

# PRODUCT GUIDE

ISSUE 2

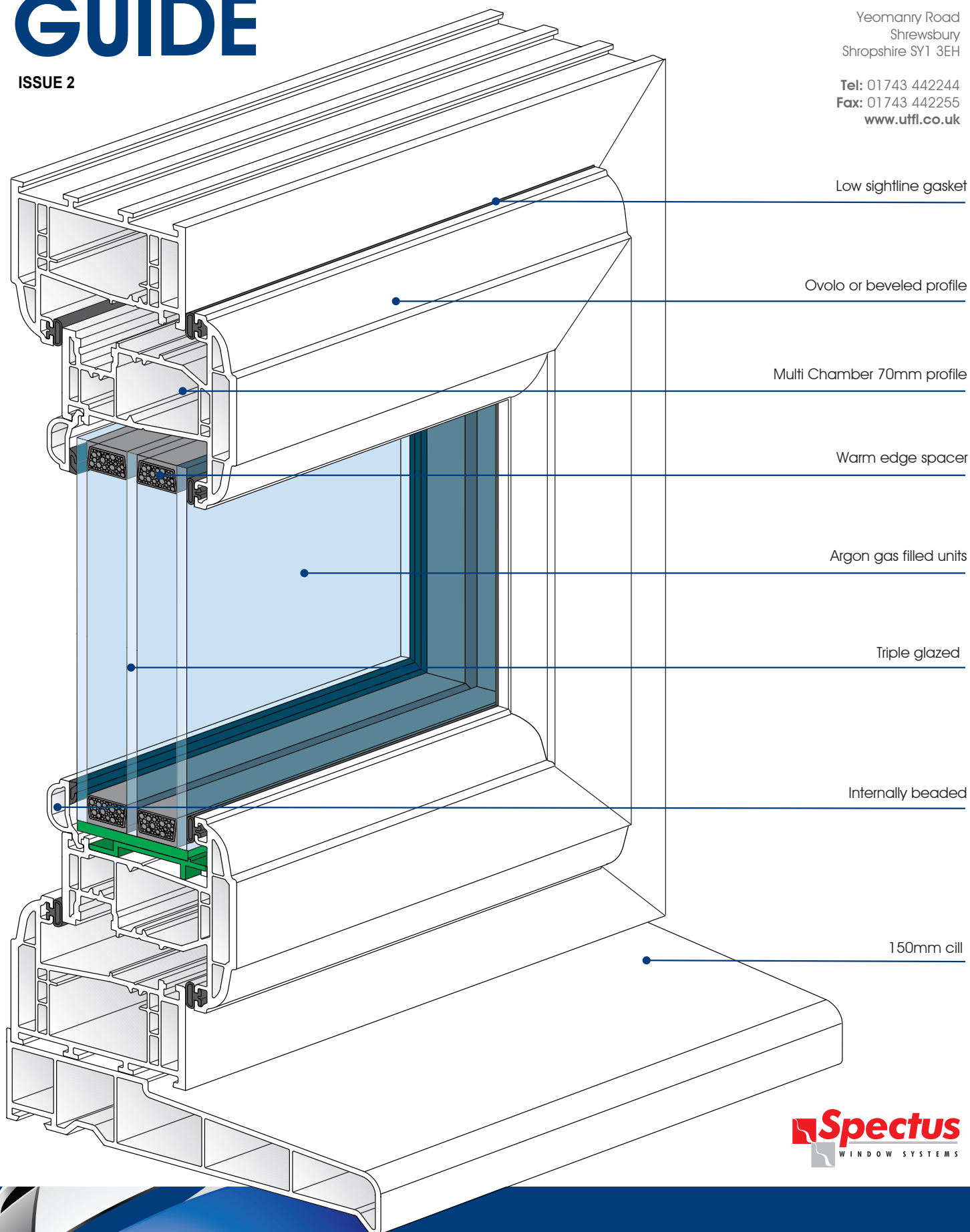


# Universal

TRADE FRAMES LTD

Yeomanry Road  
Shrewsbury  
Shropshire SY1 3EH

Tel: 01743 442244  
Fax: 01743 442255  
[www.uffl.co.uk](http://www.uffl.co.uk)



Low sightline gasket

Ovolo or beveled profile

Multi Chamber 70mm profile

Warm edge spacer

Argon gas filled units

Triple glazed

Internally beaded

150mm cill

**Spectus**  
WINDOW SYSTEMS

SUPPLIERS OF QUALITY FRAMES TO THE TRADE

## Survey / Order Points

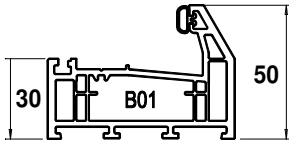
- 1 All products are to be viewed from the outside.
- 2 All measurement sizes are to be in metric.
- 3 All sizes provided must be actual finished frame sizes, no allowance will be made for fitting tolerances. (it is recommended that a 5mm gap per side is allowed for)
- 4 All sizes provided include cill / frame extension if required.
- 5 All existing bay windows, porches and conservatories are to be measured to the internal cill.
- 6 All flat window to bow window conversions are to be measured as flat windows, internal projection to be provide.
- 7 All deductions for bay poles and couplings will be made for by Universal.
- 8 An order acknowledgement will be sent out for all products ordered, we always endeavour to eliminate mistakes wherever the mistake may lie however, with the best will in the world they will still happen from time to time, checking your Order Acknowledgement is one way of eliminating mistakes, remember 10 mins checking an acknowledgement could save a return trip to site.
- 9 **!!! PLEASE REMEMBER TO CHECK ALL GOODS ON DELIVERY BEFORE SIGNING DELIVERY NOTE!!!**

If in any doubt please call us for advice, we will be happy to help in any way we can

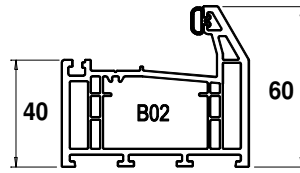
This sheet has been provided to hopefully answer basic survey and ordering points which sometimes cause confusion and reduce to a minimum problems that can be easily overcome with good communication, having said that we would greatly value any information you consider should be included on this sheet or criticism thereof.



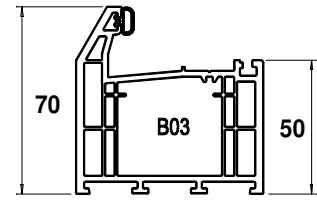
## 70mm Bevelled Profile Suite



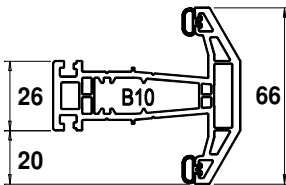
**50mm  
Small Outer &  
Reduced Threshold**



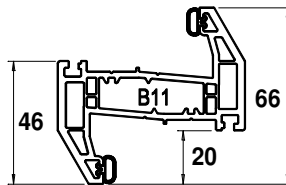
**60mm  
Standard Outer  
(Casement)**



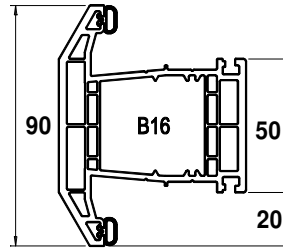
**70mm  
Large Outer**



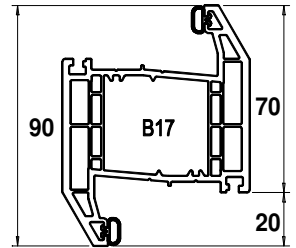
**66mm  
Transom & Mullion  
Odd Leg Outer Frame**



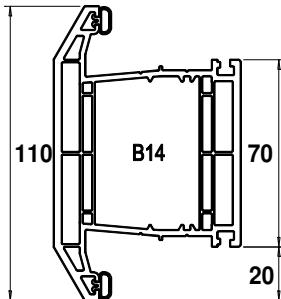
**66mm  
Transom & Mullion  
Odd Leg Outer Frame**



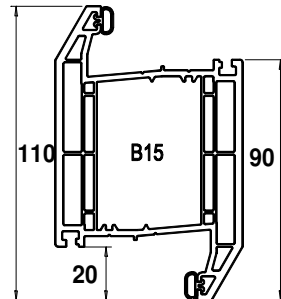
**90mm  
Transom & Mullion**



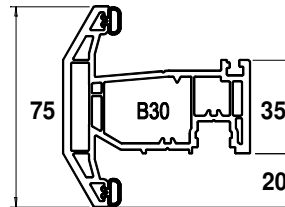
**90mm  
Transom & Mullion**



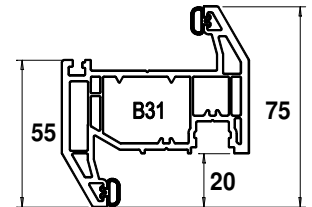
**110mm  
Midrail & Mullion**



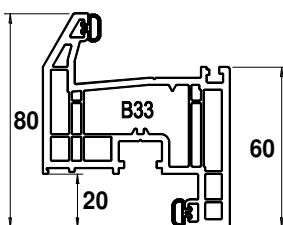
**110mm  
Midrail & Mullion**



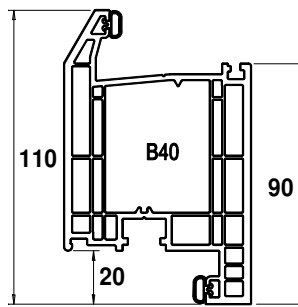
**Internally Glazed  
Casement Sash**



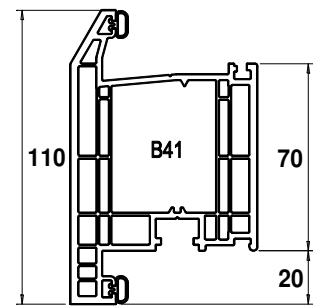
**Externally Glazed  
Casement Sash**



**Tilt & Turn Sash**



**Door Sash**



**Door Sash**



**B50  
28mm Bead**



**B60  
28mm Bead**



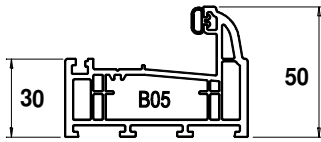
**B62  
& mm Bead**



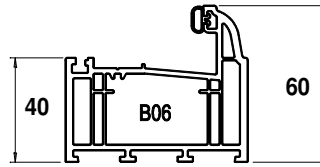
**B55  
40mm Bead**



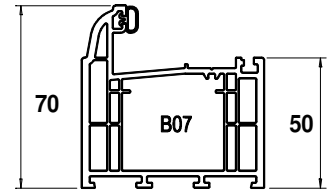
## 70mm Ovolo Profile Suite



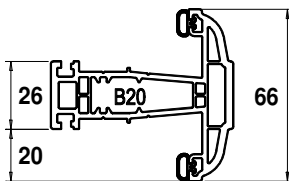
**50mm  
Small Outer &  
Reduced Threshold**



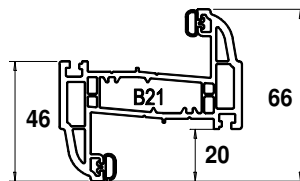
**60mm  
Standard Outer  
(Casement)**



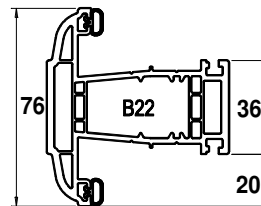
**70mm  
Large Outer**



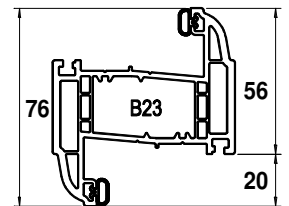
**66mm  
Transom & Mullion  
Odd Leg Outer Frame**



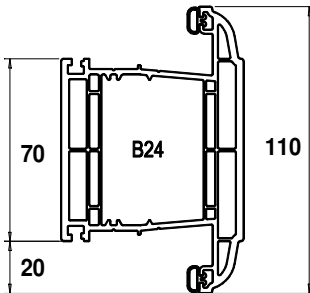
**66mm  
Transom & Mullion  
Odd Leg Outer Frame**



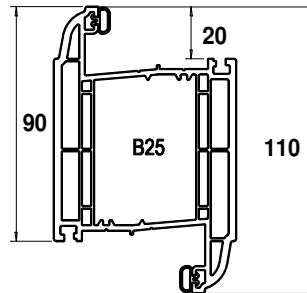
**76mm  
Transom & Mullion**



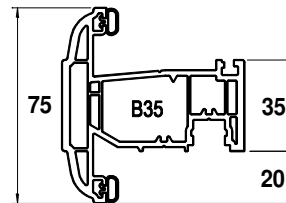
**76mm  
Transom & Mullion**



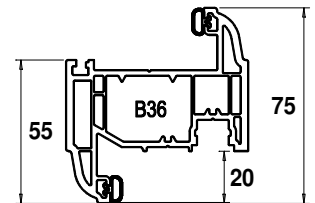
**110mm  
Midrail & Mullion**



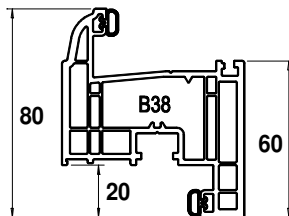
**110mm  
Midrail & Mullion**



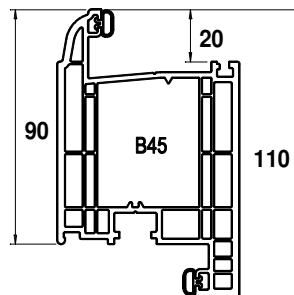
**Internally Glazed  
Casement Sash**



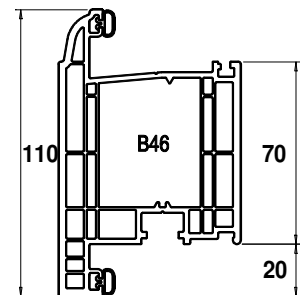
**Externally Glazed  
Casement Sash**



**Tilt & Turn Sash**



**Door Sash**



**Door Sash**



**B60  
28mm Bead**



**B62  
28mm Bead**



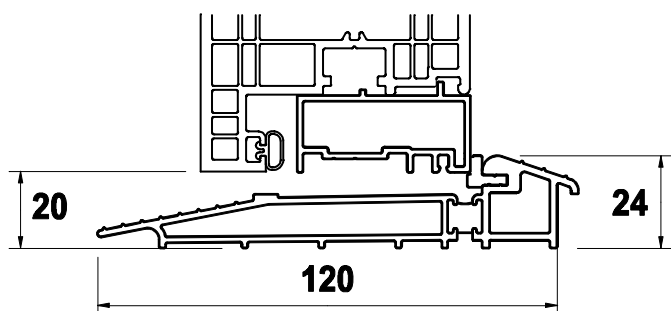
**B66  
44mm Bead**



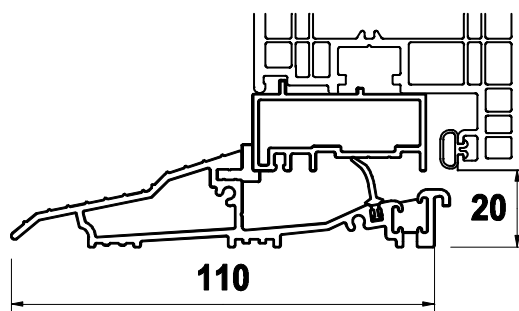
**B55  
40mm Bead**



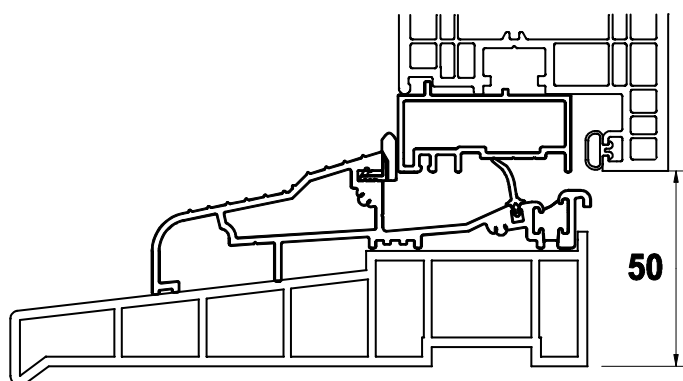
## Low Thresholds



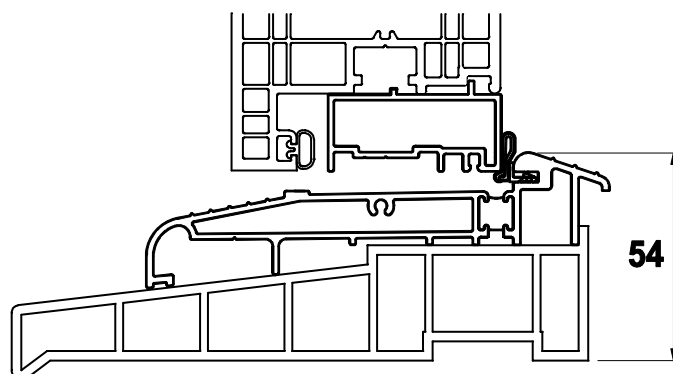
**Open Out Low Threshold**



**Open In Low Threshold**



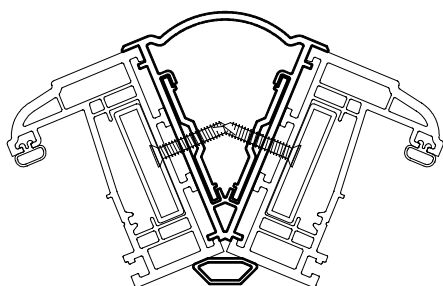
**Open In Low Threshold On Cill**



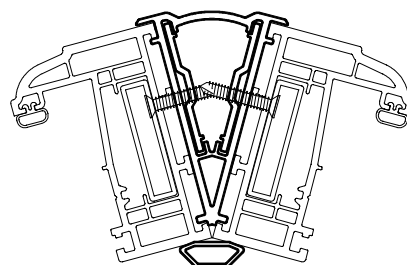
**Open Out Low Threshold On Cill**

(All Thresholds are available in gold or silver)

