PRODUCT MANUAL September 2017







PRODUCT MANUAL

LEGAL DISCLAIMER

General Documentation Disclaimer

This manual is intended as a manufacturing and installation advisory document. For correct specifications, sizing of profiles and structural information please consult the StarFront Application. If the information you require is not available through the StarFront Application, please contact your stockist before proceeding. It is advisable to have all sizing and performance criteria checked by a qualified structural engineer to ensure that the required criteria will be met.

All information, recommendations or advice contained in this documentation is given in good faith to the best of Wispeco's knowledge and is based on current procedures in effect.

Since the actual use of this documentation by the user is beyond the control of Wispeco, such use is within the exclusive responsibility of the user. Wispeco cannot be held responsible for any loss incurred through incorrect or faulty use of this documentation. Training of Wispeco systems is important for ensuring correct procedures in the manufacturing of products.

Great care has been taken to ensure that the information provided is correct.

Ensure that you have the latest available manual. The revision number and date can be checked on the latest StarFront version.

Wispeco will accept no responsibility for any errors and/or omissions, which may have inadvertently occurred.

Specifications concerning products and applications

This manual is based on standard configurations only. As there are many configurations not covered in this manual, contact your stockist with regards to a configuration not represented herein if required.

AutoDesk drawings (CAD Symbol Library) are available on request and can be issued with the consent of the Wispeco Technical Department.

All mechanical joints must be sealed with a **Crealco approved joint sealer**. Failure to correctly seal the joints can affect the performance of the system. Information on joint sealing can be found in the Cleaning & Maintenance Manual available for download from the Wispeco website or from StarFront.

All drawings in the Wispeco Documentation are NOT to scale and are used for illustrative purposes only.

Wispeco will not accept responsibility for the use of standard products since Wispeco does not know where these products are being installed.

The hardware recommended in this documentation is suitable for use in most atmospheric environments. When hardware is used in severe coastal environments the manufacturer of the hardware must be consulted.

The use of non-specified hardware or incorrect mechanical fasteners can adversly affect the mechanical and weathering performance of the system and we strongly advise against deviations. A Wispeco Consultant can advise you of any hardware issues and limitations with regard to this system.

The use of anti-magnetic stainless steel screws and aluminium pop rivets is recommended to reduce galvanic corrosion in harsh environments.

Fixing lugs on frames must be positioned as per the user manual and used in accordance to the AAMSA specifications. When profiles are screwed together the screw centres must also be according to the user manual or as specified by an engineer.

All glass used within Wispeco products must comply with SAGGA regulations. Laminated glass must not stand in water.

By continuing to use this documentation you acknowledge that you understand and accept the legal disclaimer.



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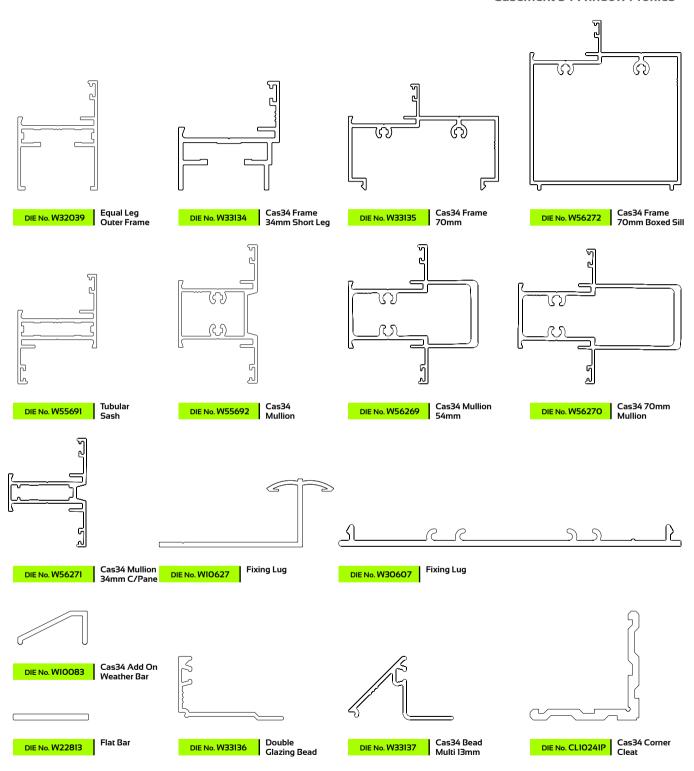
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Profile Identification

Casement 34 Window Profiles



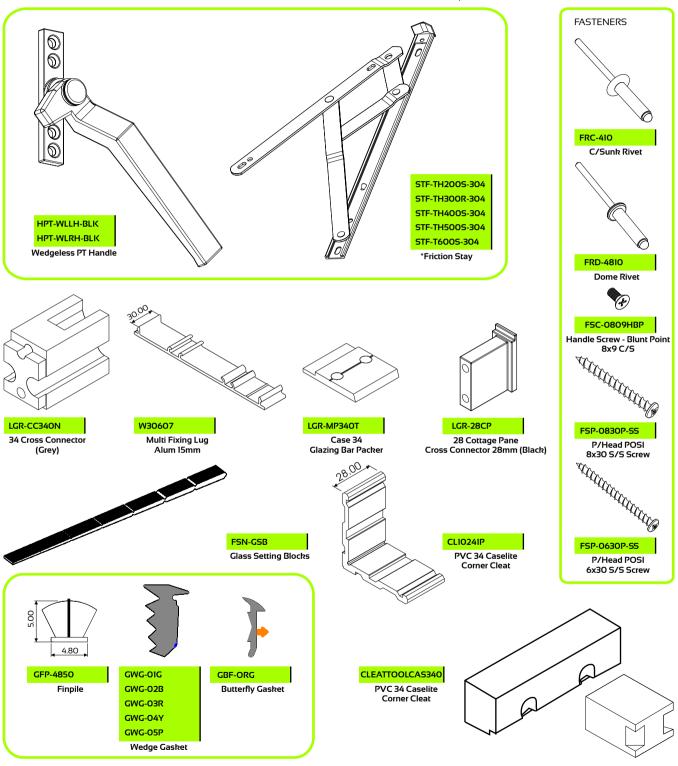


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Hardware Components

RECOMMENDED CASEMENT 34 COMPONENTS

All hardware is available through our Stockists as well as through Crealco Components, and can be viewed on www.crealco-components.com





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With a minimal amount of care and maintenance your CREALCO CASEMENT windows will stay looking good and performing superbly for many years to come - a valuable, long lasting asset giving continued satisfaction and pride.

Basics of a Friction Stay

A friction stay is a type of hinge that controls the opening of the window so that it will stay open at the width you decide to open it to, not closing under its own weight or being too difficult to open and close.

Friction Stay Maintenance

As the name implies, a friction stay needs a level of friction to operate correctly. Too much friction and the friction stay arms can be bent in operation and the window will be stiff and difficult to open. Too little friction and the window will not stay at its required level.

Key to the correct sealing of the casement sash is the top alignment guide which maintains the friction stay in the closed and sealed position. If the shape of the guide is altered or flared it can result in poor sealing of the sash as well as incorrect alignment of the friction stay.

Track Maintenance

Ensure that the track is free from dirt and debris which can alter the friction of the hinge. It is best not to add lubricants as this can alter the friction as well as collect more debris which can cause wear within the track.

