

Section 2.0

Tilt / Turn Windows



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Tilt / Turn Window
Bevelled profiles shown
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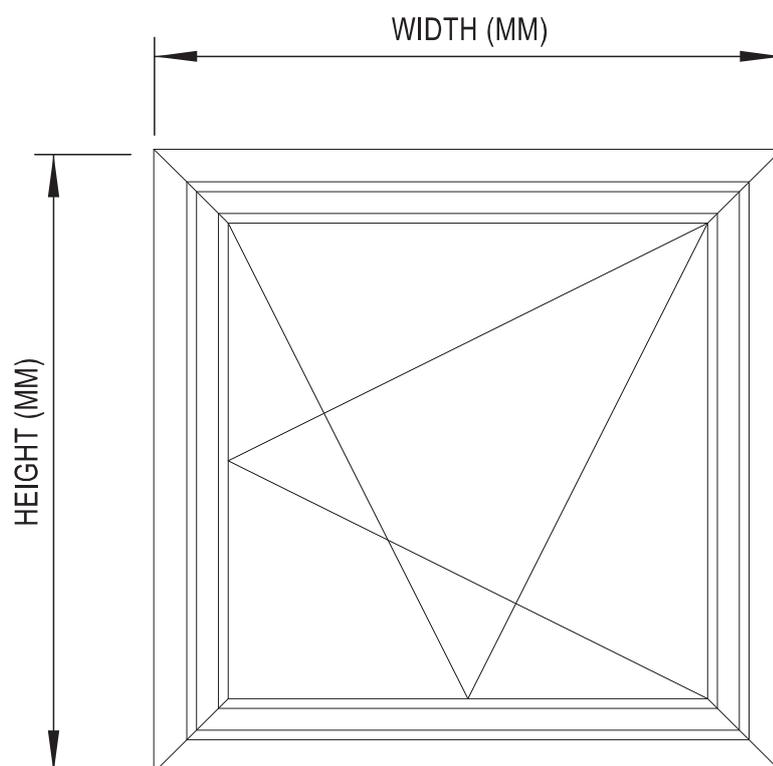
2.1 Size Limitations

Size limitations for the Casement Windows are indicated below

Tilt / Turn

Min Size = 430mm Wide x 610mm High

Max Size = 1600mm Wide x 1600mm High



Note - the above sizes are exclusive of add-on and cill

Alternative sizes outside of the minimum and maximum sizes can be manufactured, however this may effect your guarantee.

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2.2 Fire Egress Minimum Requirements



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Below are the minimum basic frame sizes required to achieve a 450mm clear opening.

Note:

To meet the current Building Regulations the window should have an unobstructed openable area that is at least 0.33m² and at least 450mm high and 450mm wide.

In order to achieve a 450mm wide opening the overall window width should be no less than 620mm

In order to achieve a 450mm high opening the overall window height should be no less than 600mm

Regardless of the minimum frame size required to achieve the 450mm clear opening the overall unobstructed openable area should be no less than 0.33m² e.g 450mm x 750mm minimum.

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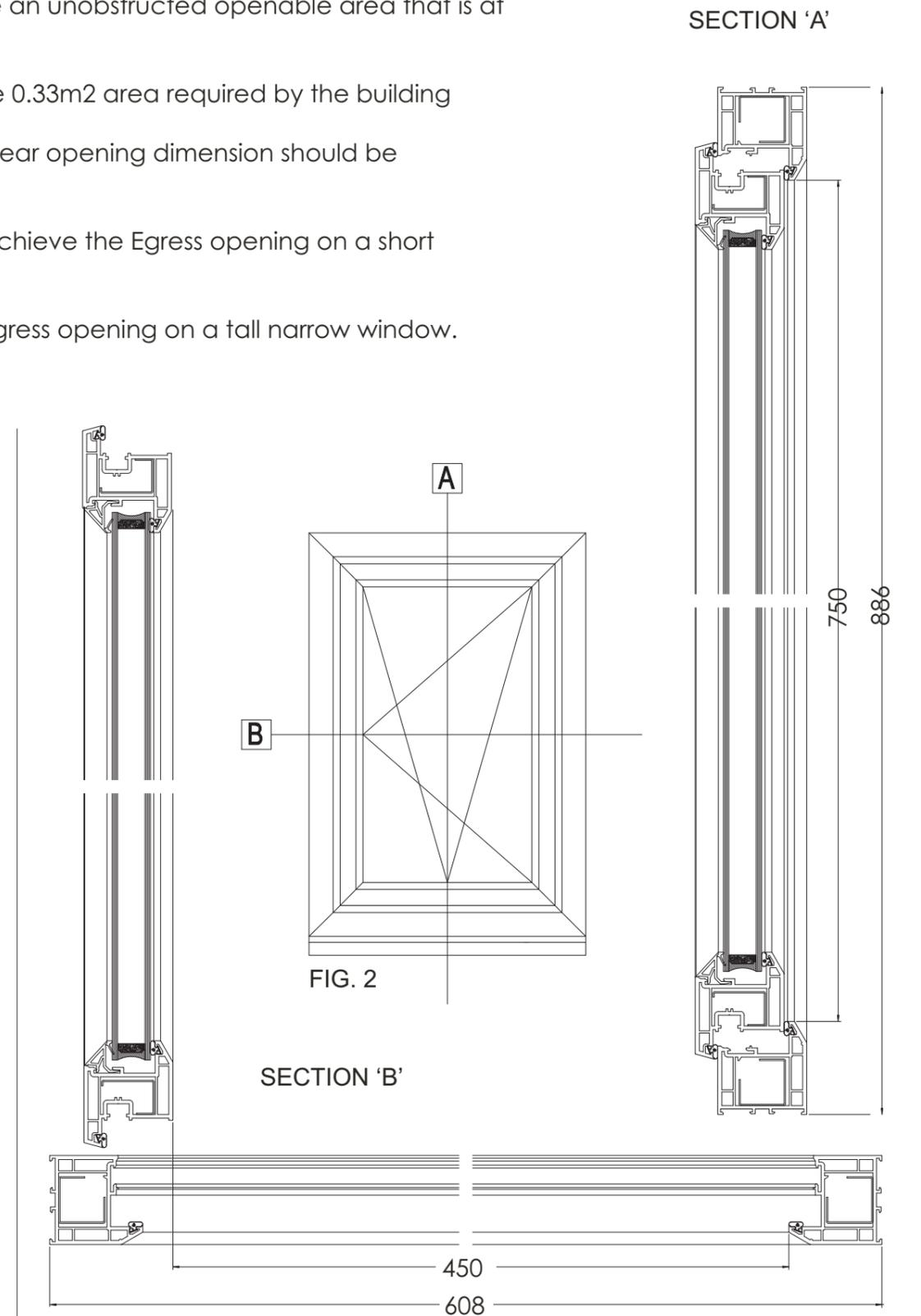
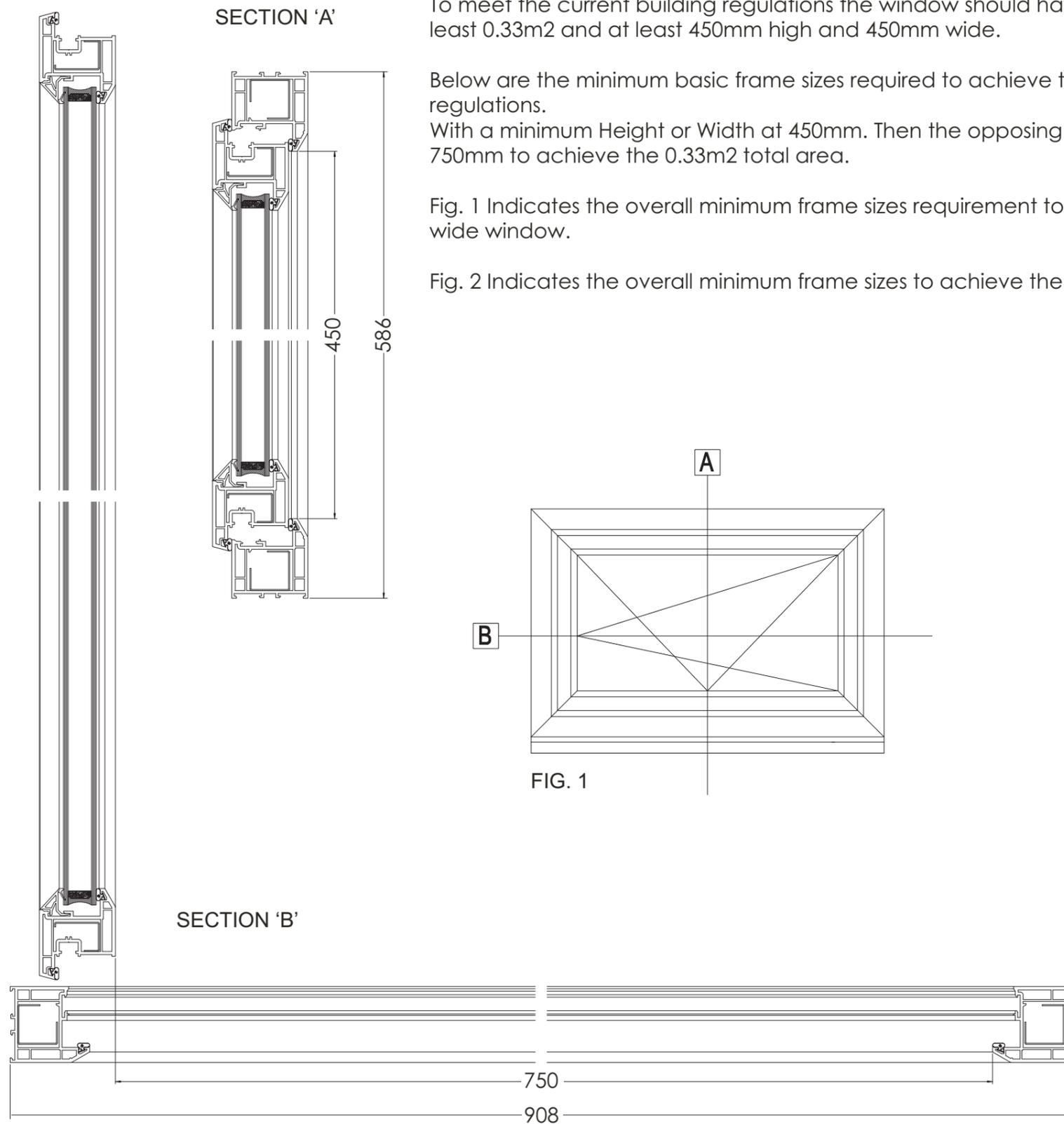
2.2 Fire Egress Minimum Requirements

