

**crealco**



# **HORIZON**

## **SLIDING FOLDING SHUTTERS**

**PRODUCTMANUAL**

REV. 1.2  
Oct. 2016

# HORIZON

## SLIDING FOLDING SHUTTERS

### INDEX

Index .....	ii
Legal Disclaimer .....	1
Profile Identification .....	2-3
Hardware Components .....	4
General .....	
Cross Sectional detail & elevation .....	5
Configurations & Size Limitations.....	6-7
Typical Fixing Positions .....	8
Vista Fold doors - Orientation.....	9
Machining Details .....	
Outer Frame .....	10-13
Panel Shutter Frame .....	14-20
Assembly Details .....	
Cutting Formulas .....	21-23
Table for Rotating Shutter Blades.....	24
Fitting of accessories (V-Catch & Reversible shutter handle).....	25-26



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.

# HORIZON

## SLIDING FOLDING SHUTTERS

### 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.

This Guide may be reproduced in whole or in part in any form or by any means provided the reproduction or transmission acknowledges the origin, revision number and copyright date.

#### *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 shown 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 adversely 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 AAAMSA specifications. When profiles are screwed together the screw centers must also be according to the user manual or as specified by an engineer.

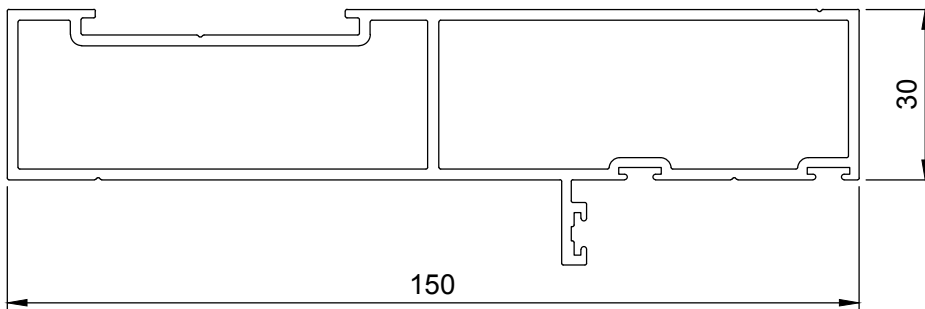
All glass used within Wispeco products must comply with SAGGA regulations. Laminated glass must not stand in water.

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

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.

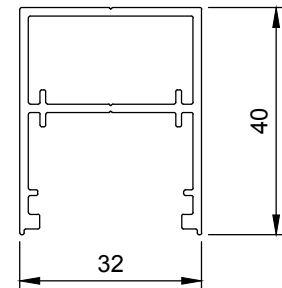
## PROFILE IDENTIFICATION

### HORIZON SYSTEM PROFILES



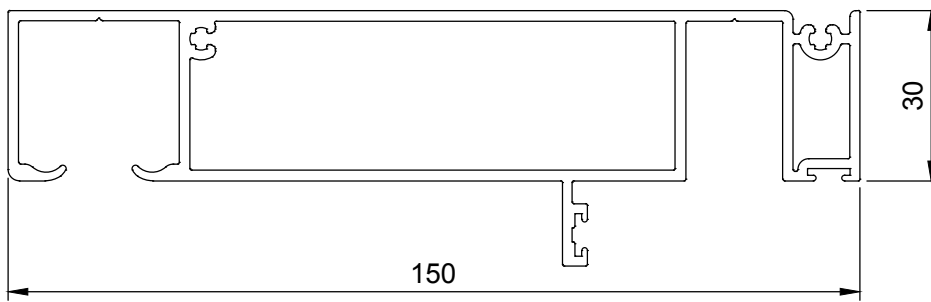
DIE No. W57566

Horizon Jamb Rail



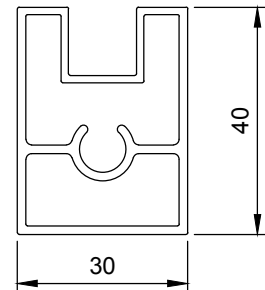
DIE No. W56087

Stile 32 mm



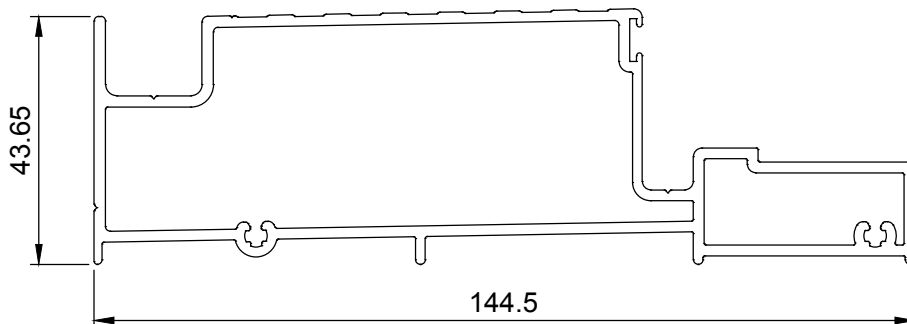
DIE No. W57567

Horizon Head Rail



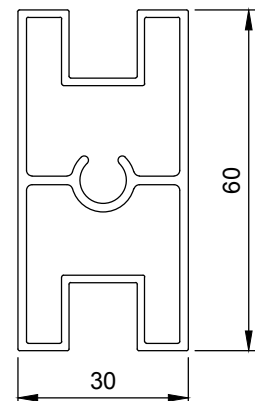
DIE No. W56085

Top/Bottom 32 mm



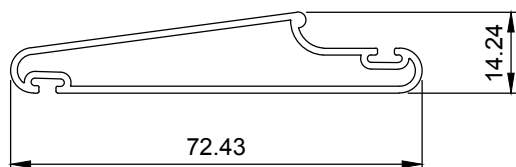
DIE No. W57568

Horizon Sill Rail



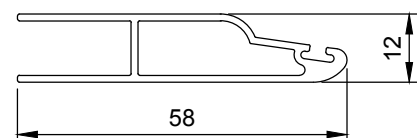
DIE No. W56086

Midrail 32 mm



DIE No. W55474

Adjustable Louvre

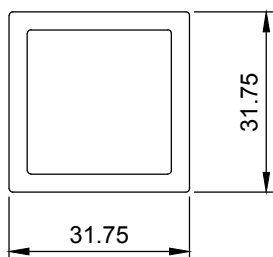


DIE No. W55469

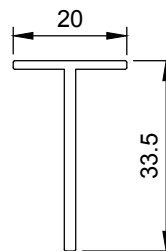
Top/Bottom Louvre

## PROFILE IDENTIFICATION

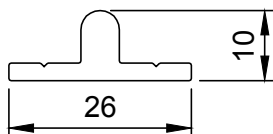
### HORIZON SYSTEM PROFILES



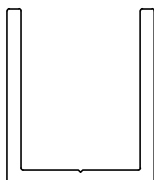
DIE No. W00101 Sq. Tube 31.75mm



DIE No. W32846 Astragal T

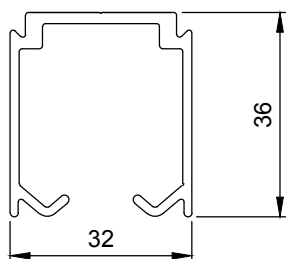


DIE No. W26282 Pal. Multi Track



Note: This profile is also to be used with the Hillaldam Track.

DIE No. W26152 Channel 21 x 25 x 2.5



CODE: LVH-TK3M 3 m Channel

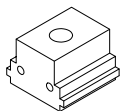
CODE: LVH-TK6M 6 m Channel

Note: This profile is also available from Hillaldam, & is to be used for stand alone Horizon Shutter screens or for adding to other systems like the Vista Fold doors. The cutting list when using this profile is not available on Starfront, refer to this manual for cutting formulas.(See Page 20-22) Be sure to specify the correct power coating code when placing orders.

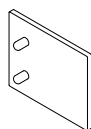
## HARDWARE IDENTIFICATION

### COMPONENTS

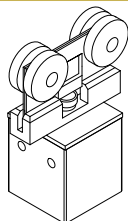
#### KITS



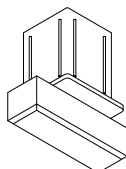
LVH-SBS



Horizon Spacer  
Component Kit

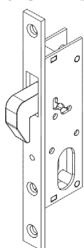


LVH-HS



Horizon Tophung  
Component Kit

#### LOCKS & CYLINDER

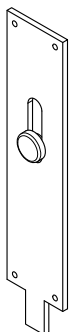


LCH-GLSTN



Hooklock & Cylinder

#### FIXINGS & FITTINGS



LVH-FB

Flush Bolt



LVH-RSH

Reversible  
Shutter Handle

CSH-A100

Alufab Hinges  
Sinkless 100x40mm

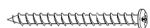
LVH-HH

Alufab Hinge Handle  
Sinkless 100x40mm



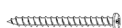
FSN-G18-BLK

Grommets



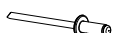
FSP-0840P-SS

8x40 Panhead  
Posi S/S Screw



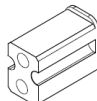
FSP-0630P-SS

6x30 Panhead  
Posi S/S Screw



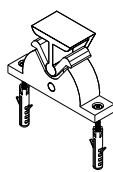
FRC-410

4x10  
Countersunk Rivet



LGR-CC38

Cas38 Cross  
Connector

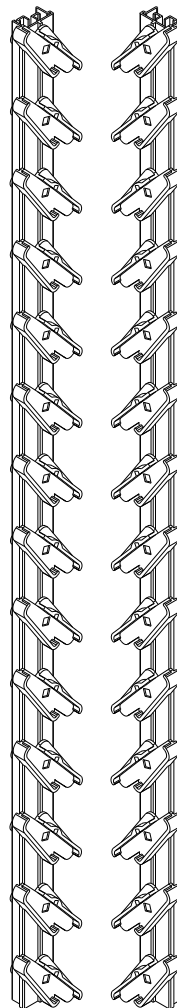


HCC-V-PVC

V-Catch

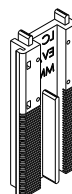
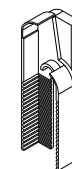
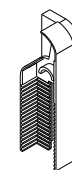
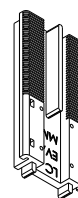
**Note:** Hinges & flush bolts can be ordered in Bronze, Black, Natural & White

