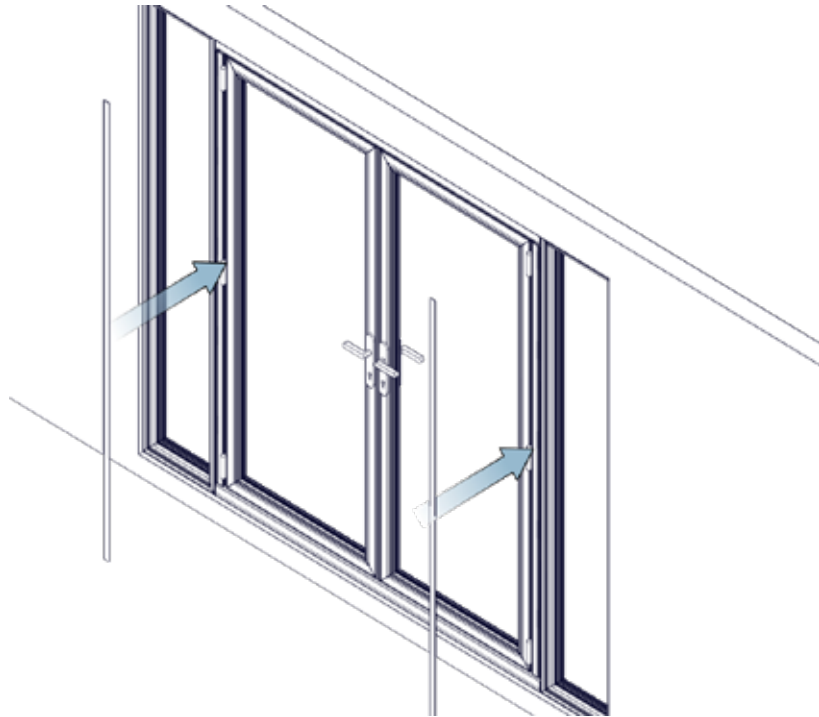
Install door sash,  
windows and glass  
as described in the  
Installation Guide



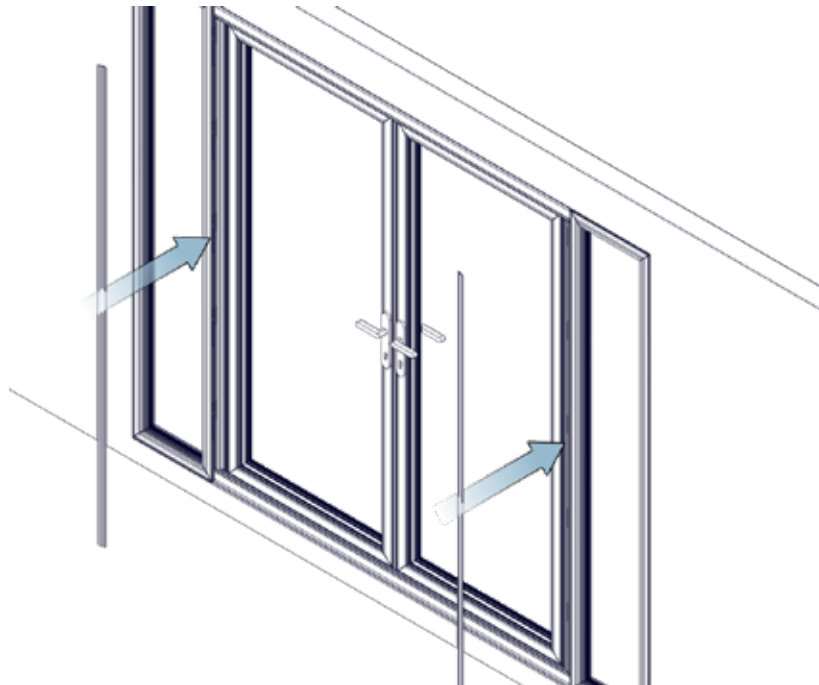
Seal the joint, between the  
window and door frame,  
making sure the joint is  
completely weatherproof



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

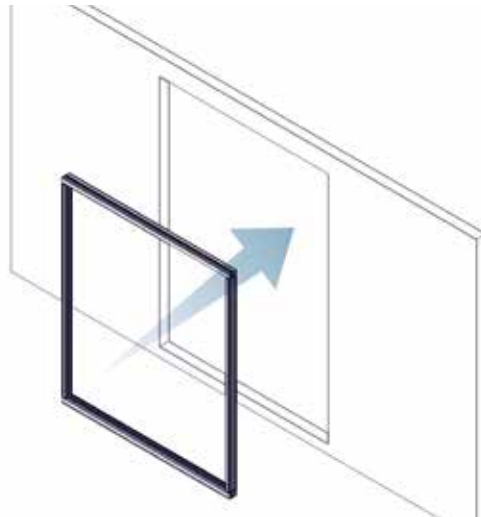


...and out (stepped)

