

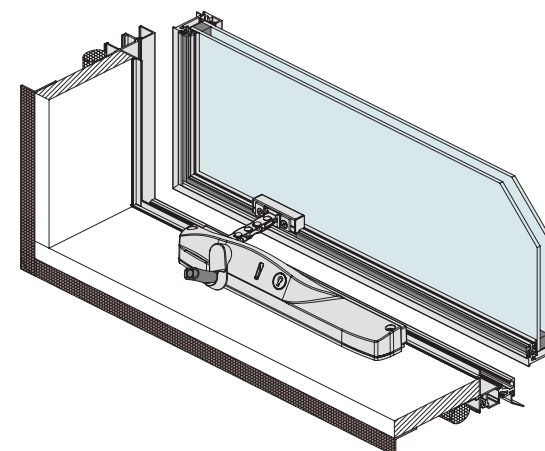
RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW



RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW

OVERVIEW

- Series 755 ComfortEDGE™ awning window is an energy efficient window system designed to have minimised sightline from the aluminium frame and sash.
- A combination of thermal simulation tools and physical testing were used in the development of this system to ensure optimal energy efficiency could be achieved.
- Series 755 ComfortEDGE™ awning windows have been successfully tested for compliance with Australian Standard AS 2047.
- Many features of this product are patented or registered designs, such as the chain winder adaptor bracket that allows the body of the sash to remain concealed below the reveal and maintain the same sightlines as the fixed lights. This greatly enhances thermal performance by reducing the exposed internal boundary condition while also achieving a clean, minimalist, architectural look on both the inside and outside.
- The window has a unique patented thermal seal fitted to the essential top single reveal that greatly reduces thermal transmission through the window. The window can also be fitted with twin reveals for conventional window installation.
- Water resistance rating of 600Pa allows fabricators to use this awning window in most exposed locations in Australia.
- Optional sash and mullion strengths cover a large variety of design wind load areas, refer Performance tables.
- Wrap around sashes will accept 18 to 20mm IGU's with full wrap around glazing channel.
- Fixed light glazing bead will accept 18 to 20mm IGU's with roll-in wedge.
- Awning sashes are fitted with heavy duty chain winders either single or double winders to allow for very large sashes sizes while still meeting compliance
- Moulded nylon sash corner guard covers the potentially dangerous lower sash corners when the awning is in the open position.
- Sash spacers are fitted to the jambs to guide the sash into the hook hinge in the frame for easy assembly
- Continuous hinge hood on sashes protects the top of the sash from water intrusion. This hinge also allows fabricators to easily fit and remove sashes from the frame. The hood hinge detail is universal for both sash and fixed lights giving a very neat minimalist look. This achieves a cleaner minimalist architectural look while also improving manufacturing efficiencies by reducing the sections required to make the frame.
- The winder adaptor has built-in flyscreen support leg which allows fabricators to easily fit chain winder and install a flyscreen without expensive unsightly trims. The chain winder is fitted to a reinforced section in the adaptor, and the sash has thickened up section to accept the chain bracket. These thickened sections reduce the chance of damage when operating the winder over a prolonged period of time.
- Several sash sizes have been successfully tested by an independent NATA accredited testing facility for Safe4kids in accordance with BCA restricted opening.



**GENERAL**

**NB:** Maximum panel height and width of Awning sashes are interdependent.

**Max Panel Height\***  
< 900mm wide = 2053mm

**Max Panel Width\***  
< 800mm high = 2353mm

**Max Glass Thickness**  
18-20mm

**Frame Depth**  
75mm

**ENERGY**

**UW Range**  
2.32 - 3.22

**SHGC Range**  
0.224 - 0.572

**WEATHER**

**Maximum Water**  
600Pa

**ACOUSTICS**

**TBA**  
TBA

\* Dimensions subject to individual site conditions.

## TABLE OF CONTENTS

OVERVIEW.....	2
CONFIGURATIONS.....	4
HARDWARE OPTIONS.....	5
STRENGTH CHARTS.....	6
COMFORTEDGE™ REVEAL.....	9
THERMAL PERFORMANCE.....	10
HEAD DETAIL.....	11
WITH FLYSCREEN.....	12
SILL DETAIL.....	13
WITH FLYSCREEN.....	14
JAMB DETAIL.....	15
WITH FLYSCREEN.....	16
MULLION DETAILS.....	17
ALTERNATIVE SYSTEMS.....	18
CAD FILES.....	19

## SAMPLE SPECIFICATION

Aluminium windows should be manufactured using VANTAGE® Series 755 ComfortEDGE™ Awning Window system.

Refer to wind load tables for maximum panel heights and widths.

### Hardware

- All other hardware and components as per Series 755 Technical Manual.
- Chainwinder

### Finishes

- All powder coated material shall be produced to AS3751
- All anodised material shall be produced to ASI231

### Testing

Product shall have a test report to show compliance

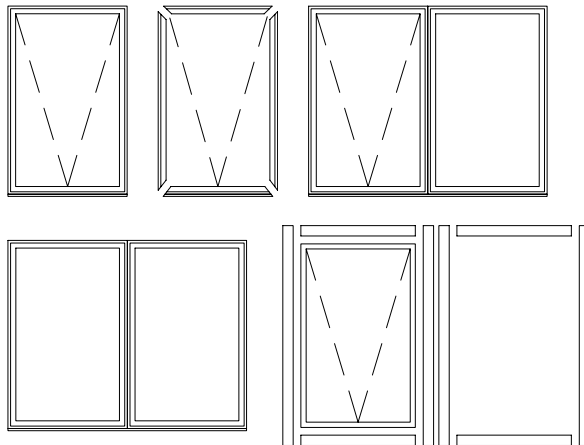
*All products are available from approved AWS fabricators as detailed in AWS literature or on the internet [www.awsaustralia.com.au](http://www.awsaustralia.com.au). All such framing is to be constructed assembled and fixed to meet the requirements of AS2047 (windows in building), AS1170 (Loading code). All glass, glazing, rubbers, seals and gaskets shall be applied in accordance with the requirements of AS1288 (glass in buildings - selection and installation).*

RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW

### CONFIGURATIONS

Series 755 ComfortEDGE™ windows can be fabricated as awnings and fixed lights.

The options can be fabricated as stand alone windows or combination windows with square or mitred frames.



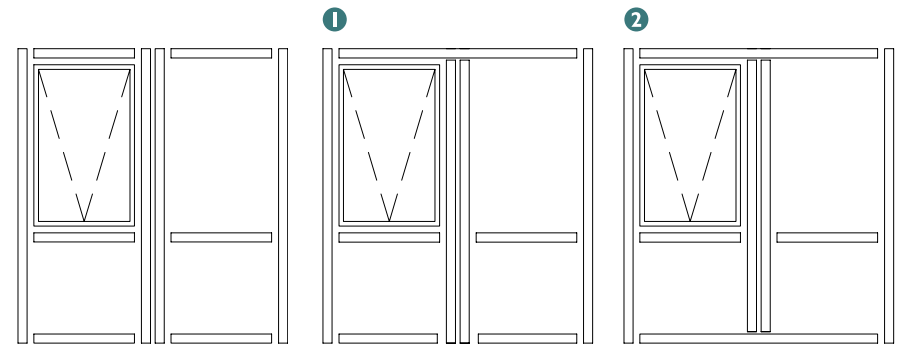
### TRANSOM TYPE COMBINATION WINDOWS

Can also be fabricated with mullions running through.