#### LOUVRE MECHANISMS



LVH-ABM14

Louvre Mechanism



#### GASKETS



GFP-6790

Finpile 6.7 x 9 mm



GSL-WSF

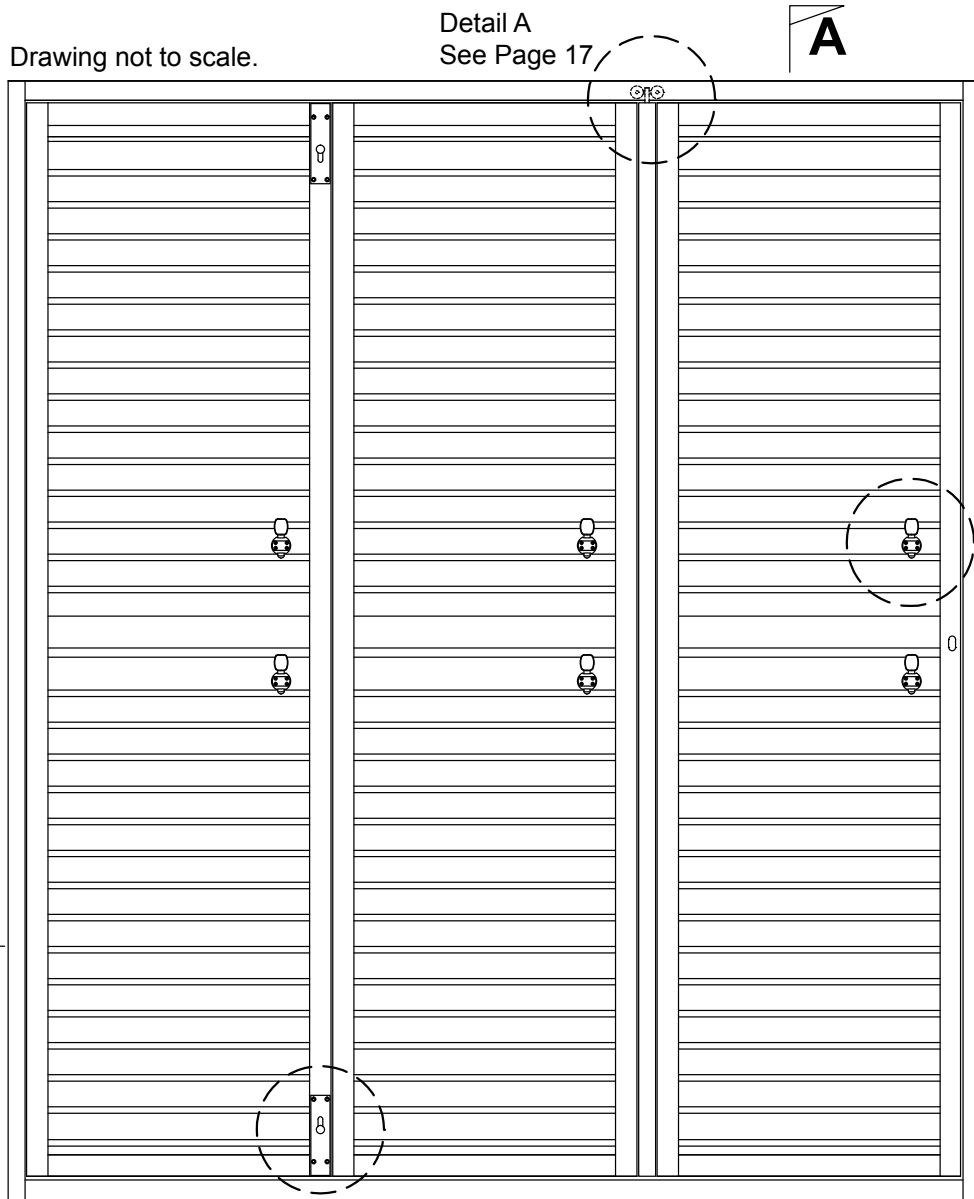
Weather Seal



GSL-675RB

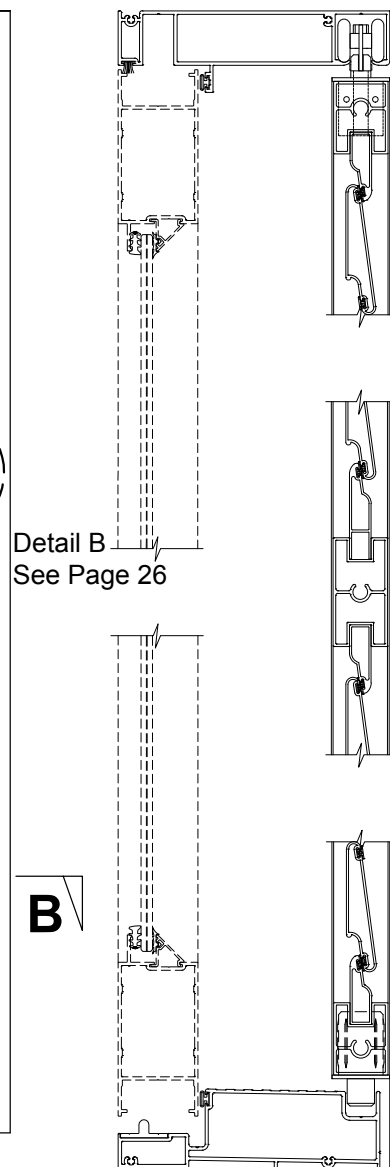
Bubble Seal

### CROSS SECTIONAL DETAIL & ELEVATION

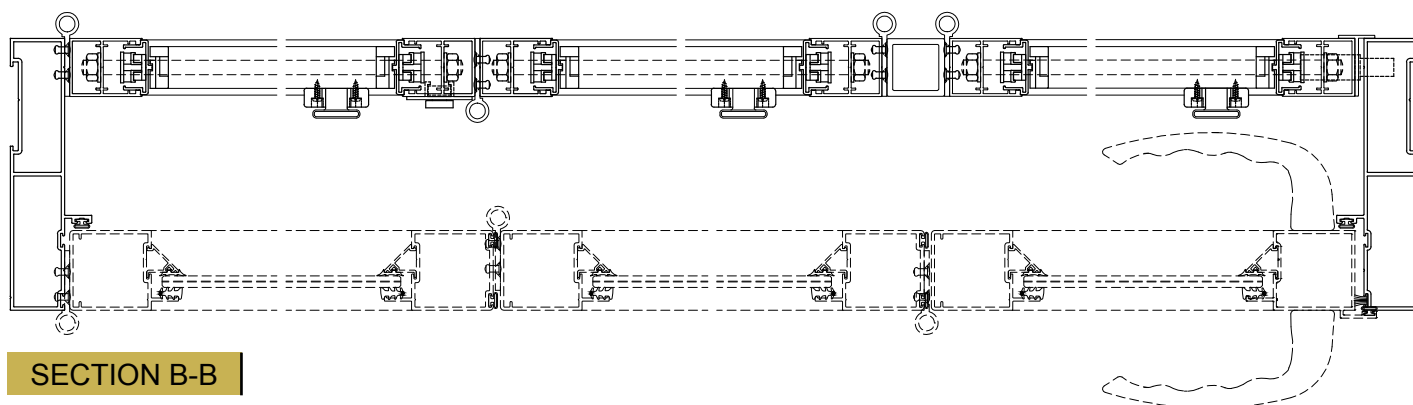


Elevation  
(Viewed from inside)

Detail C  
See Page 16



**SECTION A-A**

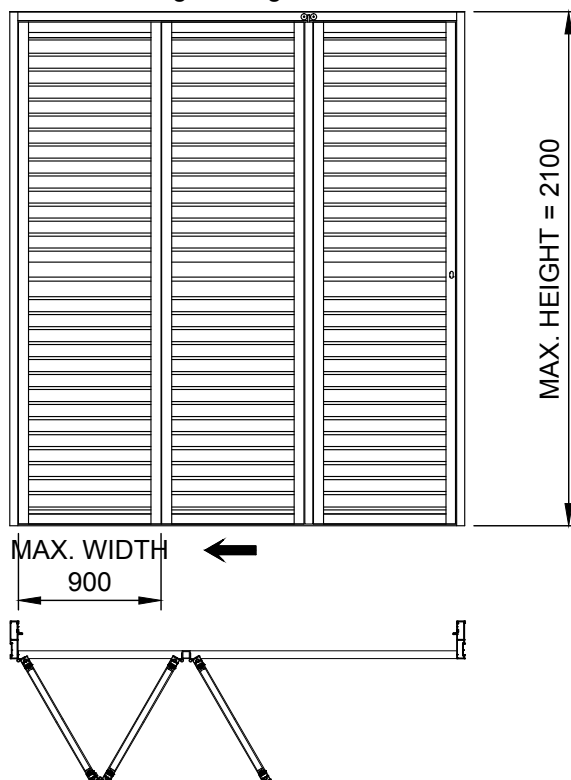


This manual must be read in conjunction with the Installation, Cleaning & Maintenance Document and the Performance Certificates for the relevant system. The manual must also be used in conjunction with the design and cutting list from the latest version of StarFront.

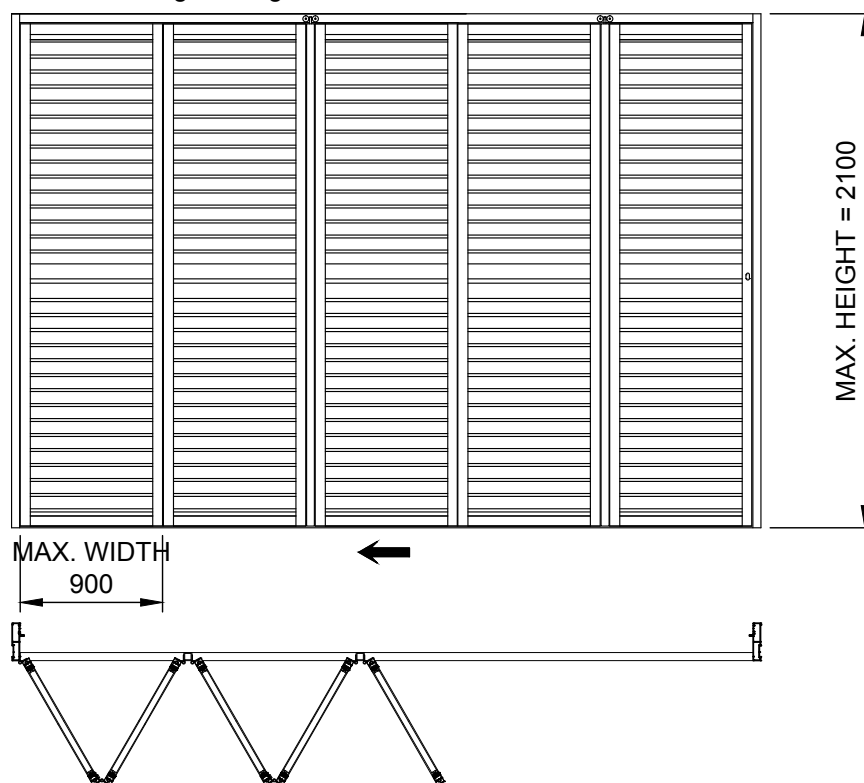
Disclaimer: The right to make alterations is reserved  
© 2013 Wispeco (Pty) Ltd, All Rights Reserved