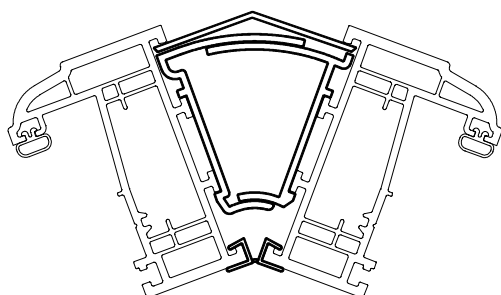
## 70mm Corner Posts



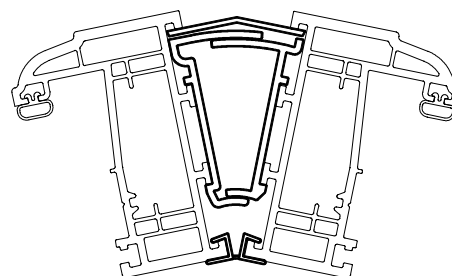
135° Bay Post  
Overlapping



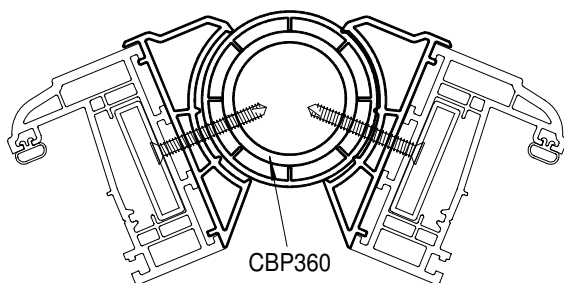
150° Bay Post  
Overlapping



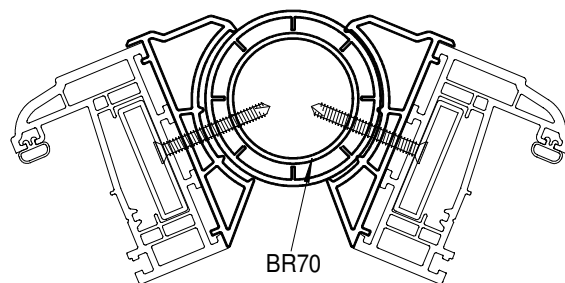
30° to 60°  
Variable Angle Post



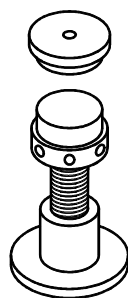
15° to 30°  
Variable Angle Post



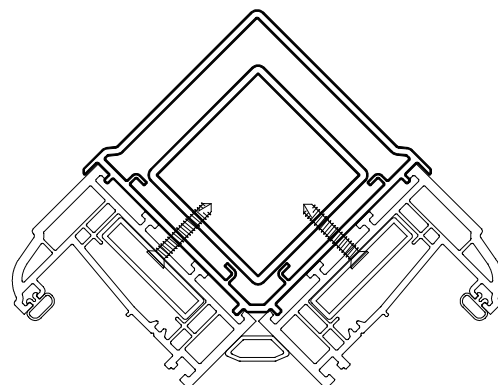
CBP360  
Round Bay Pole Assembly  
Structural



BR70  
Round Bay Pole Assembly  
Overlapping



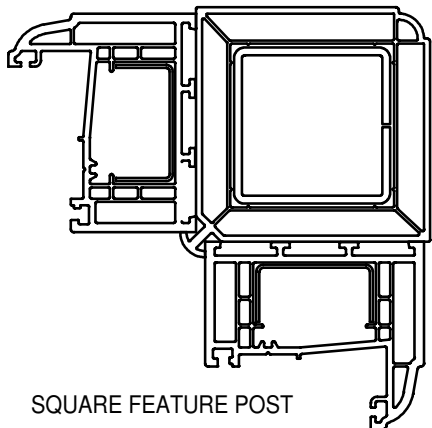
BB75  
Bay Pole Jack



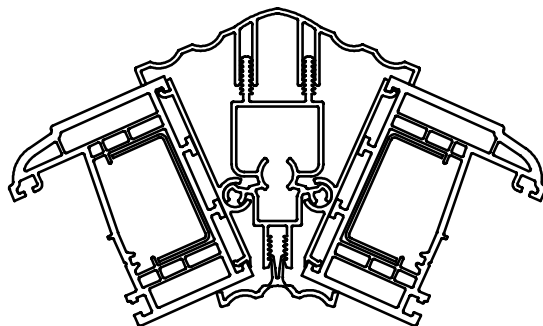
90° Bay Pole  
Overlapping



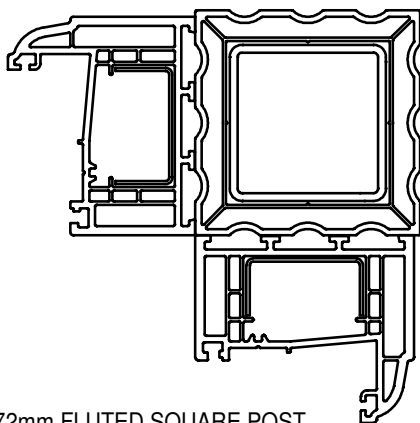
## 70mm Corner Posts



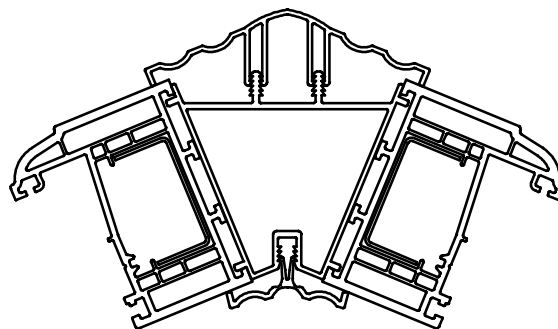
SQUARE FEATURE POST



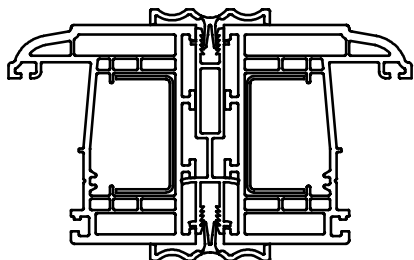
FLUTED VARIABLE POST  
120° - 170°



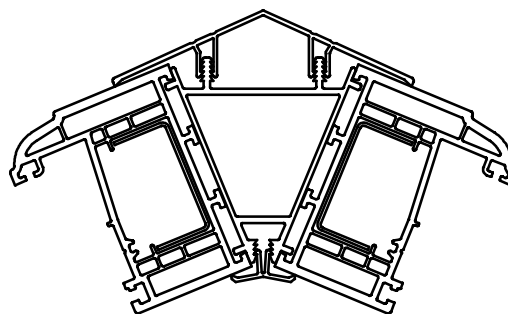
72mm FLUTED SQUARE POST



FLUTED FIXED ANGLE BAY POST  
135°



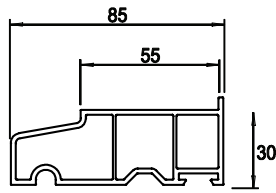
FLUTED COUPLING SECTION



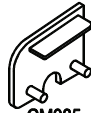
FLAT FIXED ANGLE BAY POST  
135°



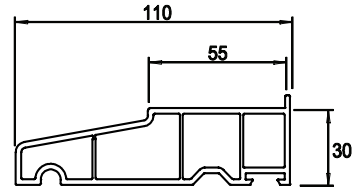
## Cills & Connectors



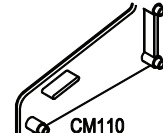
**C085**



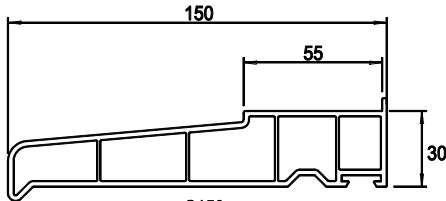
**CM085**  
END CAPS FOR  
C085



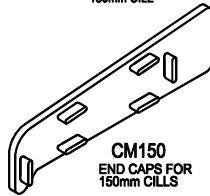
**C110**



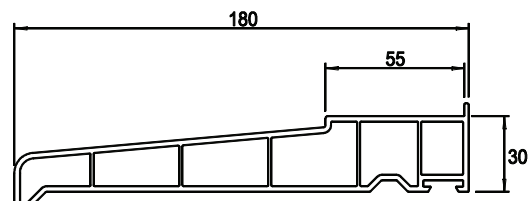
**CM110**  
END CAPS FOR  
110mm CILL



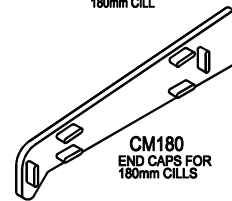
**C150**  
150mm CILL



**CM150**  
END CAPS FOR  
150mm CILLS



**C180**  
180mm CILL



**CM180**  
END CAPS FOR  
180mm CILLS



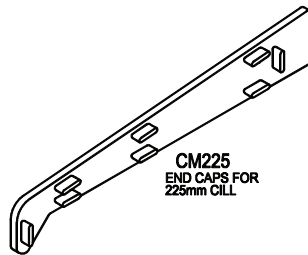
**CR01S**  
REINFORCEMENT



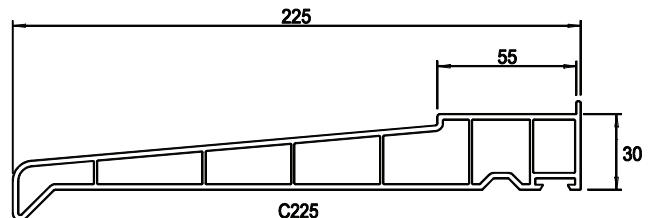
**C001**  
WINDOW BOARD ADAPTOR



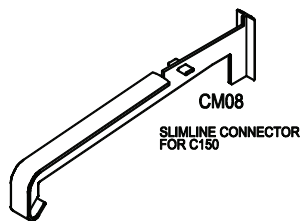
**CR02S**  
REINFORCEMENT



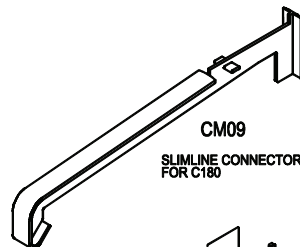
**CM225**  
END CAPS FOR  
225mm CILL



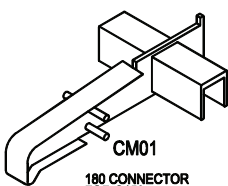
**C225**  
225mm CILL



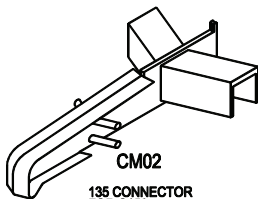
**CM08**  
SLIMLINE CONNECTOR  
FOR C150



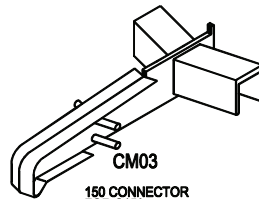
**CM09**  
SLIMLINE CONNECTOR  
FOR C180



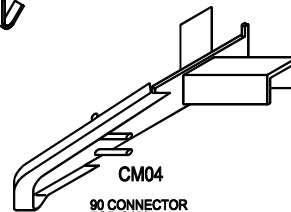
**CM01**  
180 CONNECTOR  
FOR C150



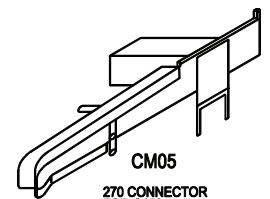
**CM02**  
135 CONNECTOR  
FOR C150



**CM03**  
150 CONNECTOR  
FOR C150



**CM04**  
90 CONNECTOR  
FOR C150

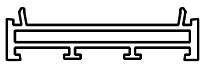


**CM05**  
270 CONNECTOR  
FOR C150

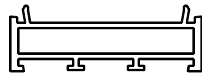




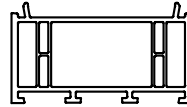
## Extensions, Couplings & Extras



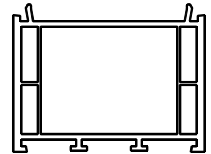
B7i  
55mm FRAME PACKER



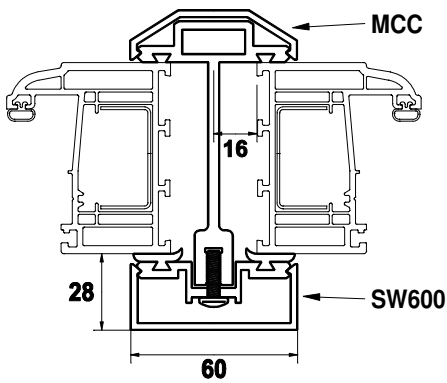
B7i  
66mm FRAME PACKER



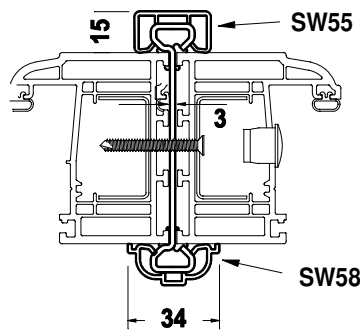
B79  
35mm FRAME PACKER



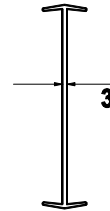
Bi €  
116mm FRAME PACKER



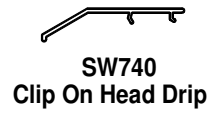
Expansion Coupling  
SWM70 & SWM20



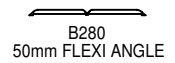
Steel Coupling  
SWR748



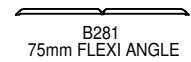
Jointing Strip  
SW754



SW740  
Clip On Head Drip



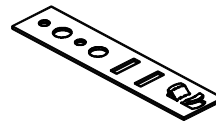
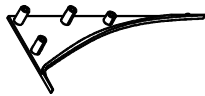
B280  
50mm FLEXI ANGLE



B281  
75mm FLEXI ANGLE

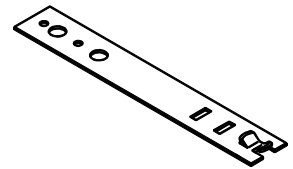
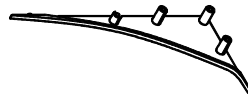


B282  
100mm FLEXI ANGLE



142mm Twist On  
Fixing Lug

Arched Head  
Ovolo Only



200mm Twist On  
Fixing Lug



Glazing  
Platform



BT03/S - Silver Anodised  
BT03/G - Gold Anodised

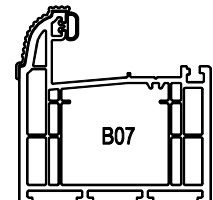
Bevelled



BT07/S - Silver Anodised  
BT07/G - Gold Anodised

Ovolo

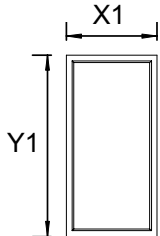
Tread Plates (Alloy)



B07

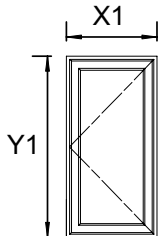
## Size Limitations - CASEMENT WINDOWS

The tables below show the minimum and maximum dimensions for common window styles using Intermediate Outer Frame & Slim Transom/Mullion.