To meet the current building regulations the window should have an unobstructed openable area that is at least 0.33m² and at least 450mm high and 450mm wide.

Below are the minimum basic frame sizes required to achieve the 0.33m² area required by the building regulations.
 With a minimum Height or Width at 450mm. Then the opposing clear opening dimension should be 750mm to achieve the 0.33m² total area.

Fig. 1 Indicates the overall minimum frame sizes requirement to achieve the Egress opening on a short wide window.

Fig. 2 Indicates the overall minimum frame sizes to achieve the Egress opening on a tall narrow window.



Tilt / Turn Window
 Bevelled profiles shown
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2.3 Reinforcement Specification

Outer Frame

Head of all frames where the width exceeds 1250mm.

Jambs to be fully reinforced when coupled to another product and on all bows and bays.

All members that require hinge fixing.

Transom / Mullions

All mechanically jointed sections to be fully reinforced with a continuous length of reinforcing.

Welded sections to be reinforced on all lengths over 800mm, this includes cruciform joints.

Any section which has an opening sash closing on to it, that is longer than 600mm.

All members that require hinge fixings.

Sash

All widths.

All jambs exceeding 700mm.

Note:-

all reinforcing members must be continuous, with the exception of cruciforms where the vertical member should

be the continuous and the horizontal broken. Reinforcing of welded joints must be carried out immediately after welding.

This will then allow the reinforcing to be pushed past the weld sprue while it is still soft.

Foil Products

All members on all occasions.

Note:-

Steel sections can be used as shown. Alternative steel sections may be used upon approval from the UK Window Group.

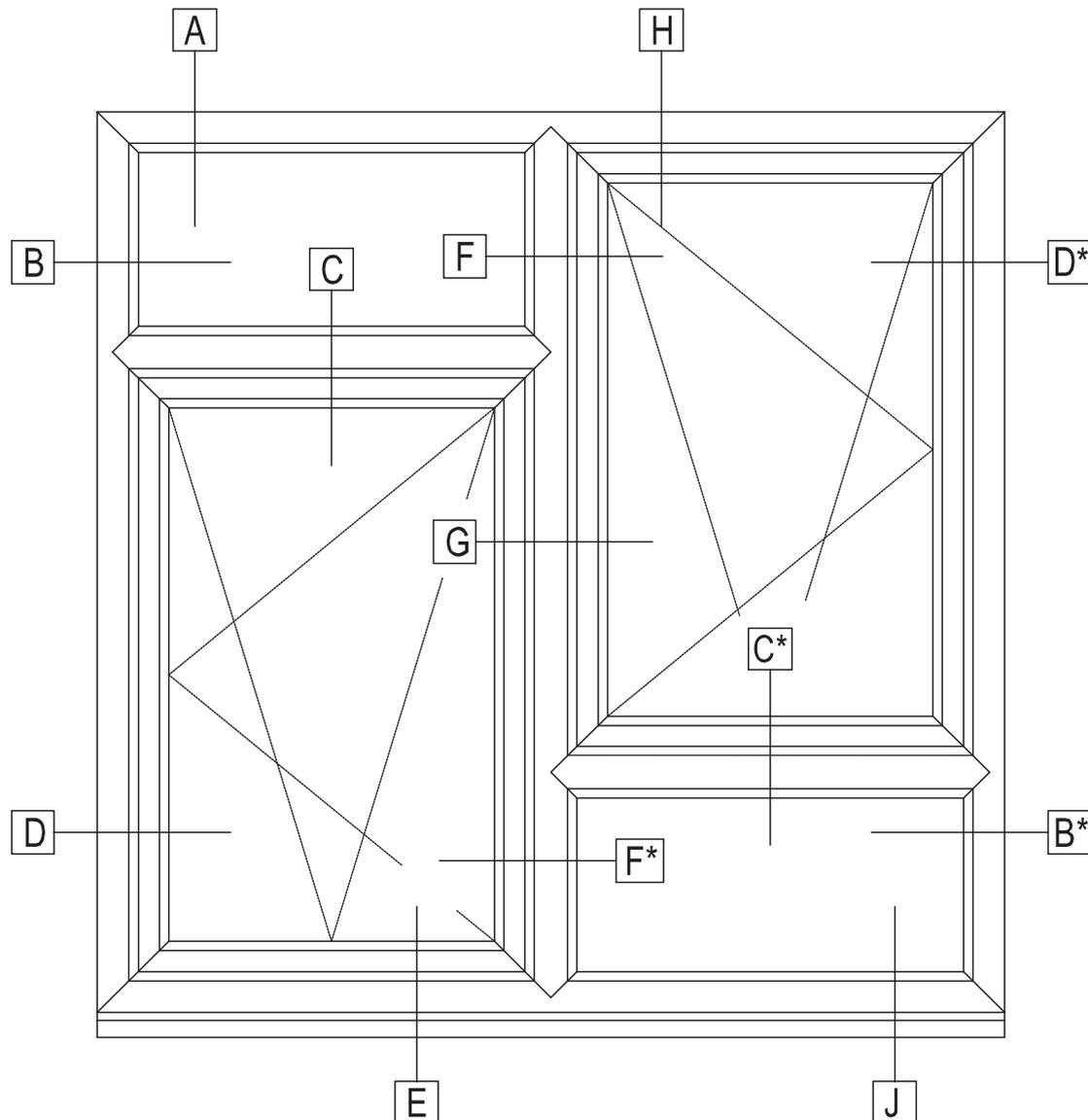
Tilt / Turn Window

Bevelled profiles shown

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2.4 General Arrangements

The following section shows typical cross sectional details through a Tilt / Turn window as indicated in the diagram below. The design of the window below has been created to best show the majority of the cross sections available