### CONFIGURATIONS & SIZE LIMITATIONS

3 Panel Sliding Folding Shutter

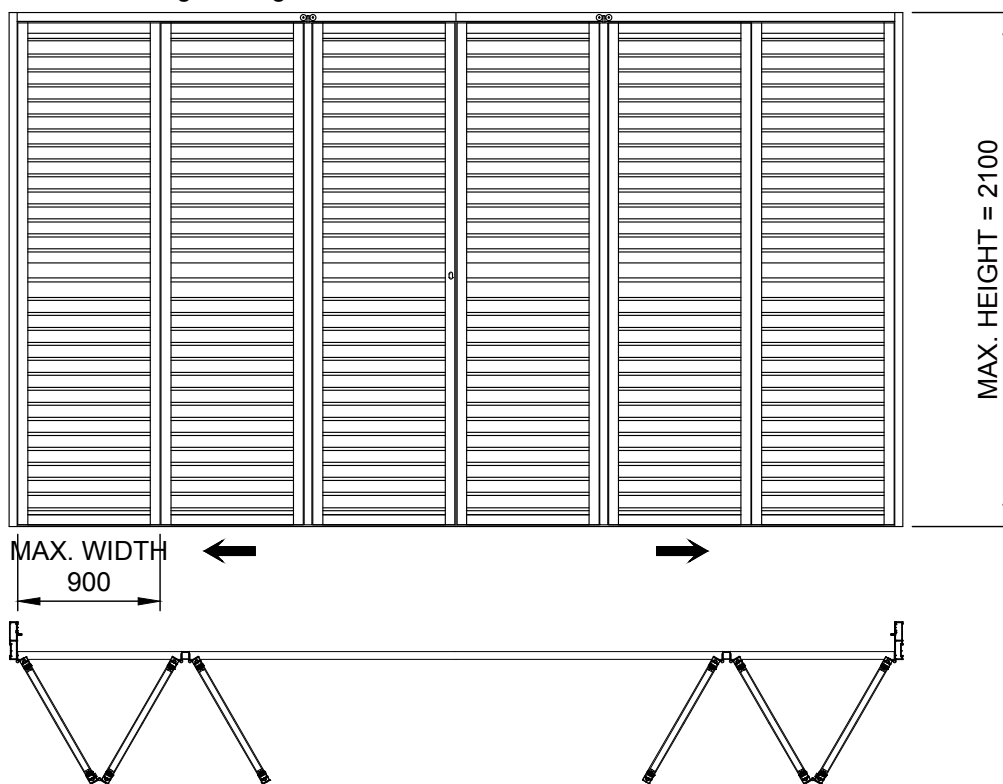


5 Panel Sliding Folding Shutter

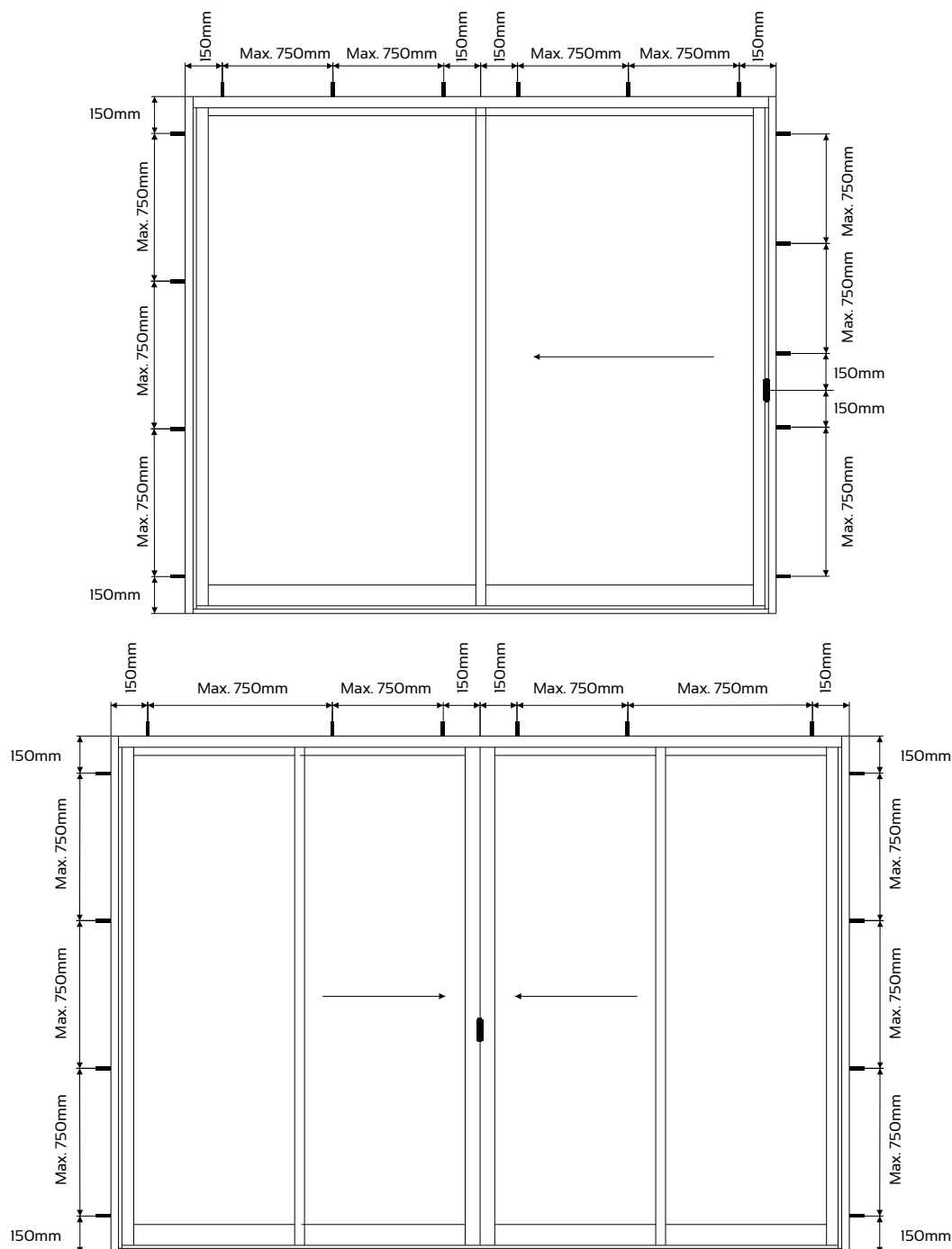




6 Panel Sliding Folding Shutter



### TYPICAL FIXING POSITIONS

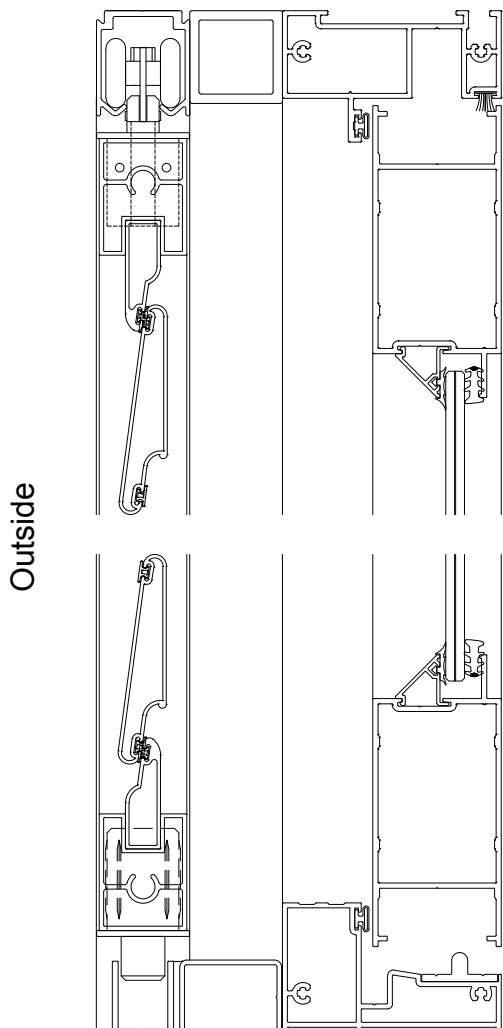


**IMPORTANT:** As there are many different methods of fixing the door to the structure, the illustration is a general fixation detail. The illustration defines the general method and hole fixings. Before installation or machining of the holes, please ensure that you have checked the required fixing method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

Failure to fix the door 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.

For stand alone Horizon shutter doors fitted to an existing door.



**Note:**

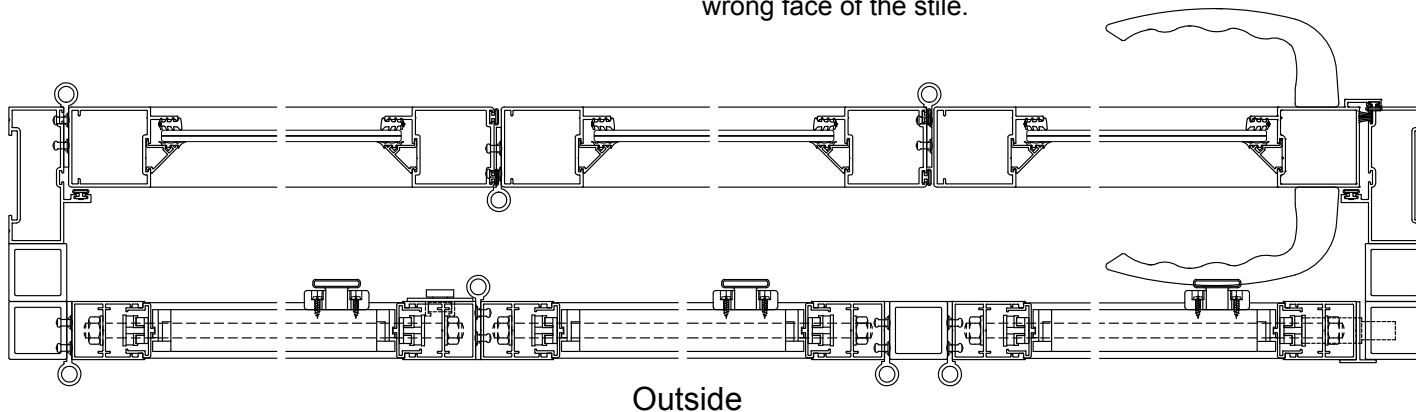
Refer to Starfront for the cutting schedules of the manufacture of Vista fold doors as well as the Horizon framing. Note that the beads of the doors to face outwards as shown & therefore the machining of the stiles for top guide & bottom rollers to be opposite to what is shown in the manual.

**Note:**

When placing the Horizon shutter panels into position, ensure there is sufficient space for the door handles to move with the shutter louvre panels open.

**Note:**

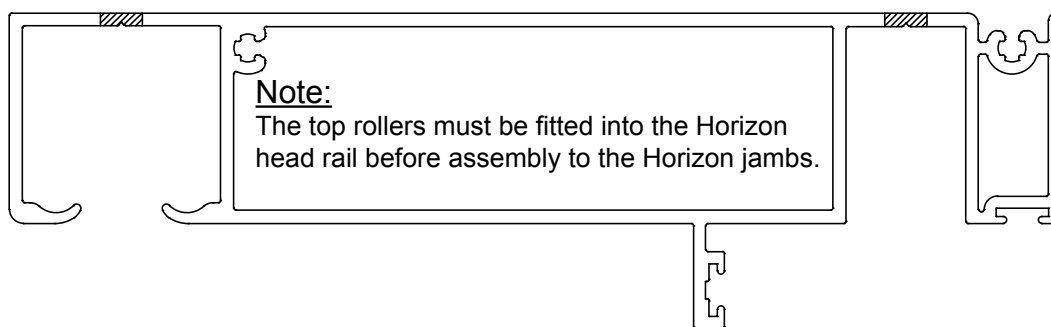
When selecting the lock stiles in Starfront, please note that certain lock stiles cannot be used due to the closing lip on the wrong face of the stile.