These combinations windows can be fabricated with mullion running from under head. Windows can also be fabricated with run through sill as shown on ②.

It's preferable to allow mullions to run through at sill to allow for free drainage as shown in ①.

Notes: 75mm transoms always run between mullions.



### GLAZING OPTIONS

Sashes will accept glass from 18mm to 20mm insulating glass units. Fixed lights will also accept glass from 18mm to 20mm insulating glass units.

Large sashes fitted with heavy glass may be limited by the hardware:

#### Over Size Windows

We also offer larger size awning windows:

- 2100 x 903mm wide
- 1000 x 2400mm wide

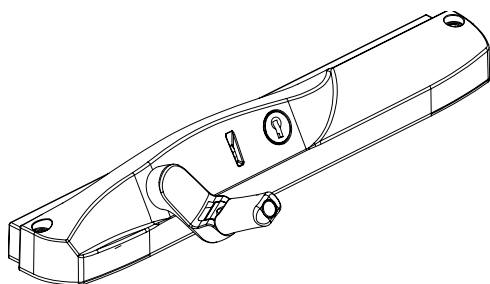
Hardware	Min. Sash Height	Max. Sash Height	Min. Sash Width	Max. Sash Width
Awning sashes with single chain winder	403mm* / 553 mm†	2053mm	360mm	1163mm
Awning sashes with twin chain winder	403mm* / 553 mm†	2053mm	670mm	2353mm

\* With short (restricted) throw chain

† With full throw chain.

SCALE: NTS

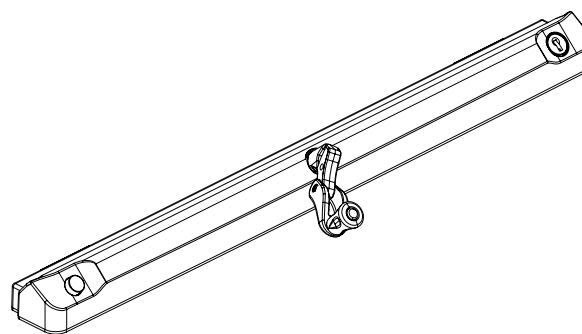
## HARDWARE OPTIONS



### Single Chainwinder

The single winder can be used on all sashes up to and including 1163mm wide.

- Key Lockable with visual indicator denoting locked (red) or unlocked (green)
- Handle can be folded back to avoid interference with blinds or drapes.
- Supplied as standard with stainless steel chain.
- Can be factory restricted for use in elevated applications as part of a Safe-4-Kids solution.
- Colour matched powdercoat finish available.



### Twin Chainwinder

Twin chain winder must be used on all awning windows over 1000mm high and over 1210mm wide (Sash width 1163) and recommended on windows less than 1000mm high that are over 1210mm wide.

- TwinChainwinders are supplied as standard on sashes over 1160mm in most applications.
- Key Lockable.
- Handle can be folded back to avoid interference with blinds or drapes.
- Supplied as standard with stainless steel chain.
- Can be factory restricted for use in elevated applications as part of a Safe4Kids solution.
- Colour matched powdercoat finish available.

The following pages outline the sash strengths for Series 756 Awning windows fitted with each of the above hardware options

RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW

STRENGTH CHARTS - SASH STRENGTH - SINGLE WINDER

S = Serviceability limit state (deflection = L/250).

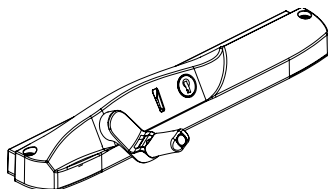
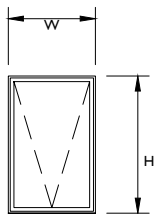
U = Ultimate strength limit state (factored yield strength = 110 MPa).

These tables have been calculated using nominal section properties. Many window sizes have been tested as per the requirements of AS2047.

Strength Limitations

The table right shows a range of window sizes and the actual sash side rail strength along with the hardware strength (ability to hold the sash closed in the frame under negative load).

- On some of the examples you can see that the hardware (winder with single chain) is the weak link and would limit the overall ultimate sash strength.
- We do offer a twin chain winder and this would improve sash strength where the single chain has limited the overall ratings, refer to the table on following pages.
- It's critical that the approved / tested chain winder is fitted to these windows to achieve the stated performance outcomes.
- 3000 Serviceability ratings were restricted by the maximum water resistance (600Pa) achieved on this product.
- Blank denotes Serviceability rating under 400Pa.
- For the higher sash strength (Serviceability and Ultimate) we also offer a twin chain winder.



Window (mm)		Sash (mm)		Hardware Rating
Height	Width	S	U	U
1300	600	2941	4500	4500
	700	2510	4500	4500
	900	1959	4093	4093
	1000	1775	3664	3664
	1200	1508	3030	3030
1400	600	2329	4500	4500
	700	1986	4500	4500
	900	1546	3791	3791
	1000	1398	3394	3394
	1200	1183	2807	2807
1500	600	1876	4500	4500
	700	1598	4279	4500
	900	1241	3316	3530
	1000	1121	2990	3161
	1200	946	2515	2614
1600	600	1534	4395	4500
	700	1306	3738	4311
	900	1012	2892	3303
	1000			
	1200			
1700	600	1270	3875	4500
	700	1080	3294	4050
	900	836	2545	3104
	1000			
	1200			

Window (mm)		Sash (mm)		Hardware Rating
Height	Width	S	U	U
1800	600	1064	3442	4500
	700	904	2924	3820
	900	699	2257	2927
	1000			
	1200			
1900	600	900	3078	4264
	700	765	2614	3614
	900	590	2016	2769
	1000			
	1200			
2000	600	768	2768	4046
	700	652	2351	3429
	900	503	1810	2628
	1000			
	1200			
2100	600	660	2504	3849
	700	561	2125	3262
	900	432	1637	2500
	1000			
	1200			

\* Dimensions subject to individual site conditions.

RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW

STRENGTH CHARTS - SASH STRENGTH - TWIN WINDER

S = Serviceability limit state (deflection = L/250).

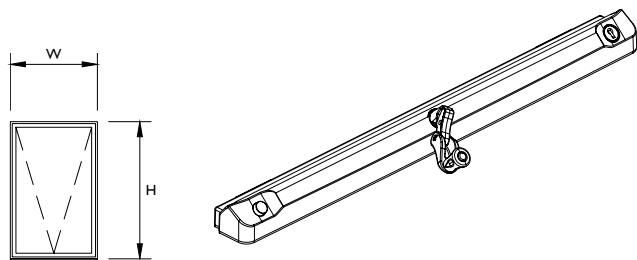
U = Ultimate strength limit state (factored yield strength = 110 MPa).

These tables have been calculated using nominal section properties. Many window sizes have been tested as per the requirements of AS2047.

Strength Limitations

The table left shows a range of window sizes and the actual sash side rail strength along with the hardware strength (ability to hold the sash closed in the frame under negative load).

- On all of these examples using the twin winders the winder was never the weak link.
- Twin chain winder = 5500Pa Ultimate for 1m<sup>2</sup>.
- 3000 Serviceability ratings were restricted by the maximum water resistance (600Pa) achieved on this product.
- Blank denotes rating under 400Pa.