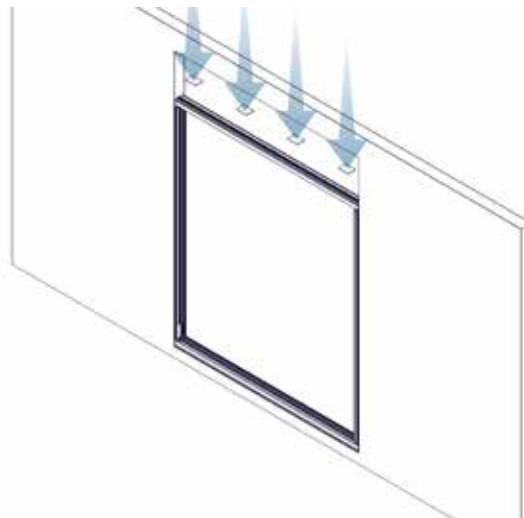


# Window-to-track Coupler Installation Guide

Install door jambs and tracks as described in the Installation Guide

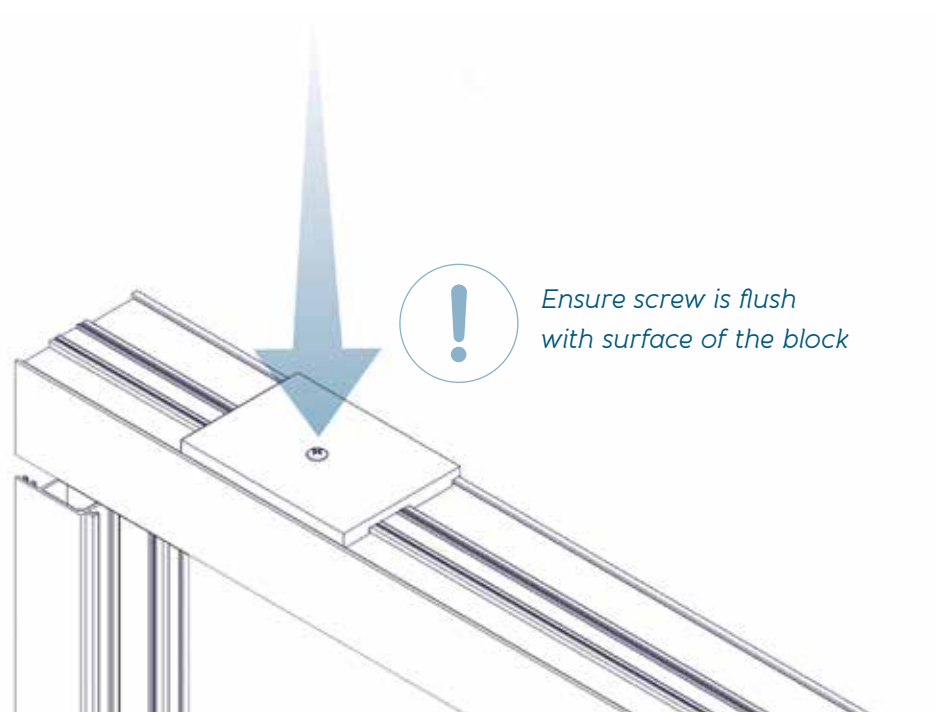
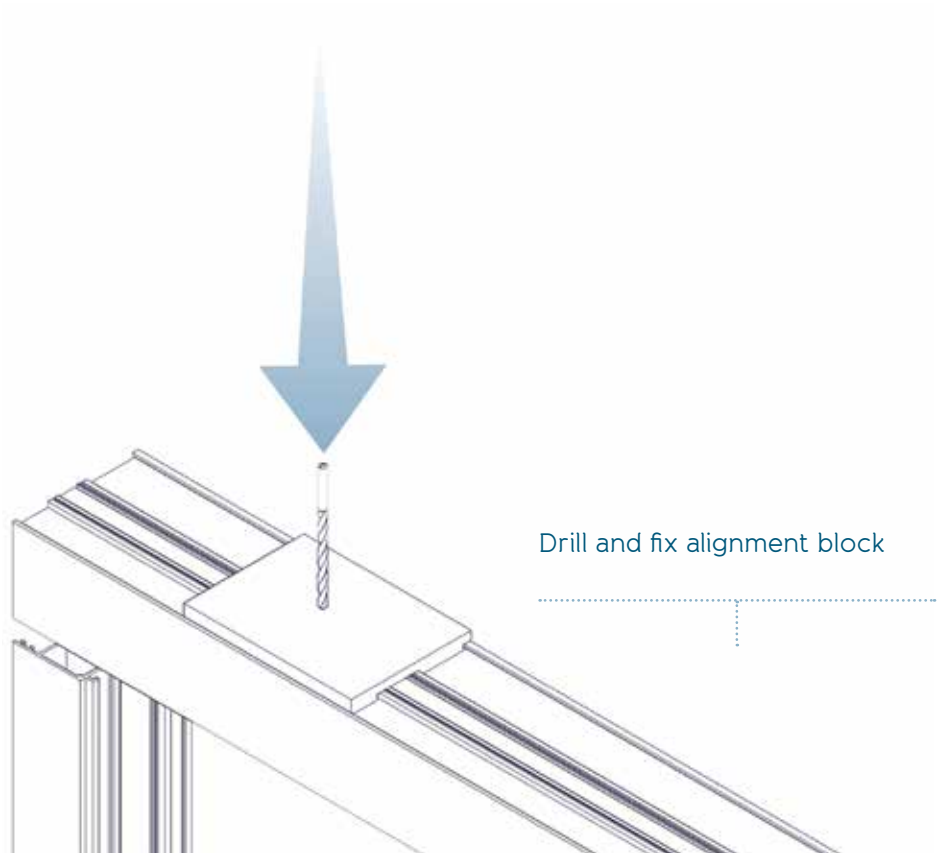


