

Series 517 Residential Awning Window

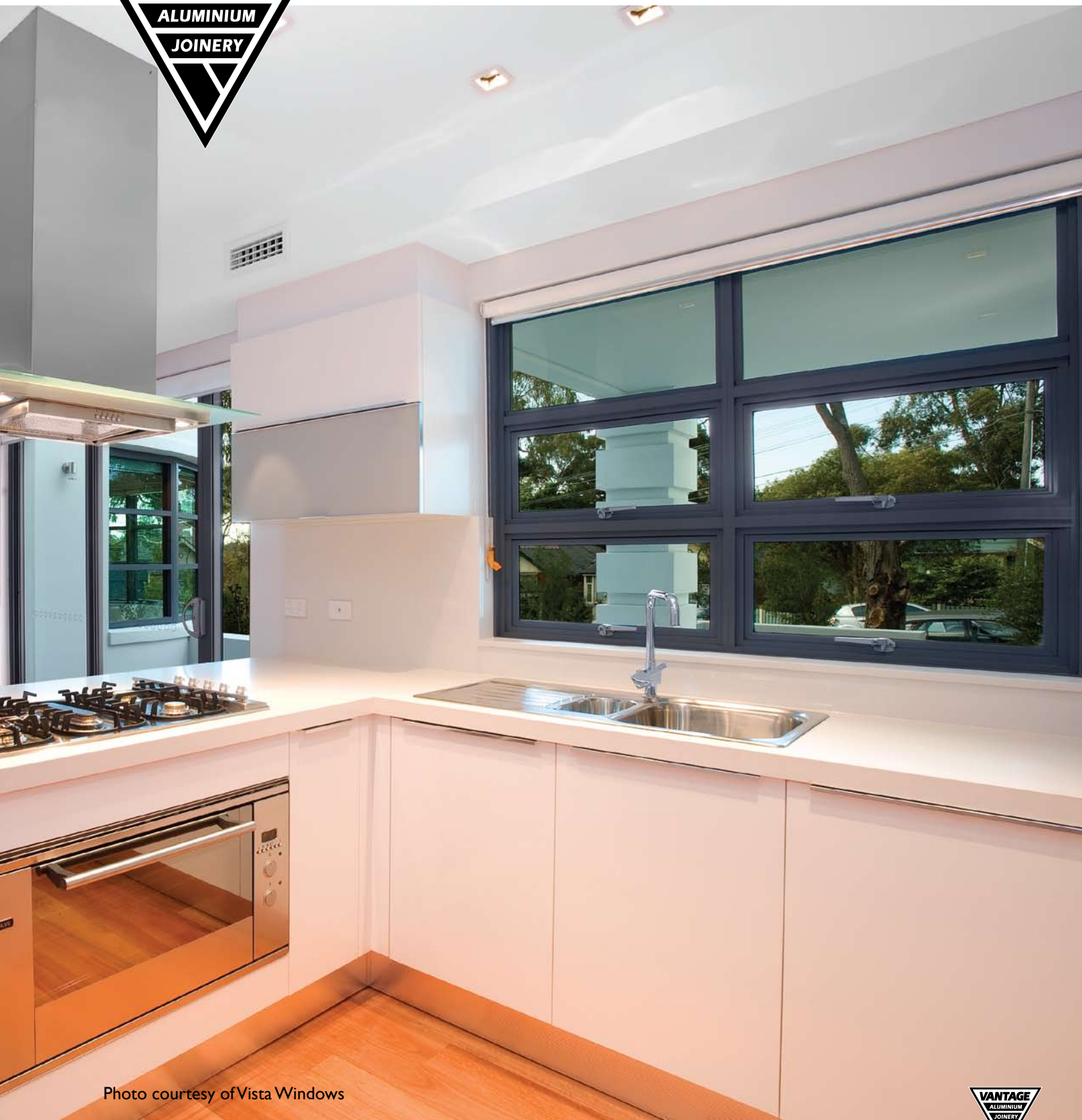


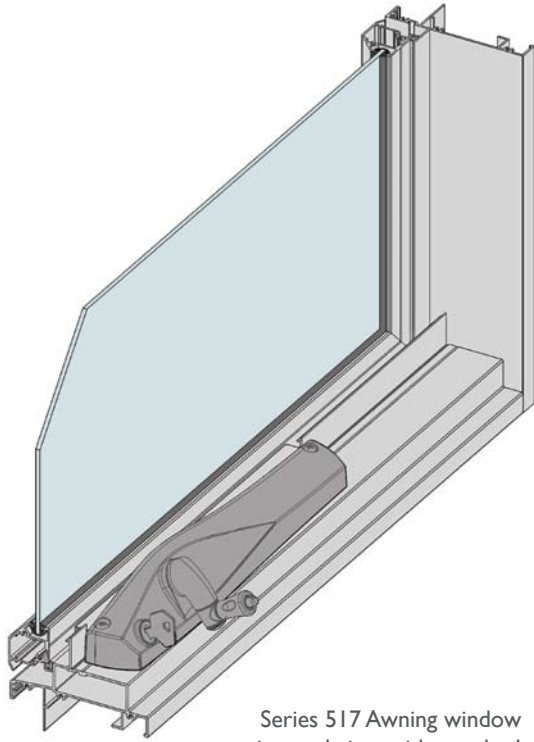
Photo courtesy of Vista Windows



Series 517 Residential Awning Window

DATE: NOV 09
REPLACES: AUG 03
SCALE: NOT TO SCALE

KEY FEATURES / PERFORMANCE CHARACTERISTICS



Series 517 Awning window internal view with standard manual chain winder

- Successfully tested for compliance AS 2047.
- The 102mm wide frame allows the fabrication of chain winder awning windows with the winder contained within the frame line.
- Very high water resistance (450Pa) allows this window to be used in most situations.
- This framing system has been designed to align with and snap to the Vantage Series 541 and 542 sliding doors head or jamb and the Series 548 French doors.
- Awning type sashes are fitted with heavy duty corrosion resistant chain winders with 304 stainless steel chains as standard.
- The fixed light beading matches opening sashes.
- Series 517 will snap to the head of Series 541 and 542 sliding doors to create fixed or awning highlights. There are three types of couplers, pick the one that suits the width and design wind load.