Friction Adjustment

The hinge is factory set and may after continue use become loose. Should this occur using a small flat bladed screwdriver turn the screw on the friction hinge clockwise to increase the amount of friction.

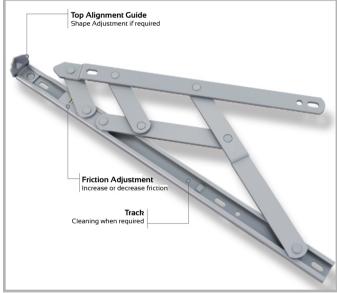
The same adjustment should be made to both the hinges on the window. Also should the window be stiff in operation turn the screw anti-clockwise until the desired result is achieved.

Top Alignment Guide

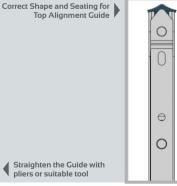
The top alignment guide can flare or distort due to a number of issues. For correct operation it is important to bend the alignment guide back into position.

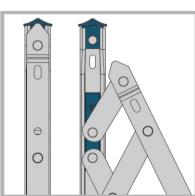








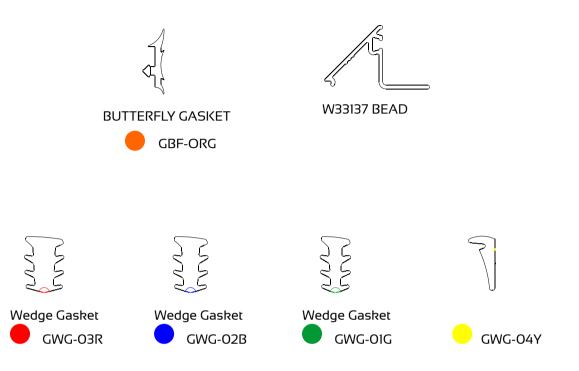




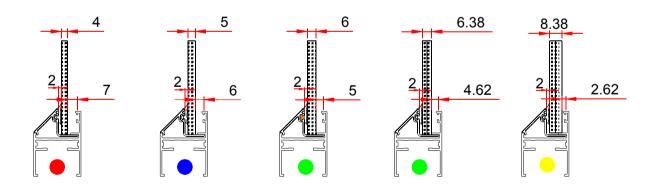


CASEMENT 34 WINDOW (34mm) PRODUCT MANUAL

Butterfly Gasket & Wedge Codes



WEDGES



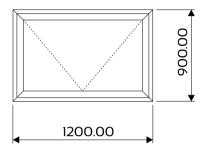
CASEMENT 34 WITH W33137 BEAD



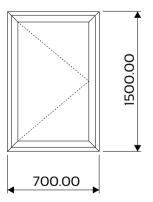
Sash Limitation Guide

The sash limitations of the system are strictly calculated in accordance to AAMSA guidelines and take into account the aluminium specifications as well as the glass used. Please ensure that these are adhered to as any product produced outside of these limitations will not adhere to AAMSA regulations.

		Maximum Vent Width in mm	Maximum Vent Height in mm
Top Hung	W55691	1200	900



		Maximum Vent Width in mm	Maximum Vent Height in mm	
Side Hung	W55691	700	1500	



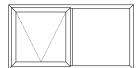


Typical Configurations

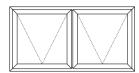
Standard Top Hung Window



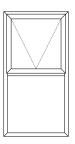
SINGLE TOP HUNG



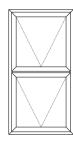
BB TOP HUNG NEXT TO FIXED



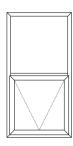
TOP HUNG NEXT TO TOP HUNG



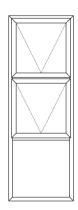
TOP HUNG OVER FIXED



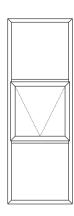
TOP HUNG OVER TOP HUNG



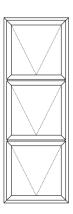
FIXED OVER TOP HUNG



D DOUBLE TOP HUNG OVER FIXED



DD FIXED OVER TOP HUNG OVER FIXED

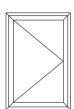


EETRIPLE TOP HUNG

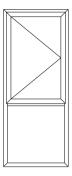


Typical Configurations

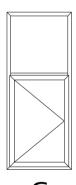
Standard Side Hung Window



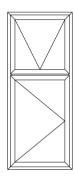
A SINGLE SIDE HUNG



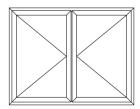
B SIDE HUNG OVER FIXED



FIXED OVER SIDE HUNG



TOP HUNG OVER SIDE HUNG



CC SIDE HUNG NEXT TO SIDE HUNG

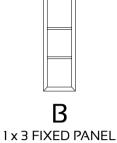


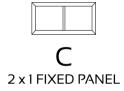
PRODUCT MANUAL

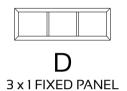
Typical Configurations

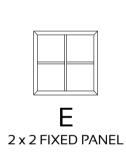
Cottage Pane Fixed Panel Window

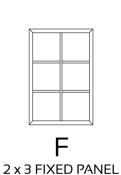




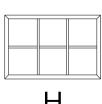


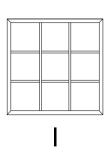


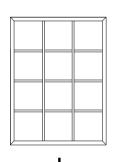












3 x 2 FIXED PANEL



3 x 4 FIXED PANEL



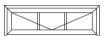
Typical Configurations

Cottage Pane Top Hung & Side Hung Window

TOP HUNG



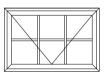
P 2 x 1 PANE SINGLE TOP HUNG



R 3 x 1 PANE SINGLE TOP HUNG

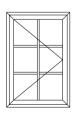


Q 2 x 2 PANE SINGLE TOP HUNG

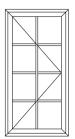


3 x 2 PANE SINGLE TOP HUNG

SIDE HUNG



P 2 x 3 PANE SINGLE SIDE HUNG



Q 2 x 4 PANE SINGLE SIDE HUNG



PRODUCT MANUAL

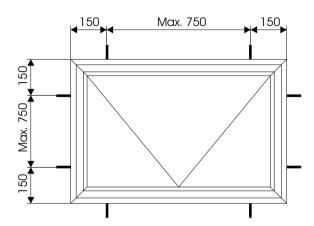
Fastening Positions

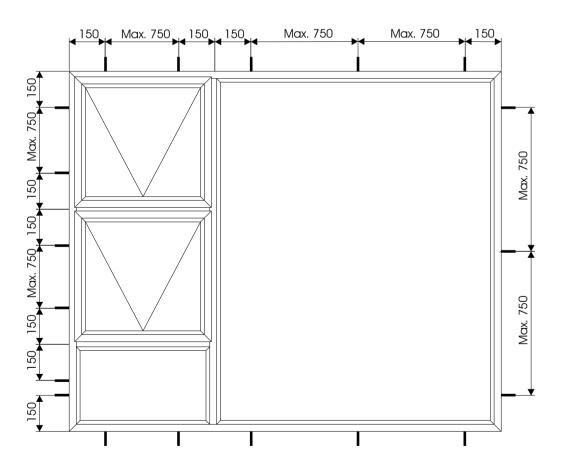
IMPORTANT:

As there are many different methods of fixing the window to the structure, the illustration below is a general fixation detail. The illustration defines the general method and hole fixing. Before installation or machining of the holes, please ensure that you have checked the required fixing method with the appropriated building engineer and that your chosen methods meets their specifications

Failure to fix the window to correct building or engineer specifications will result in the door not meeting the required specifications.