Place fixing blocks along the top track

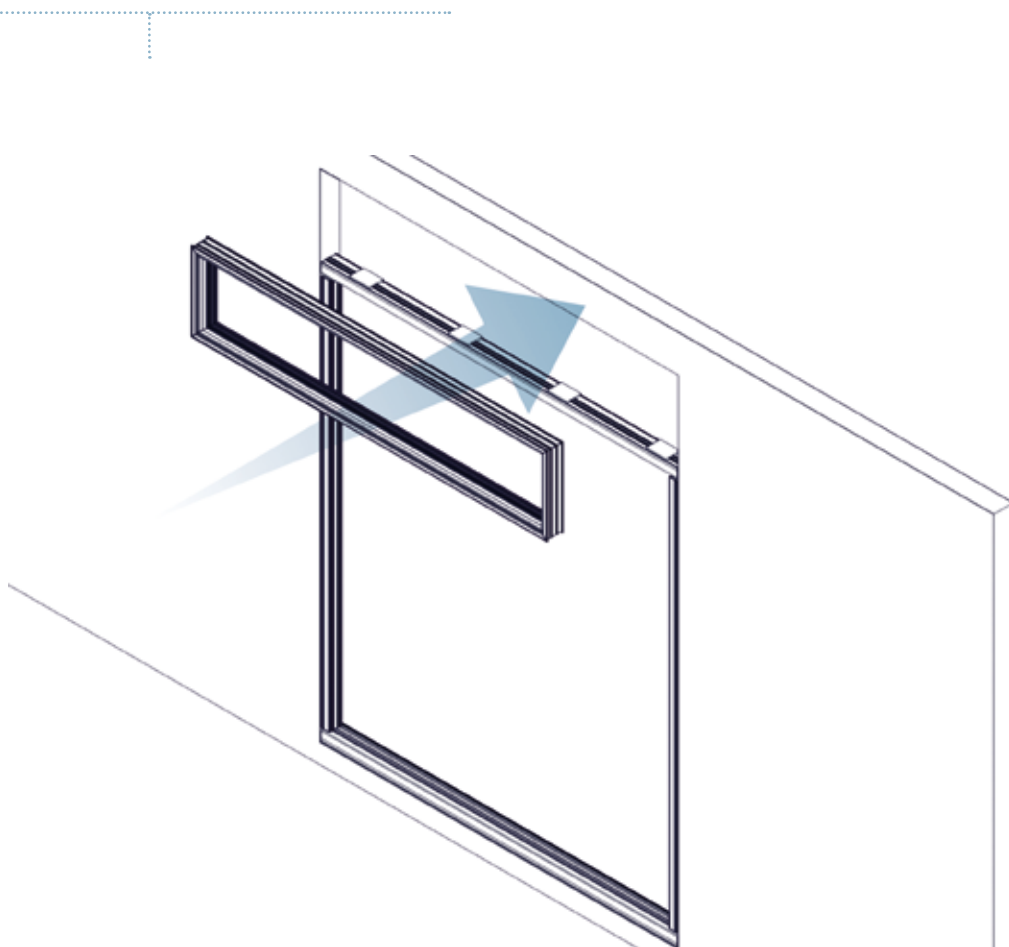


Ensure blocks are spaced evenly as shown

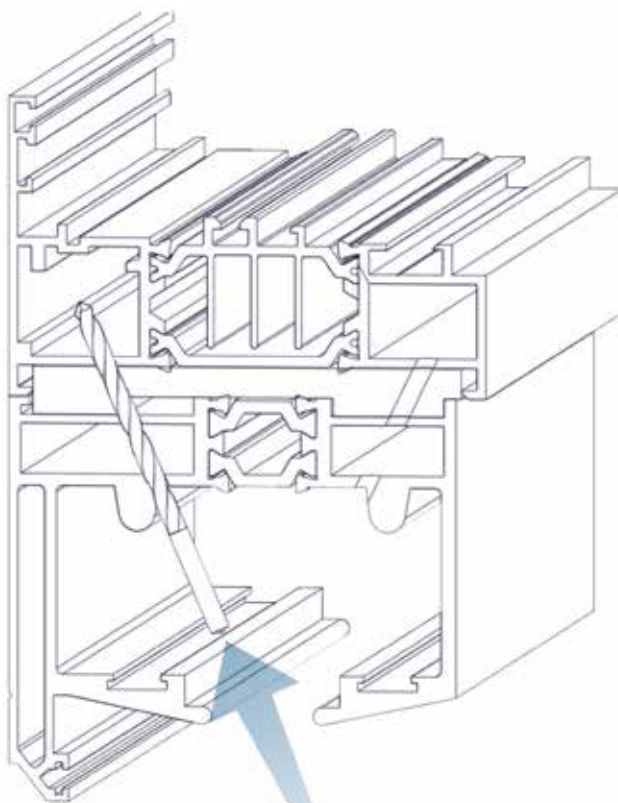