- The 102mm fixed light framing system can be used when tall fixed lights are required in a high wind load area, refer Pascal tables.
- Optional sash and mullion strengths cover a large variety of design wind load areas, refer to pascal rating tables.

AWNINGS

Maximum Panel Height*	2060mm
Maximum Panel Width*	1210mm
Maximum Glass Thickness	≤ 20mm

* Subject to individual site conditions and wind loads. Contact AWS Technical Support for more information, e-mail techsupport@awsaustralia.com.au

CASEMENT

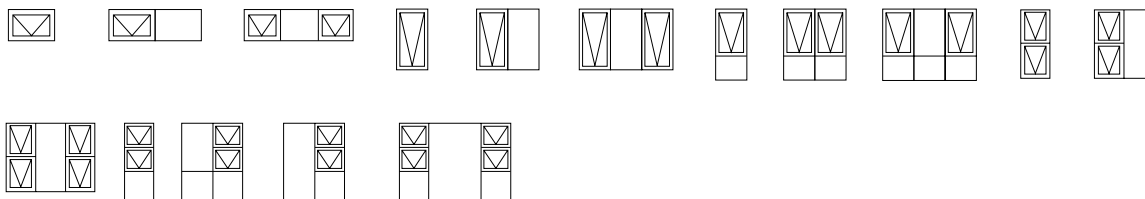
Maximum Panel Height*	1500mm
Maximum Panel Width*	600mm
Maximum Glass Thickness	≤ 20mm

Casement Sash Height to Width Ratio

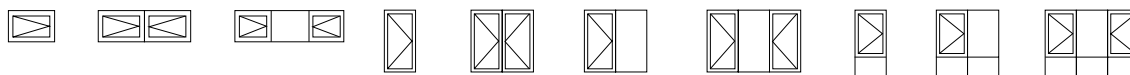
The maximum width of the casement sash is limited to 50% of the sash height

TYPICAL CONFIGURATIONS

Awning Style



Casement Style



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SOUND REDUCTION

We have tested a number of glass combinations in this awning window. Opening sash was fitted with co-extruded Santoprene bulb seal on all sides.