DISCLAIMER: Please note that fixation of the frame to the structure is an element which MUST be specified and certified by an appropriate engineer and is not the responsibility of Wispeco.







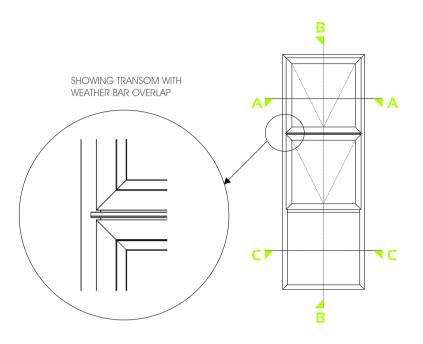
PRODUCT MANUAL

Typical Cross-sectional Details

Double Top Hung Over Fixed

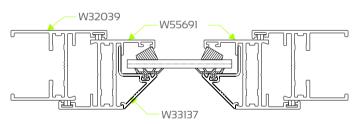
SECTION B-B

Section not to scale





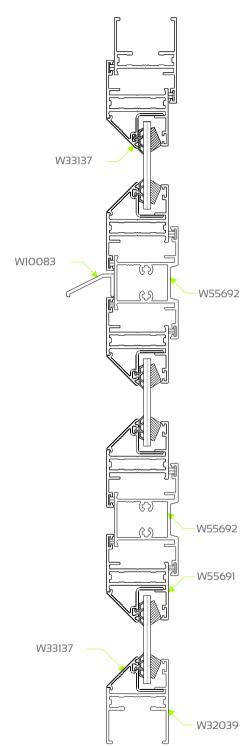
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SECTION C-C

Section not to scale



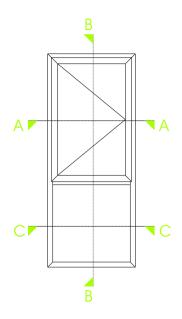




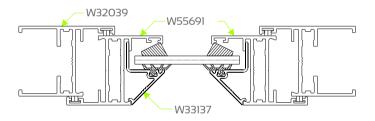
PRODUCT MANUAL

Typical Cross-sectional Details

Side Hung Over Fixed



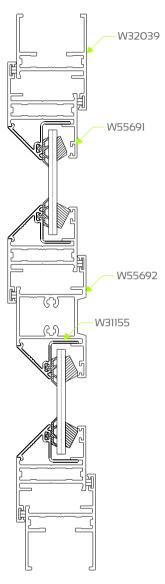
SECTION A - ASection not to scale



SECTION C-CSection not to scale









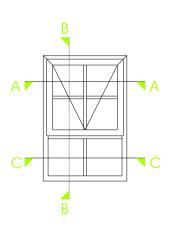
PRODUCT MANUAL

Typical Cross-sectional Details

Cottage Pane 2x2 Top Hung Over 2x1 Fixed Panel

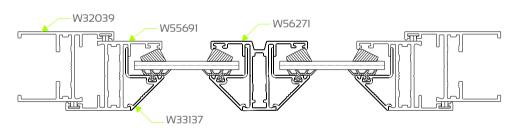
SECTION B-B

Section not to scale



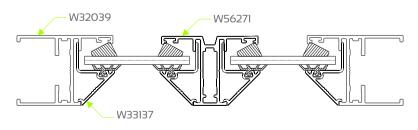
SECTION A - A

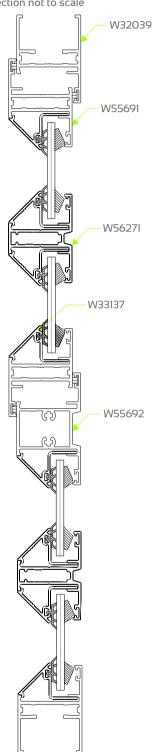
Section not to scale



SECTION C-C

Section not to scale



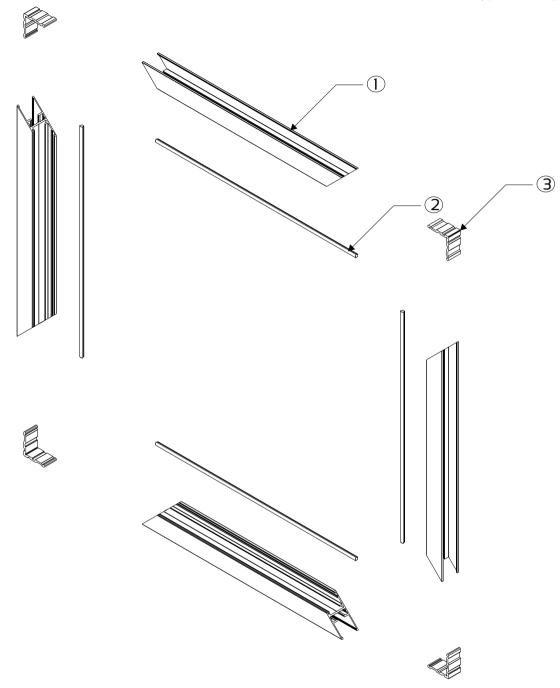




PRODUCT MANUAL

Outer Frame Construction

Typical Configuration



System Profiles

Hardware

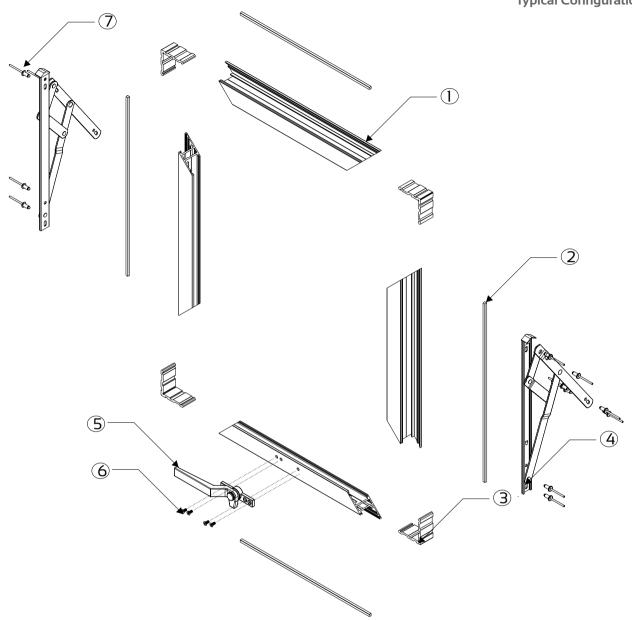
ITEM	QTY	DIE No.	DESCRIPTION	ITEM	QTY	COMPONENT	DESCRIPTION
1	4	W32039	Equal Leg Outer Frame	2	4	Finpile	Finpile
				3	4	Corner Cleat	34 Corner Cleat