Install window above the door using clamps/  
windbags to secure into position

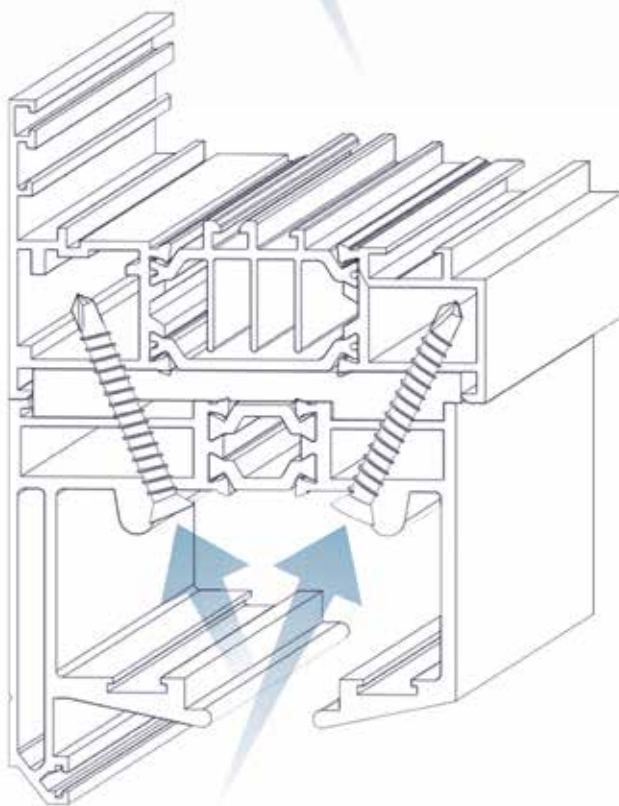


Pre-drill the frame with a 3mm long series drill bit as shown for every alignment block used