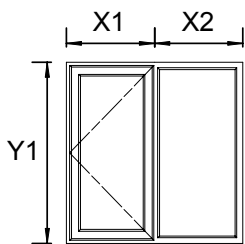


Dimension	Min	Max
X1	300	3000
Y1	300	2000
X3	335	2350
Y1	356	1356

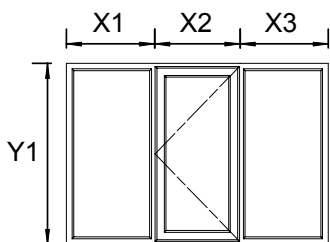
### SIDE HUNG EXAMPLES



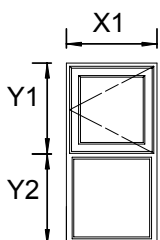
Dimension	Min	Max
X1	400	756
Y1	356	1356
X3	335	2350
Y1	356	1356



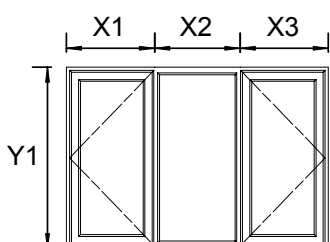
Dimension	Min	Max
X1	380	735
X2	335	2620
Y1	356	1356
Y1	356	1356



Dimension	Min	Max
X1	335	2350
X2	314	714
X3	335	2350
Y1	356	1356



Dimension	Min	Max
X1	400	756
Y1	335	1335
Y2	335	2665
Y1	356	1356



Dimension	Min	Max
X1	335	735
X2	314	2330
X3	335	735
Y1	356	1356

### MAXIMUM VENT SIZES

#### SIDE HUNG VENT

Maximum Width = 700mm

Maximum Height = 1300mm

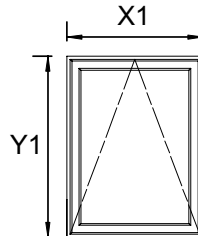
#### TOP HUNG VENT

Maximum Width = 1200mm\*

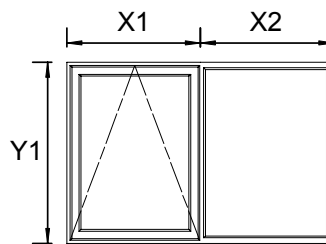
Maximum Height = 1200mm

\* If using SW714 vent, maximum width = 1000mm

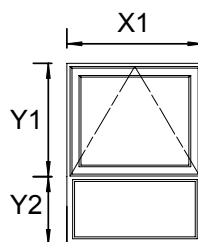
### TOP HUNG EXAMPLES



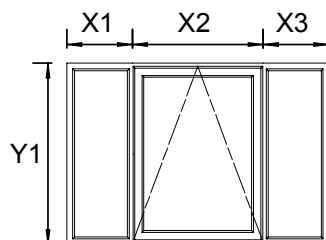
Dimension	Min	Max
X1	356	1256
Y1	356	1256
X3	335	2350
Y1	356	1356



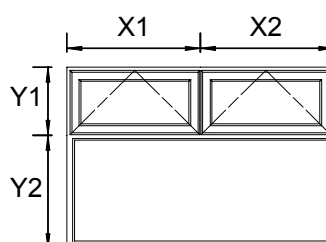
Dimension	Min	Max
X1	335	1235
X2	335	2665
Y1	356	1256
Y1	356	1356



Dimension	Min	Max
X1	356	1256
Y1	335	1235
Y2	335	2665
Y1	356	1356



Dimension	Min	Max
X1	335	2350
X2	314	1214
X3	335	2350
Y1	356	1256



Dimension	Min	Max
X1	335	1235
X2	335	1235
Y1	335	1235
Y2	335	1665

## Size Limitations - TILT & TURN WINDOWS

The tables below show the minimum & maximum dimensions for common tilt & turn window styles using Large Outer Frame, Intermediate Transom/Mullion and Tilt & Turn Sash

### MAXIMUM VENT SIZES

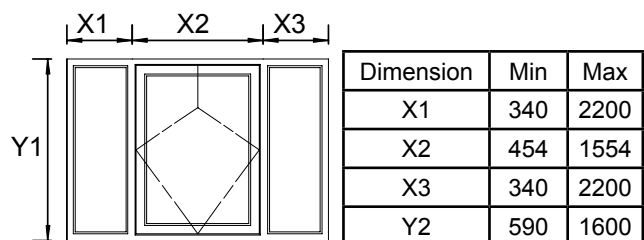
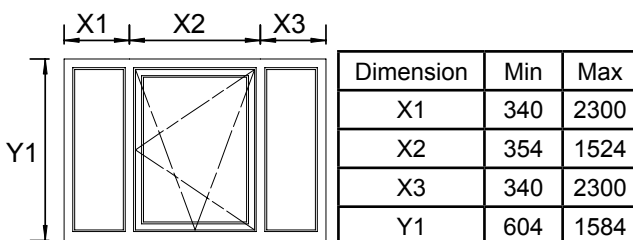
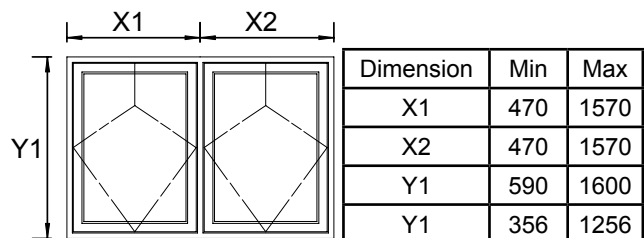
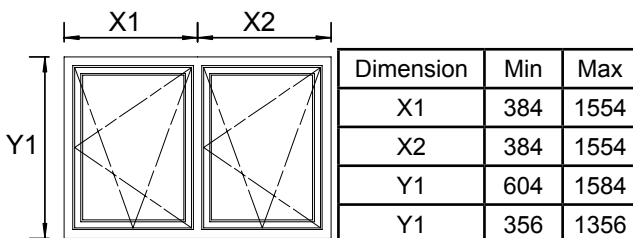
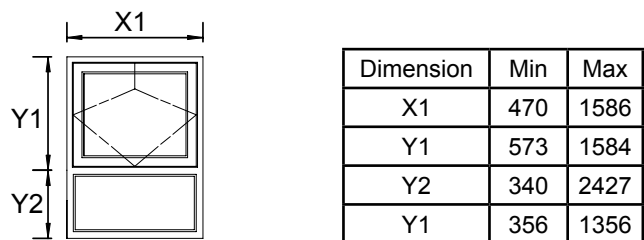
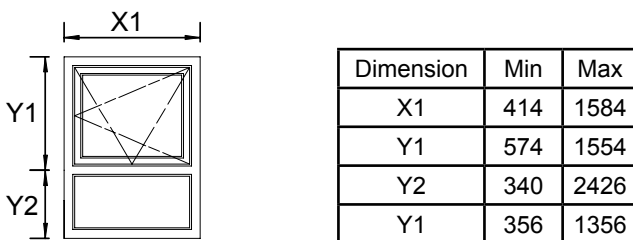
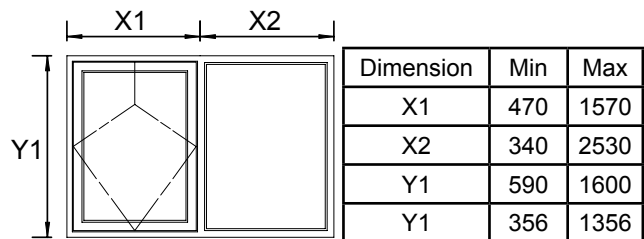
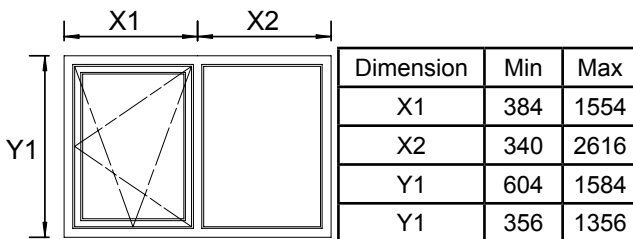
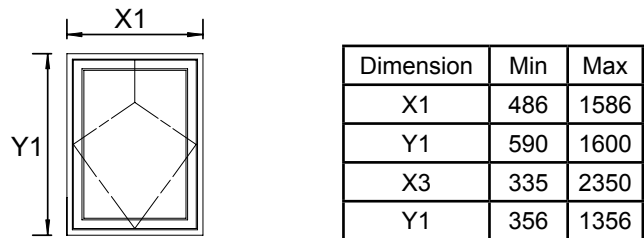
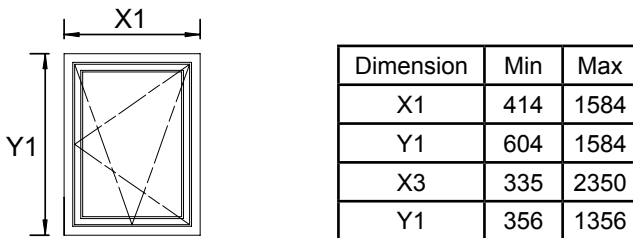
Maximum Vent Width = 1500mm  
 Maximum Vent Height = 1500mm

Note: The vent width must not exceed 1.5 times the height.

The tables below show the minimum & maximum dimensions for common reversible window styles using SW702/SW781 Outer Frame, SW782/SW784 Mullion and SW780 Sash

### MAXIMUM VENT SIZES

Maximum Vent Width = 1500mm  
 Maximum Vent Height = 1514mm  
 Maximum Vent Weight = 60kg



## Size Limitations - DOORS

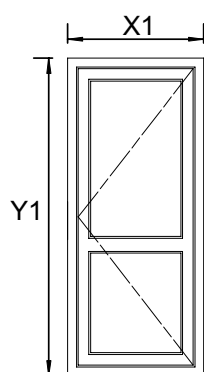
The tables below show the minimum & maximum dimensions for door styles using Large Outer Frame, Large Mullion and Door Sash

### MAXIMUM LEAF SIZES

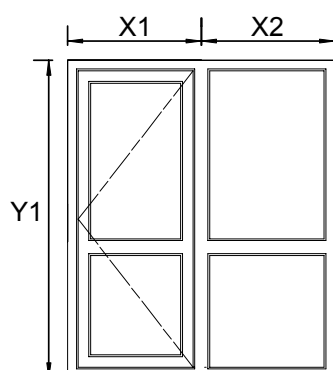
#### SINGLE LEAF DOORS

Maximum Leaf Width = 1000mm

Maximum Leaf Height = 2200mm



Dimension	Min	Max
X1	500	1084
X1 (Letterplate)	700	1084
Y1	1900	2284
Y1	356	1356



Dimension	Min	Max
X1	500	1069
X2	340	2500
X2 (Midrail)	340	2500
X2 (Letterplate)	700	2500
Y1	1900	2284

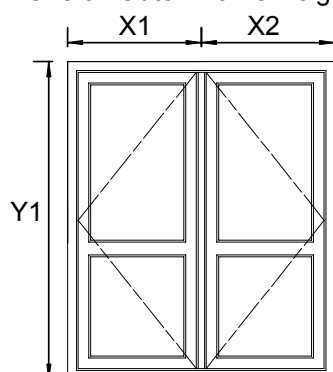
#### FRENCH DOORS

Maximum Leaf Width = 1000mm

Maximum Leaf Height = 2200mm

Overall Outer Frame Width = 2089mm

Overall Outer Frame Height = 2284mm



Dimension	Min	Max
X1	400	1044
X2	400	1044
Y1	1900	2284
Y1	356	1356

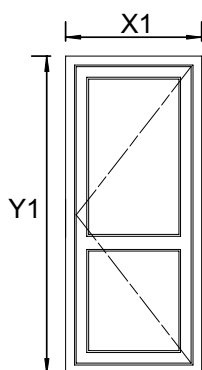
## Size Limitations - DOORS

### Solidor Composite Doors

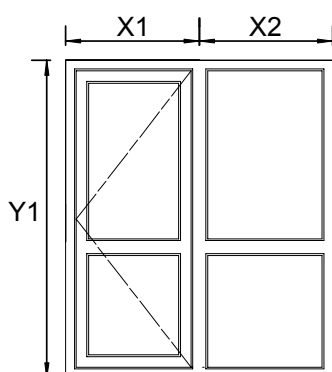
#### Standard Slab

Width (Min: 740 Max: 910) Height (Min: 1850 Max: 2060)

#### Single Leaf Door

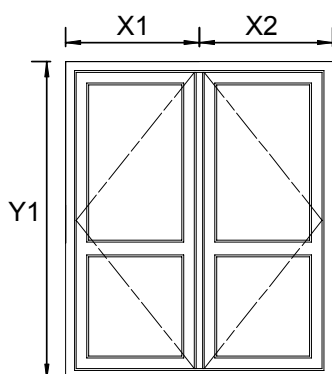


Dimension	Min			Max		
	Std Outer	Reduced Threshold	Low Threshold	Std Outer	Reduced Threshold	Low Threshold
X1	850			1020		
Y1	1960	1940	1926	2170	2150	2136
X1 (Flint)	No Min			As above		
Y1 (Flint)	1830	1810	1796			



Dimension	Min			Max		
	Std Outer	Reduced Threshold	Low Threshold	Std Outer	Reduced Threshold	Low Threshold
X1	835			1005		
X2	340			2500		
X2 (Midrail)	340					
X2 (Letterplate)	700					
Y1	1960	1940	1926	2170	2150	2136

#### Double Doors



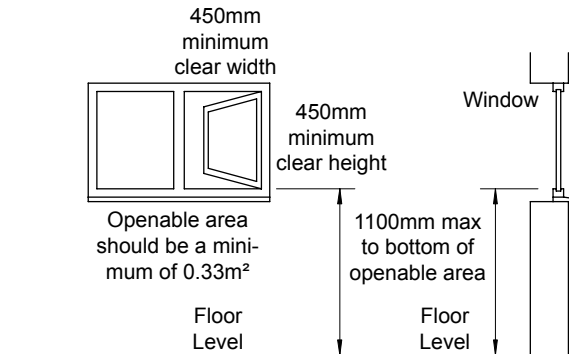
Dimension	Min			Max		
	Std Outer	Reduced Threshold	Low Threshold	Std Outer	Reduced Threshold	Low Threshold
X1	1594			1934		
Y1	1960	1940	1926	2170	2150	2136

## SAFETY - Fire Egress For Windows

### Building Regulations Part B

Part B of the building regulations states any window provided for emergency egress purposes and any external door provided for escape should comply with the following conditions :-

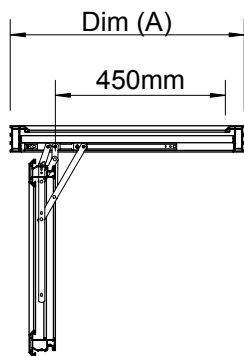
- The window should have an unobstructed openable area that is at least 0.33m<sup>2</sup> and at least 450mm high and 450mm wide (the route through the window may be at an angle rather than straight through). The bottom of the openable area should be not more than 1100mm above the floor.



Note :- To achieve a minimum openable area of 0.33m<sup>2</sup>, the minimum clear opening size is 450mm x 750mm

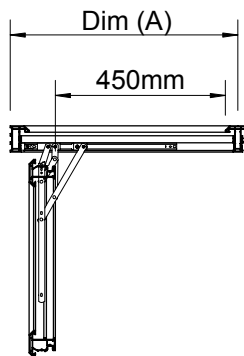
### Fire Egress escape stay

To ensure a minimum 450mm wide opening when using Spectus profiles and fire egress escape stays the following minimum dimensions must be used :



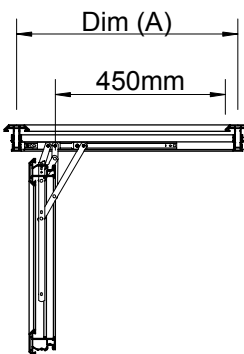
#### Outer frame to Outer frame

Dim (A) =  
Back-edge of frame to  
Back-edge of frame



#### Outer frame to Mullion

Dim (A) =  
Back-edge of frame to  
centre line of mullion



#### Mullion to Mullion

Dim (A) =  
Centre line of mullion to  
centre line of mullion

Outer Frame	Dim (A)
Slim Outer	620mm
Intermediate Outer	632mm
Large Outer	660mm

Outer Frame	Mullion	Dim (A)
Slim Outer	Slim T/Z	603mm
Intermediate Outer	Slim T/Z	609mm
Large Outer	Slim T/Z	623mm
Slim Outer	Intermediate T/Z	610mm
Intermediate Outer	Intermediate T/Z	616mm
Large Outer	Intermediate T/Z	630mm

Mullion	Mullion	Dim (A)
Slim T/Z	Slim T/Z	586mm
Slim T/Z	Intermediate T/Z	593mm
Intermediate T/Z	Intermediate T/Z	600mm

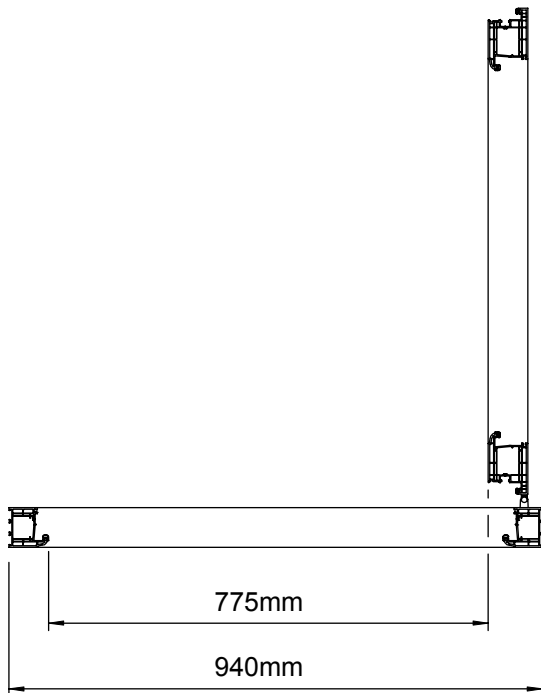
## SAFETY - Access To Buildings

### Building Regulations Part M

#### Effective clear width for doors

Part M of the building regulations states that entrance doors must have a minimum clear opening width of 775mm. It is important to take into account the pivoting action of the hinges.