Window (mm)		Sash (mm)		Hardware Rating
Height	Width	S	U	U
1300	600	2941	4500	4500
	700	2510	4500	4500
	900	1959	4093	4500
	1000	1775	3664	4500
	1200	1508	3030	3788
1400	600	2329	4500	4500
	700	1986	4500	4500
	900	1546	3791	4500
	1000	1398	3394	4243
	1200	1183	2807	3509
1500	600	1876	4500	4500
	700	1598	4279	4500
	900	1241	3316	4413
	1000	1121	2990	3951
	1200	946	2515	3268
1600	600	1534	4395	4500
	700	1306	3738	4500
	900	1012	2892	4129
	1000			
	1200			
1700	600	1270	3875	4500
	700	1080	3294	4500
	900	836	2545	3880
	1000			
	1200			

Window (mm)		Sash (mm)		Hardware Rating
Height	Width	S	U	U
1800	600	1064	3442	4500
	700	904	2924	4500
	900	699	2257	3659
	1000			
	1200			
1900	600	900	3078	4500
	700	765	2614	4500
	900	590	2016	3462
	1000			
	1200			
2000	600	768	2768	4500
	700	652	2351	4500
	900	503	1810	3285
	1000			
	1200			
2100	600	660	2504	4500
	700	561	2125	4078
	900	432	1637	3125
	1000			
	1200			

SCALE: NTS

\* Dimensions subject to individual site conditions.

RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW

STRENGTH CHARTS - MULLION STRENGTH

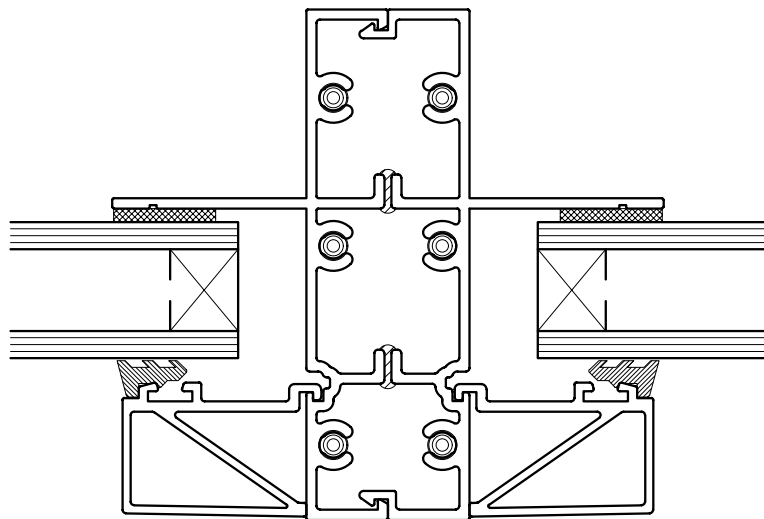
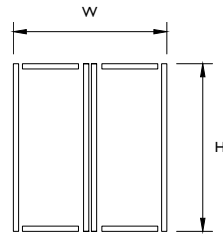
S = Serviceability limit state (deflection = L/250).

U = Ultimate strength limit state (factored yield strength = 110 MPa).

These tables have been calculated using nominal section properties. Many window sizes have been tested as per the requirements of AS2047.

Ultimate strength rating has been limited to 4500 Pa.

3000 Serviceability ratings were restricted by the maximum water resistance (450Pa) achieved on this product.



Window (mm)		Sash (mm)	
Height	Width	S	U
1300	1200	3000	4500
	1500	3000	4500
	1800	3000	4500
	2100	3000	4500
1400	1200	3000	4500
	1500	3000	4500
	1800	2864	4296
	2100	2605	3908
1500	1200	3000	4500
	1500	2765	4224
	1800	2415	3667
	2100	2191	3306
1600	1200	2721	4463
	1500	2250	3672
	1800	1953	3170
	2100	1759	2838
1700	1200	1632	2618
	1500	2254	3932
	1800	1856	3224
	2100	1603	2771

Window (mm)		Sash (mm)	
Height	Width	S	U
1700	2100	1435	2467
	2400	1322	2259
1800	1200	1888	3490
	1500	1550	2854
	1800	1333	2445
1900	2100	1188	2166
	2400	1087	1973
	1200	1598	3120
1900	1500	1308	2546
	1800	1122	2174
	2100	995	1919
2000	2400	906	1740
	1200	1365	2807
	1500	1115	2285
2000	1800	953	1946
	2100	842	1713
	2400	764	1547
2100	1200	1175	2539
	1500	958	2063
	1800	817	1754
	2100	720	1539
2100	2400	651	1386

Table 1. Wind Ratings (Pa) for sashes with a twin winder.

SCALE: NTS

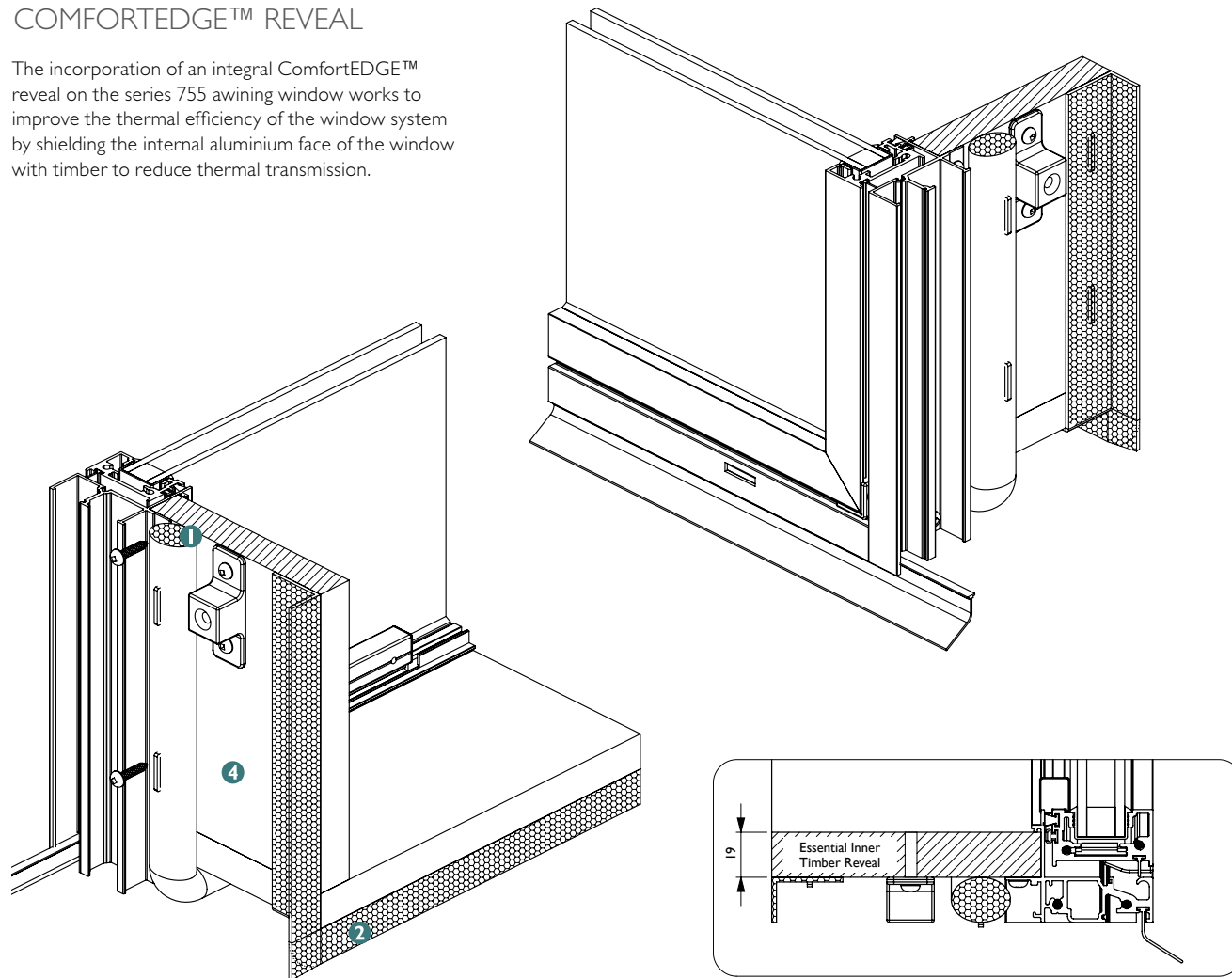
\* Dimensions subject to individual site conditions.