PRODUCT MANUAL

Sash Frame Construction

Typical Configuration



System Profiles

Hardware

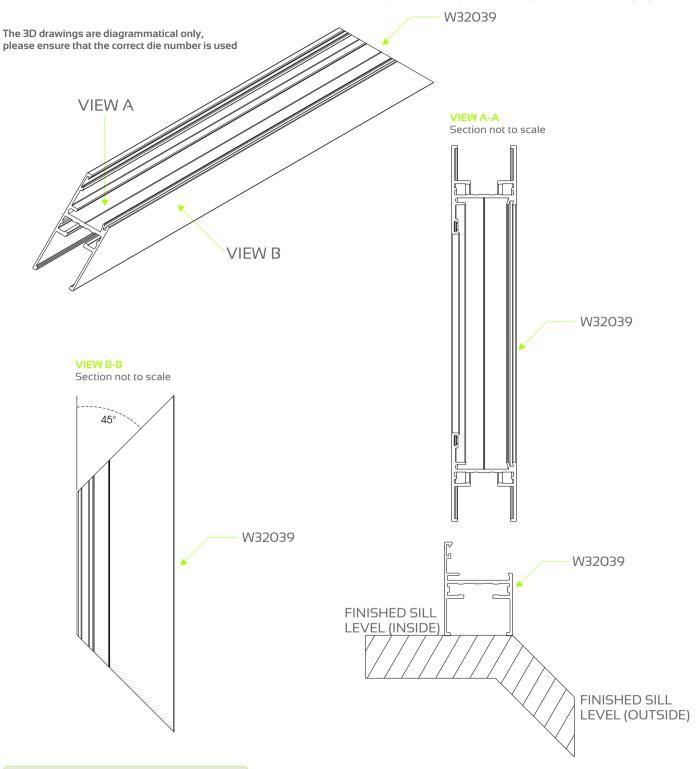
ITEM	QTY	DIE No.	DESCRIPTION	ITEM	QTY	COMPONENT	DESCRIPTION
1	4	W55691	Tubular Sash	2	4	Finpile	Finpile
				3	4	Corner Cleat	34 Corner Cleat
				4	2	Friction Stay	Friction Stay
				5	1	Handle	Euroline PT Handle
				6	4	Screw	Handle Screw Blunt Point
				7	12	Pop Rivet	C/Sunk/Dome Rivet



Outer Frame Machining Details

Equal Leg

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.



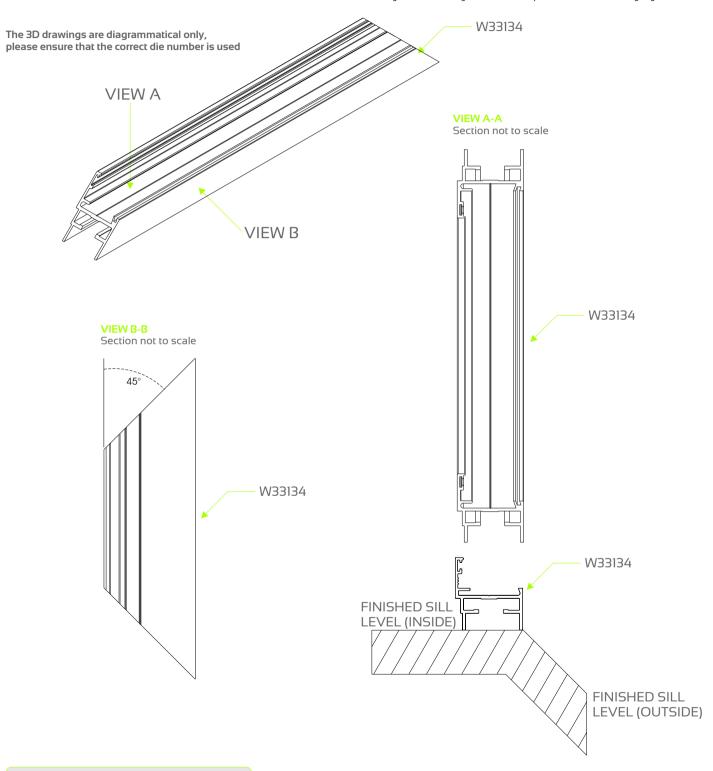


PRODUCT MANUAL

Outer Frame Machining Details

Short Leg

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.

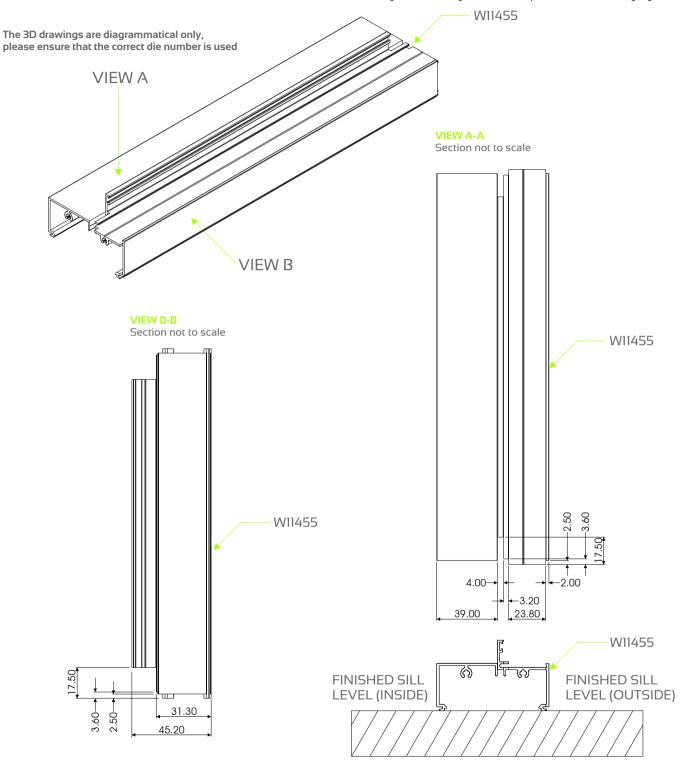




Sill Level & Machining Detail

Sidelight Frame 72mm

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.