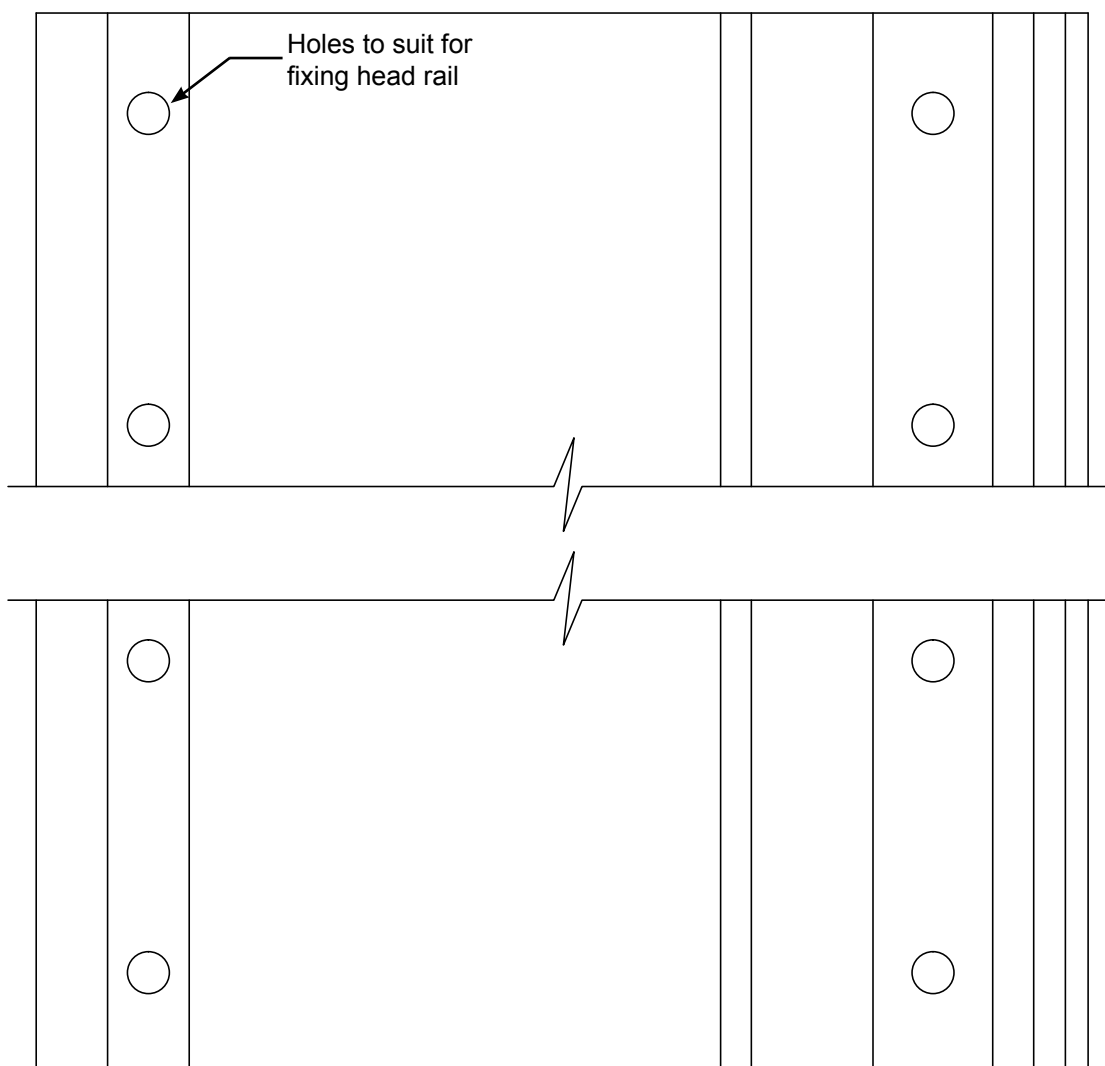
**Note:**

Refer to Starfront for the cutting schedules of the manufacture of Vista fold doors as well as the new Horizon outer framing. Note that the beads of the doors to face outwards & therefore the machining of the stiles for top guide & bottom rollers to be opposite to what is shown in the manual.

Section not to scale



Outside

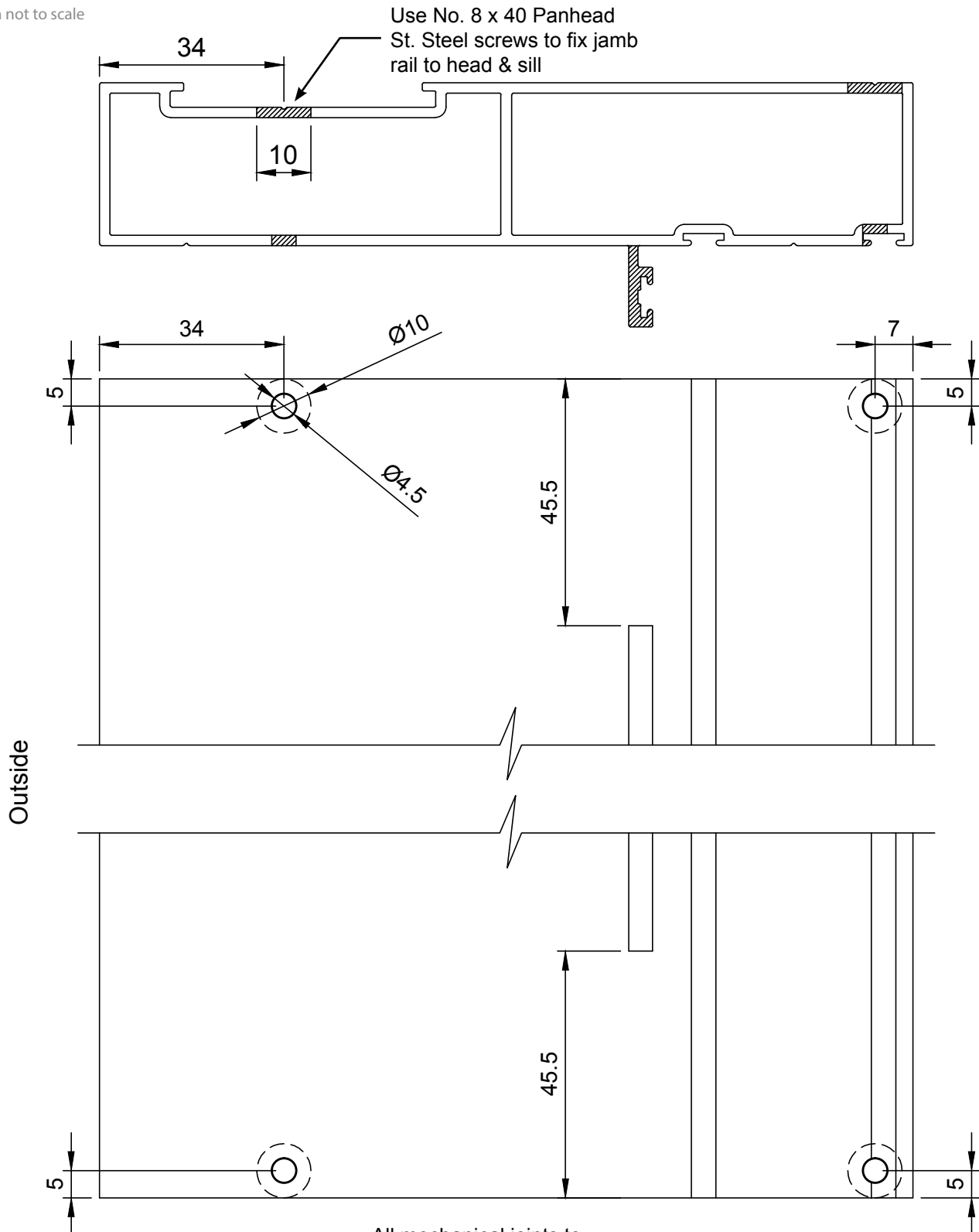


All mechanical joints to be silicone sealed.

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.

Disclaimer: The right to make alterations is reserved  
© 2013 Wispeco (Pty) Ltd, All Rights Reserved

Section not to scale

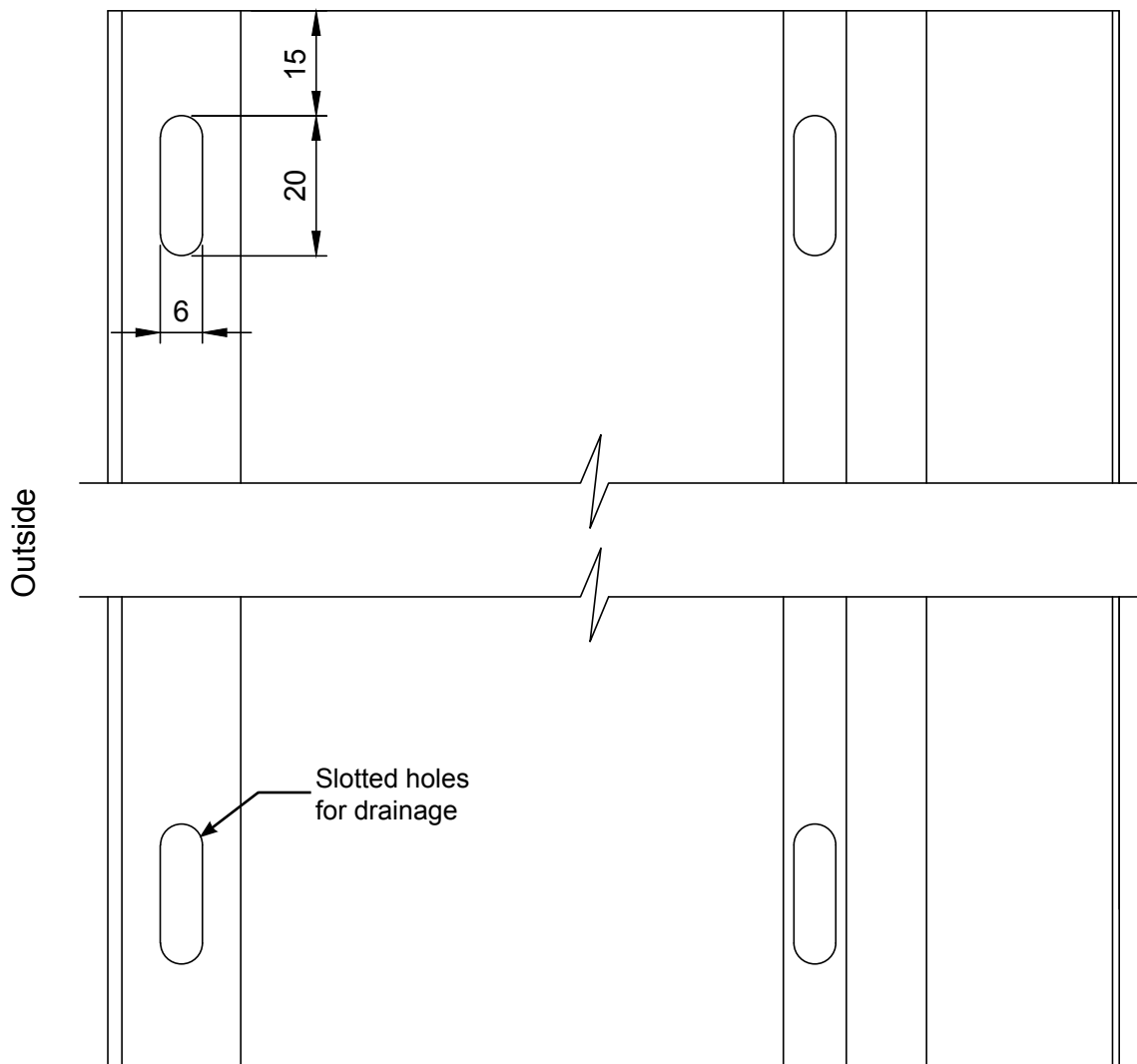


All mechanical joints to  
be silicone sealed.

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.

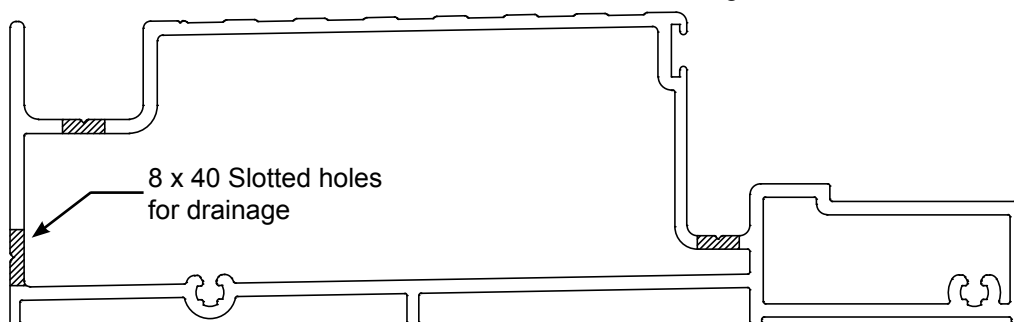
Disclaimer: The right to make alterations is reserved  
© 2013 Wispeco (Pty) Ltd, All Rights Reserved

Section not to scale



**Note:**

Refer to the Vista fold door manual for fitting of track



All mechanical joints to be silicone sealed.

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.

Disclaimer: The right to make alterations is reserved  
© 2013 Wispeco (Pty) Ltd, All Rights Reserved

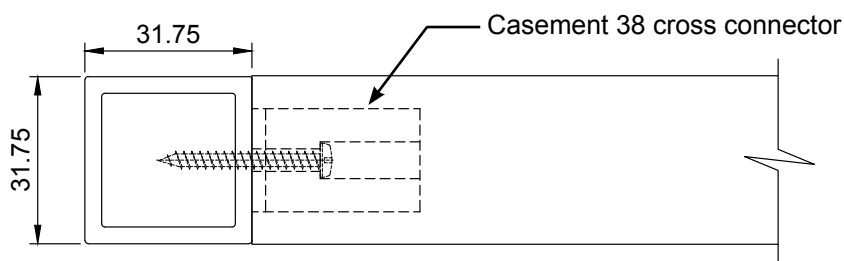
**Note:**

The Square Tube is to be used when the Horizon Shutters are to be installed as stand alone shutters or added to an existing door.