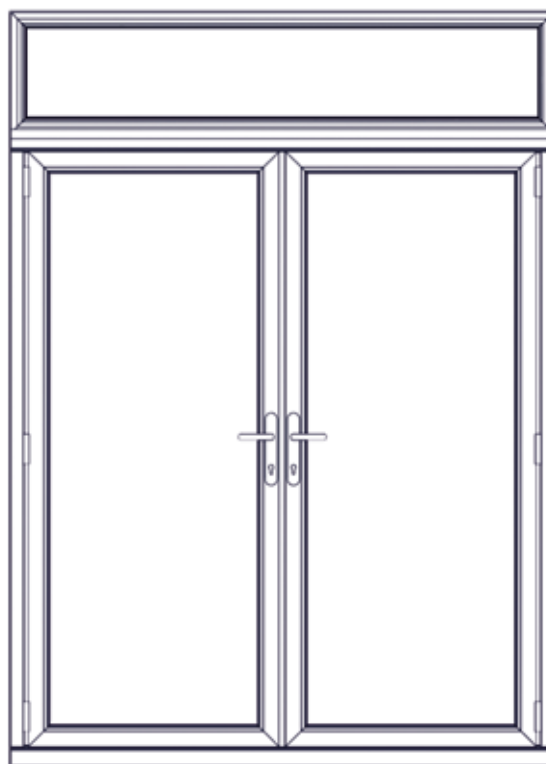


*Do not drill into the window cavity*

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*

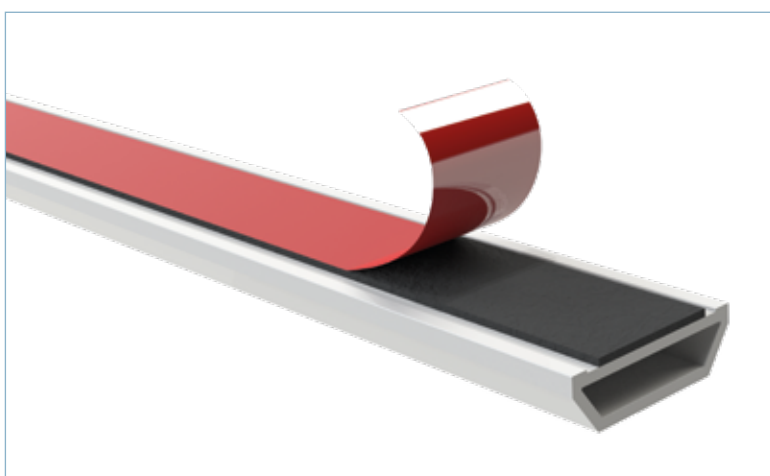
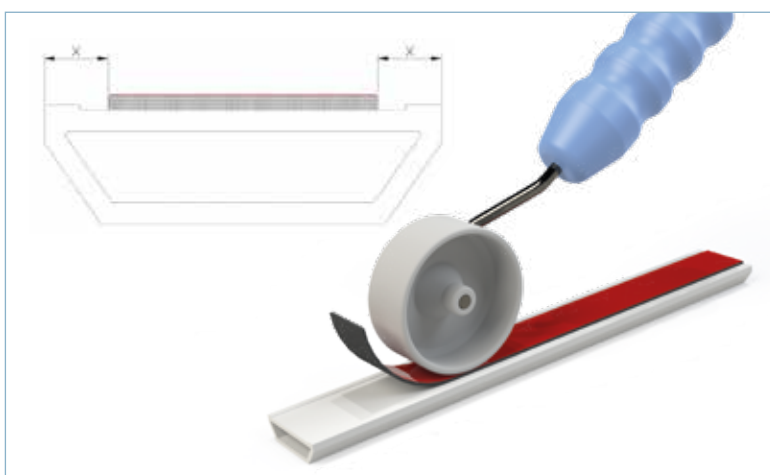
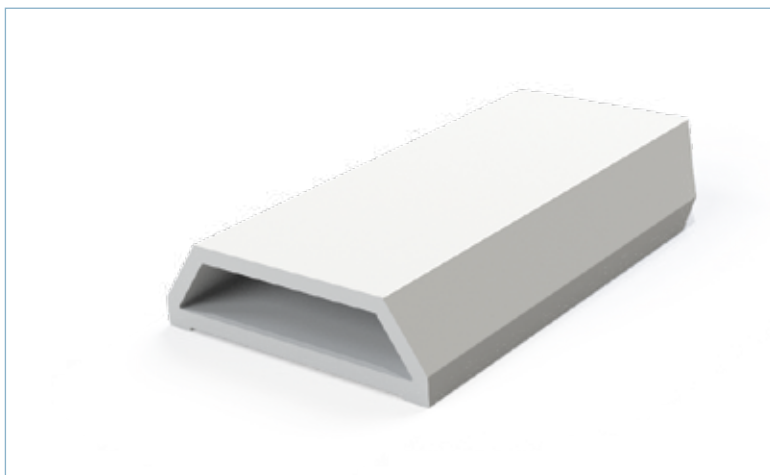


Cut and fit supplied trim  
inside (flat) and out (step)





# 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.

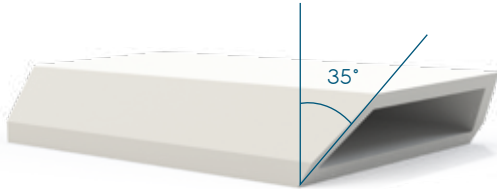
1. Once glass is fully installed, ensure the glass is clean. It is recommended to use a saline solution or glass primer.
2. Measure the sash, and using the approximate deductions from the offset table, cut the bars to length with the appropriate angles.