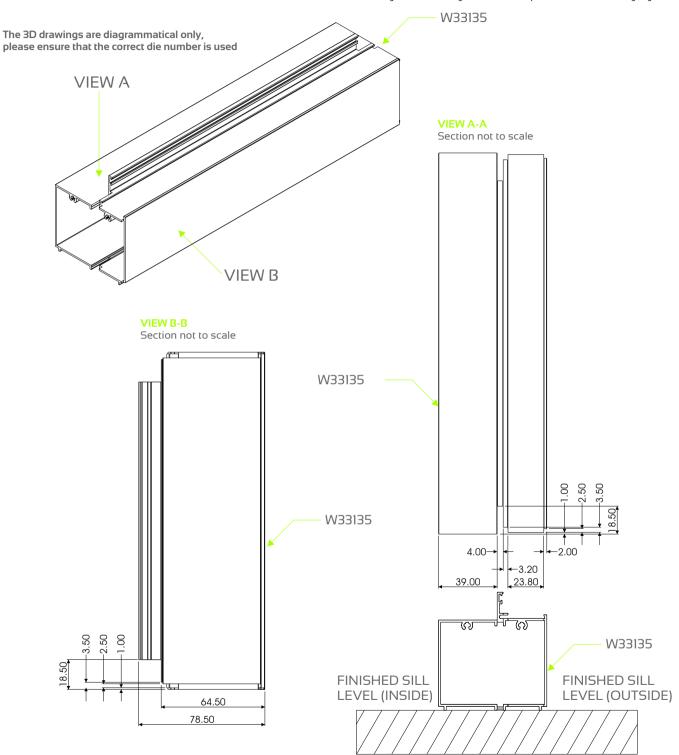




Sill Level & Machining Detail

Sidelight Box Sill 72mm

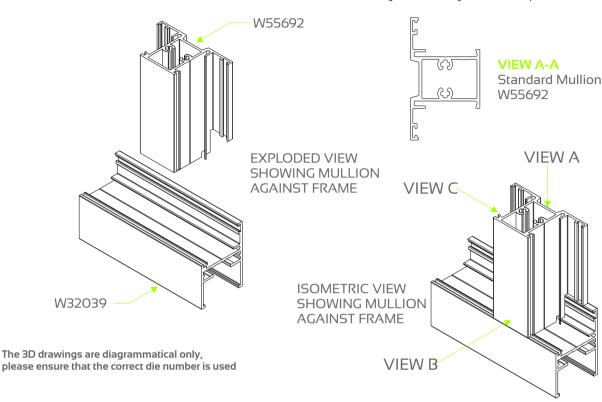
Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.

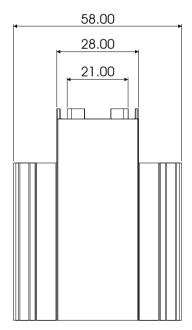




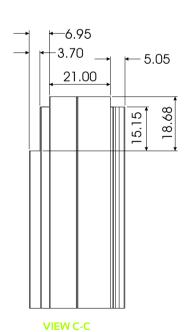
Standard Machining Detail for End Milling on Equal Leg Outer Frame

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.







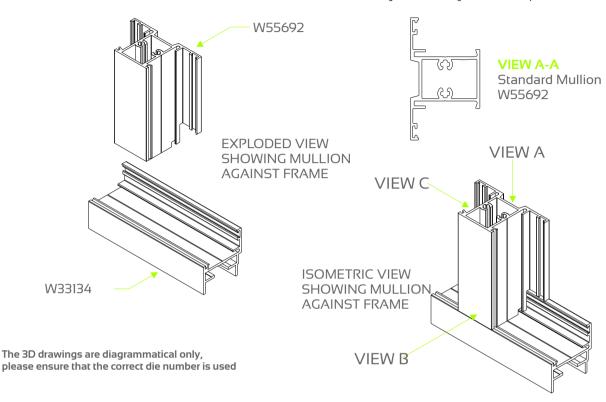


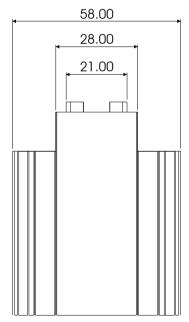
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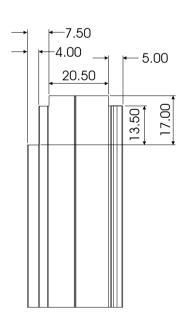
Standard Machining Detail for End Milling on Short Leg Outer Frame

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.





VIEW B-B Section not to scale

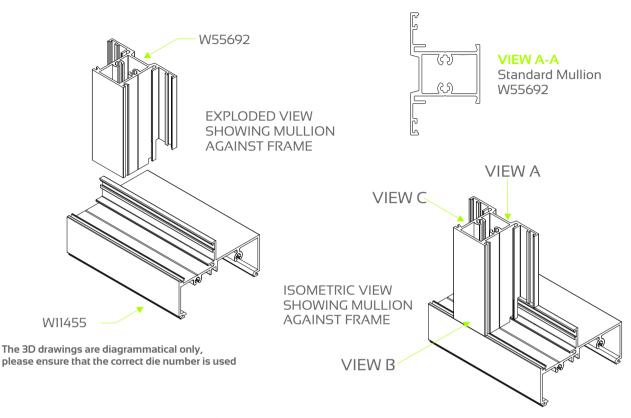


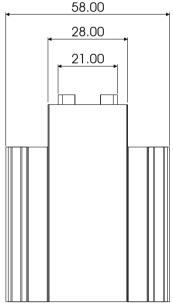
VIEW C-C Section not to scale



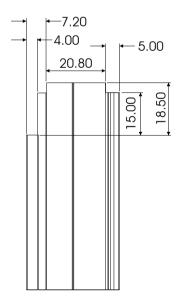
Standard Machining Detail for End Milling on Sidelight Frame 72mm

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.





VIEW B-B Section not to scale

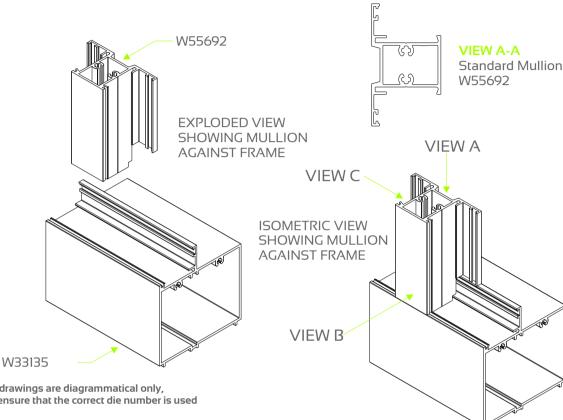


VIEW C-C Section not to scale

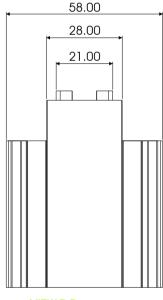


Standard Machining Detail for End Milling on Sidelight Box Sill 72mm

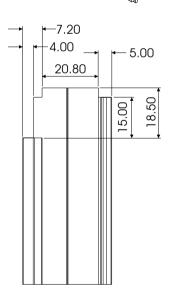
Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.



The 3D drawings are diagrammatical only, please ensure that the correct die number is used



VIEW B-B Section not to scale

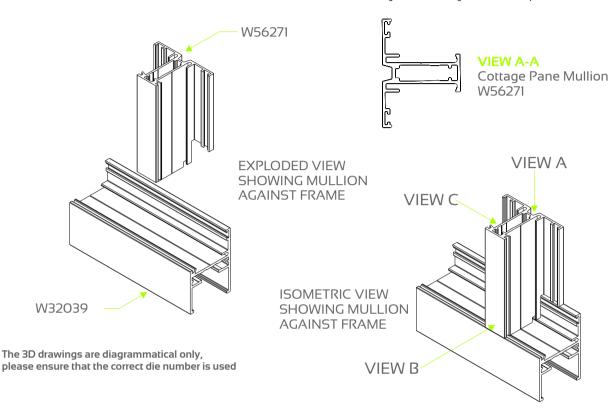


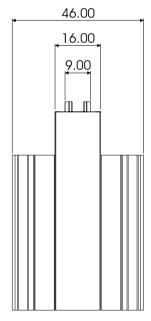
VIEW C-C Section not to scale



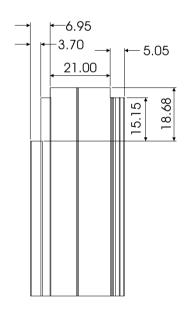
Standard Machining Detail for End Milling on Equal Leg Outer Frame

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.