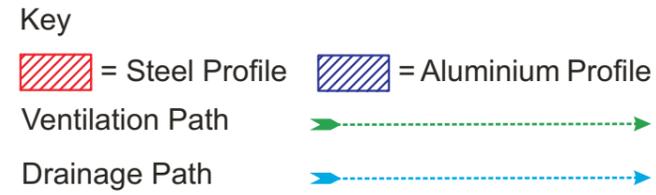
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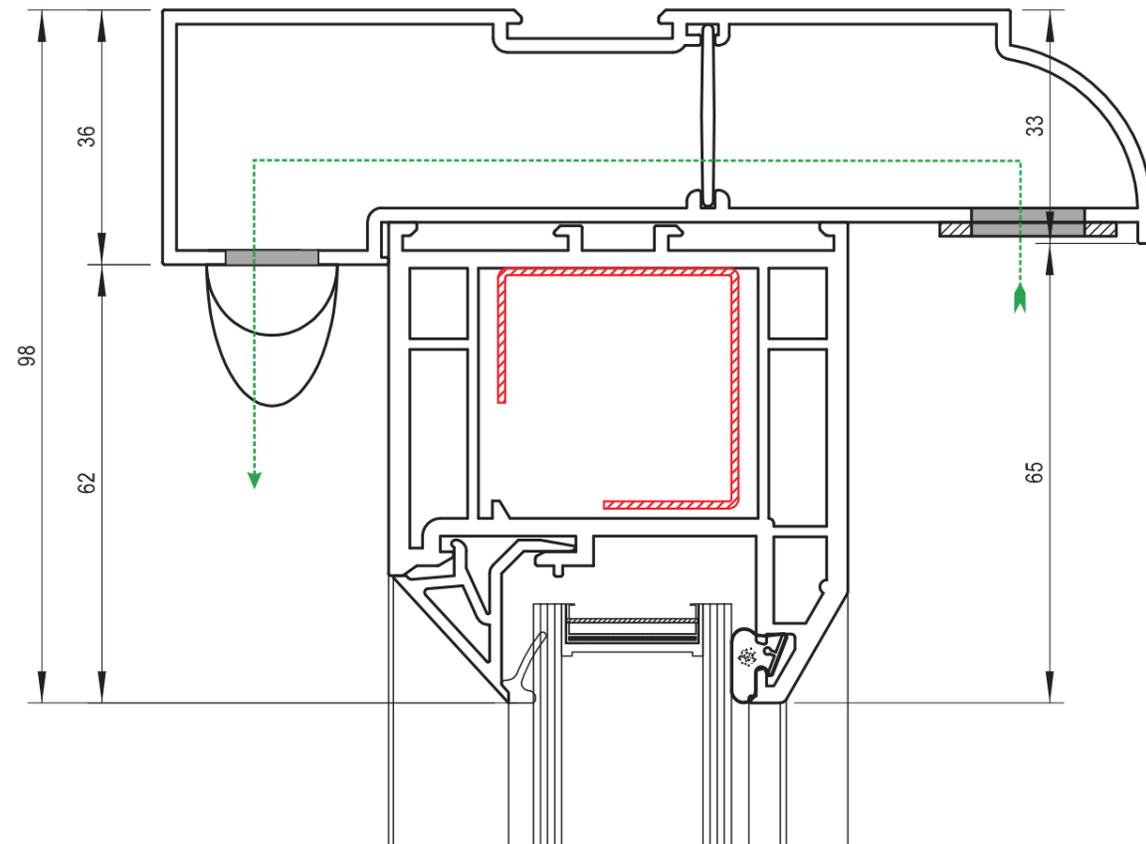
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2.4.1 Section - A

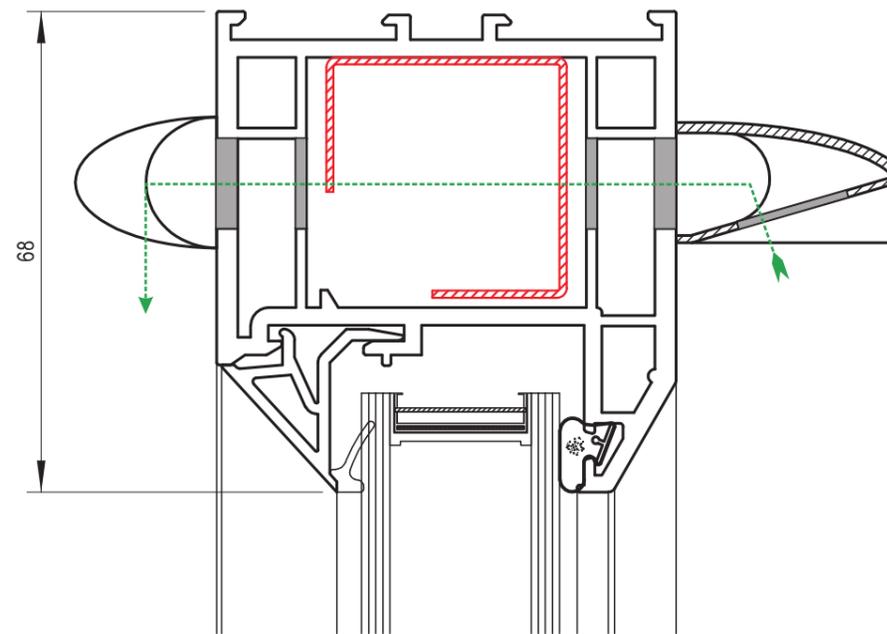
Head Ventilation - Fixed Light



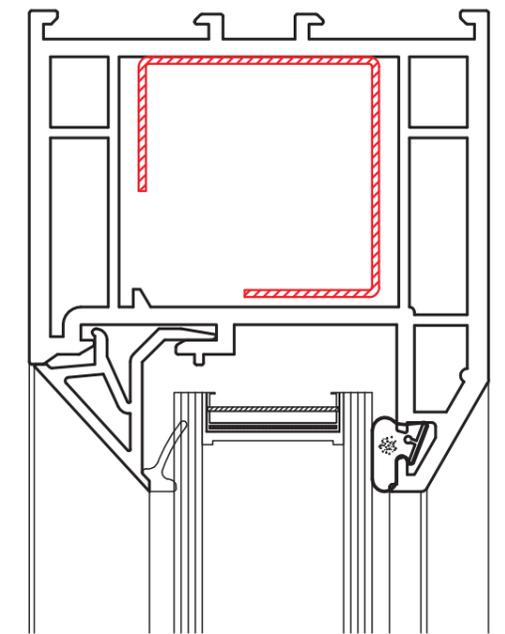
Duravent



Large Outer Frame (With Vent)



Large Outer Frame (Without Vent)

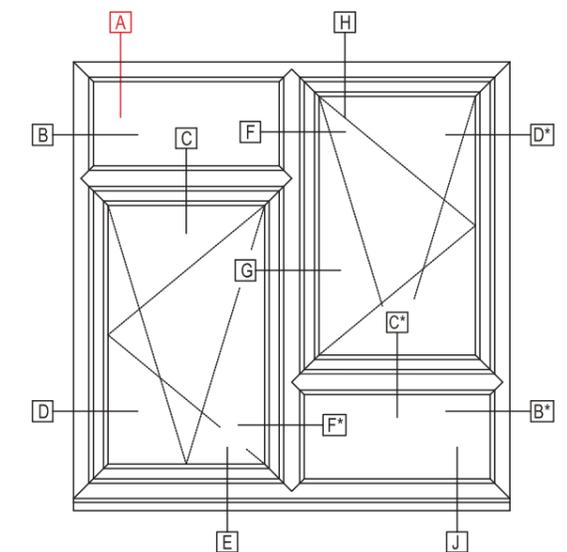


Profile Descriptions & Part No.s

Duravent - 9107,
Duravent Internal Support - 9108,
Outer Frame - 6002,
Titon XS 13 Ventilator (Inside) - flat grill (Outside),
Outer Frame Reinforcement - 3569s,
28mm Bevelled Bead - 5851