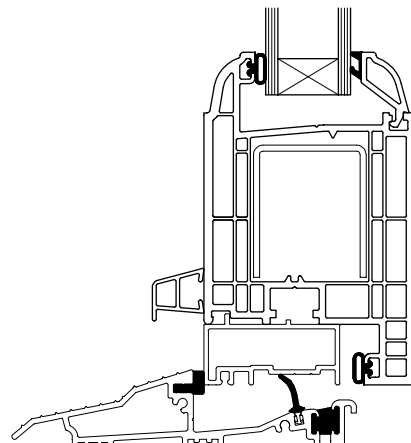
Typically, to create a clear opening width of 775mm the outer frame width must be a minimum of 940mm.



#### Accessible thresholds in new housing

The Part M document which gives guidance for house builders and designers states that the external leading edge of any proprietary threshold should be no higher than 15mm. The alternative is to demonstrate that the combined profile of the sill, lower threshold unit and the internal transition unit (when provided) meets the performance by suitable ergonomic testing.

Spectus has thresholds that will comply with this requirement.



## SAFETY - Safety Glass

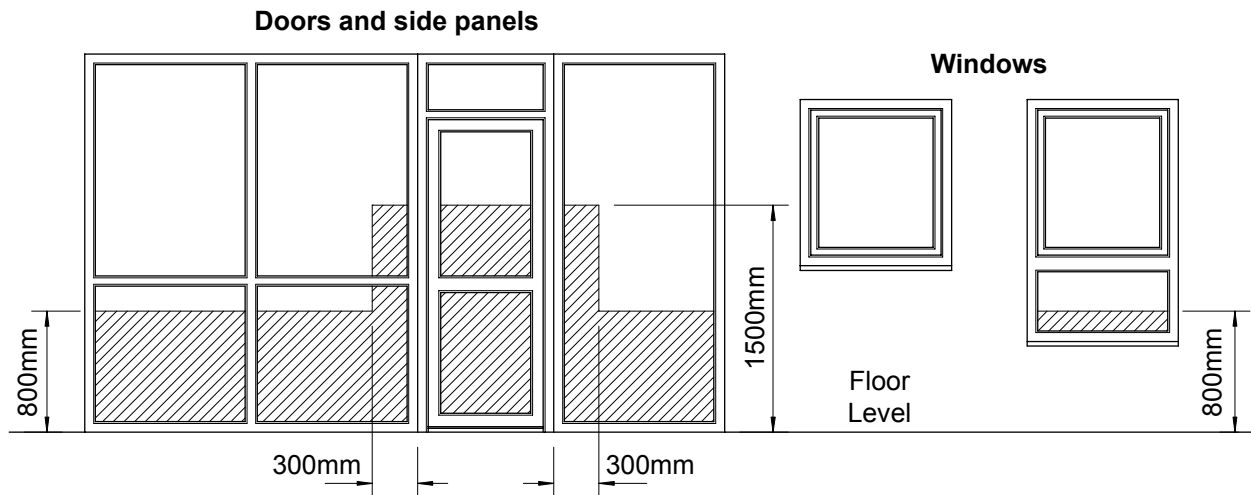
### Building Regulations Part N1

Part N1 of the building regulations states that the following locations may be considered 'critical' in terms of safety :

- between finished floor level and 800mm above that level in the internal and external walls and partitions
- Between finished floor level and 1500mm above that level in a door or in a side panel, close to either edge of the door.

Glazing in these critical locations must either break safely, be robust or in small panes or be permanently protected.

In terms of safe breakage, a glazing material suitable for installation in a critical location would satisfy the requirements of Class C of BS 6206 or, if it is installed in a door or in a door side panel and has a pane width exceeding 900mm, the requirements of Class B of the same standard.





## SAFETY - Safe Opening & Closing of Windows

### Building Regulations Part N3

Part N3 of the building regulations, in accordance with Section 23(3) of the Health and Safety at Work, etc Act 1974, states that windows, skylights and ventilators which can be opened by people in or about the building shall be so constructed or equipped that they may be opened, closed or adjusted safely. This requirement does not apply to dwellings.

### Location of controls

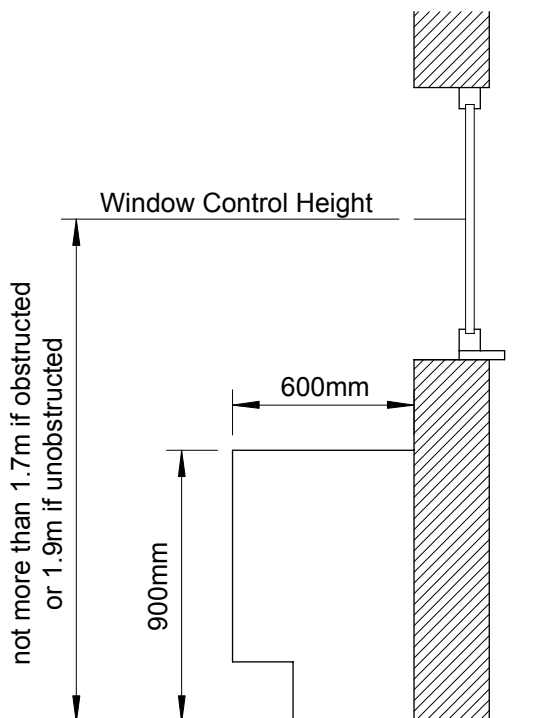
Windows will comply with building regulations if they satisfy the following requirements:-

- a. Where controls can be reached without leaning over an obstruction, they should not be more than 1.9m above the floor or other permanent stable surface provided to give access. Small recesses, such as window reveals, should be ignored.
- b. Where there is an obstruction the control should be lower, eg not more than 1.7m, where there is a 600mm deep obstruction (including any recess) not more than 900mm high.

### Prevention of falls

Where there is a danger of the operator or other person falling through a window above ground floor level, suitable opening limiters should be fitted or guarding should be provided.

### Location of controls



## SAFETY - Safe Access for Cleaning

### Building Regulations Part N4

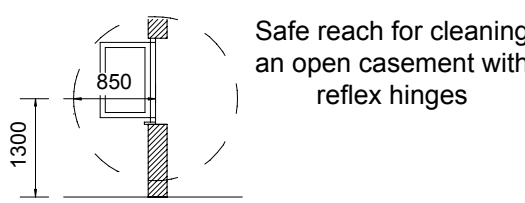
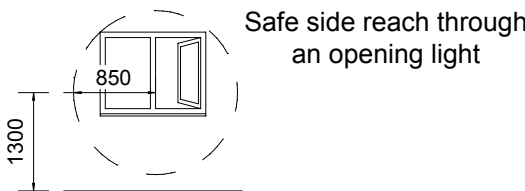
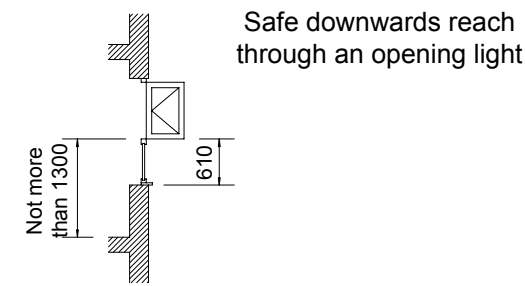
Part N4 of the building regulations, in accordance with Section 23(3) of the Health and Safety at Work, etc Act 1974, states that provision shall be made for any windows, skylights, or any transparent or translucent walls, ceilings or roofs to be safely accessible for cleaning. This requirement does not apply to dwellings or any elements whose surfaces are not intended to be cleaned.

### Complying with the regulations

Windows which cannot be cleaned safely by a person standing on the ground or a permanent stable surface will comply with building regulations as long as any of the following provisions are satisfied:-

a. provision of windows of a size and design that allow the outside surface to be cleaned safely from inside the building. Windows which reverse for cleaning should be fitted with a mechanism which holds the window in the reversed position.

### Safe reaches for cleaning from inside



b. provision of an adequate area of firm level surface, in a safe place, to allow the use of portable ladders not more than 9m long (measured from the ground to the upper support). Where ladders up to 6m long will be used, normal soil will provide a suitable standing surface. Where ladders over 6m long will be used, suitable tying or fixing points should be provided.

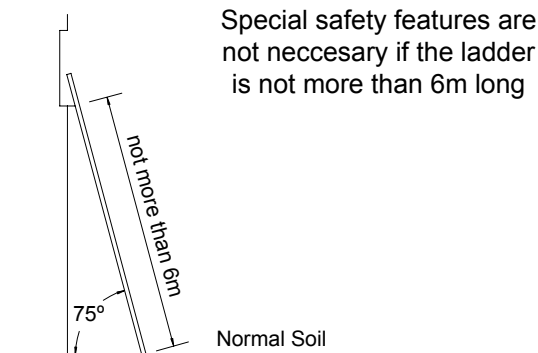
c. provision of walkways at least 400mm wide, either with guarding at least 1100mm high, or with anchorages for sliding safety harnesses

d. provision of access equipment such as suspended cradles or travelling ladders, with attachments for safety harnesses.

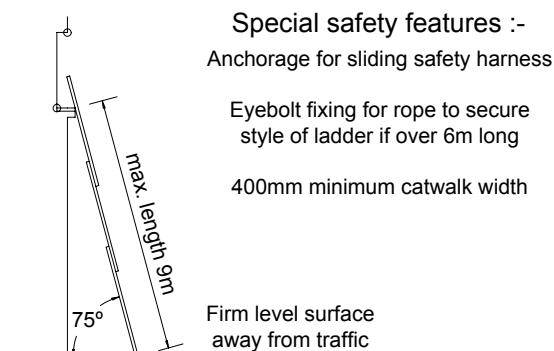
e. provision of suitable anchorage points for safety harnesses or abseiling hooks.

f. only in circumstances where other means cannot be used, space for scaffold towers should be provided, and located so that windows can be cleaned.

### Ladders not more than 6m long



### Ladders not more than 9m long



## Options & Guarantee

### DECORATIVE ANCILLARIES

The table below indicates which decorative ancillaries are available for each window system :-

	Elite 70	Vertical Slider
Machined Sash Horn	●	
Face-Fix Sash Horn		●
Arched Heads	●	
Stick-on Georgian Bar	●	●

### PROFILE FINISHES

The table below indicates which finishes are available from stock for each window system:-

	Elite 70 (Ovolo and Bevel)	Vertical Slider	Ride over Patio	Fully Reversible	Flush Tilt & Turn
White	•	•	•	•	•
Rosewood on brown	•	•	•		
Rosewood on white	•	•	•	•	
Light Oak on tan	•	•	•		
Light Oak on white	•	•	•	•	
Anthracite Grey on brown	•				
Anthracite Grey on white	•	•	•	•	•
Anthracite Grey on grey*				•	•
Anthracite Grey on white *				•	•
Black Brown on brown	•				
Black Brown on white	•	•	•	•	•
Cream on cream	•	•	•		
White on white	•	•	•	•	
Irish Oak on tan	• (Ovolo)		•		
* Non Grained					
Rosewood = Black Cherry					
Light Oak = Golden Oak					

### GUARANTEE

#### Statement

Spectus Window Systems undertake to guarantee White & Woodgrain foil laminated PVC-U window and door profiles for a period of 10 years. This guarantee is in respect of colour stability in accordance with BSEN12608.

This guarantee is conditional on the profiles being handled and applied in a proper way and in compliance with any instruction, specifications or guidelines that may from time to time be issued by Spectus Window Systems and provided they are maintained and installed in accordance with the BPF/GGF Trade Standard for PVC-U windows.

The guarantee is effective for a period of 10 years from the date of extrusion.

This guarantee is only applicable when the resultant windows, doors and other fabricated products are installed in the UK, Channel Islands or Eire.

This guarantee only applies to products supplied by Spectus Window Systems and does not apply to window and door fittings or other ancillary items supplied by others.

This statement is only a brief outline of the Spectus Window Systems guarantee.

## Product Guarantee

Universal Trade Frames Limited operates a policy of adopting the highest standards in quality, in both the selection of individual components and the processes and methods used in the manufacture of their products.

As a direct result of this policy Universal Trade Frames Limited are pleased to pass on the following guarantees to our customer:-

- Fabricated PVC-U window & door products. 10 year guarantee.
- All fitted hardware. 10 year guarantee.
- Double glazed units. 10 year guarantee.

All guarantees are subject to correct installation in accordance with the recommendation set out by the British Plastics Federation & the Glass and Glazing Federation.

In consideration of a customer purchasing PVC-U fabricated products:

Universal Trade frames Ltd Guarantee, for a period of 10 years, the manufacture of its PVC-U products.

Universal Trade Frames Ltd Guarantee, against operational failure, for a period of 10 years, all hardware used during the manufacture of all products.

The hardware guarantee shall not apply if:

The product was not correctly fitted, adjusted and operated.

The product was subjected to stresses and operating forces beyond recommended levels or to any form of abuse.

The product was not correctly maintained and lubricated at least twice a year.

Corrosion is caused by exposure to salt spray.

Universal Trade Frames Ltd guarantee, for a period of 10 years, the optical and mechanical performance of their PVC-U window profiles used, within limits defined by the British Plastics Federation specification for high impact PVC-U hollow profiles, provided they are maintained and installed in accordance with the BPF/GGF Trade Standard for PVC-U windows issued 2 January 1989 and all other current codes of practice.

Universal Trade frames Ltd guarantees such profiles for a period of ten years.

This guarantee shall apply only to defects appearing within the periods set out above from the date of manufacture provided that Universal Trade Frames Ltd is promptly notified in writing of such defects within those defined periods

The sole and exclusive remedy with respect to the above guarantee or with respect to any other claim relating to defects or any other condition arising from the use of the products supplied by Universal Trade Frames Ltd, however caused, is limited to repair or replacement of such products at Universal Trade Frames Ltd' option.

Universal Trade Frames Ltd does not make any other representations or guarantees and in no event shall Universal Trade Frames Ltd be liable for any other loss or damage whether direct, indirect, special or consequential damages (including but not limited to the costs of reinstallation of the products).

Nothing in this guarantee shall exclude or restrict the liability of Universal Trade Frames Ltd for the death or personal injury resulting from its negligence in so far as the same is prohibited by Statute.

Nothing in this guarantee affects the statutory rights of consumers.

This guarantee is only applicable when the resultant windows, doors and other fabricated products are installed in the UK, Channel Islands or Eire. Universal Trade Frames Ltd Terms and Conditions of Sale apply.

## Operation & Maintenance

### CLEANING PVC-U PROFILES

Dirty marks on PVC-U frames can easily be removed by using the cleaning materials shown in the table below.

Cleaning cloths should be unbleached cellulose/cotton material. Do not use cloths containing synthetic fibres.

Any unacceptable scratches on **white profiles only**, can be removed by sanding and polishing. Sanding should be carried out using a 320/400 grit sanding disc and polishing using a sisal rotary brush to bring back the surface finish. It is important to achieve as smooth a sanded finish as possible before polishing. If this is not done, there will be a visual difference between the surface finishes. **Woodgrain surfaces cannot be sanded.**

On woodgrain surfaces, care must be taken when cleaning. Any white areas showing, either through damage or cleaning, can be retouched using a woodgrain marker pen.

#### CLEANING METHOD

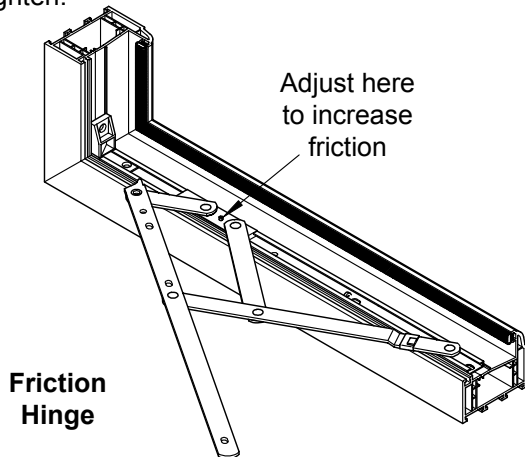
CONTAMINATION	CLEANING METHOD		
	Scrape off and polish with a dry cloth	Clean with water and mild detergent	Clean with non-abrasive household detergent and water
Pencil			•
Emulsion paint	•		
Felt pen			•
Organic grease			•
Inorganic grease			•
Plaster	•	•	
Woodstain		•	
Ball pen			•
Cellulose paint	•		
Rust			•
Soot			•
Cement Mortar		•	
Wax pen		•	

## Operation & Maintenance: Casements

### Friction Hinges

Maintenance is important but straightforward. Keep the friction stay track free from dirt and grime and keep the hinge mechanism clean. Lubricate the metal parts, regularly, with machine oil, concentrating on the pivot points.

Friction can be increased or decreased by adjustment of the turning screw. Turn in a clockwise direction to increase friction. Take care not to over tighten.

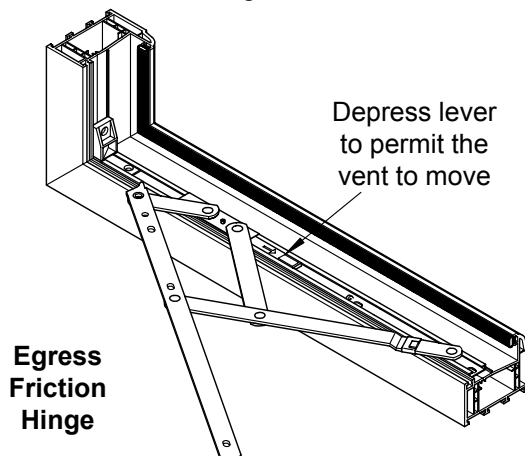


### Egress Friction Hinges

In order to facilitate a maximum clear opening, egress hinges may be fitted. In most cases this will be an upstairs window and allows the window to be opened to 90°.