VIEW B-B Section not to scale

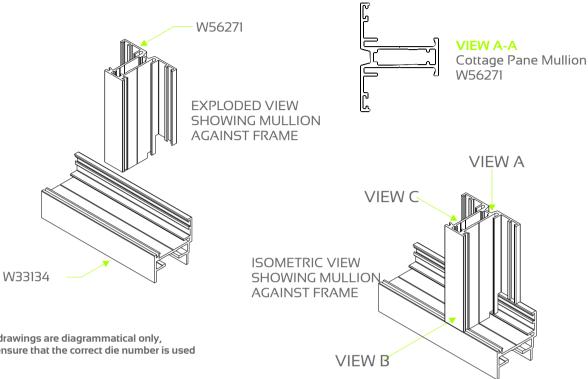


VIEW C-C Section not to scale

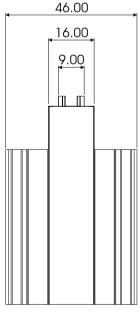


Standard Machining Detail for End Milling on Short Leg Outer Frame

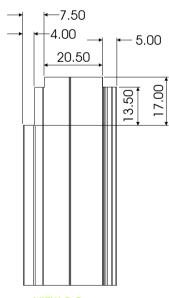
Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.







VIEW B-B Section not to scale

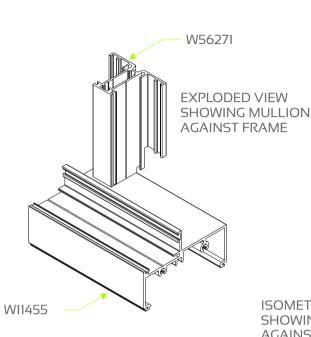


VIEW C-C Section not to scale

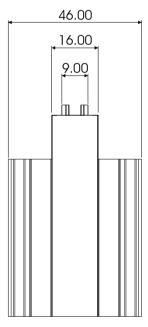


Standard Machining Detail for End Milling on Sidelight Frame 72mm

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.

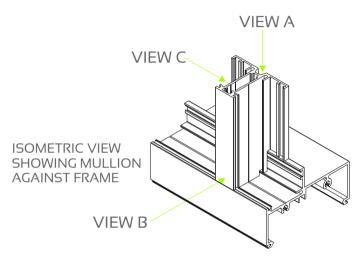


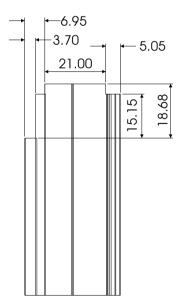
The 3D drawings are diagrammatical only, please ensure that the correct die number is used



VIEW B-B Section not to scale







VIEW C-C Section not to scale



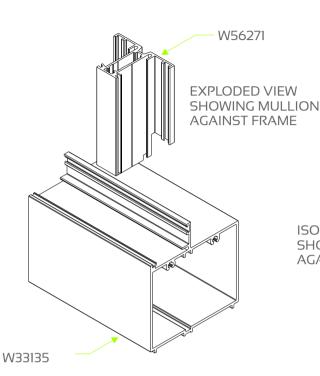
VIEW A-A

W56271

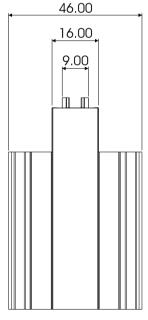
Cottage Pane Mullion

Standard Machining Detail for End Milling on Sidelight Box Sill 72mm

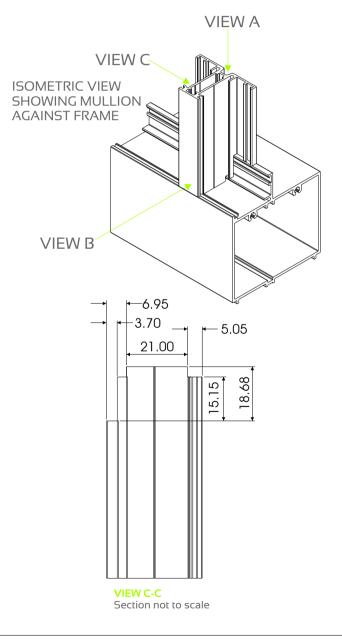
Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.



The 3D drawings are diagrammatical only, please ensure that the correct die number is used



VIEW B-B Section not to scale

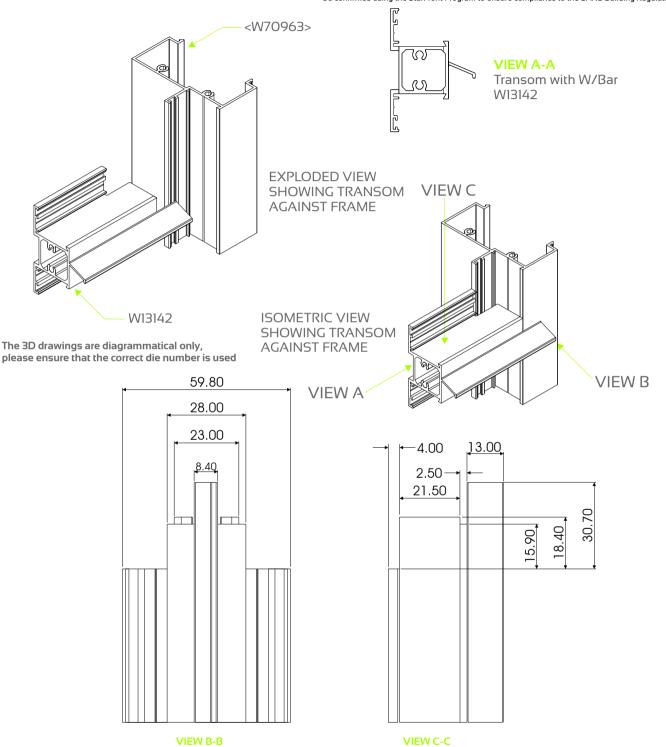




Transom with W/Bar Machining Detail

for End Milling on 70mm Outer Frame

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.





Section not to scale

This manual must be read in conjunction with the Installation, Cleaning & Maintenance Document and the Performance Certificates for the relevant system. The manual must also be used in conjunction with the design and cutting list from the latest version of StarFront.

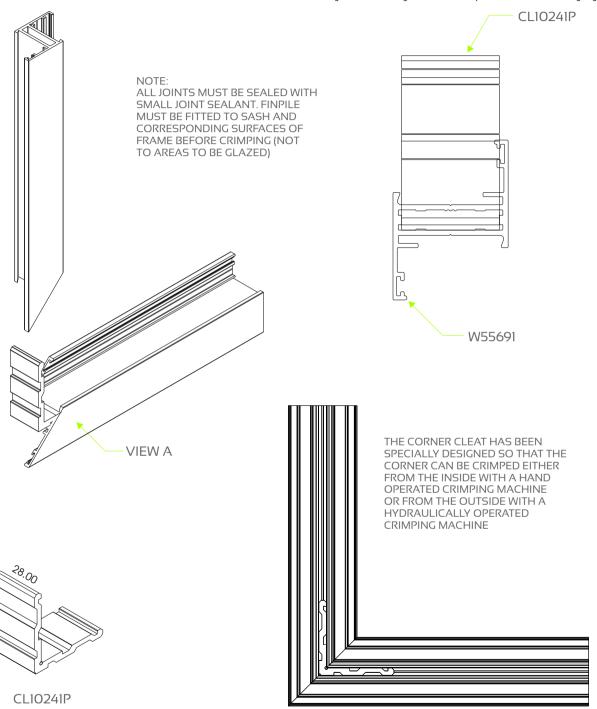
Section not to scale

PRODUCT MANUAL

Corner Cleat Assembly Detail

for Tubular Sash

Please Note: These details pertain to the machining of profiles. Lengths of profiles and cutting lists need to be confirmed using the StarFront Program to ensure compliance to the SANS Building Regulations.