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

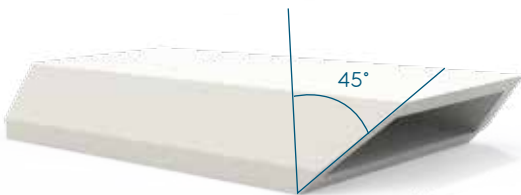
3. Clean the underside of the Georgian bar using a saline solution or primer.
4. Place tape on the underside of the Georgian bar, ensuring it remains central along the bar. It is recommended that a roller is used for this to ensure strongest bond.
5. Before removing red backing, offer the bars up to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

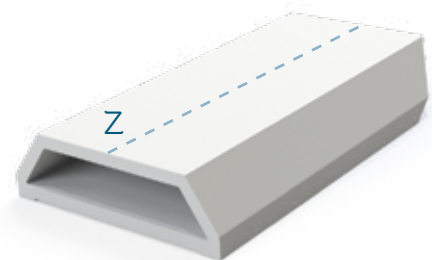
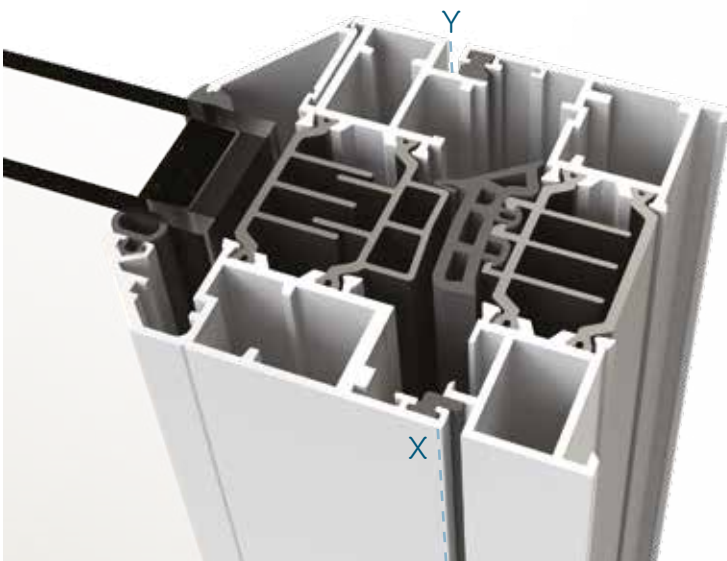
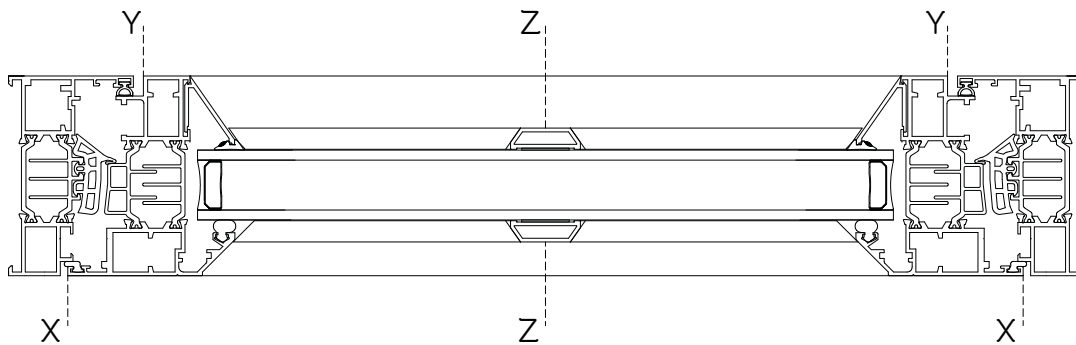


Full lengths	Cut Angle	Approximate Deduction
Sash Rebate to Sash Rebate	45°	X to X - 134mm
28mm Bead	35°	X to X - 138mm
44mm Bead	45°	X to X - 135mm