Some egress hinges combine the opening facility with an easy clean system, whereby the vent can be slid sideways to allow external cleaning to be carried out from inside.

To utilise the easy clean facility, open the window normally, then press and hold down the button on both hinges to release the restrictor hinge. Slide the sash across to allow egress.



### Window Locking Mechanisms

Windows fitted with either an Espagnolette or Shoot Bolt locking system will allow the window to remain partly open at night to facilitate ventilation.

To engage the window in its night vent position, open the window to approximately 15mm and then return the handle to its locking position. You may feel slight resistance so do not try to force the handle, simply move the window slightly until you find a point where there is no resistance, and close. Check the window is held securely in the night vent position by pushing gently on the vent - if held securely it should not move.

Maintenance of locking systems is simple: apply a little all purpose oil or WD40 to the moving parts, once a year. Similarly, a little grease should be applied to the locking slots to facilitate smooth running.

### Ventilation Control

Windows can be fitted with a trickle ventilation unit, located at the top of the frame. This is designed so that you can control ventilation and minimise any build up of condensation. Simply open or close the ventilator by pushing the finger recess to the left or right. No maintenance is required.

### Handles

Windows can be fitted with key locking, push to open handles. An easy to use system, yet secure and long lasting. To operate, simply press the thumb button, turn through 90° and push the window to the desired angle. To close, reverse the procedure by pulling the window closed and turning the handle back to the upright position, thus engaging it automatically. Handles can be deadlocked by using the key provided.

## Operation & Maintenance

### RESIDENTIAL DOORS

#### Door Locking Mechanisms

Doors can be equipped with a hook or cam lock mechanism. In some cases there may be a split spindle lock - this means you cannot enter the house without using a key to open the door.

#### Locking

To operate the lock, insert the key into the cylinder. Rotate the handle upwards, turn the key for one complete revolution, to activate the deadbolt, which locks the whole mechanism. Release the handle.

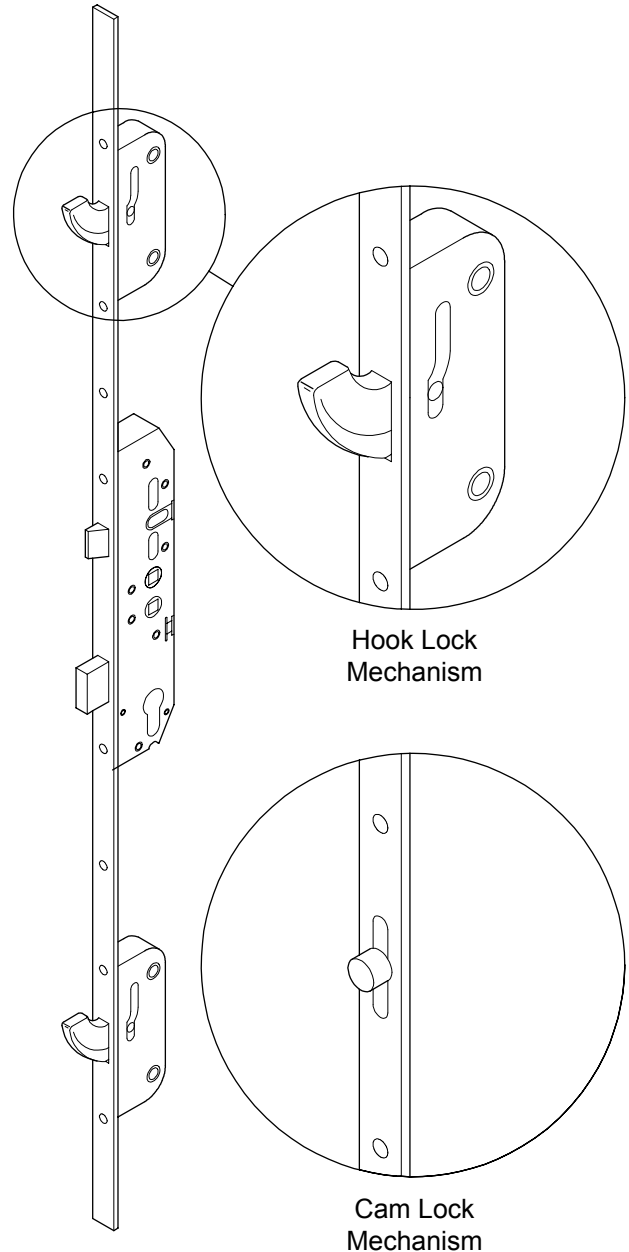
#### Unlocking

Insert the key into the cylinder lock and disengage the deadbolt by turning one complete revolution. Depress the handle and open the door. Where a split spindle is fitted in addition, after you have depressed the handle, turn the key a further quarter revolution to release the latch.

#### Handle Options

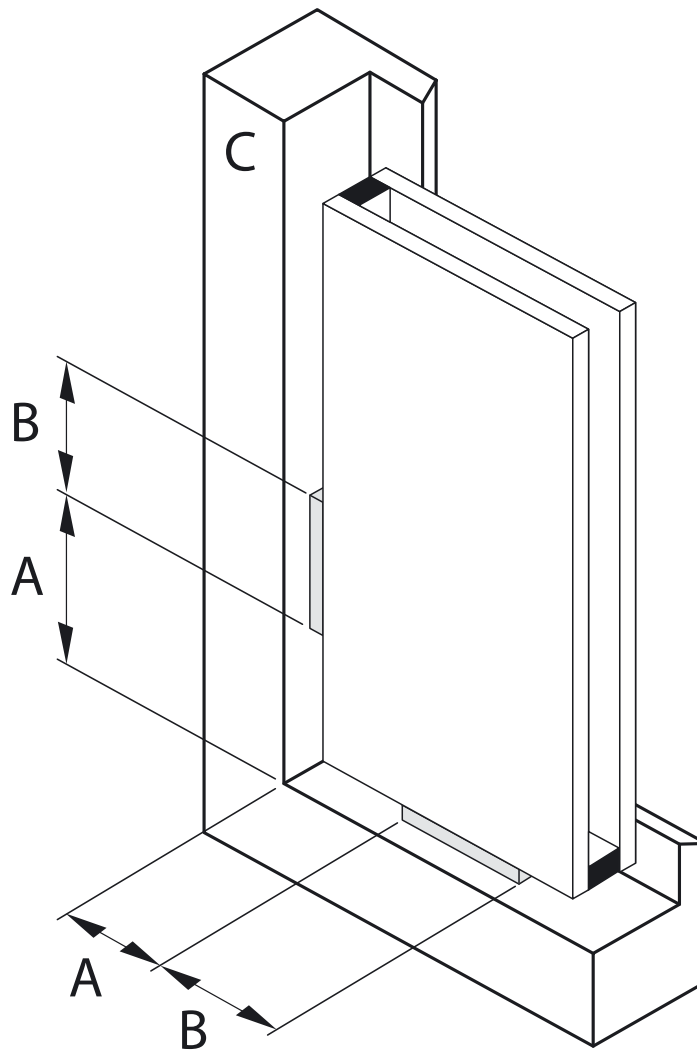
Traditional front doors can be fitted with an external pull-pad operated handle with a lever operated internal handle. Back doors are usually fitted with a lever operated handle both internally and externally.

Maintenance of the locking systems is simple: apply a little all purpose oil or WD40 to the moving parts, once a year. Similarly, a little grease should be applied to the locking slots to facilitate smooth running.



## Fixing & Glazing Packers

### 1. STANDARD PACKER POSITIONS

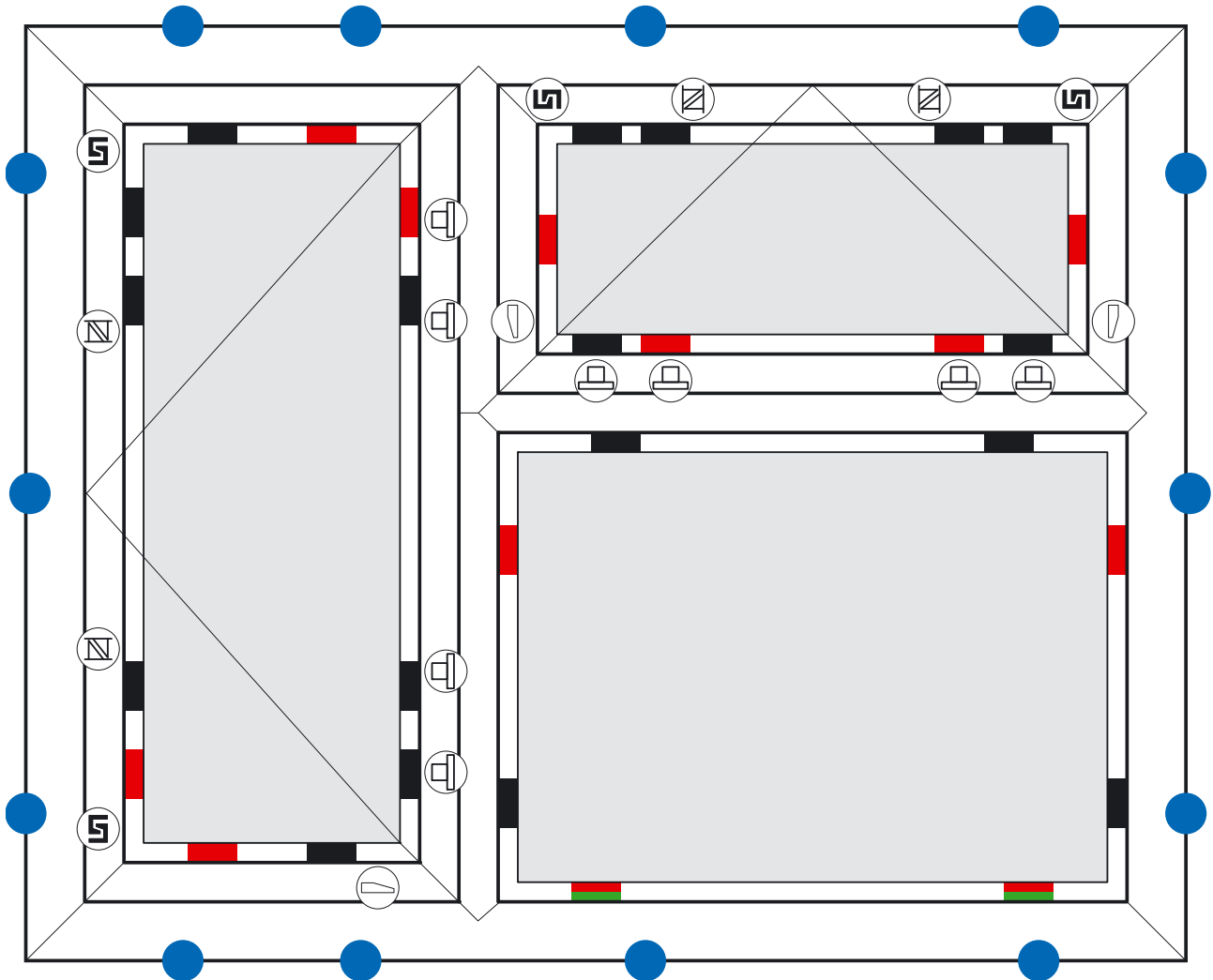


- A Distance of the packer from the corner, approximately 30 mm.
- B The length of packer, approximately 80 mm.
- C The sash or frame profile.



## Fixing & Glazing Packers

### 2. CASEMENT WINDOWS



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No. fixing 150 - 250mm from a corner, both horizontally and vertically.
- b) 1 No. fixing 150 - 250mm at either side of a mullion or transom where it meets the outer frame.
- c) Fixings shall occur at no more than 600mm centres.
- d) Where frames are coupled together, through-frame fixing 100mm from each end and centres not exceeding 400mm are recommended.

### **Bridge packer**

A minimum of two bridge packers per fixed light, positioned not to interfere with drainage paths. Additional packers are required for lengths greater than 1500mm.

### **Glazing packer**

Should be sealed in position during glazing using a high modulus acetoxy silicone.

### **Additional glazing packers for enhanced security**

Positioned adjacent to locking points in sashes.

### **Run-up blocks (factory fitted)**

- a) 1 No. required for side hung sashes.
- b) 2 No. required for top hung sashes.

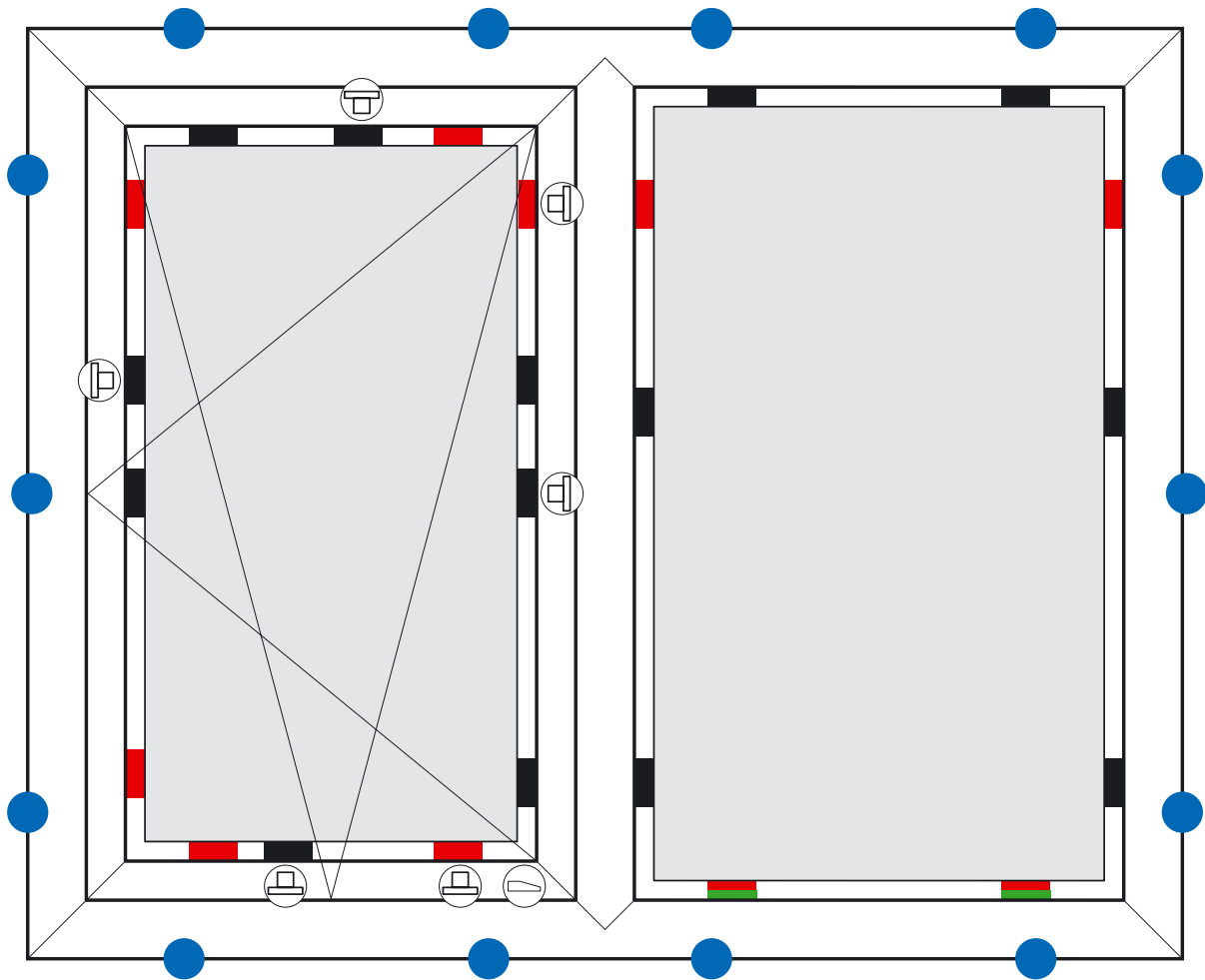
### **Cavity interlocks (factory fitted)**

### **Locking point**

### **Hinge protection device**

## Fixing & Glazing Packers

### 3. TILT & TURN



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No. fixing 150 - 250mm from a corner, both horizontally and vertically.
- b) 1 No. fixing 150 - 250mm at either side of a mullion or transom where it meets the outer frame.
- c) Fixings shall occur at no more than 600mm centres.
- d) Where frames are coupled together, through-frame fixing 100mm from each end and centres not exceeding 400mm are recommended.

### **Bridge packer**

A minimum of two per fixed light, positioned not to interfere with drainage paths. Additional packers are required for lengths greater than 1500mm.

### **Glazing packer**

Should be sealed in position during glazing using a high modulus acetoxy silicone.

### **Additional glazing packers for enhanced security**

Positioned adjacent to locking points in sashes.