The 3D drawings are diagrammatical only, please ensure that the correct die number is used

50.00



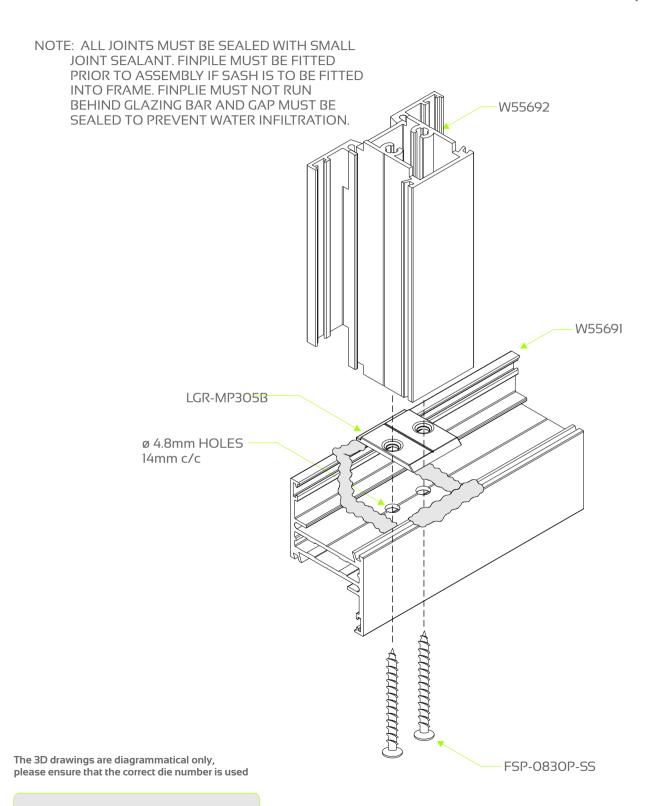
This manual must be read in conjunction with the Installation, Cleaning & Maintenance Document and the Performance Certificates for the relevant system. The manual must also be used in conjunction with the design and cutting list from the latest version of StarFront.

VIEW A-A

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Mullion Packer Frame Joint

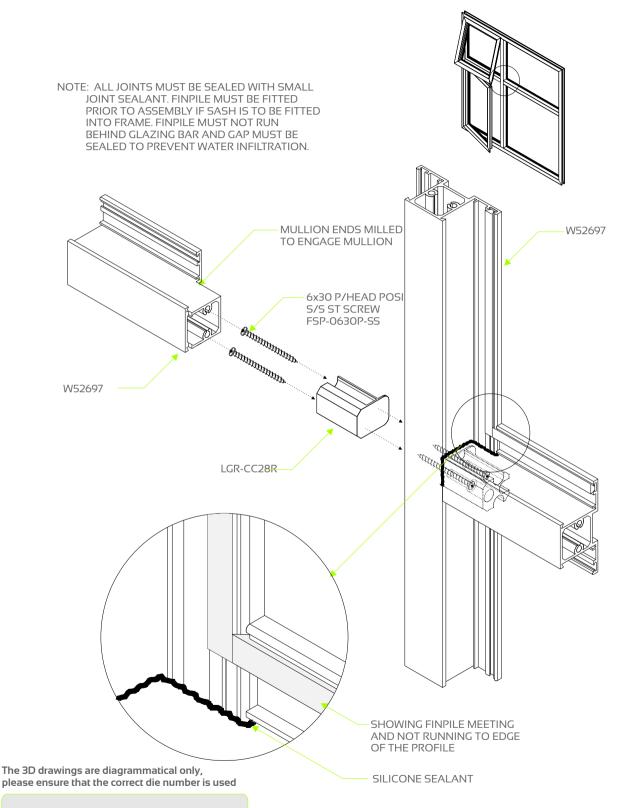
Assembly Detail





Cross Joint Assembly Detail

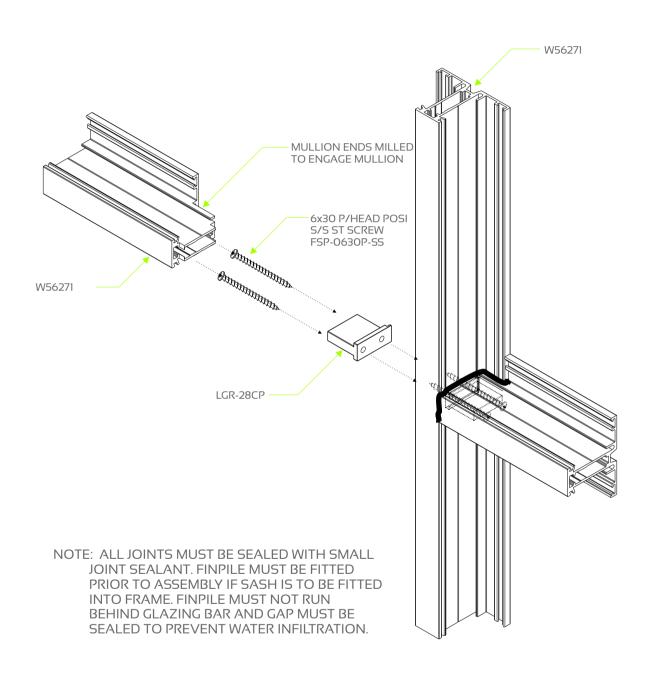
Standard Mullion





Cross Joint Assembly Detail

Cottage Pane Mullion

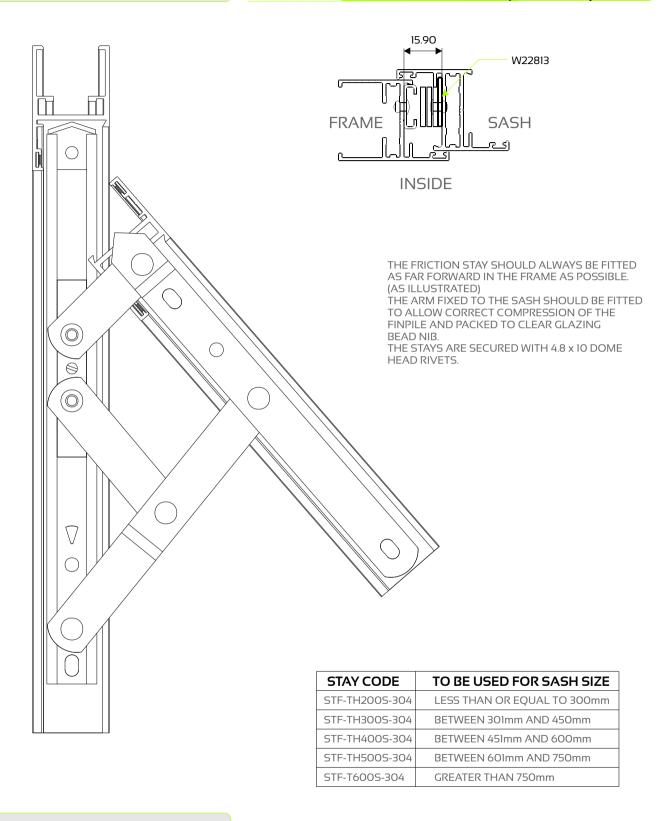


The 3D drawings are diagrammatical only, please ensure that the correct die number is used