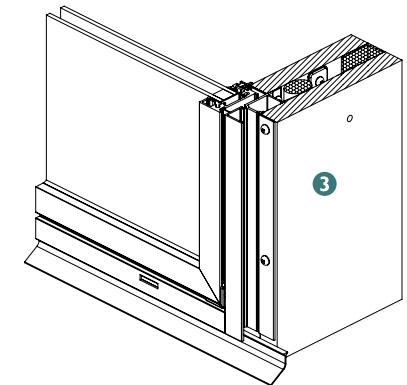
RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW

### COMFORTEDGE™ REVEAL

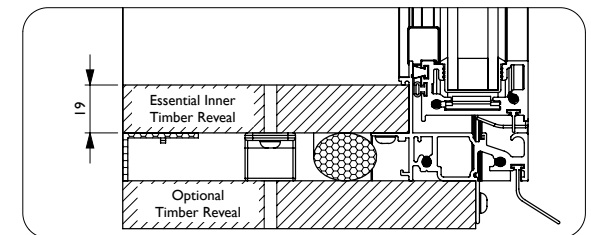
The incorporation of an integral ComfortEDGE™ reveal on the series 755 awning window works to improve the thermal efficiency of the window system by shielding the internal aluminium face of the window with timber to reduce thermal transmission.



- 1 Essential inner timber reveal is assembled around the frame perimeter to support installation.
- 2 Continuous PVC seal fitted to the essential inner timber reveal on all 4 sides for weather proofing.
- 3 Optional Double reveal also available



DOUBLE REVEAL OPTION



\* Dimensions subject to individual site conditions.

RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW

COMFORTEDGE™ REVEAL AND THERMAL PERFORMANCE

The incorporation of an integral ComfortEDGE™ reveal on the series 753 Sliding Window improves the thermal efficiency of the system by shielding the internal aluminium face of the window with timber to reduce thermal transmission.

Aluminium is an excellent conductor of heat. By only exposing a very small amount of aluminium to the interior of a building, we can minimise the ability for the aluminium window frame to conduct heat. This in effect provides a layer of insulation reducing thermal transmission through the frame.

The innovative design of our ComfortEDGE™ window ensures the sliding sash nests neatly behind the frame. By reducing the exposed aluminium on the sash, we improve the thermal performance of the window.

Take a look at the WERS ratings below comparing three Vantage windows all glazed with Viridian LightBridge clear 20mm IGU - 5/10/5

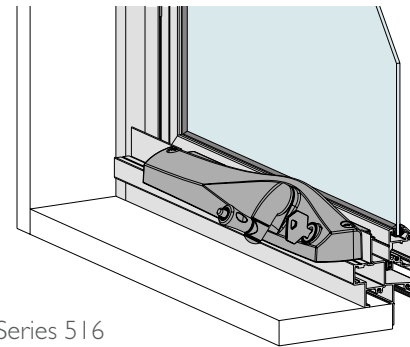
- Series 516 a traditional residential aluminium window.
- Series 756 our high performance residential aluminium which incorporates a similar frame and sash design to series 755.
- Series 755 the ComfortEDGE™ awning window with integral ComfortEDGE™ reveal shielding the aluminium frame.

	Uw Value
516 Residential Awning - Double Glazed	3.4
755 ComfortEDGE™ Awning Window - Double Glazed	2.4
756 High Performance Awning Window - Double Glazed	3.5

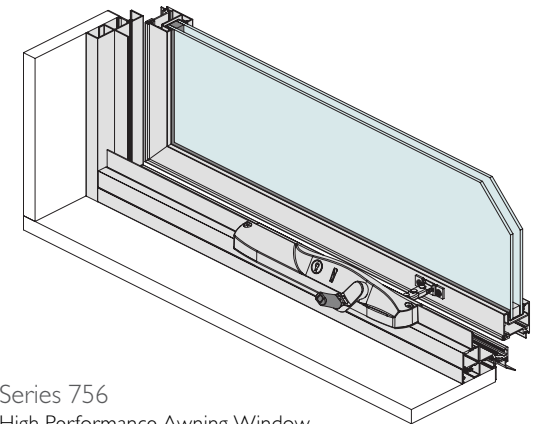


The benefit of shielding the aluminium frame is evident with the Series 755 ComfortEDGE™ Awning Window achieving a Uw value of 2.4, significantly lower than the similar non-shielded equivalents.

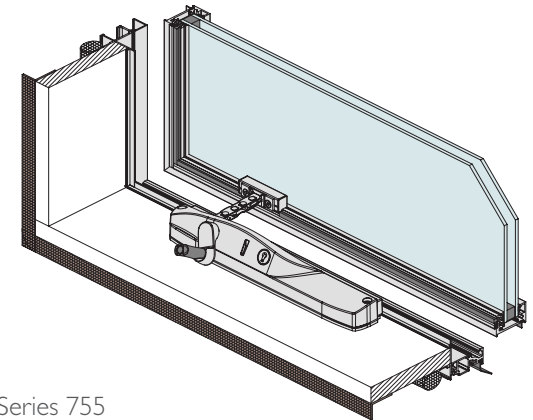
To validate the theoretical WERS performance number achieved by ComfortEDGE™ Awning Windows, AWS traveled to the USA to conduct physical testing in an independent NFRC testing laboratory. The performance values achieved with physical testing were equivalent to those generated through thermal modeling, giving us confidence in the ability of this system to deliver thermal comfort.