Profile Descriptions & Part No.s

Outer Frame - 6002,
Titon XS 13 Ventilator,
Outer Frame Reinforcement - 3569s,
28mm Bevelled Bead - 5851



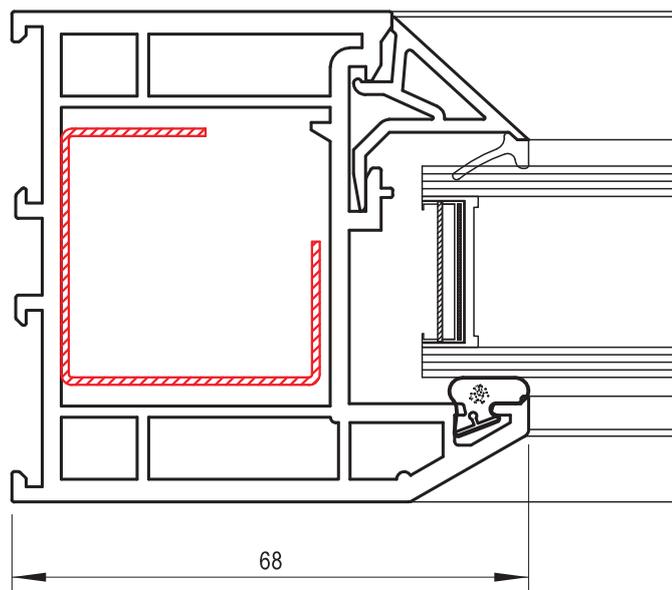
Tilt / Turn Window
Bevelled profiles shown
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2.4.2 Section - B & B*

Outer Frame - Fixed Light

Section B* is a mirror image of section B

Inside



Outside

Key

 = Steel Profile

 = Aluminium Profile

Profile Descriptions & Part No.s

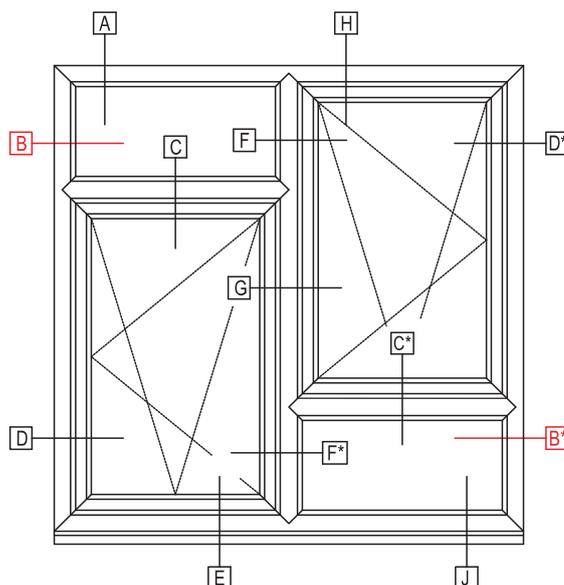
Outer Frame - 6002,
Outer Frame Reinforcement - 3569s,
28mm Bevelled Bead - 5851,

Tilt / Turn Window

Bevelled profiles shown
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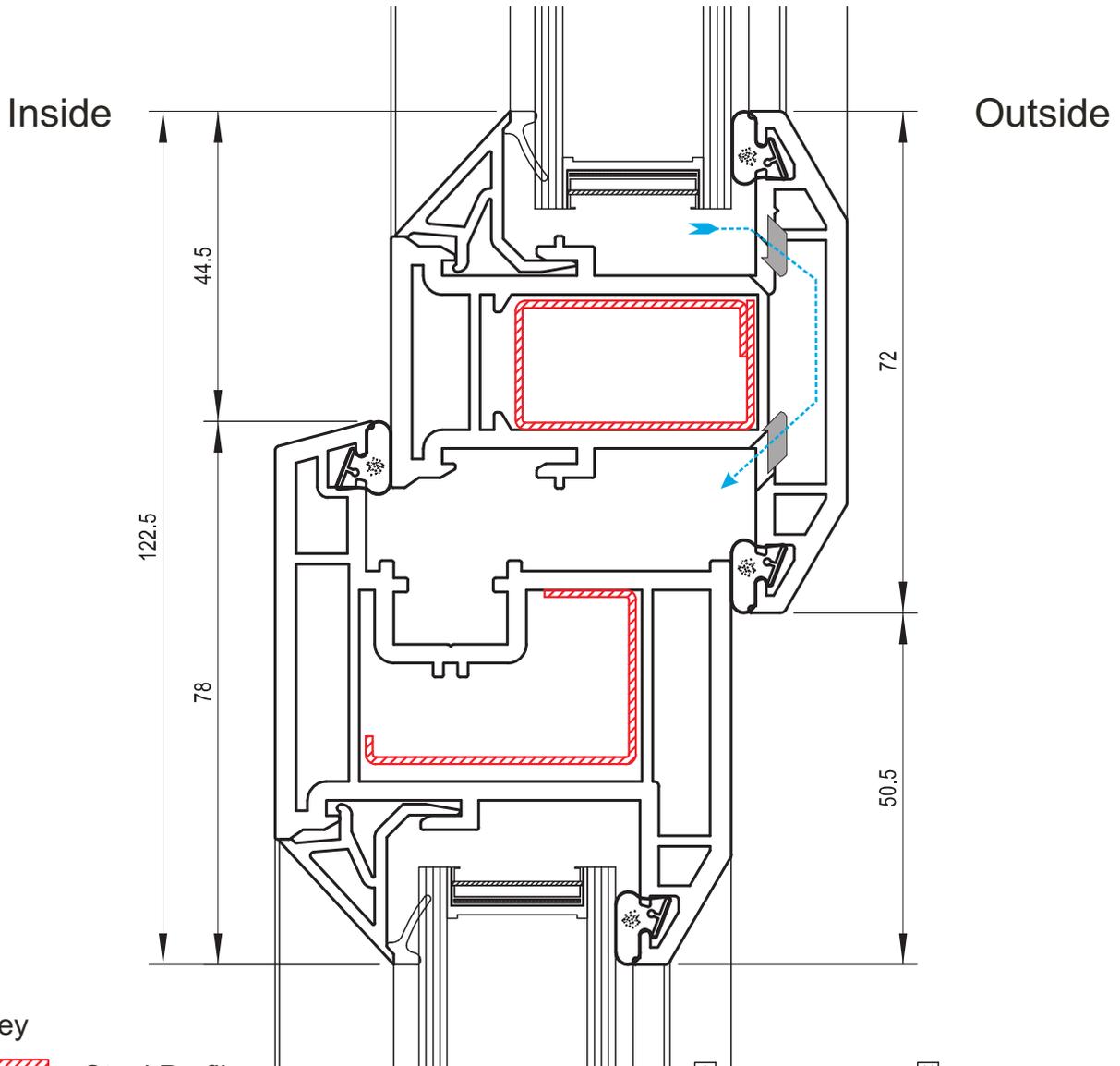
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2.4.3 Section - C & C*

Transom - Sash

Section C* is a mirror image of section C



Key

 = Steel Profile

 = Aluminium Profile

 = Drainage Path

Profile Descriptions & Part No.s

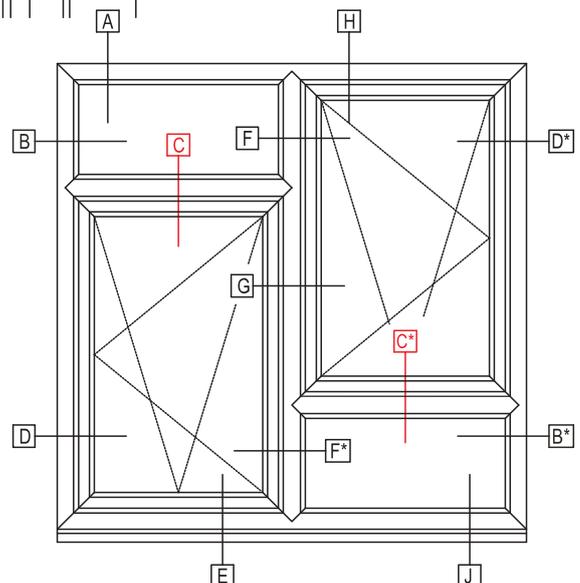
- Transom - 6032,
- Transom Reinforcement - 3571s,
- Tilt / Turn Sash 6064,
- Tilt / Turn Sash Reinforcer - 3577s,
- 28mm Bevelled Beads - 5851