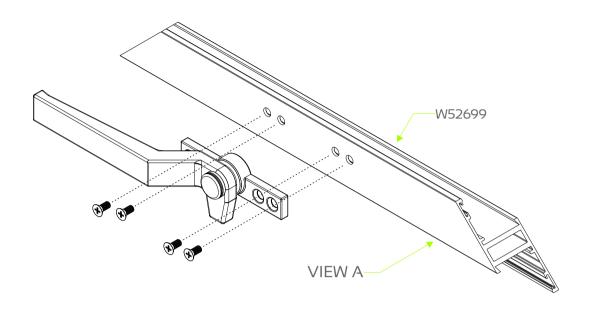
PRODUCT MANUAL

Friction Stay Assembly Detail

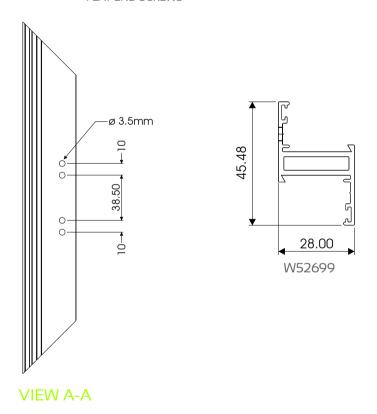




Handle Assembly Detail



NO 8 x 10 COUNTERSUNK SELF-TAPPING FLAT END SCREWS

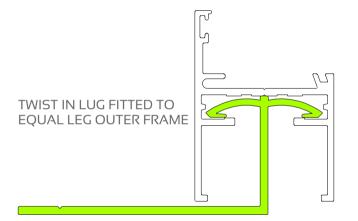


The 3D drawings are diagrammatical only, please ensure that the correct die number is used



CASEMENT 34 WINDOW (34mm) PRODUCT MANUAL

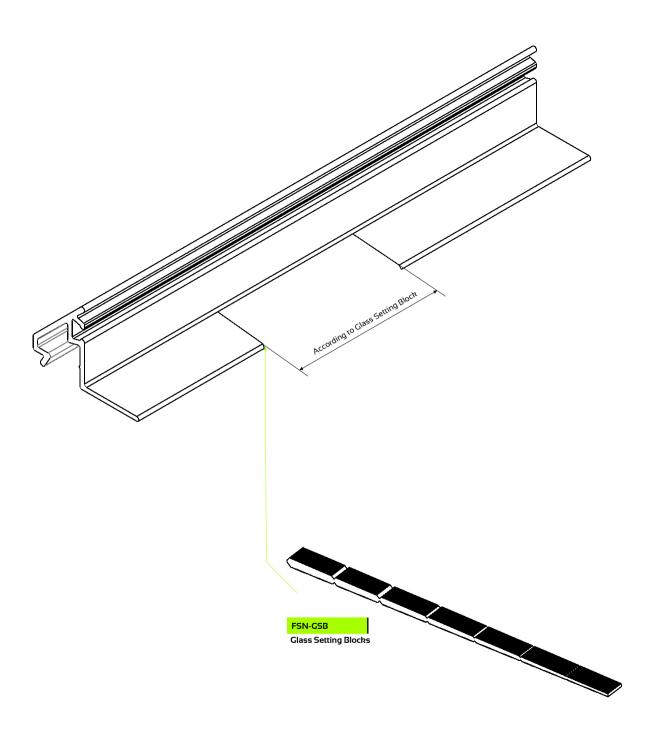
Fixing Lug Preparation Detail





Bead Cut-Out for Setting Block

Bead must be notched out at position of all glass setting blocks according to the length of the glass setting block used.



The 3D drawings are diagrammatical only, please ensure that the correct die number is used



PRODUCT MANUAL

Glazing Procedure

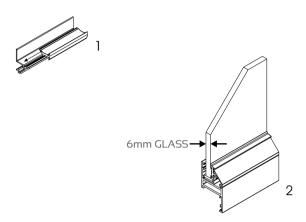
Insert the pull-in vinyl gasket into glazing beads by sliding or pressing it into the groove (I). Before cutting gasket, ensure that it has not stretched and cut 6mm longer so that corners are in compression at all times.

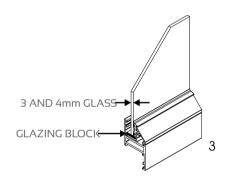
Position bottom glazing bead in glazing bead rebate (2).

Place glass on glazing blocks (3).

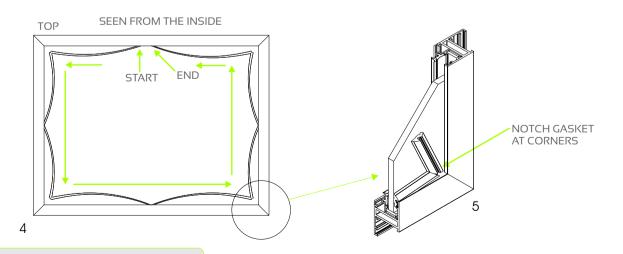
Insert top and then side glazing beads ensuring that they are in correctly.

Starting from top centre, insert roll in gasket (4) without stretching it (5). Stop 150mm from corner and partly cut gasket 6mm longer than the edge of the vertical bead. Insert gasket at corner and then roll in remaining 150mm. Repeat this on the other sides. Where gasket ends meet, cut gasket 6mm longer. Insert cut ends first and complete.





ENSURE GASKETS ARE NOT STRETCHED AT ANY STAGE





GLAZING

1. SELECTION OF GLAZING METHODS

1.1 SETTING AND LOCATION BLOCKS

Glass-to-metal contact must be avoided at all times by using setting and location blocks having a hardness of 50° to 90° shore A durometer. Use only blocks made of Neoprene, EPDM, Silicone or other elastomeric material.

Setting blocks are to have a minimum thickness of 3mm and must be at least 27mm in length per square metre of glass area.

The position of the setting and location blocks is illustrated in Figure 2.

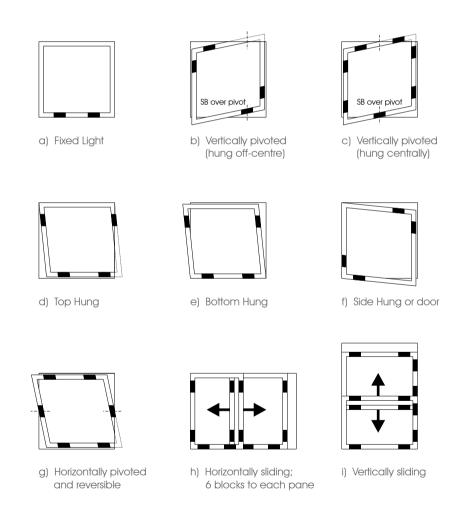


FIGURE 2 - POSITION OF SETTING AND LOCATION BLOCKS