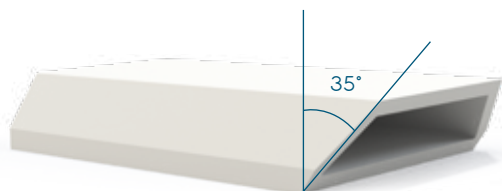


Crossover	Cut Angle	Approximate Deduction
Bar to Bar	35°	Z to Z - 25mm
Rebate to Bar	45° + 35°	X to Z - 81mm
28mm Bead to Bar	45°	Y to Z - 150mm
44mm Bead to Bar	45° + 35°	Y to Z - 149mm

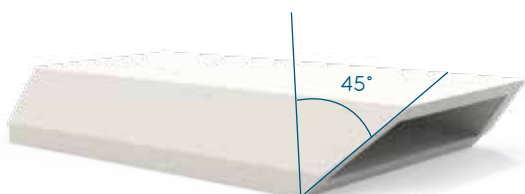
(X to Y dimension = 30mm)



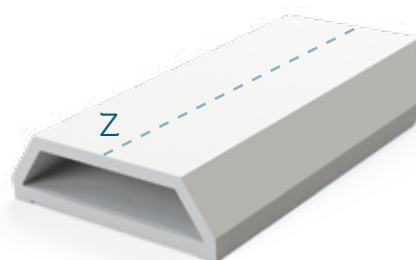
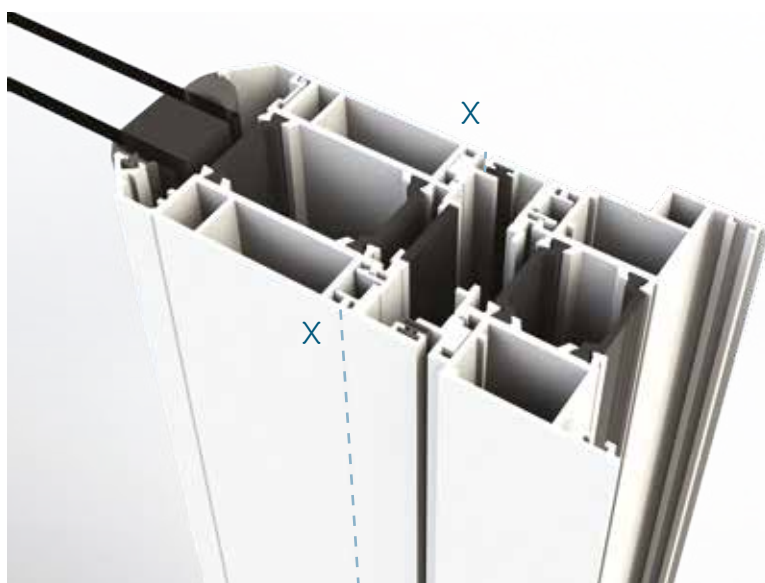
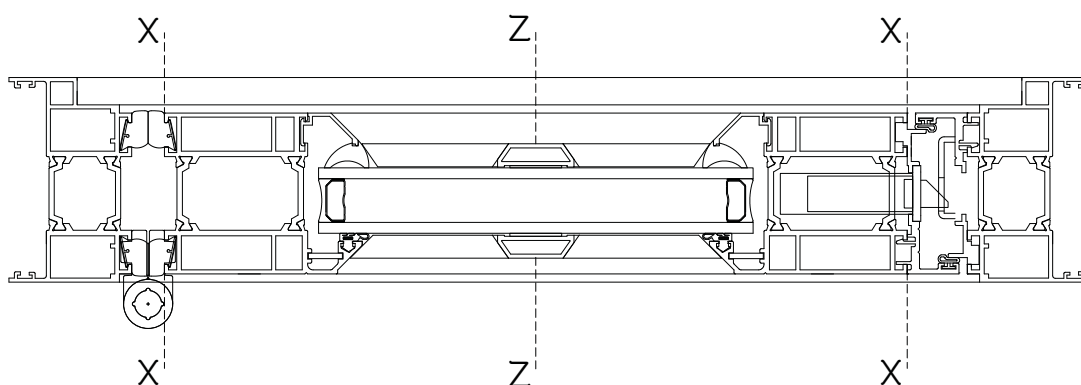
# Georgian Bar Door Offsets