Tilt / Turn Window

Bevelled profiles shown
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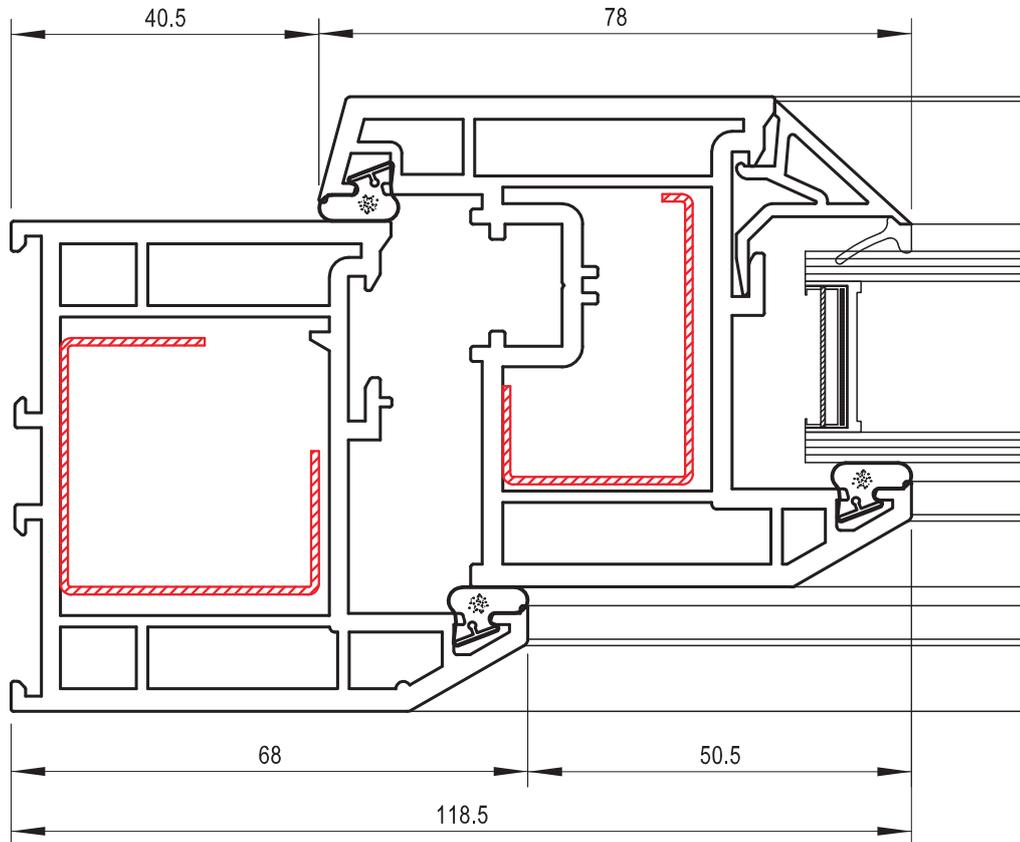


2.4.4 Section - D & D*

Outer Frame - Sash

Section D* is a mirror image of section D

Inside



Outside

Key

 = Steel Profile

 = Aluminium Profile

Profile Descriptions & Part No.s

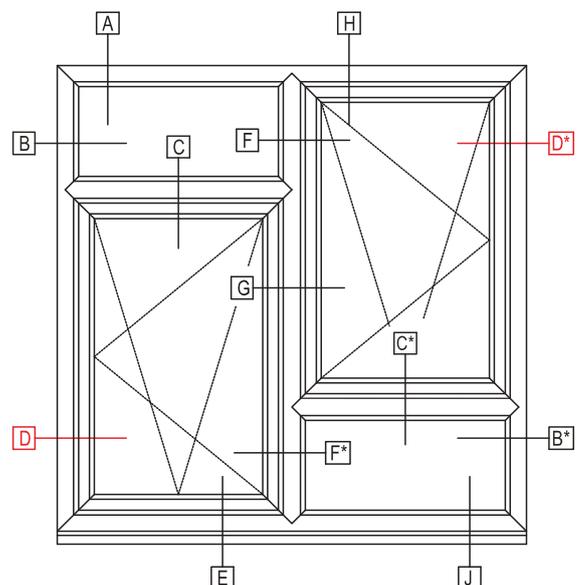
Outer Frame - 6002,
Outer Frame Reinforcer - 3569s,
Tilt / Turn Sash 6064,
Tilt / Turn Sash Reinforcer - 3577s,
28mm Bevelled Bead - 5851

Tilt / Turn Window

Bevelled profiles shown
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2.4.5 Section - E & J