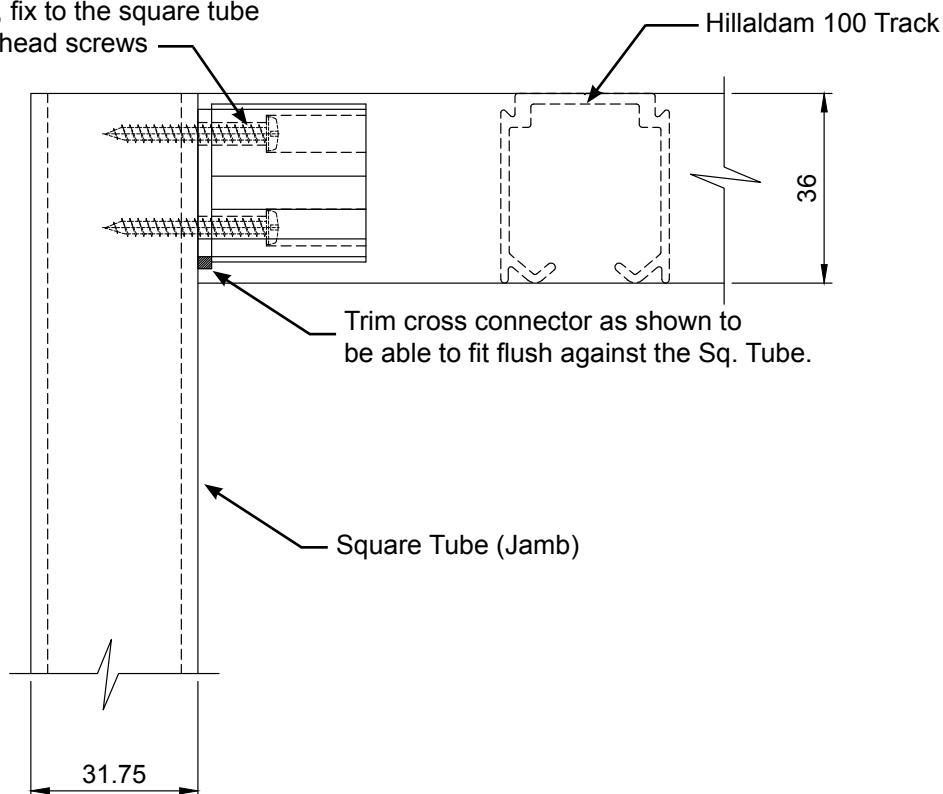
Section not to scale

**Note:**

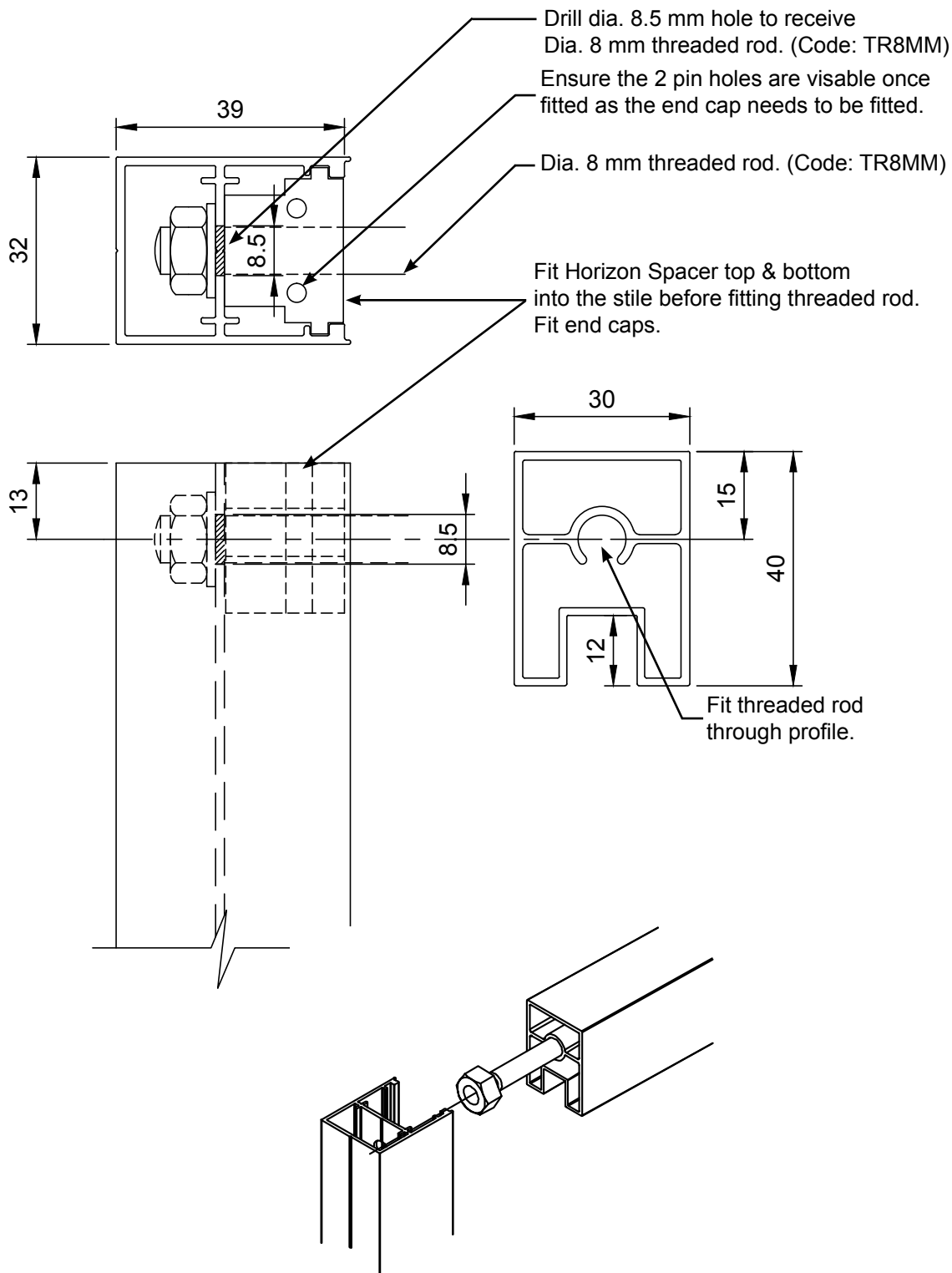
The top rollers must be fitted into the Hilladam 100 Track before assembly of the square tube to the Hilladam track.



Fit Casement 38 cross connector (Code: CC38) into the Hilladam 100 Track, fix to the square tube with No. 6 x 30 Panhead screws