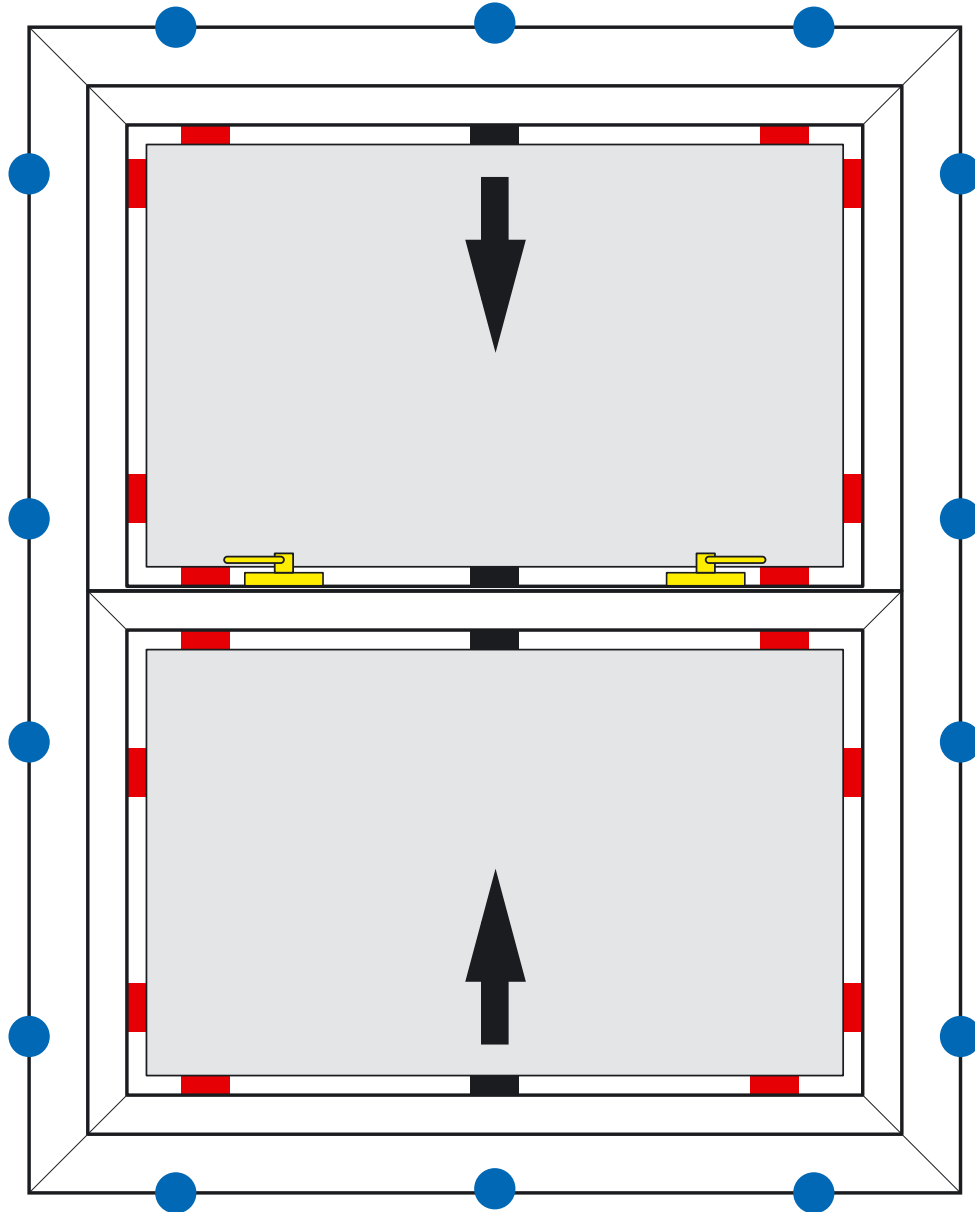
### **Run-up blocks (factory fitted)**

- a) 1 No. required

### **Locking point**

## Fixing & Glazing Packers

### 4. VERTICAL SLIDER



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No. fixing 150 - 250mm from a corner, both horizontally and vertically.
- b) Fixings shall occur at no more than 600mm centres.
- c) Where frames are coupled together, through-frame fixing 100mm from each end and centres not exceeding 400mm are recommended.

### **Glazing packer**

Should be sealed in position during glazing using a high modulus acetoxy silicone.

### **Additional glazing packers for enhanced security**

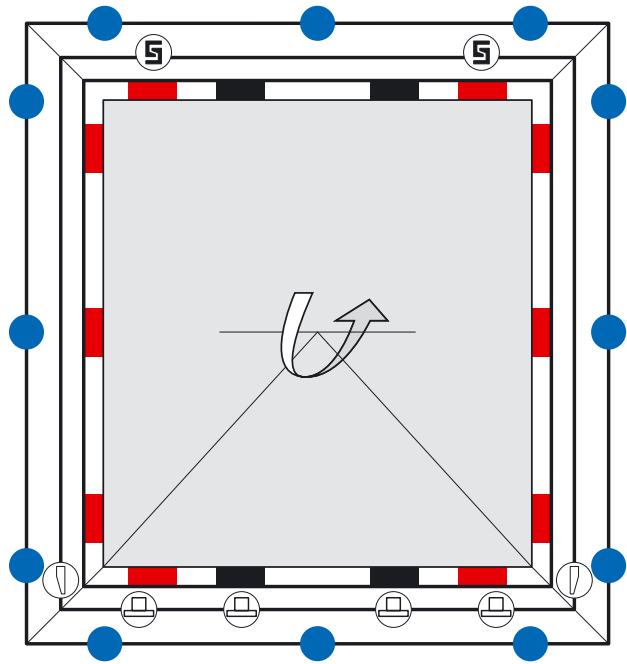
Positioned strategically to prevent excessive movement between the sash and sealed unit.

### **Fitch catch**

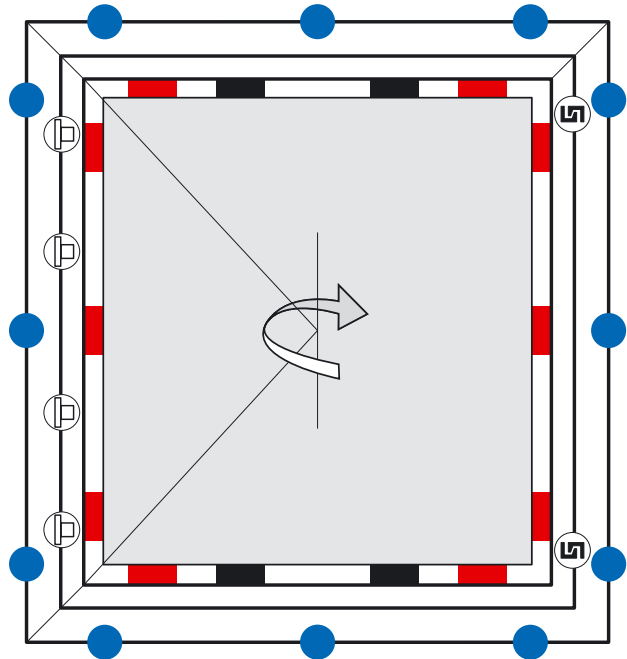
## Fixing & Glazing Packers

### 5. REVERSIBLE WINDOWS

Top swing



Side swing



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No. fixing 150 - 250mm from a corner, both horizontally and vertically.
- b) 1 No. fixing adjacent to each of the hinge pivot points.
- c) Fixings shall occur at no more than 600mm centres.
- d) Where frames are coupled together, through-frame fixing 100mm from each end and centres not exceeding 400mm are recommended.

### **Glazing packer**

Should be sealed in position during glazing using a high modulus acetoxy silicone.

### **Additional glazing packers for enhanced security**

Positioned adjacent to locking points in sashes.

### **Run-up blocks (factory fitted)**

- a) 1 No. required for side swing.
- b) 1 No. required for top swing.

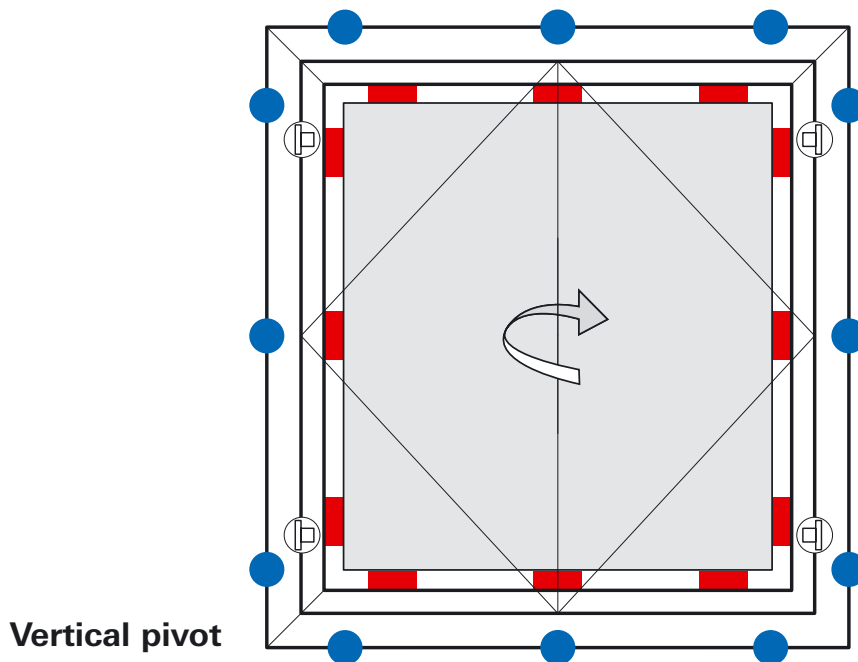
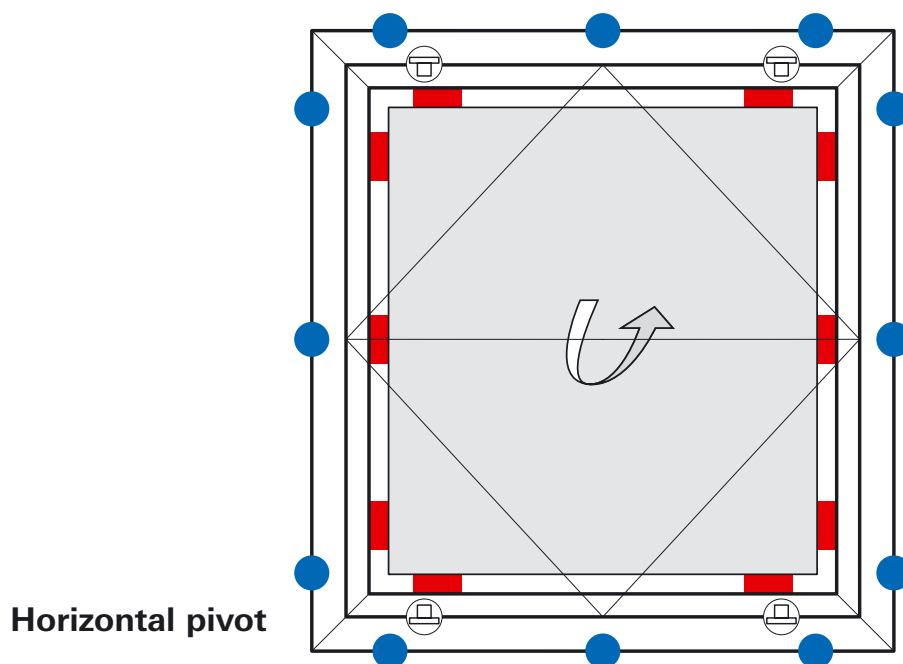
### **Locking point**

### **Hinge Protection Device**



## Fixing & Glazing Packers

### 6. PIVOT WINDOWS



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No. fixing 150 - 250mm from a corner, both horizontally and vertically.
- b) 1 No. fixing adjacent to each of the hinge pivot points.
- c) Fixings shall occur at no more than 600mm centres.
- d) Where frames are coupled together, through-frame fixing 100mm from each end and centres not exceeding 400mm are recommended.

### **Glazing packer**

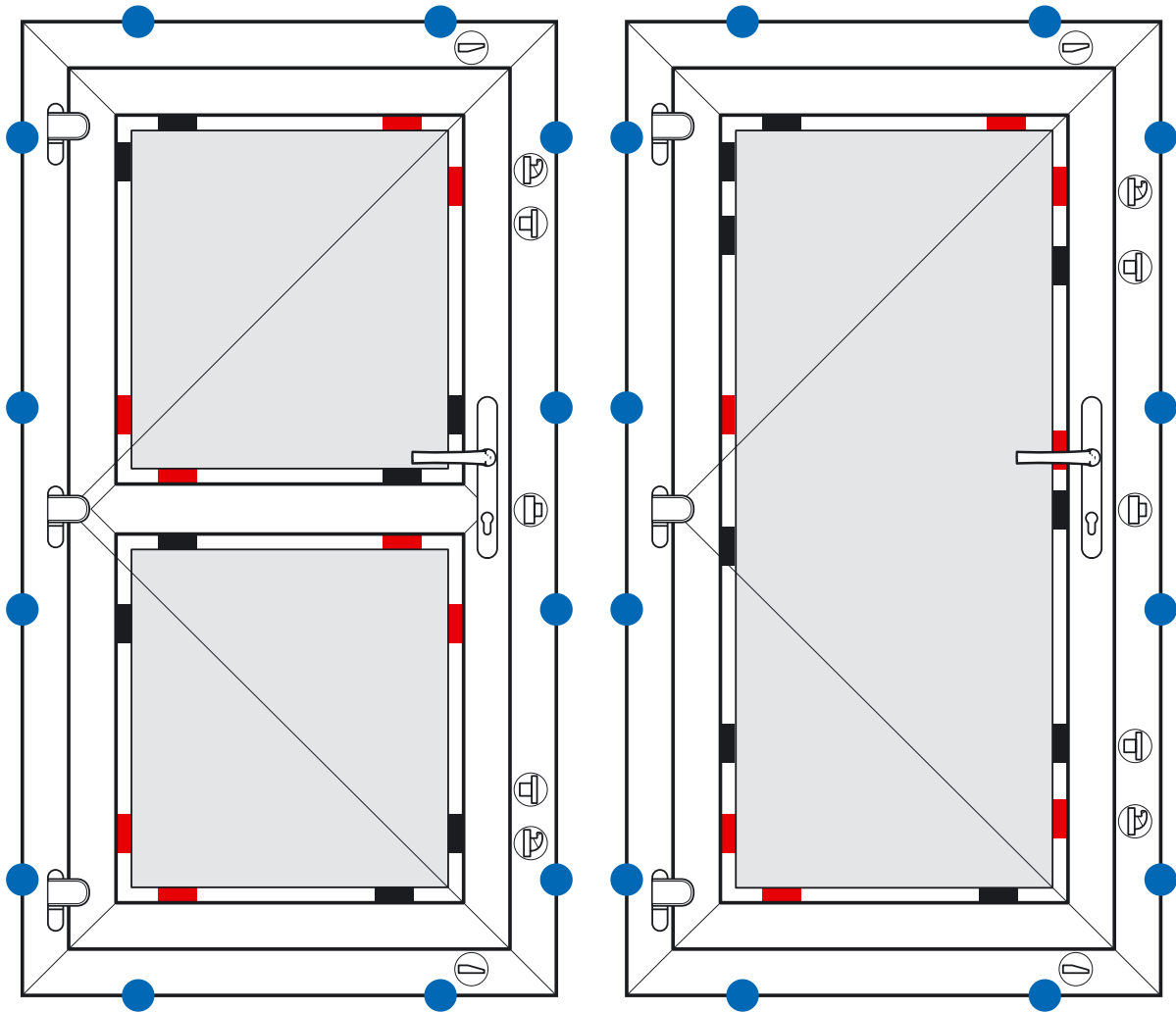
Should be sealed in position during glazing using a high modulus acetoxy silicone.



### **Locking point**

## Fixing & Glazing Packers

### 5. RESIDENTIAL DOOR



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No. fixing 150 - 250 mm from a corner, both horizontally and vertically.
- b) Fixings shall occur at no more than 600 mm centres.
- c) Where frames are coupled together, through frame fixing 100 mm from each end and centres not exceeding 400 mm are recommended.

### **Glazing packer**

Should be sealed in position during glazing using a high modulus acetoxy silicone.

### **Additional glazing packers for enhanced security**

Positioned adjacent to locking points in sashes.