Standard Cill Options

Key

 = Steel Profile  = Aluminium Profile

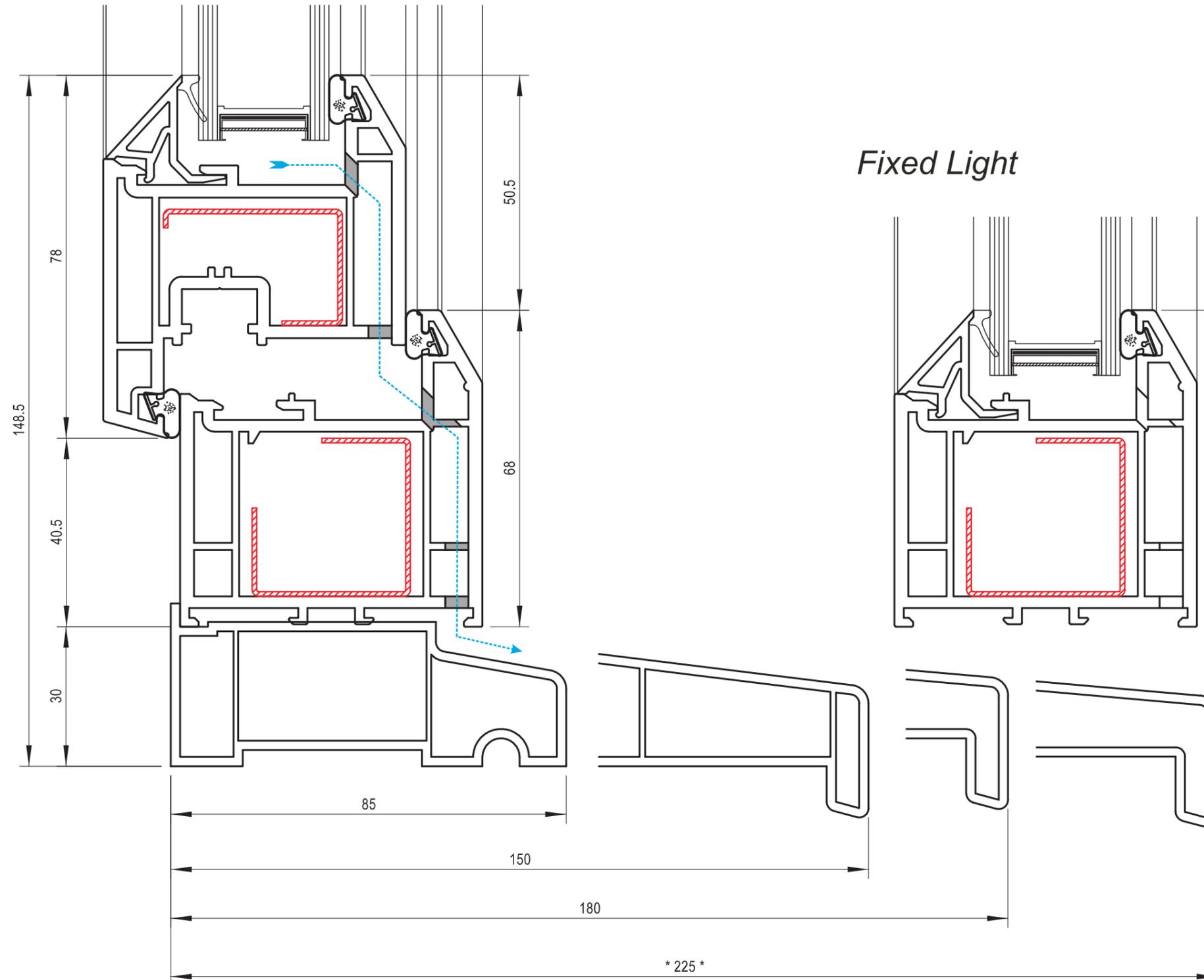
Ventilation Path 

Drainage Path 

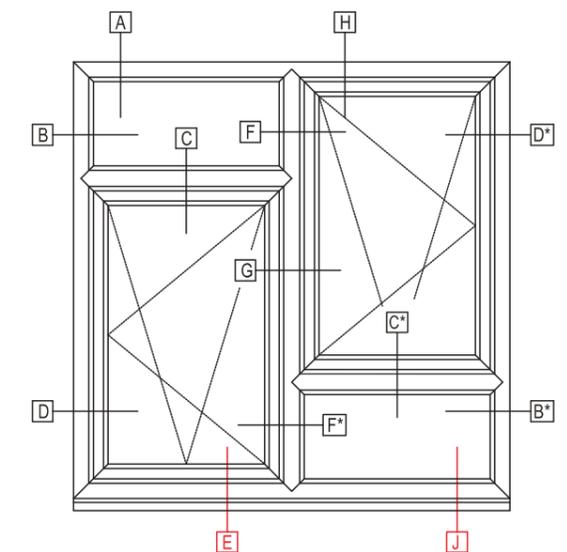
Profile Descriptions & Part No.s

Tilt / Turn Sash - 6064,
Tilt / Turn Sash Reinforcer - 3577s,
Outer Frame - 6002,
Outer Frame Reinforcer - 3569s'
28mm Bevelled Bead - 5851,
85mm Stub Cill - 3680,
150mm Cill - 3640,
180mm Cill - 2182,
* 225mm Cill - By Others (34mm Base Height)
Please use suitable packing to ensure cill sits squarely to frame.

Sash



Fixed Light



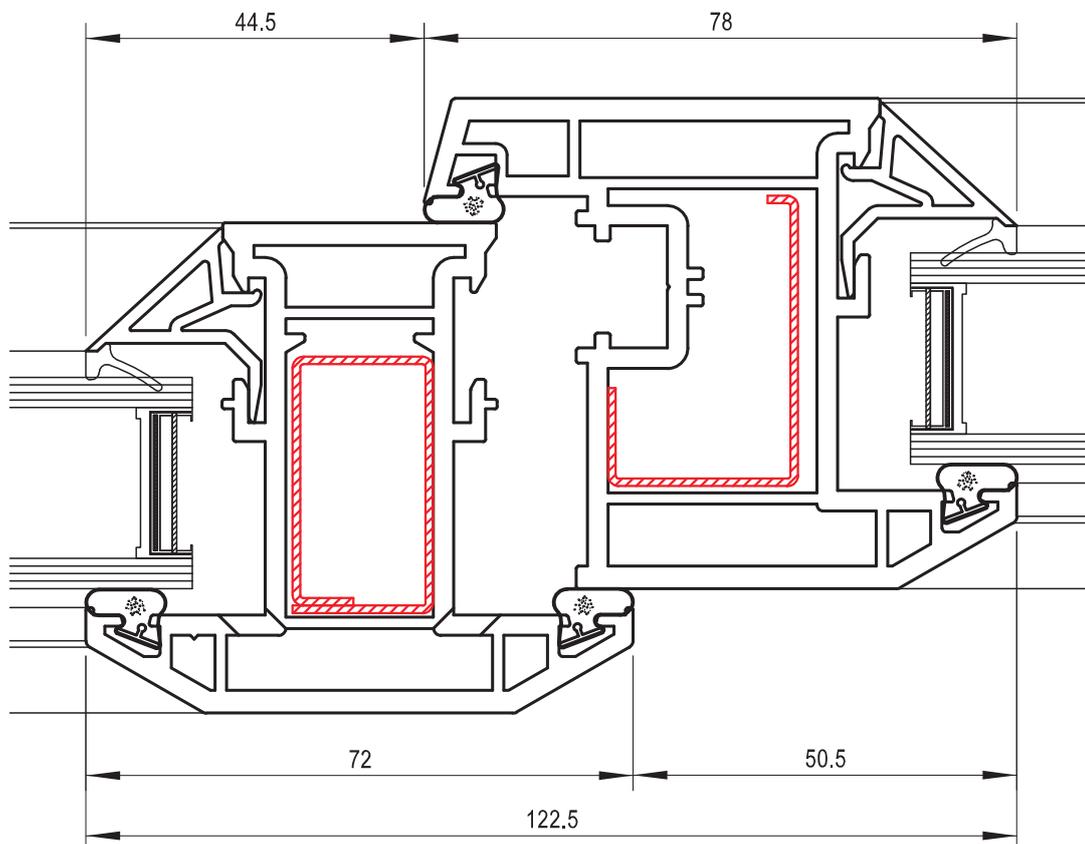
Tilt / Turn Window
Bevelled profiles shown
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2.4.6 Section - F & F*