Series 516  
Residential Awning Window



Series 756  
High Performance Awning Window



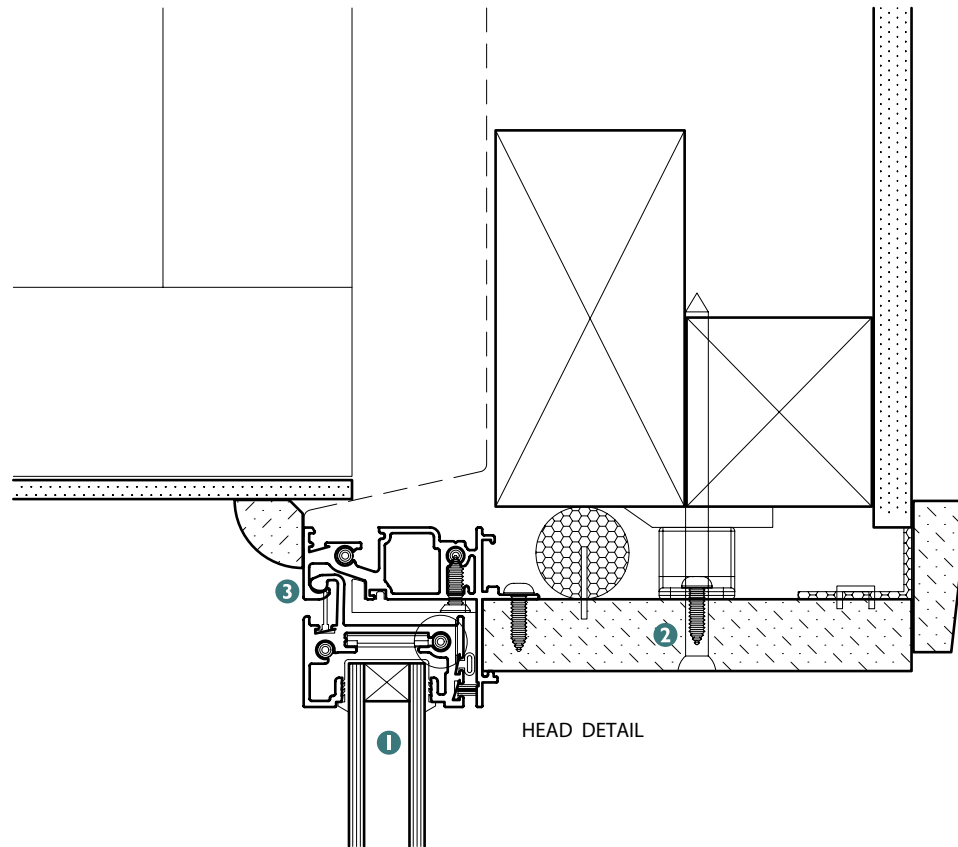
Series 755  
ComfortEDGE™ Awning Window

**SPECIAL NOTE**

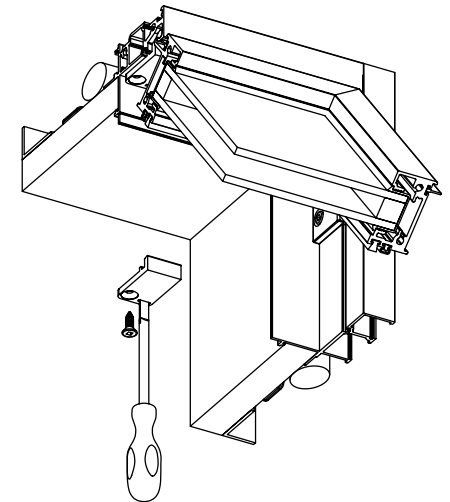
Glazed with Viridian LightBridge clear 20mm IGU - 4/12/4, the 755 ComfortEDGE™ Awning Window achieves a 2.32 Uw Value.

\* Dimensions subject to individual site conditions.

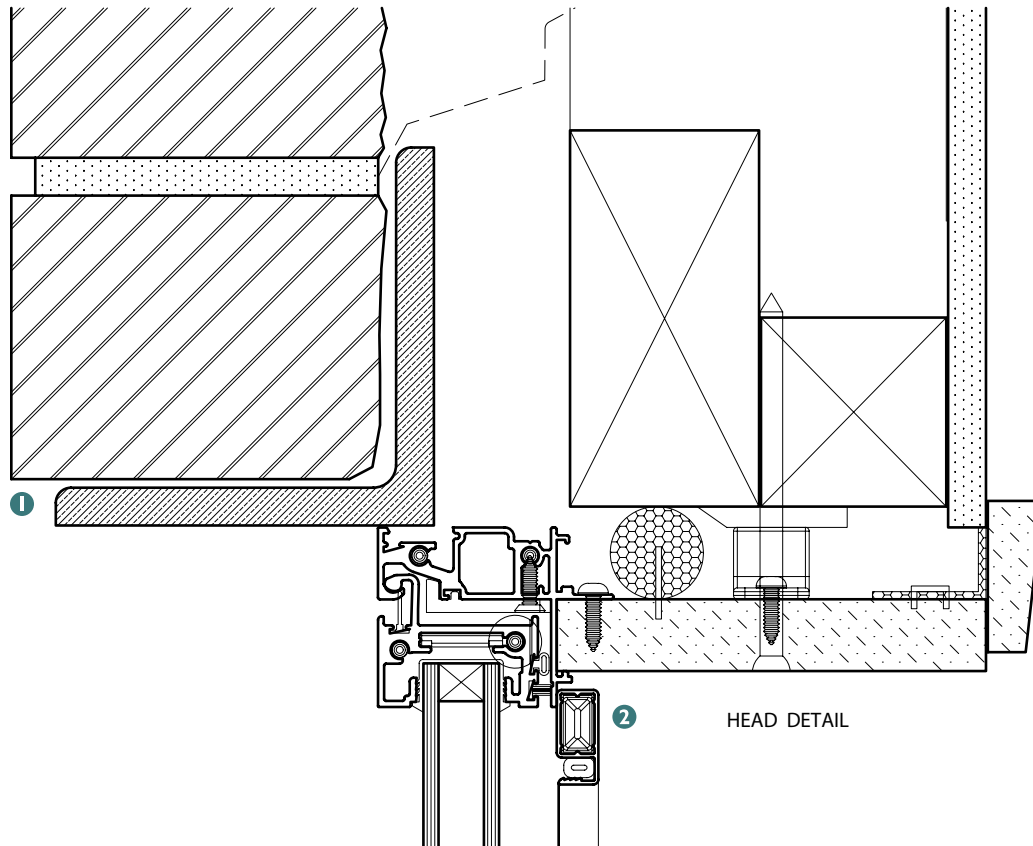
## HEAD DETAIL - CAVITY BRICK INSTALLATION



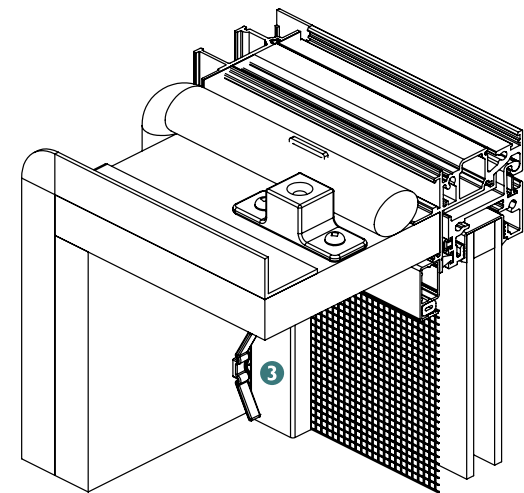
- 1 Accepts up to 20mm IGU allowing the use of high performance glazing options
- 2 ComfortEDGE reveal conceals the aluminium frame at the head, sill and jamb
- 3 Continuous hinge hood on sashes protects the top of the sash from water intrusion. This hinge allows sashes to be easily fitted and remove from the frame.
- 4 The sash has a maximum opening angle of 27° (with full throw) this ensures that the sash top rail hinge ball won't disengage from the hood section when the chain winder is in the full open position.