### **Run-up blocks (factory fitted)**

1 No. required (aids with sash positioning on closing the door).

1 No. required (one at the head as an anti-lift block).

### **Locking point (deadbolt)**

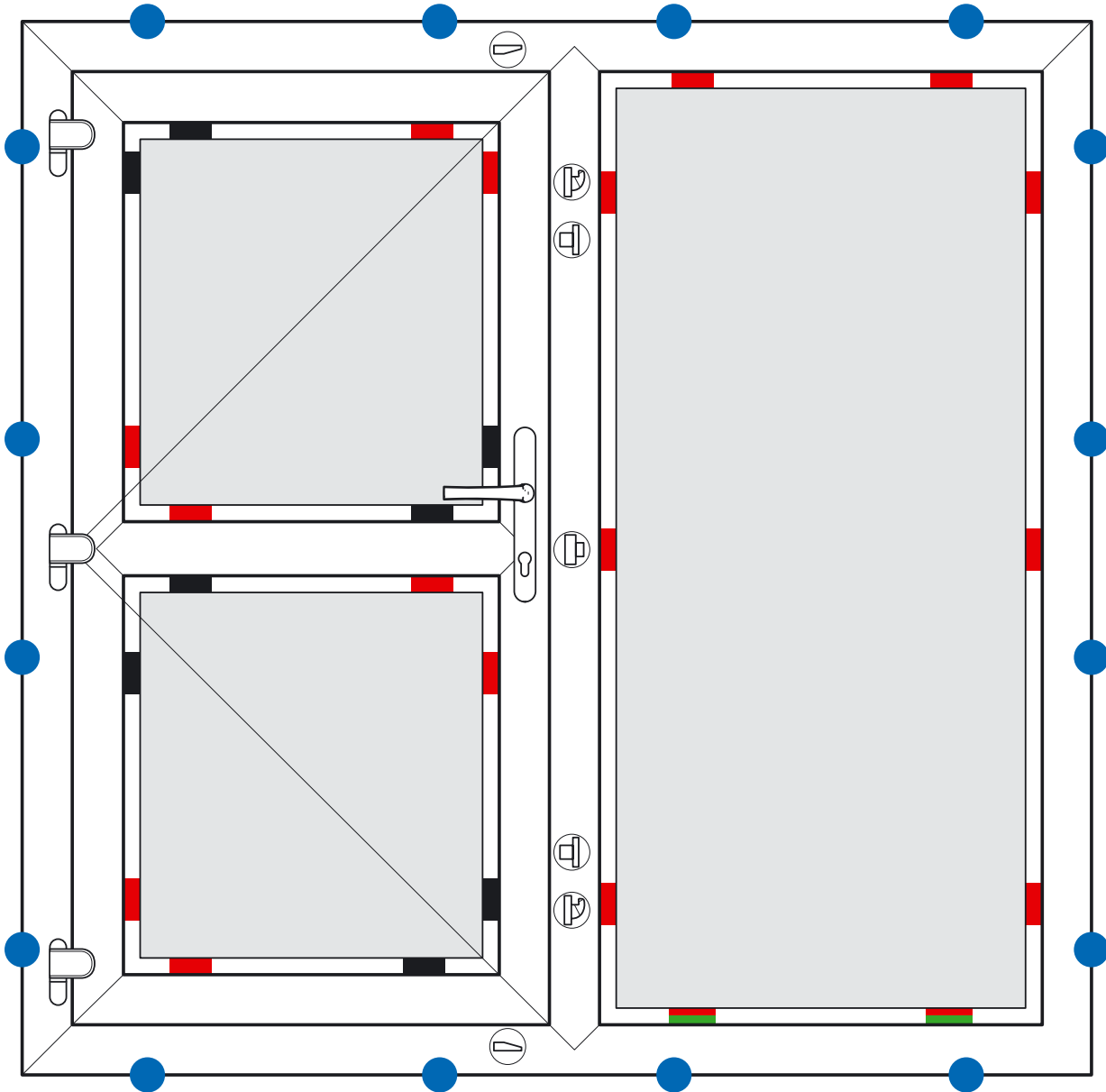
### **Locking point (hook bolt)**

### **Locking point (compression/mushroom cam)**

### **Door hinge**

## Fixing & Glazing Packers

### 6. DOOR AND SIDE SCREEN



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No. fixing 150 - 250mm from a corner, both horizontally and vertically.
- b) 1 No. fixing 150 - 250mm at either side of a mullion or transom where it meets the outer frame.
- c) Fixings shall occur at no more than 600mm centres.
- d) Where frames are coupled together, through frame fixing 100mm from each end and centres not exceeding 400mm are recommended.

### **Bridge packer**

A minimum of two per fixed light, positioned not to interfere with drainage paths. Additional packers are required for lengths greater than 1500mm.

### **Glazing packer**

Should be sealed in position during glazing using a high modulus acetoxy silicone.

### **Additional glazing packers for enhanced security**

Positioned adjacent to locking points of sash.

### **Run-up blocks (factory fitted)**

1 No. required (aids with sash positioning on closing the door).

1 No. required (one at the head as an anti-lift block).

### **Locking point (deadbolt)**

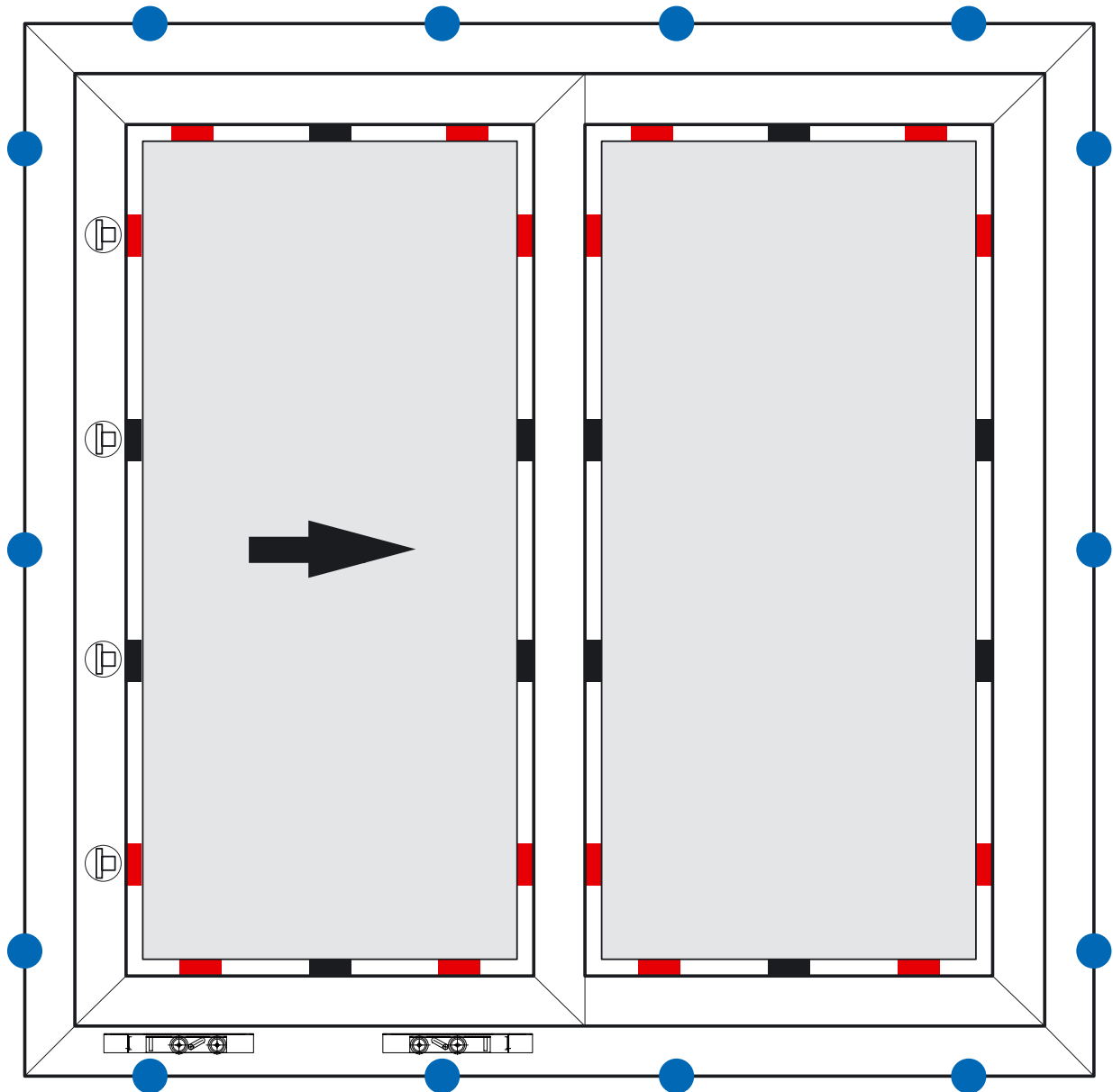
### **Locking point (hook bolt)**

### **Locking point (compression/mushroom cam)**

### **Door hinge**

## Fixing & Glazing Packers

### 7. IN-LINE PATIO



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No. fixing 150 - 250mm from a corner both horizontally and vertically.
- b) Fixings shall occur at no more than 600mm centres.
- c) Where frames are coupled together, through frame fixing 100mm from each end and centres not exceeding 400mm are recommended.

### **Glazing packer**

Should be sealed in position during glazing using a high modulus acetoxy silicone.

### **Additional glazing packers for enhanced security**

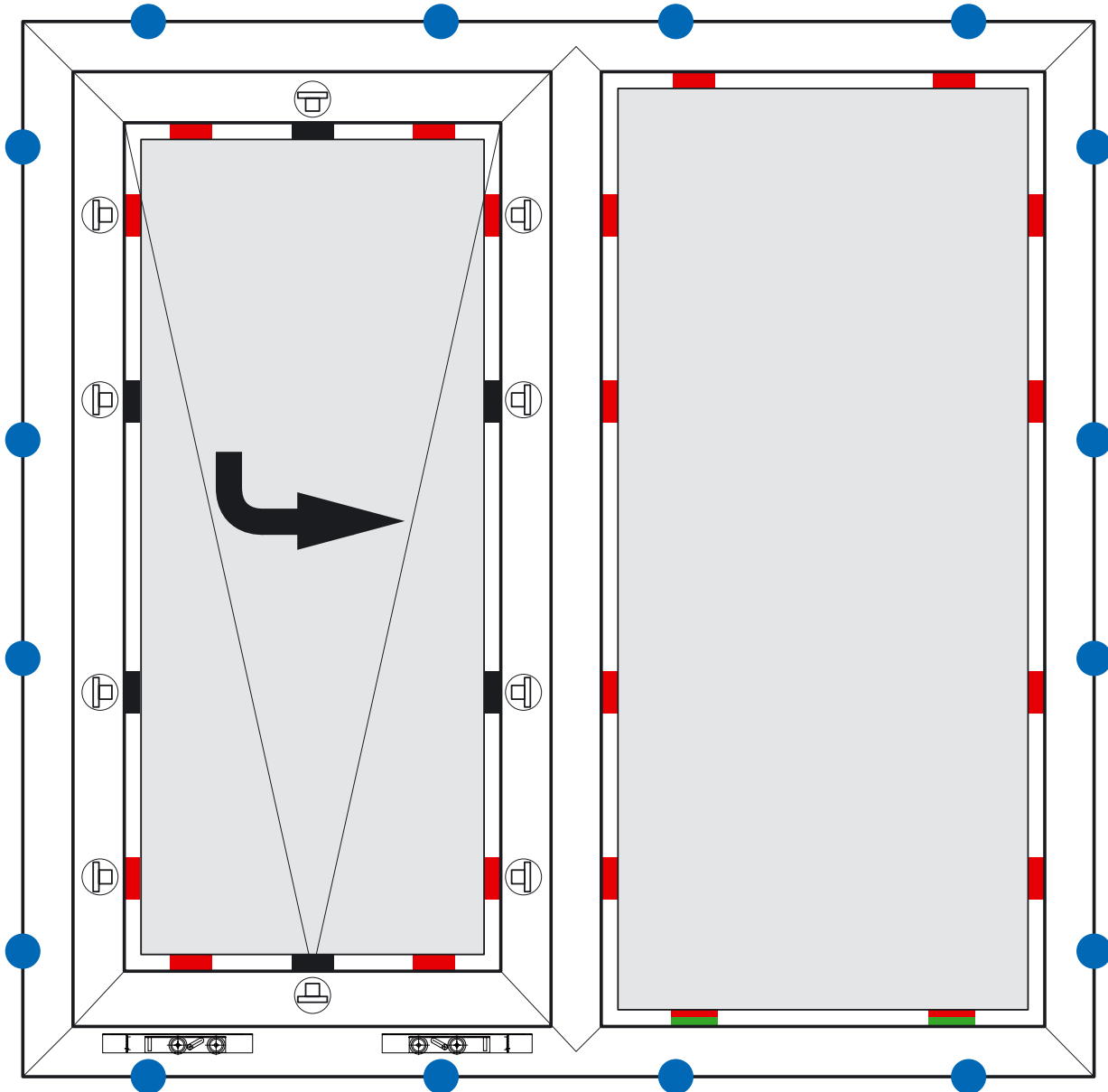
#### **Locking point**

#### **Tandem rollers**



## Fixing & Glazing Packers

### 8. TILT & SLIDE



## Fixing & Glazing Packers

### **Fixing point**

Perimeter fixing shall be positioned as follows:

- a) 1 No fixing 150 - 250mm from a corner both horizontally and vertically.
- b) 1 No fixing 150 - 250mm at either side of a mullion or transom where it meets the outerframe.
- c) Fixings shall occur at no more than 600mm centres.
- d) Where frames are coupled together, through frame fixing 100mm from each end and centres not exceeding 400mm are recommended.

### **Bridge packer**

A minimum of two per fixed light, positioned not to interfere with drainage paths. Additional packers are required for lengths greater than 1500mm.

### **Glazing packer**

Should be sealed in position during glazing using a high modulus acetoxy silicone.

### **Additional glazing packers for enhanced security**

Positioned adjacent to locking points in sashes.

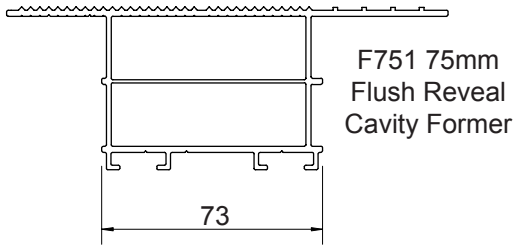


### **Locking point**

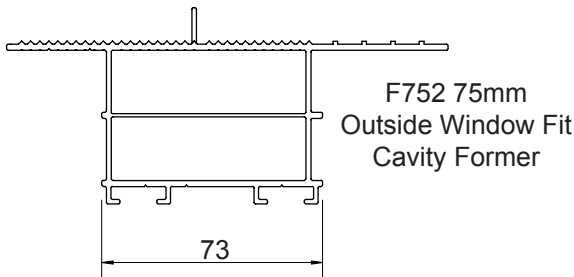
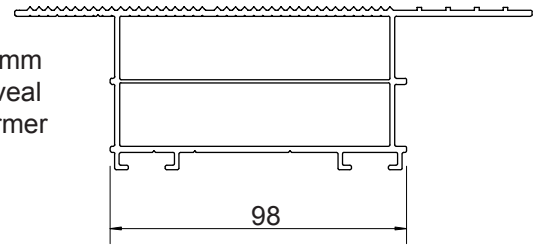


### **Tandem rollers**

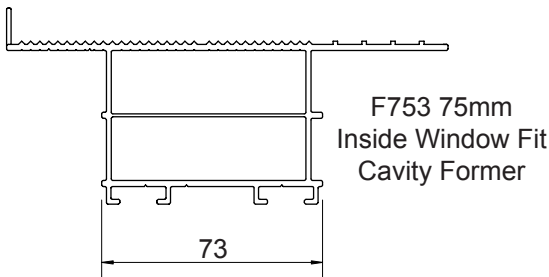
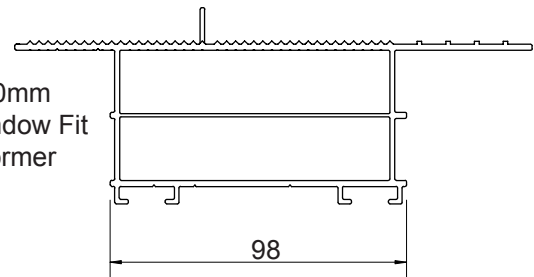
## Frame Former - Cavity Closer Boxes



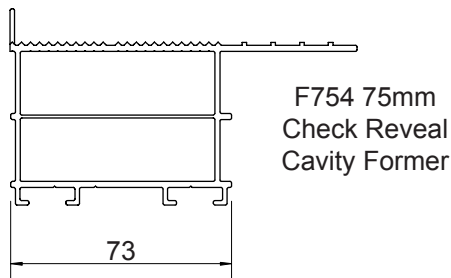
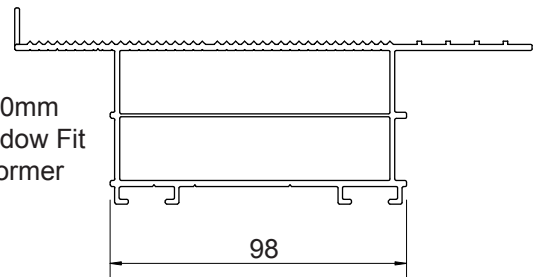
F101 100mm  
Flush Reveal  
Cavity Former



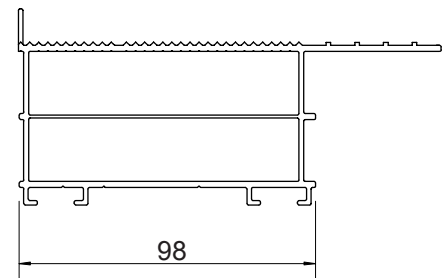
F102 100mm  
Outside Window Fit  
Cavity Former