Fixed Light - Mullion - Sash

Section F* is a mirror image of section F

Inside



Outside

Key

 = Steel Profile

 = Aluminium Profile

Profile Descriptions & Part No.s

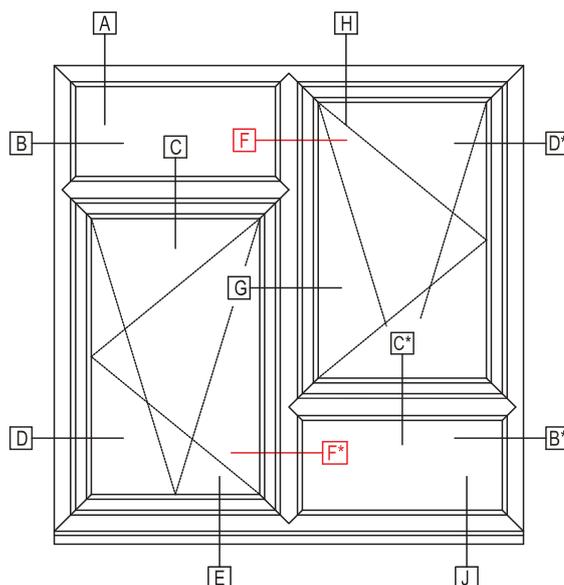
Mullion - 6032,

Mullion Reinforcer - 3571s,

Tilt / Turn Sash 6064,

Tilt / Turn Sash Reinforcer - 3577s,

28mm Bevelled Beads - 5851



Tilt / Turn Window

Bevelled profiles shown

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2.4.7 Section - G

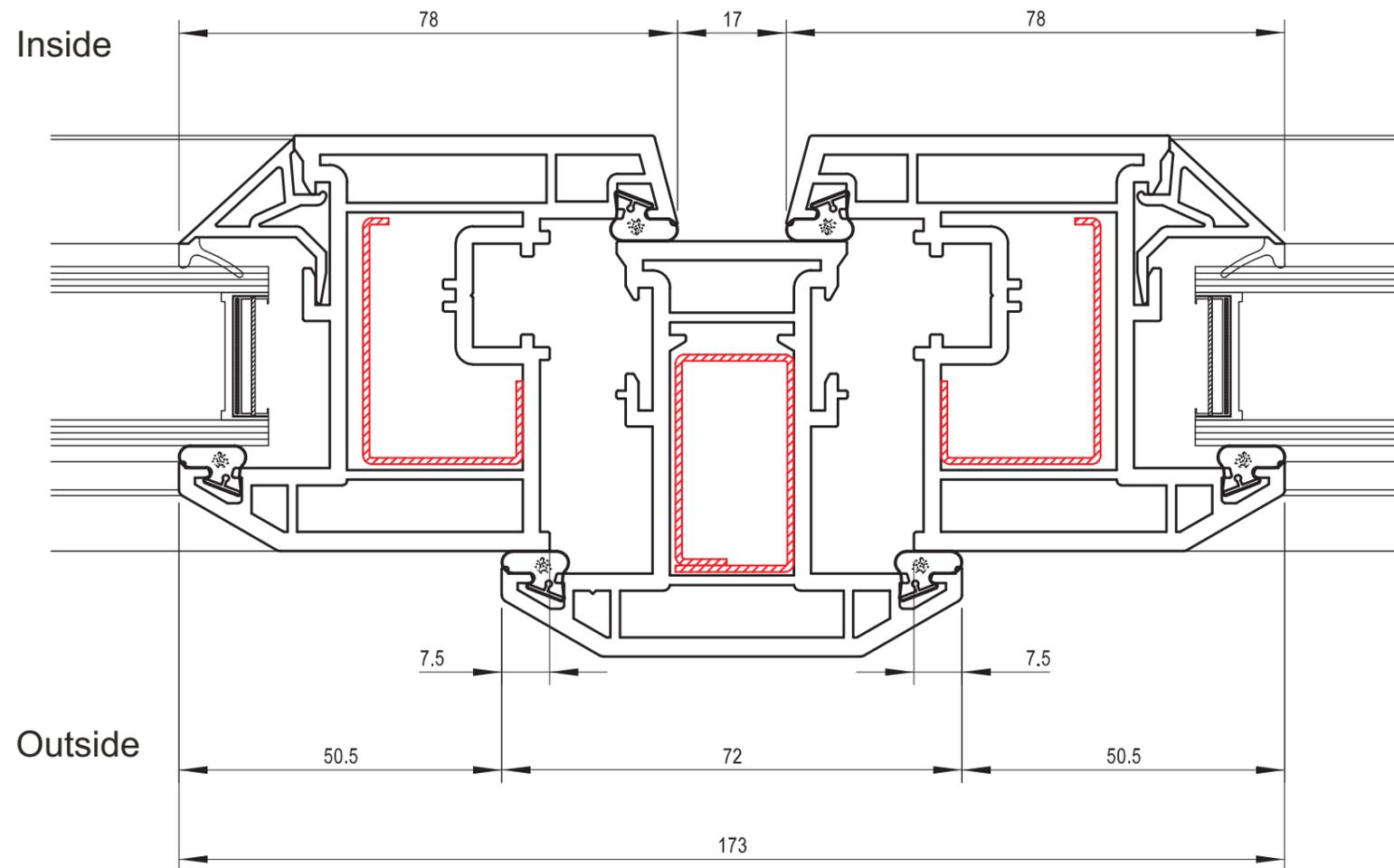
Sash - Mullion - Sash

Key

 = Steel Profile  = Aluminium Profile

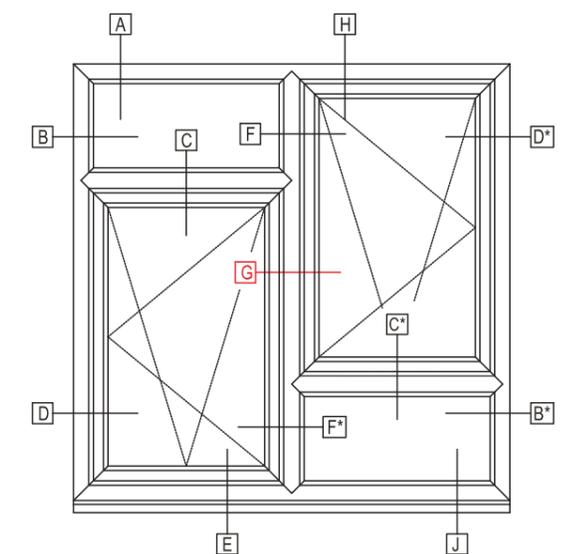
Ventilation Path 

Drainage Path 



Profile Descriptions & Part No.s

Tilt / Turn Sash - 6064,
Tilt / Turn Sash Reinforcer - 3577s,
Mullion - 6032,
Mullion Reinforcer - 3571s'
28mm Bevelled Bead - 5851,



Tilt / Turn Window
Bevelled profiles shown
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2.4.8 Section - H