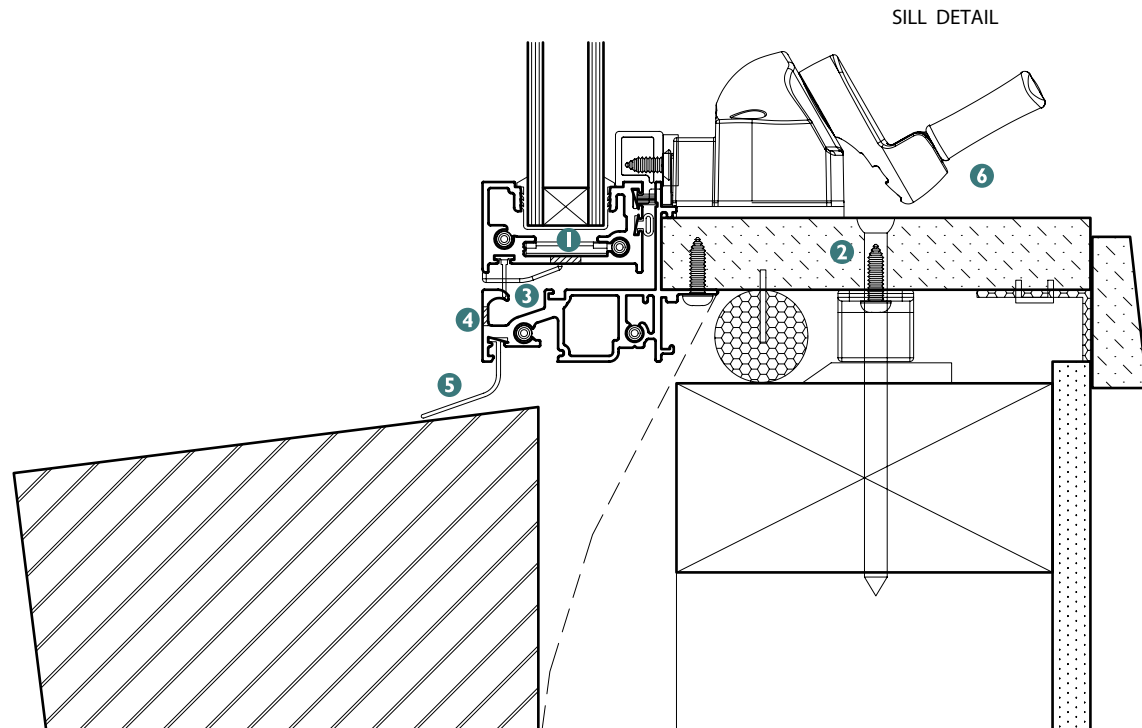
### HEAD DETAIL WITH FLYSCREENS - CAVITY BRICK INSTALLATION



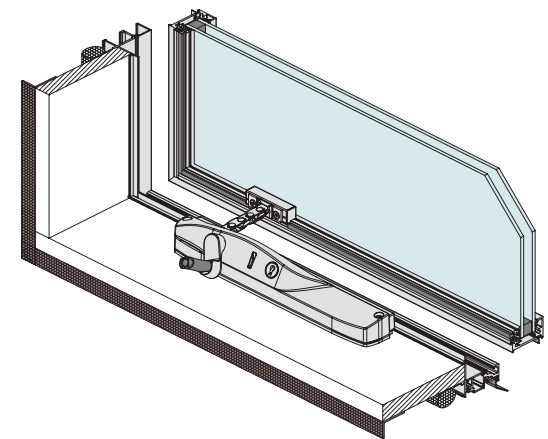
- 1 Steel lintel is required wall and ceiling. The window cannot support any weight from the structure.
- 2 Optional flyscreens are available.
- 3 Flyscreens are secured using flexible nylon clips, no unsightly trims required.



## SILL DETAIL - CAVITY BRICK INSTALLATION

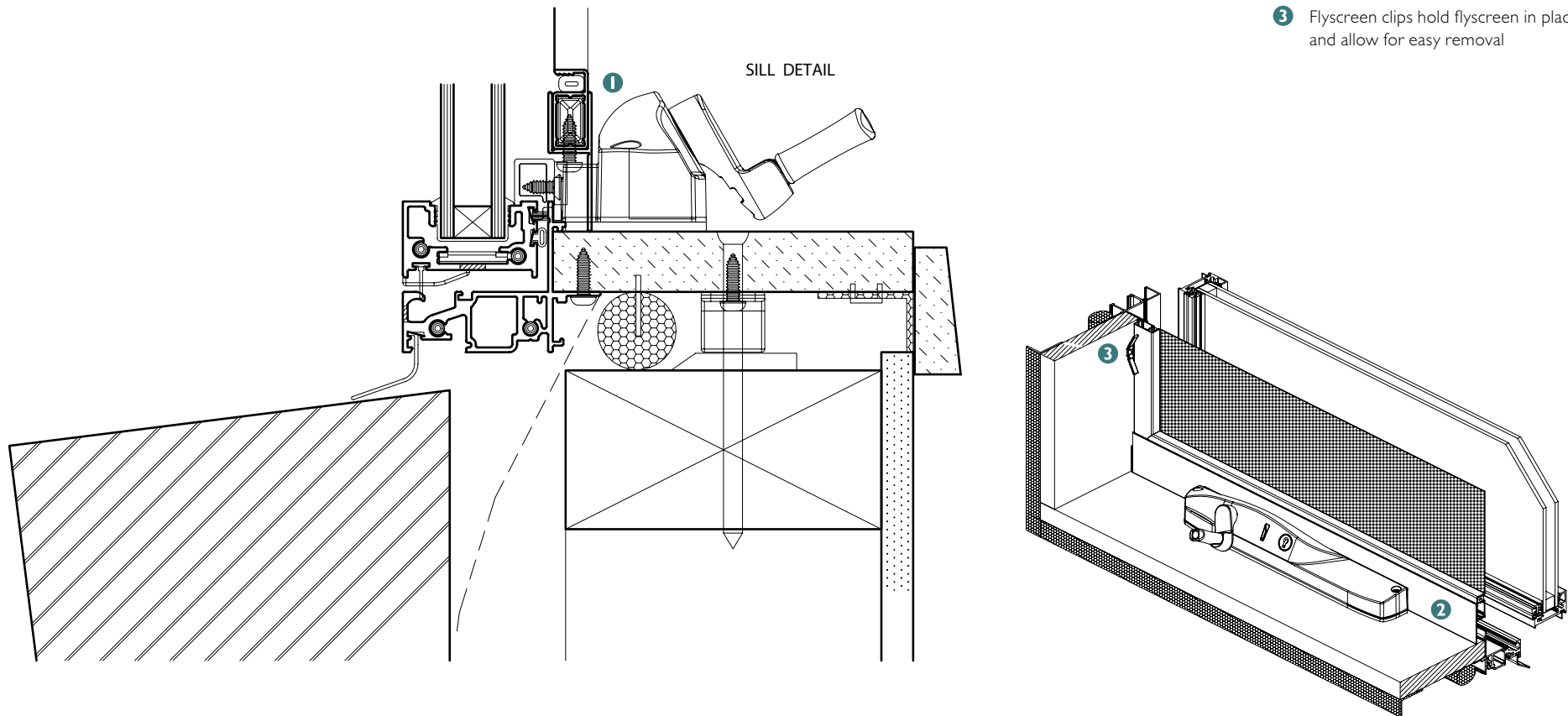


- 1 8mm drainage holes assist in achieving 600pa water performance. Ideal for exposed locations.
- 2 Aluminium on the sill face is concealed by the ComfortEDGE™ liner.
- 3 Injection moulded corner guards cover exposed corners when the sash is open. It also assist in centralising the sash in the frame opening.
- 4 Frame drainage slots assist in achieving 600pa water performance.
- 5 PVC sill flap limits water ingress into the structure.
- 6 Chainwinder is fitted to the ComfortEDGE™ reveal