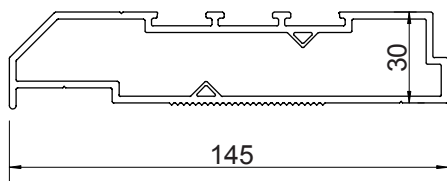
F103 100mm  
Inside Window Fit  
Cavity Former



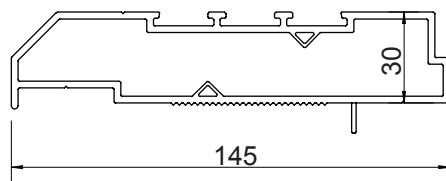
F104 100mm  
Check Reveal  
Cavity Former



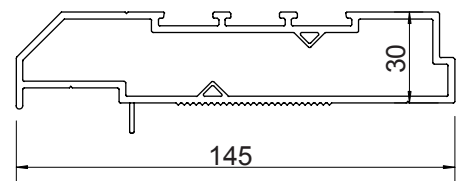
## HEAD VENTS



F031  
Flush Reveal  
Overhead Vent



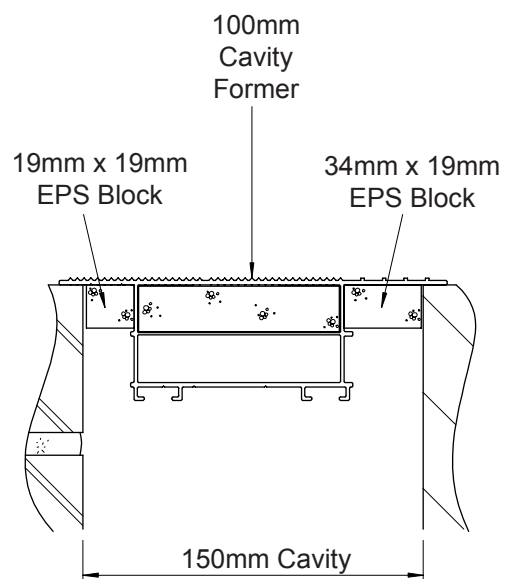
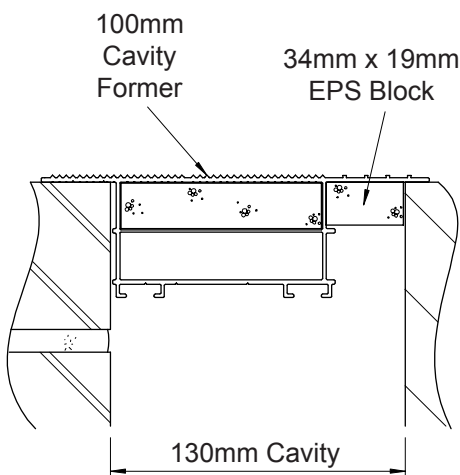
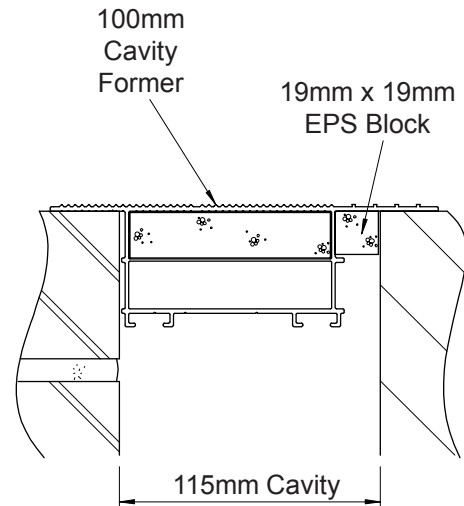
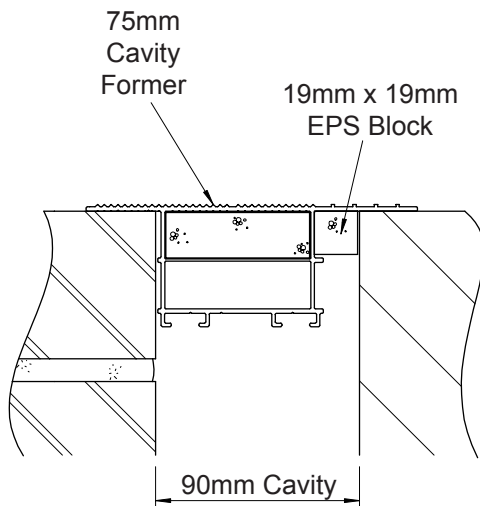
F032  
Outside Window Fit  
Overhead Vent



F033  
Inside Window Fit  
Overhead V

## Former Application - Cavity Sizes

The boxes are to suit 75mm and 100mm cavities as standard. Additional cavity widths can be accommodated, if required, with the addition of expanded polystyrene (EPS) sections bonded to the extrusions.

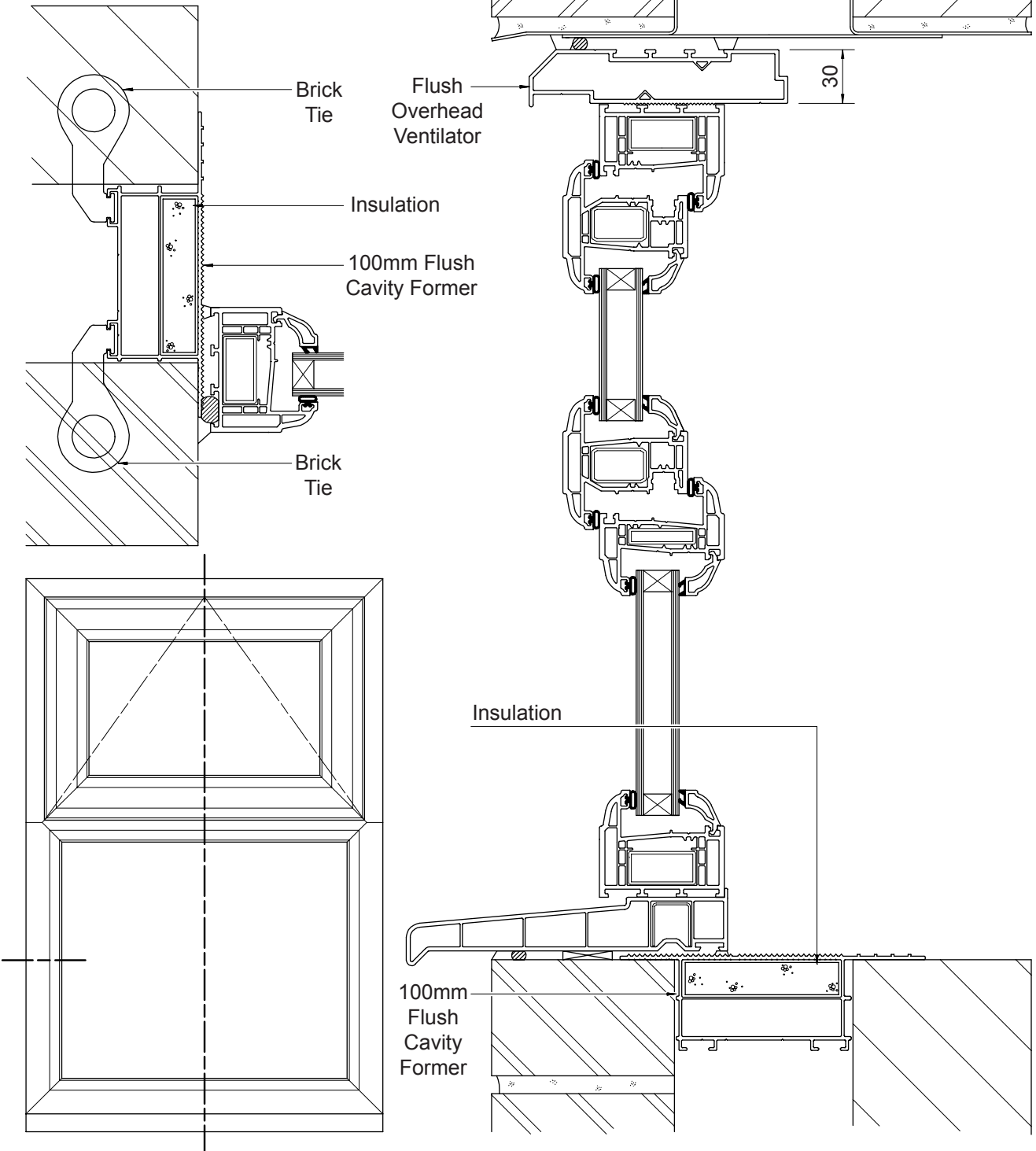


*\* Typical cavity sizes shown, alternative sizes can be accommodated by increasing or decreasing the EPS size.*

## Flush Reveal - 100mm Cavity

100mm Cavity Shown.  
Other cavity sizes can be accommodated. See  
Page FF.2.

**SPECIFICATION**  
100mm Flush Reveal Cavity Former  
30mm Overhead Ventilator

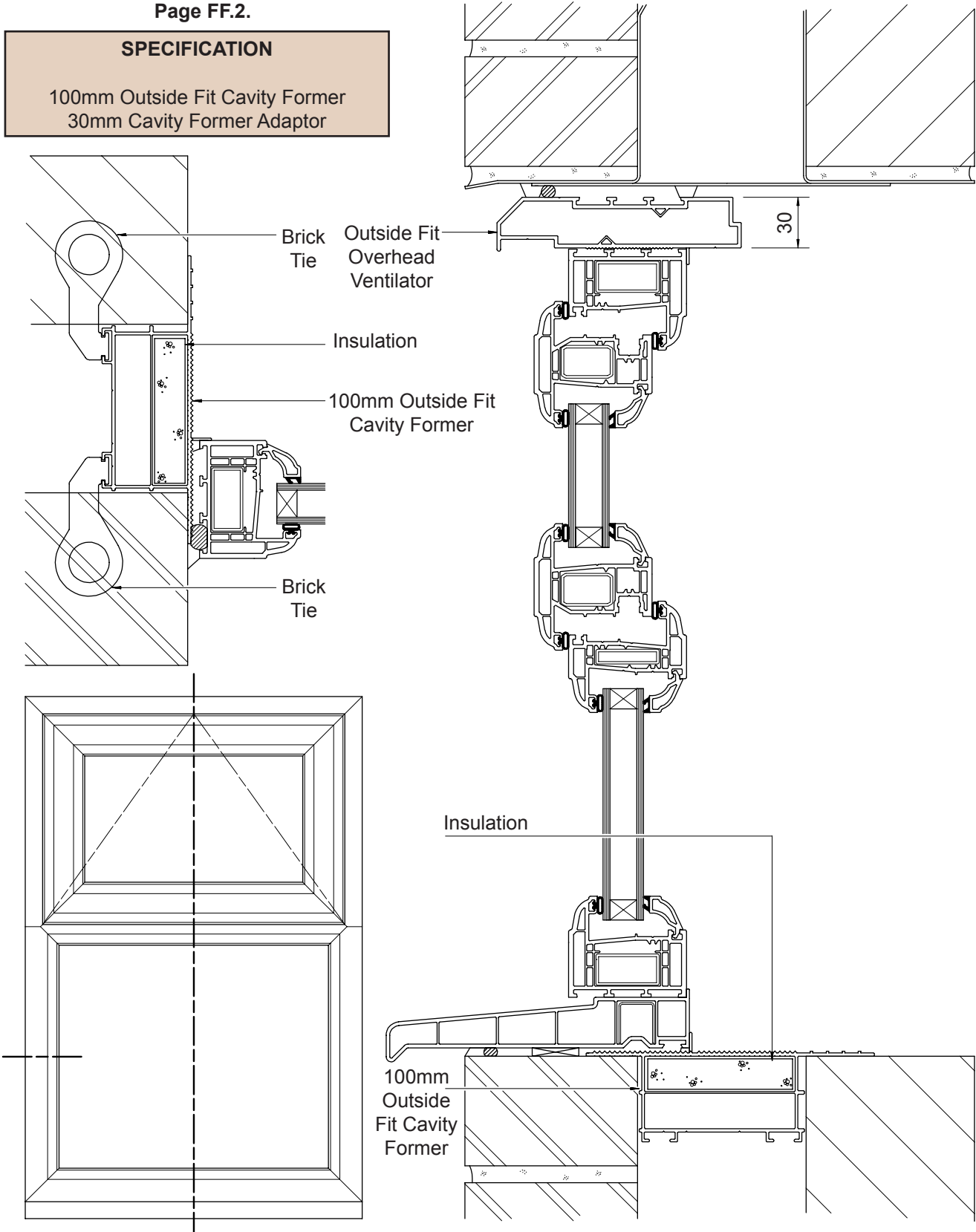




## Outside Window Fit - 100mm Cavity

100mm Cavity Shown.  
Other cavity sizes can be accommodated. See  
Page FF.2.

**SPECIFICATION**  
100mm Outside Fit Cavity Former  
30mm Cavity Former Adaptor



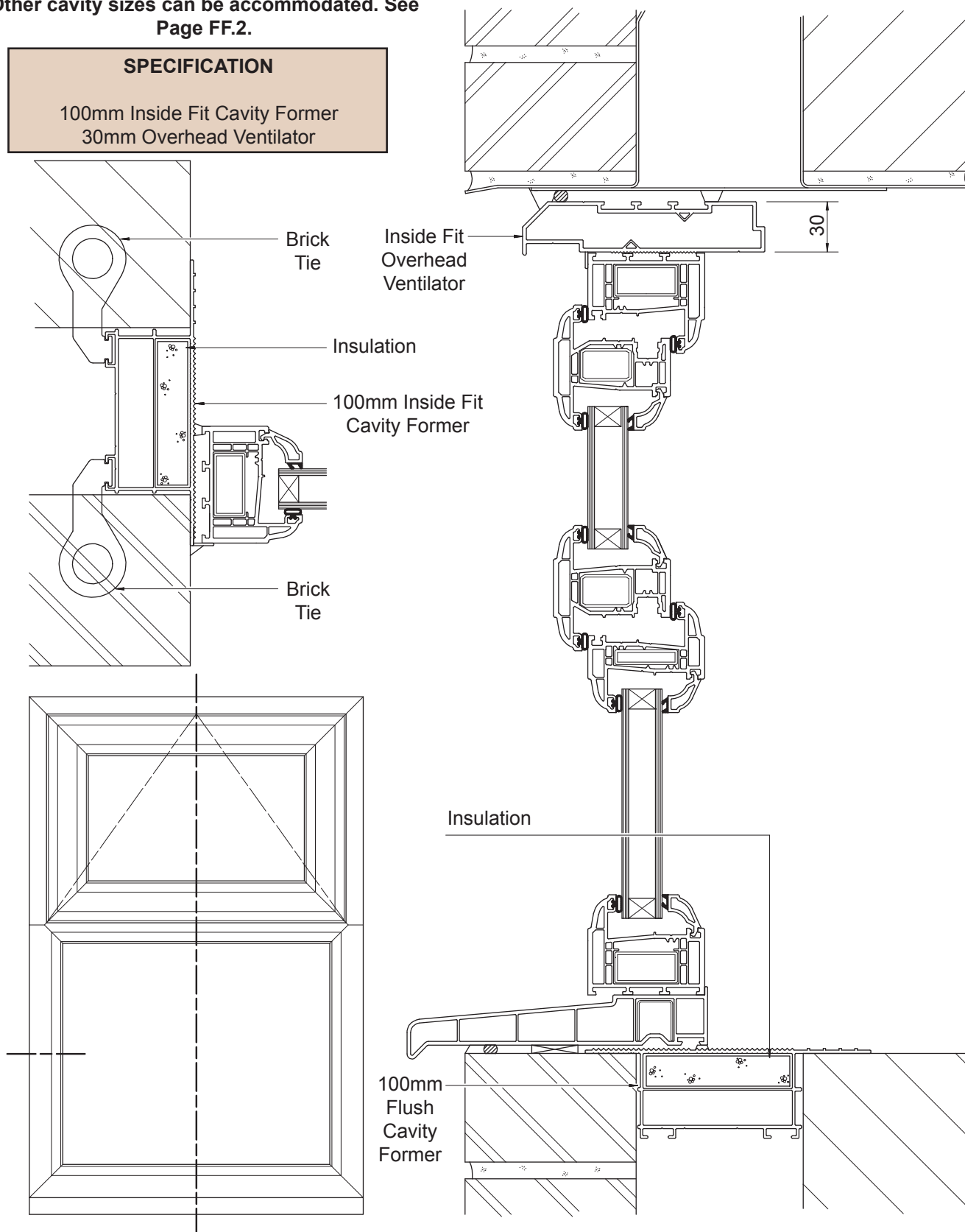
## Inside Window Fit - 100mm Cavity

100mm Cavity Shown.

Other cavity sizes can be accommodated. See Page FF.2.

### SPECIFICATION

100mm Inside Fit Cavity Former  
30mm Overhead Ventilator



## Check Reveal - 100mm Cavity

100mm Cavity Shown.  
Other cavity sizes can be accommodated. See  
Page FF.2.

### SPECIFICATION

100mm Check Reveal Cavity Former  
30mm Overhead Ventilator