Head Ventilation - Sash

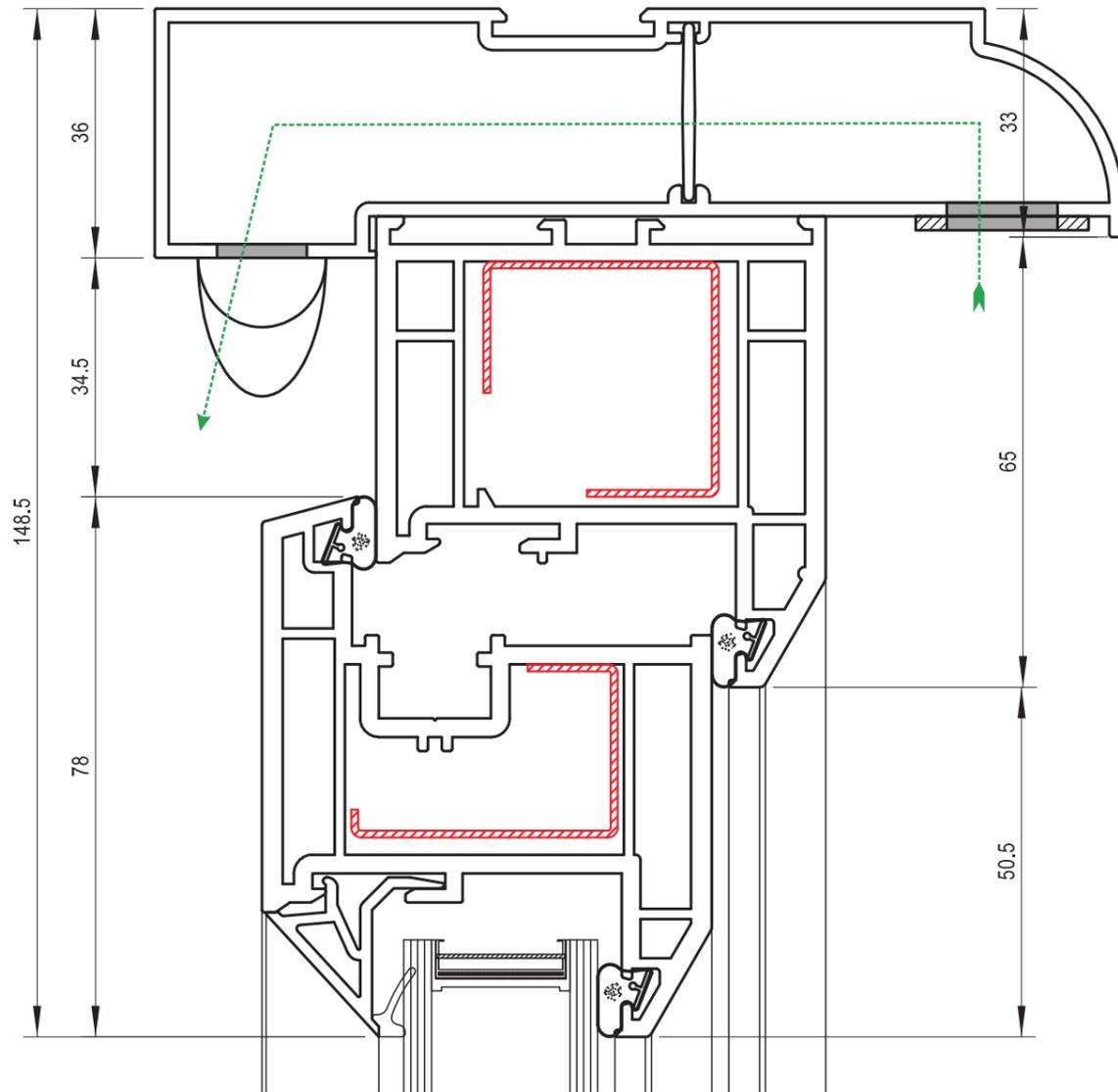
Key

= Steel Profile = Aluminium Profile

Ventilation Path

Drairage Path

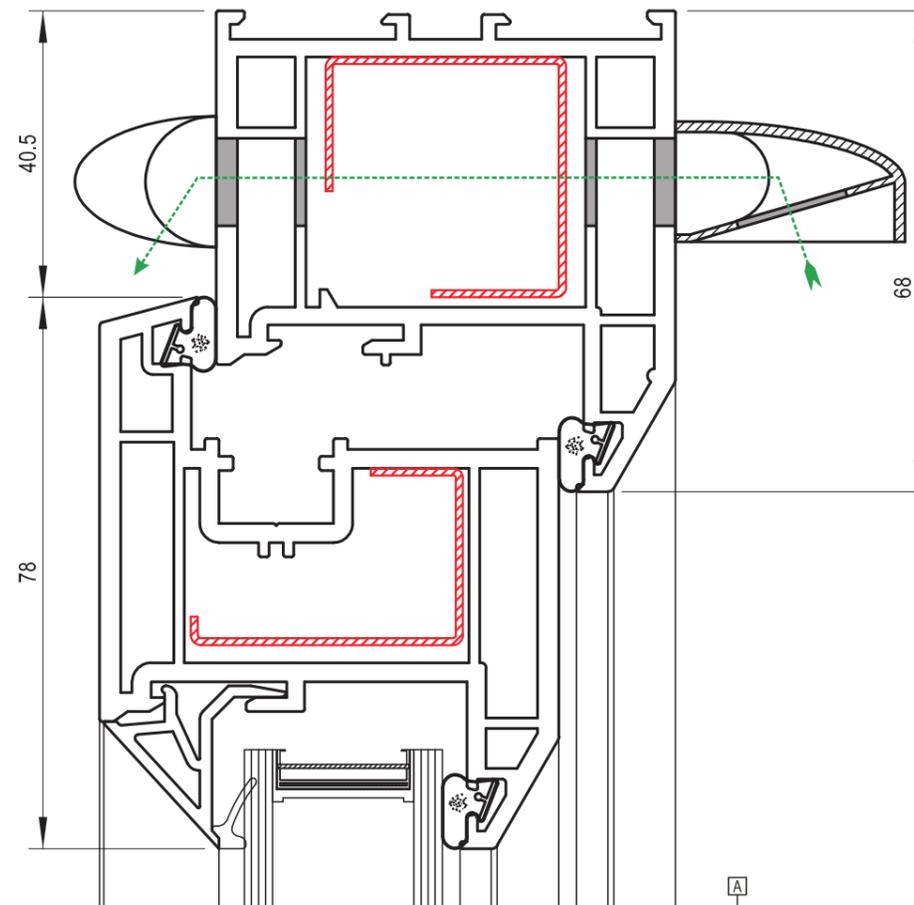
Duravent



Profile Descriptions & Part No.s

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- Duravent Internal Support - 9108,
- Titon XS 13 Ventilator (Inside) - flat grill (Outside),
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- Tilt / Turn Sash - 6064,
- Tilt / Turn sash Reinforcer - 3577s
- 28mm Bevelled Bead - 5851

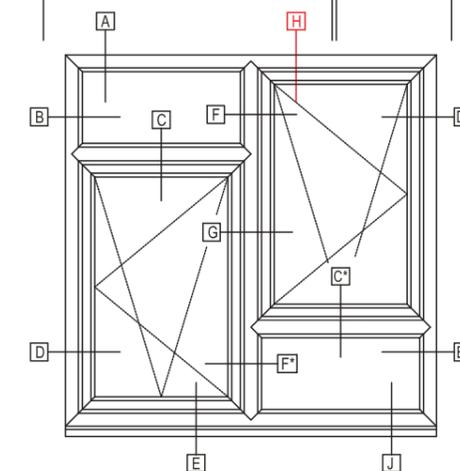
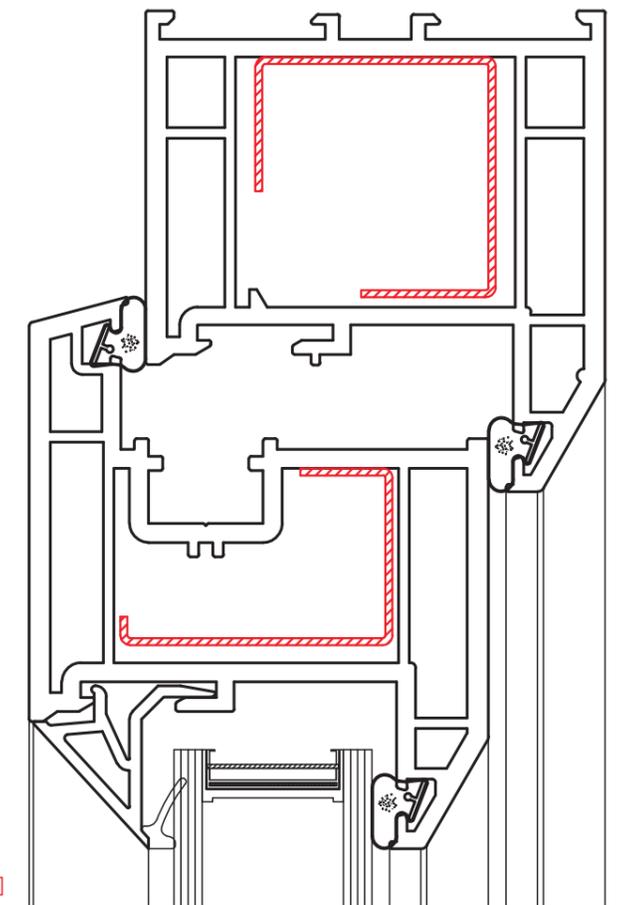
Large Outer Frame (with Vent)



Profile Descriptions & Part No.s

- Outer Frame - 6002,
- Titon XS 13 Ventilator,
- Outer Frame Reinforcement - 3569s,
- 28mm Bevelled Bead - 5851

Large Outer Frame (without Vent)



Tilt / Turn Window
Bevelled profiles shown
Also available as Featured

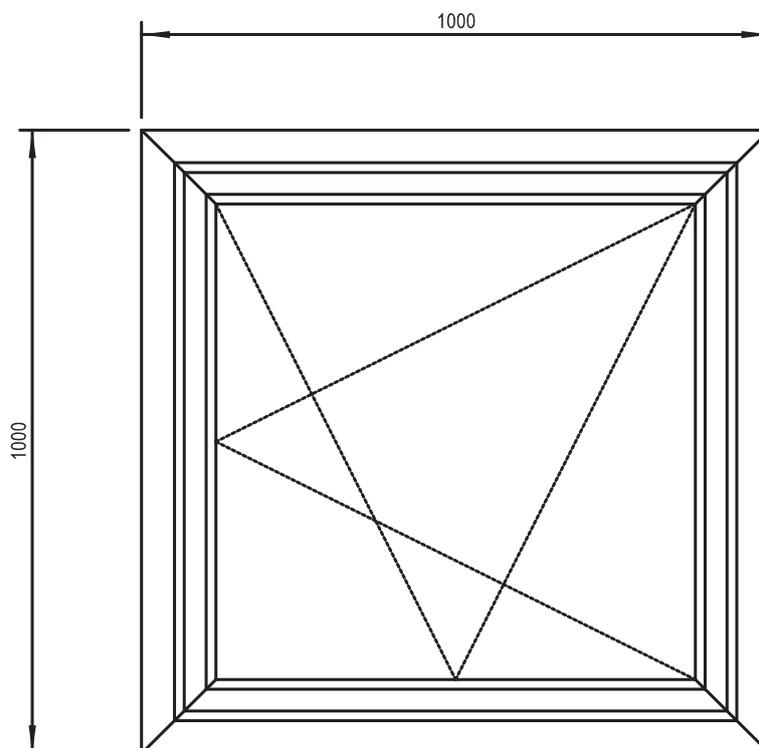
2.5 Window Weights

Glazed & Un-Glazed

Due to the various number of design options available for Tilt / Turn windows, we have shown window weights, both glazed and un-glazed, based on a metre square area and to the design below.

Un - Glazed = 17.5 Kg / m²

Glazed = 30.3 Kg / m²



Note:-

These weights have been calculated based on the following specification.

Large Outer Frame
Partially Reinforced Steel
Standard 150mm Cill

Glazing based on 4 - 20 - 4 Sealed unit

These weights are approximate

Tilt / Turn Window

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