Section not to scale

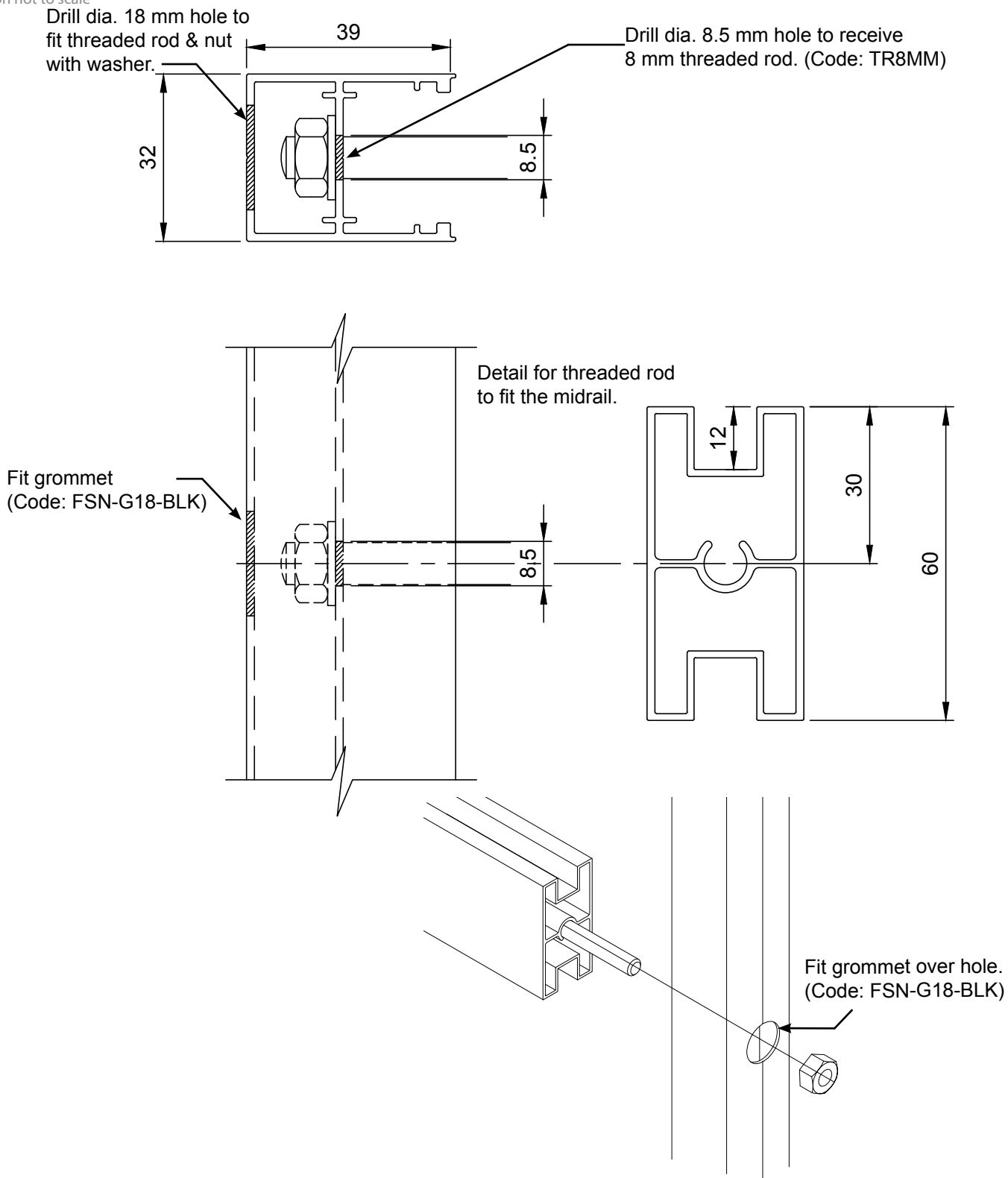




## MACHINING DETAILS

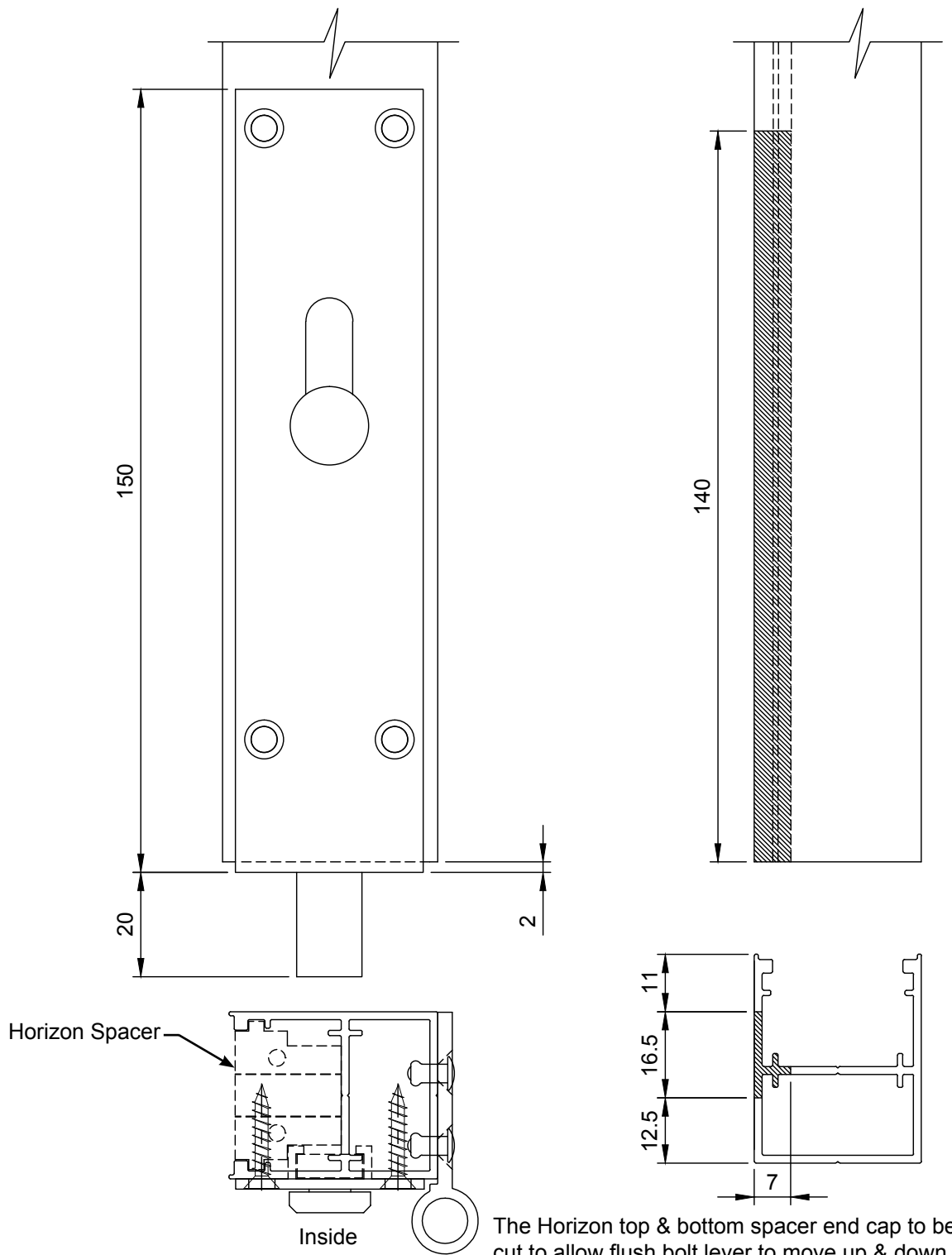
### SHUTTER FRAME - MIDRAIL

Section not to scale



Section not to scale

Machine top & bottom of stile before assembly.  
Ensure correct stile is machined for flush bolt.

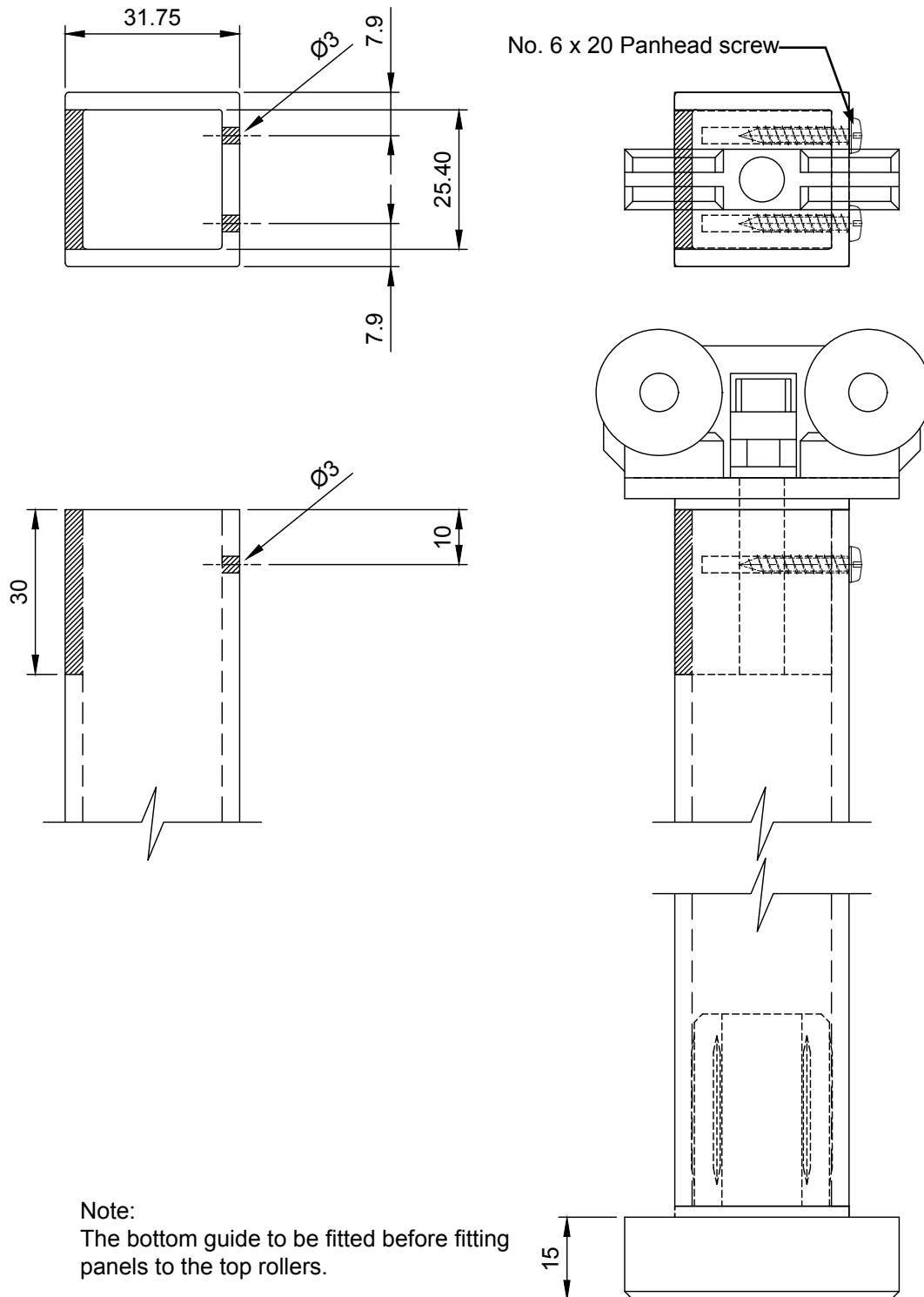


The Horizon top & bottom spacer end cap to be cut to allow flush bolt lever to move up & down.

**Note:**

The top rollers must be fitted into the Horizon head rail before assembly of the Horizon jambs to the Horizon head rail.