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

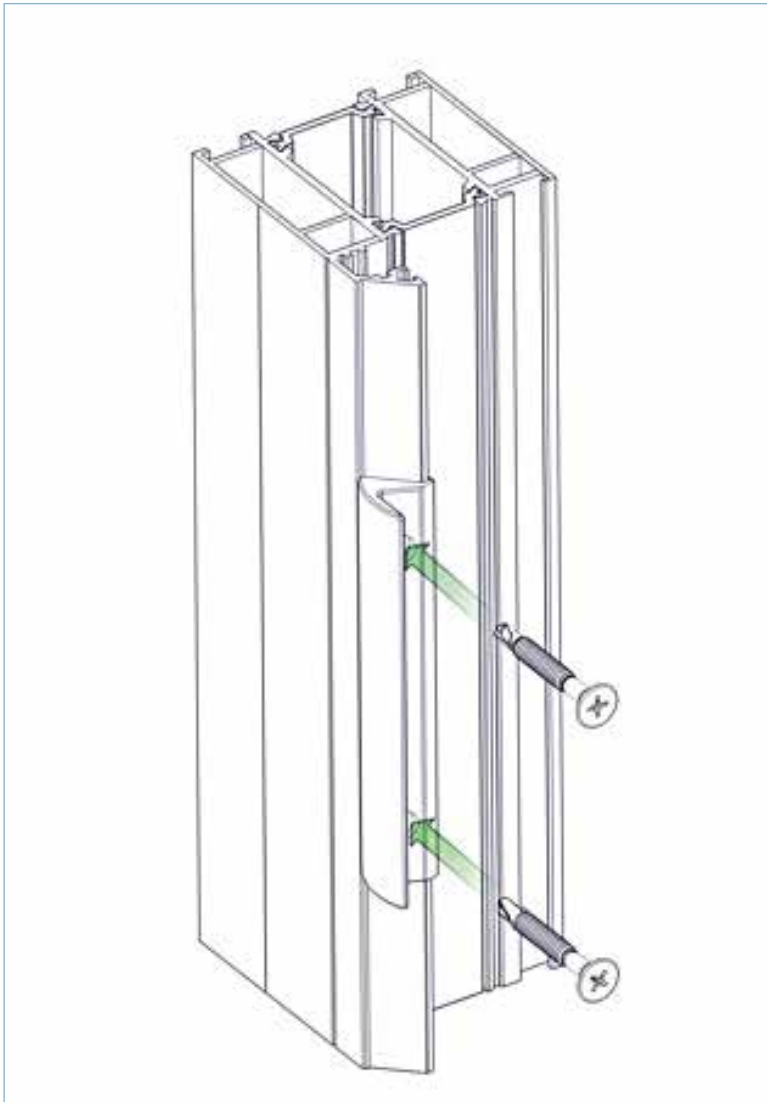


Crossover	Cut Angle	Approximate Deduction
Bar to Bar	35°	Z to Z - 25mm
Rebate to Bar	45° + 35°	X to Z - 84mm
24mm Bead to Bar	35°	X to Z - 90mm
28mm Bead to Bar	45° + 35°	X to Z - 88mm



# Finger Pull Installation Guide

To be fitted on open-in even door sets only.



1. Fit the handle to the sash rebate furthest from the mullion on the last door on the even door set.
2. Position the handle on the sash rebate so that the centre is 1020mm from the bottom of the sash and fix as shown below using two 3.9 x 16mm zinc coated self-drilling screws.

**NB:** It is recommended that the glass be removed before installation to avoid shattering it.



## Contact

## Accounts

**t** 08448 802 371 or 01494 416 895

**e** Finance@origin-global.com

## Marketing

**t** 08448 802 374 or 01494 416 897

**e** Marketing@origin-global.com

## Sales Operations

**t** 0808 168 5816 or 01494 686 868

**e** [OrdersNorth@origin-global.com](mailto:OrdersNorth@origin-global.com)

**e** [OrdersSouth@origin-global.com](mailto:OrdersSouth@origin-global.com)

## Solutions

**t** 08448 802 373 or 01494 416 896

**e** Solutions@origin-global.com

## Fleet and Logistics

**t** 08448 802 378 or 01494 416 898

**e** [Logistics@origin-global.com](mailto:Logistics@origin-global.com)



origin  
DOORS AND WINDOWS

Origin Global HQ, Stuart House, Castle Estate,  
Coronation Road, High Wycombe  
Buckinghamshire, HP12 3TA

t 0808 168 5816  
e [enquiry@origin-global.com](mailto:enquiry@origin-global.com)  
w [www.origin-global.com](http://www.origin-global.com)

Origin Northern Centre of Excellence,  
Taurus Park, Europa Boulevard, Westbrook,  
Warrington, Cheshire, WA5 7ZT

t 01925 907 907  
e [enquiry@origin-global.com](mailto:enquiry@origin-global.com)  
w [www.origin-global.com](http://www.origin-global.com)