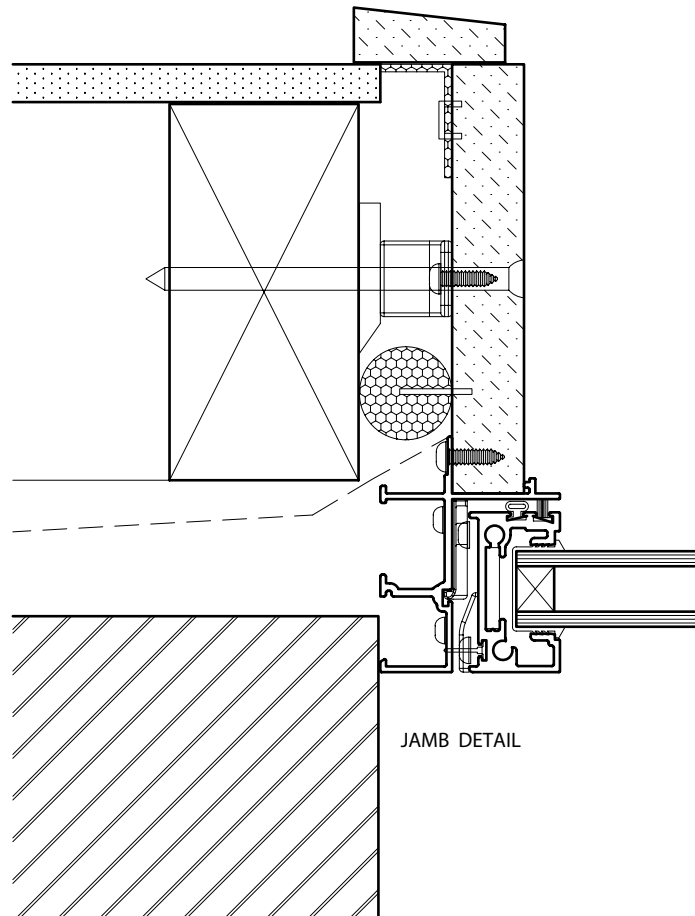
### SILL DETAIL WITH FLYSCREEN - CAVITY BRICK INSTALLATION

- 1 Flyscreen nests over the chainwinder bracket for a neat appearance.
- 2 Aluminium flyscreen surround is visible internally
- 3 Flyscreen clips hold flyscreen in place and allow for easy removal

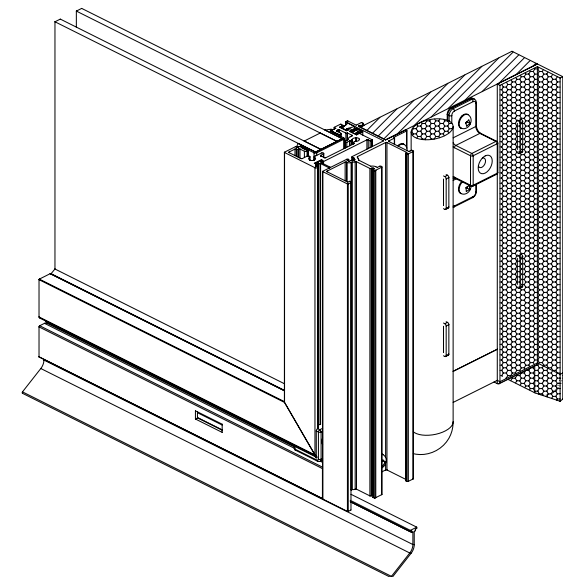


\* Dimensions subject to individual site conditions.

### JAMB DETAIL - CAVITY BRICK INSTALLATION

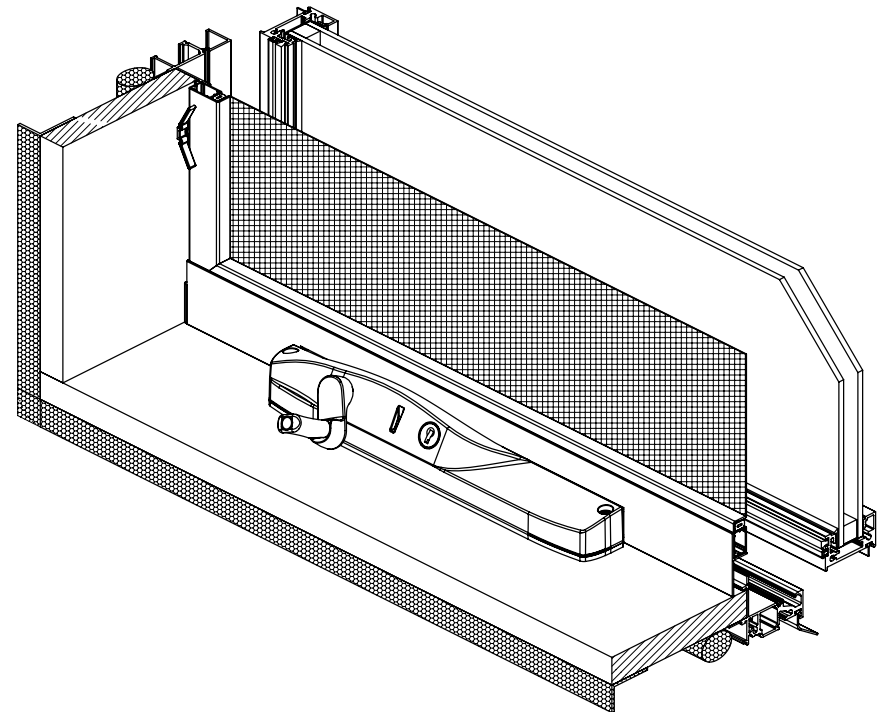
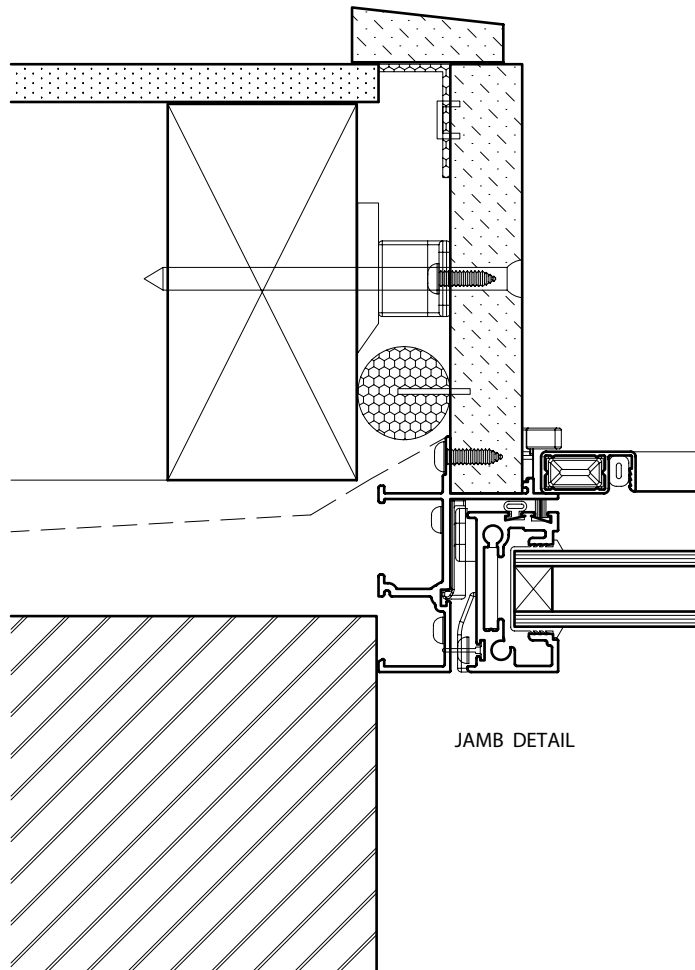