Section not to scale

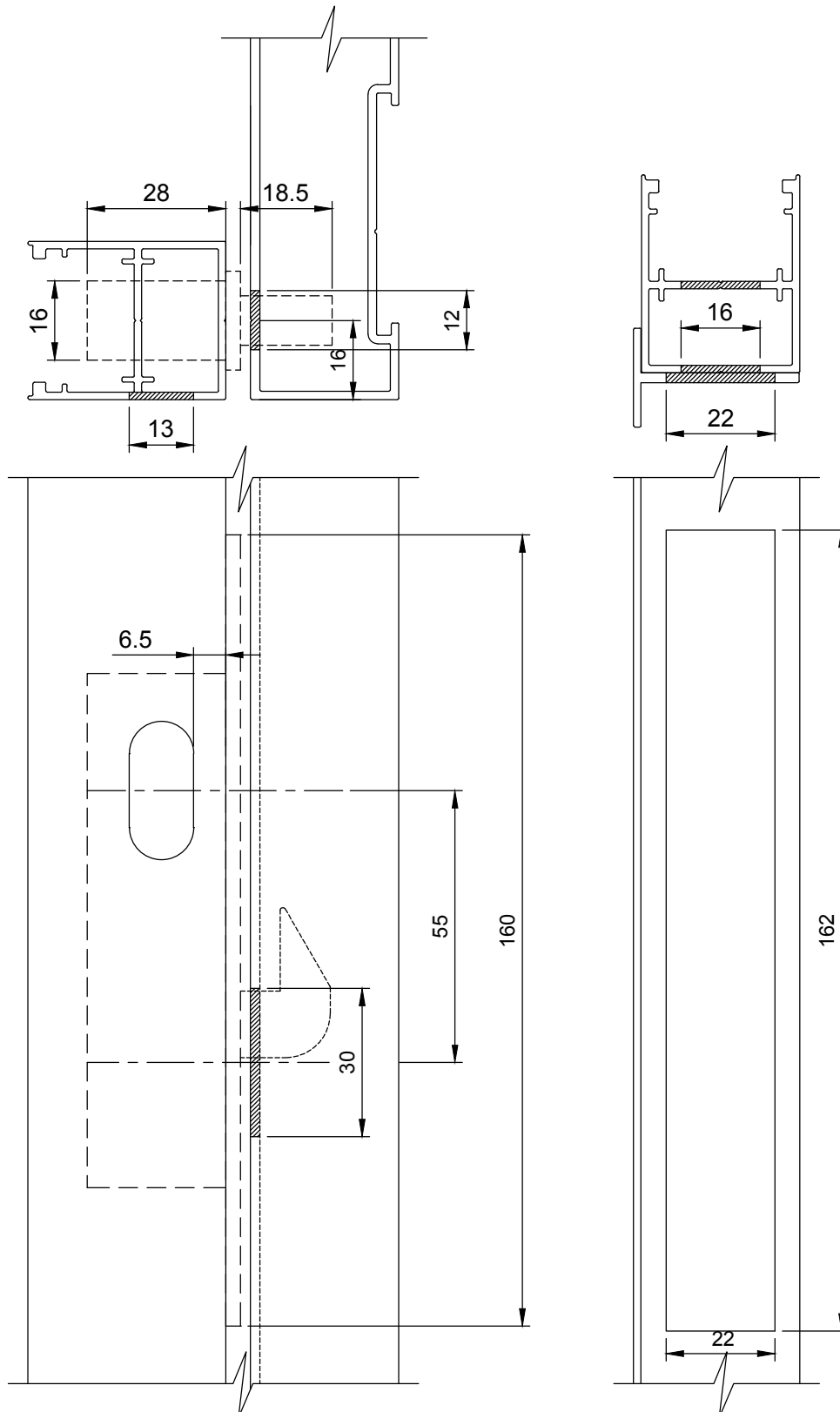


**Note:**

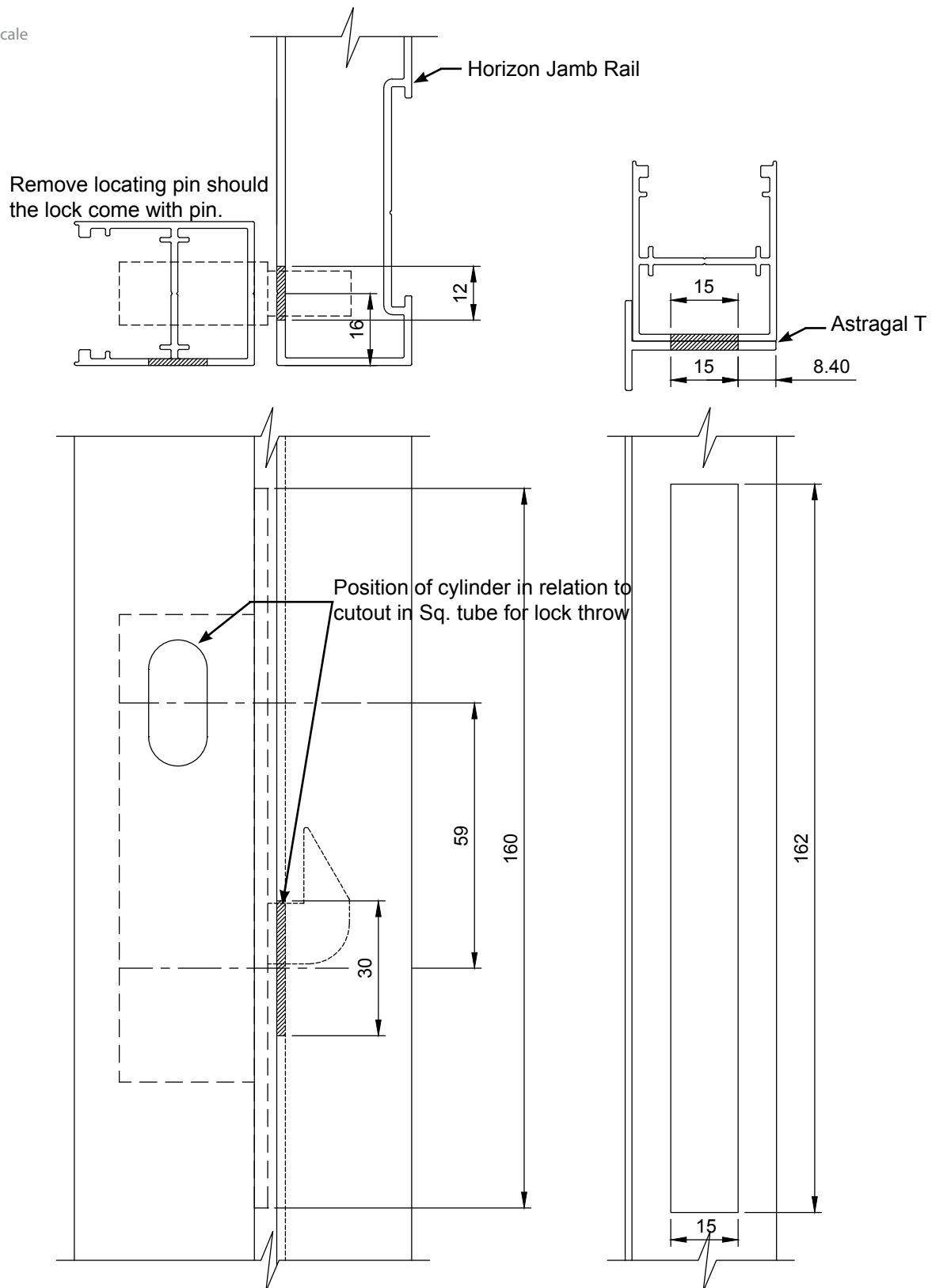
The bottom guide to be fitted before fitting panels to the top rollers.

Section not to scale

Recommended hooklock - LCH-GLSTN



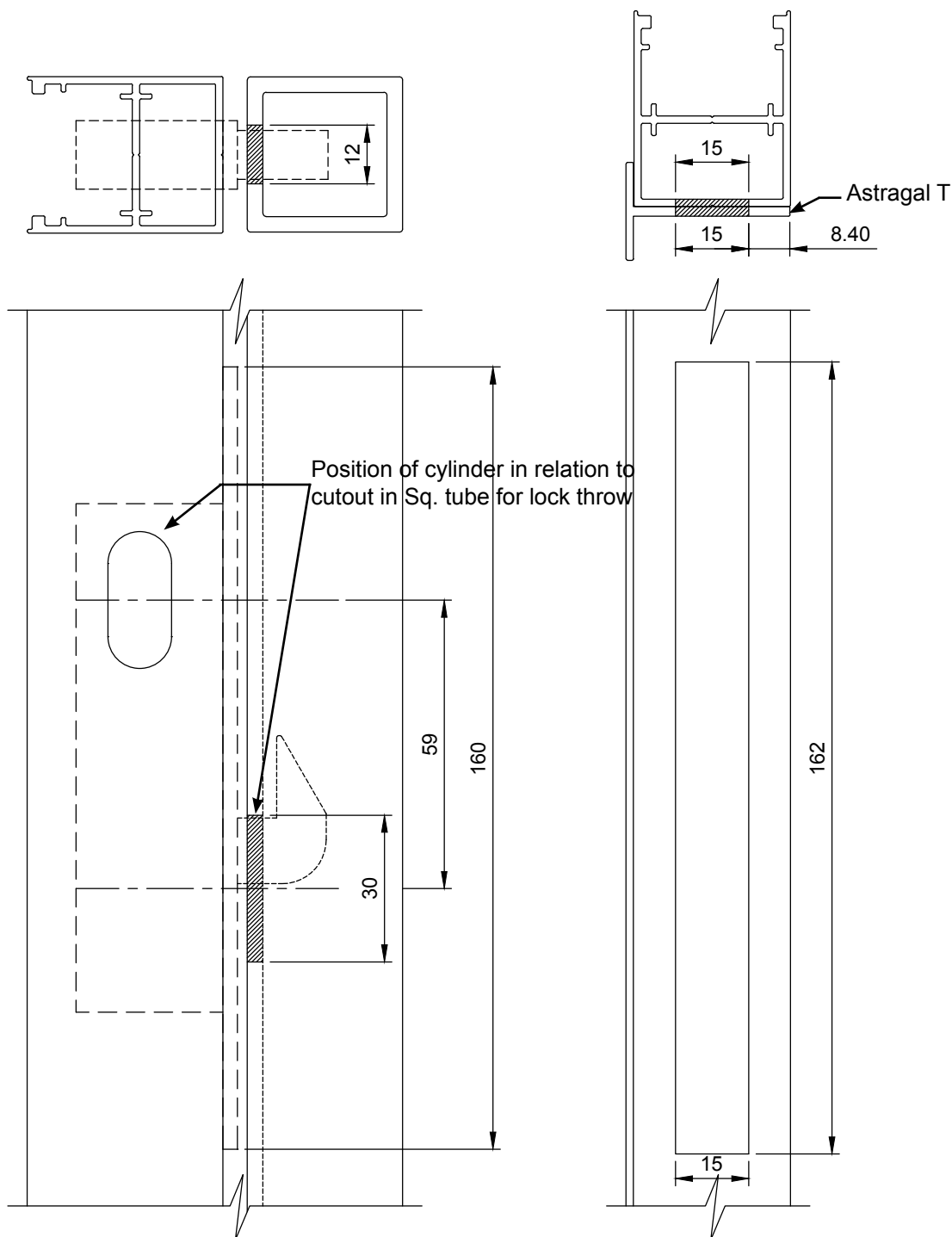
Section not to scale

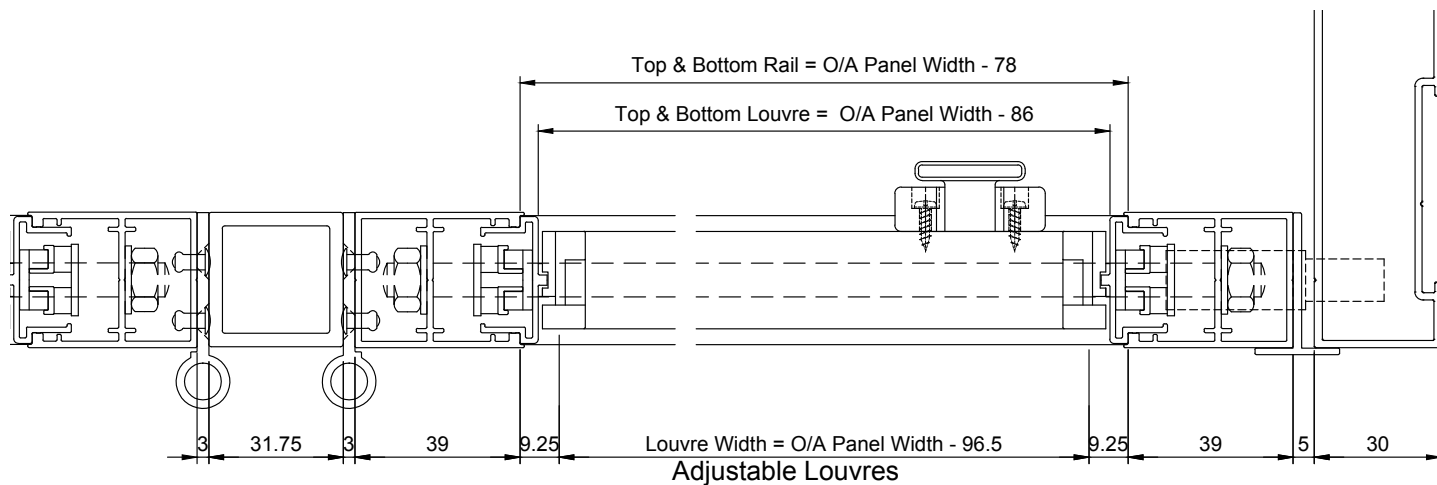


Section not to scale

Note:

The Square Tube is to be used as the jambs when the Horizon Shutters are stand alone or added to an existing door.

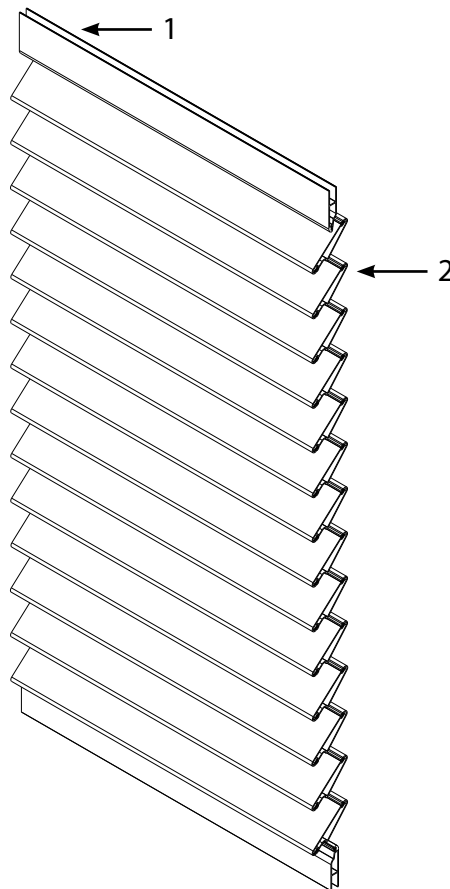
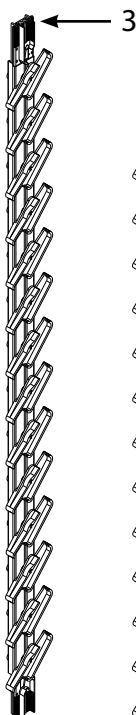




Outside

Fit weather seal gasket before fitting louvre blades into louvre mechanism.

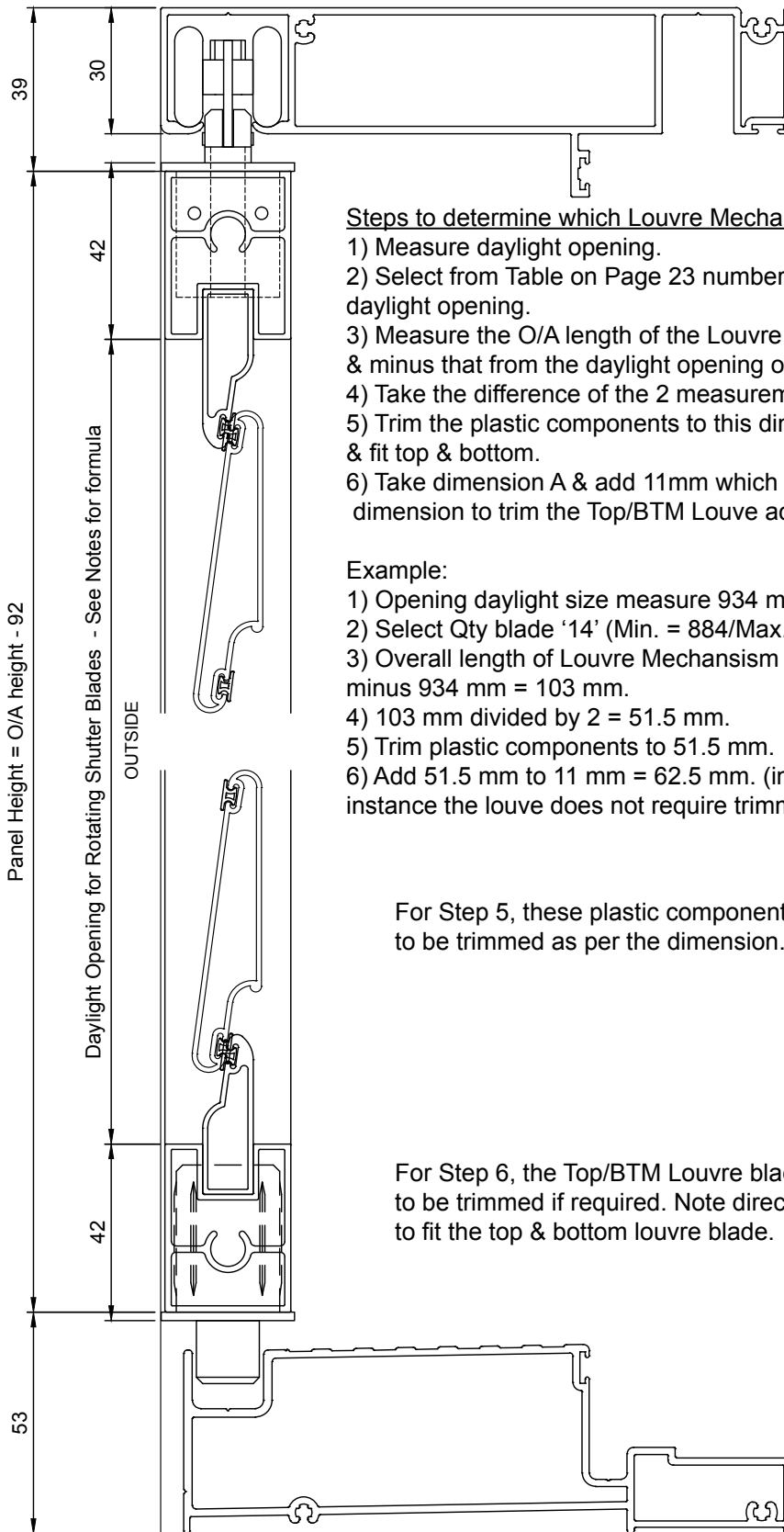
See Page 23 for calculating the Louvre Mechanism size.



ITEM	QTY	DIE No.	DESCRIPTION
1	2	W55469	Top/Bottom Louvre
2	14	W55474	Adjustable Louvre
3	1	1 x Set	Louvre Mechanism

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.

Disclaimer: The right to make alterations is reserved  
© 2013 Wispeco (Pty) Ltd, All Rights Reserved



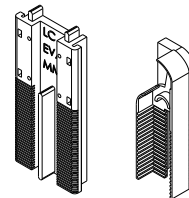
Steps to determine which Louvre Mechanism to select: (as per page 23)

- 1) Measure daylight opening.
- 2) Select from Table on Page 23 number of blades based on Min. & Max. daylight opening.
- 3) Measure the O/A length of the Louvre mechanism & minus that from the daylight opening on panel.
- 4) Take the difference of the 2 measurements & divide by 2.(Dimension A)
- 5) Trim the plastic components to this dimension & fit top & bottom.
- 6) Take dimension A & add 11mm which is the dimension to trim the Top/BTM Louve accordingly.

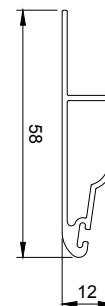
**Example:**

- 1) Opening daylight size measure 934 mm
- 2) Select Qty blade '14' (Min. = 884/Max. = 944)
- 3) Overall length of Louvre Mechanism = 831 mm, minus 934 mm = 103 mm.
- 4) 103 mm divided by 2 = 51.5 mm.
- 5) Trim plastic components to 51.5 mm.
- 6) Add 51.5 mm to 11 mm = 62.5 mm. (in this instance the louve does not require trimming)

For Step 5, these plastic components to be trimmed as per the dimension.



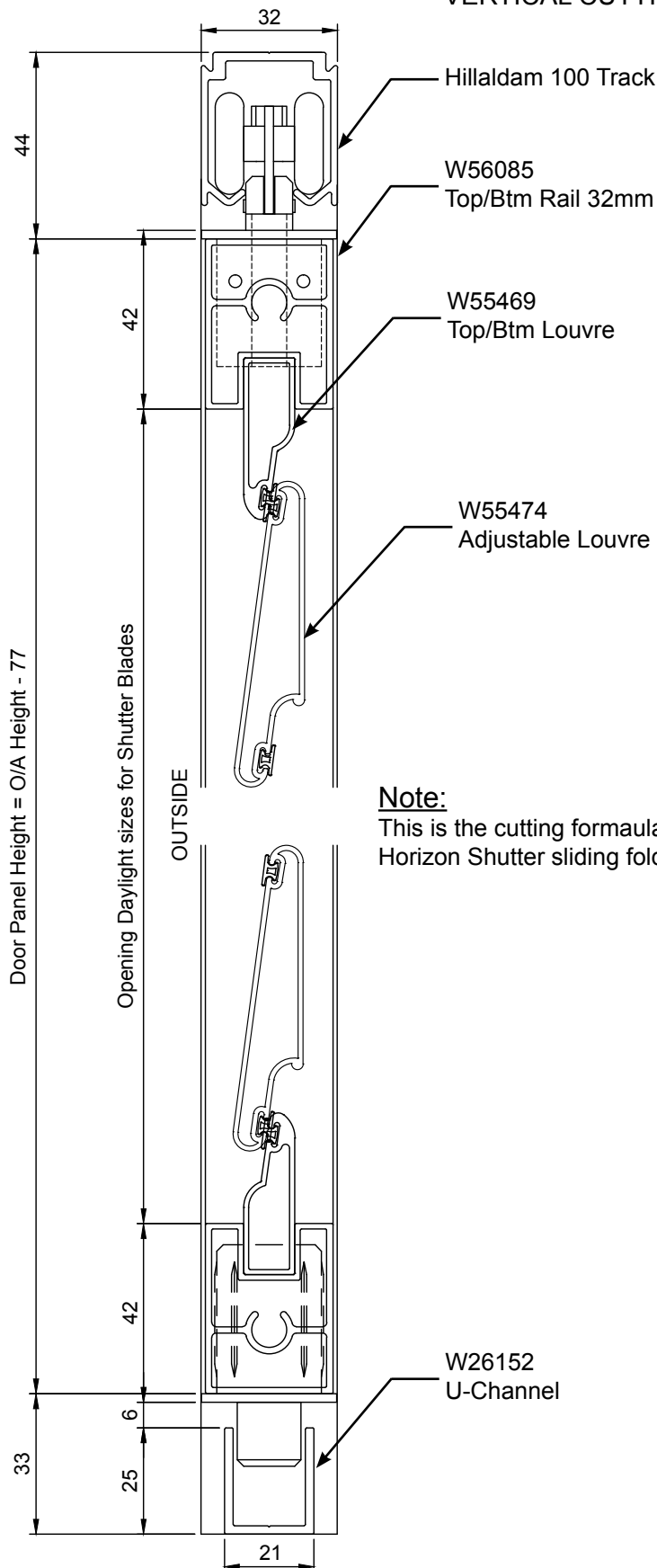
For Step 6, the Top/BTM Louvre blade to be trimmed if required. Note direction to fit the top & bottom louvre blade.





## ASSEMBLY DETAILS

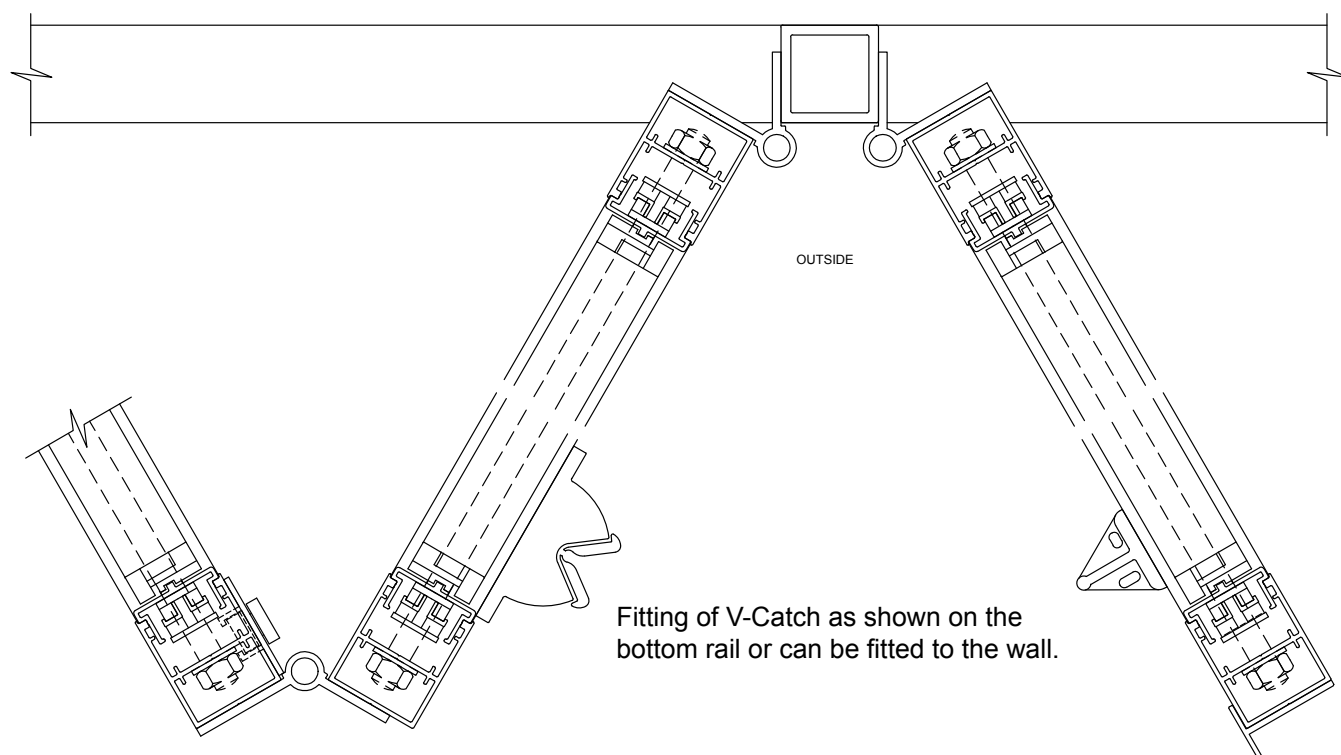
### VERTICAL CUTTING FORMULA-STAND ALONE



**Note:**

This is the cutting formula for stand alone Horizon Shutter sliding folding doors.

Table for Rotating Shutter Blades			
QTY of Rotating Blades	Code	Daylight Opening	
		Min	Max
6	ABLM 6	404	464
7	ABLM 7	464	524
8	ABLM 8	524	584
9	ABLM 9	584	644
10	ABLM 10	644	704
11	ABLM 11	704	764
12	ABLM 12	764	824
13	ABLM 13	824	884
14	ABLM 14	884	944
15	ABLM 15	944	1004
16	ABLM 16	1004	1064
17	ABLM 17	1064	1124
18	ABLM 18	1124	1184
19	ABLM 19	1184	1244
20	ABLM 20	1244	1304
21	ABLM 21	1304	1364
22	ABLM 22	1364	1424
23	ABLM 23	1424	1484
24	ABLM 24	1484	1544
25	ABLM 25	1544	1604
26	ABLM 26	1604	1664
27	ABLM 27	1664	1724
28	ABLM 28	1724	1784
29	ABLM 29	1784	1844
30	ABLM 30	1844	1904
31	ABLM 31	1904	1964
32	ABLM 32	1964	2024



## ASSEMBLY DETAILS

### FITTING OF REVERSABLE SHUTTER HANDLE