- 1 Bulb seals provide optimal water performance.
- 2 Glazing pocket accepts 18-20mm IGUs for improved thermal performance.
- 3 PVC glazing wedges allow for simple glass replacement and clean finish every time.



RESIDENTIAL SERIES | SERIES 755  
COMFORTEDGE™ AWNING WINDOW

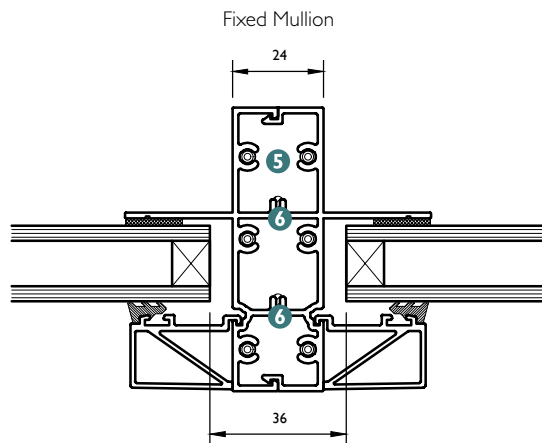
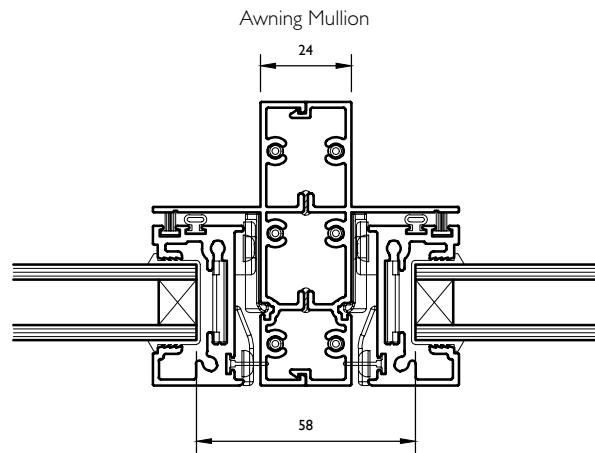
JAMB DETAIL - WITH FLYSCREEN



\* Dimensions subject to individual site conditions.



MULLION DETAILS



- 1 Seal all metal to metal joints with small joint caulking and/or gasket at assembly. Injection molded reveal spacer fitted at 450mm cts.
- 2 Roll-in PVC glazing wedge,
- 3 Glass thickness 18 to 20mm thick IGU.
- 4 Injection moulded nylon corner guard. The purpose of this guard is to cover potentially dangerous sharp sash corners when the sash is in the open position. Also helps keep the sash centralised in the frame opening.
- 5 Fit cut down version of mullion end cap, secure cap to mullion using 15 x 8# Csk s.s self tapping screw.
- 6 This junction must be waterproof. Apply small joint caulking or closed cell single sided foam tape to the full length of the two centre leg before clipping the mullions together for assembly.

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COMFORTEDGE™ AWNING WINDOW

ALTERNATIVE SYSTEMS

**SERIES 516**  
Residential Awning Window (50mm Frame)

**SERIES 517**  
Residential Awning Window (102mm Frame)

**SERIES 756**  
High Performance Awning Window (75mm)

**SERIES 616**  
MAGNUM™ Awning Window

**SERIES 616TR**  
MAGNUM™ Awning Window

**SERIES 456**  
Commercial Awning Window

**SERIES 466**  
Architectural Awning Window

**SERIES 467**  
Architectural Awning Window with Truth™ Hardware

**SERIES 468**  
Truth™ Awning Window (100mm)

**SERIES 726**  
Thermally Broken Awning Window

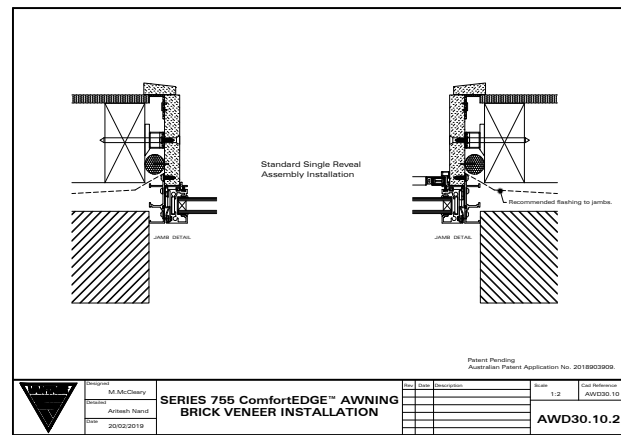
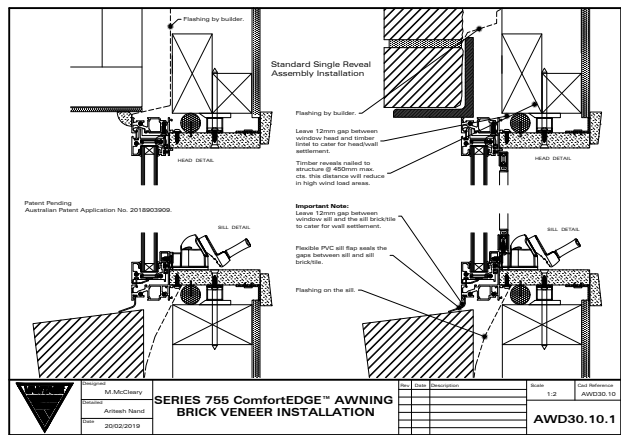
**SERIES 726TR**  
Thermally Broken Awning Window with Truth™ Hardware

SCALE: NOT TO SCALE

\* Dimensions subject to individual site conditions.

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CAD FILES



\* Dimensions subject to individual site conditions.