Glass Description		
3mm Annealed glass	30dB(A)	RW31
6.38mm Laminated glass	34dB(A)	RW34
10.38mm Laminated glass	36dB(A)	RW37
20mm Insulating glass unit	30dB(A)	RW30



WERS RATINGS

Single Glazed

Glass Description	COOLING	HEATING	Uw	SHGCw	Tvw	Inf
3mm Clear	16%	25%	7.0	0.66	0.66	0.06
5mm Clear	18%	25%	7.0	0.64	0.65	0.06
5mm EverGreen	33%	16%	7.0	0.45	0.53	0.06
5mm Grey	31%	18%	7.0	0.48	0.37	0.06
6.38mm Solect	35%	41%	5.5	0.53	0.59	0.06
6.38mm Comfort Plus	44%	35%	5.5	0.41	0.43	0.06

Double Glazed

Glass Description	COOLING	HEATING	Uw	SHGCw	Tvw	Inf
4Clr/10Gap/4Clr	37%	52%	4.7	0.55	0.56	0.06
4Az/10Gap/4EA	57%	45%	4.2	0.31	0.43	0.06
4Clr/10Ar/4EA	43%	59%	4.0	0.52	0.51	0.06
4Clr/10Gap/4EA	43%	57%	4.2	0.51	0.51	0.06
5Clr/8Gap/5Clr	38%	50%	4.8	0.54	0.55	0.06
5EG/8Ar/5EA	57%	47%	4.1	0.32	0.42	0.06
3EG/12Gap/3Clr	49%	44%	4.6	0.39	0.48	0.06
3Clr/12Ar/3EA	42%	60%	3.9	0.53	0.52	0.06



2D & 3D CAD FILES AVAILABLE

GO TO: www.vantagealuminium.com.au > CAD & Revit 3D Files
 CAD file: DWG or DXF VAN_517



MORE INFORMATION

For the latest updates regarding this product visit our website
www.vantagealuminium.com.au

HOW TO SPECIFY

SYSTEM NAME

Vantage Series 517 Residential Awning Window

FRAME OPTIONS

Splayed bead
 Square bead.
 'L' shape bead

FINISH

Powder Coat
 Anodised

COLOUR

Select from the Vantage range of approved powder coat or anodising colours

GLASS

Specify thickness
 Specify thermal performance where applicable (Uw & SHGC)
 Specify acoustic performance where applicable (RW)

HARDWARE

Refer to hardware selection guide for compatible options



Specification Assistance

Need help specifying this product? email techsupport@awsaustralia.com.au and our qualified technical advisors will assist you with product selection and specification for your project.

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SPECIFIERS CHECKLIST

Not all awning windows are the same. If you want your windows to perform, keep the elements on the outside where they belong and operate smoothly for years to come there are some things you should check/compare when choosing your supplier - compare us with the others.

FEATURE	Series 517	Opposition
Does the window comply with the relevant Australian Standards. Vantage awning and fixed windows have been tested for compliance with Australian Standards.	YES	
Standard awning window has very high 450 Pa water resistance .	YES	
High performance co-extruded Santoprene bulb sash seal .	YES	
Fixed sidelights and / or lowlights have splayed beads on the outside to match the adjoining awning sash rails. This external splayed bead sheds water and dust away from the glass line.	YES	
Heavy duty hardware. Awning sashes fitted with heavy duty chain winder. Casement windows fitted with stainless steel friction stays and wedgeless cam handles.	YES	
Chain winder with corrosion resisting stainless steel chain (10 year manufacturers warranty) standard.	YES	
Reinforced hardware fixing points. The Vantage Series 517 awning has thickened sections (3mm) on both frame and sash where we fix the chain winder and cam handles.	YES	
Chain winder fixed directly to the sill. The chain winder needs to be fixed as securely as possible to the sill. This is why the Series 517 awning has no spacers or packers under the winder and is screwed directly into a thickened section in the sill. The custom winder sill allows the winder to be fitted within the frame line on dedicated winder platform.	YES	
Sash corner guards. Awning and casement sashes in the open position can be dangerous. Series 517 is fitted with moulded nylon corner guards to blunten the sharp corner and reduce the chance of injuries.	YES	
Water resisting hinge hood. When the awning sash is in the open or closed position the vulnerable top rail is protected from the elements with a continuous extruded aluminium hinge hood.	YES	
Clean flyscreen installation. The awning sill has a built-in upstand to accept flyscreen installation. Building in this flyscreen support leg will save the owner money when fitting flyscreens as no trims or infills are required.	YES	
Window can be coupled to sliding doors or other windows without visible rivets. Rounded corner on the frame and sash members wherever possible. We offer a large range of couplers and trims to make installation cleaner and easier.	YES	
Rounded corner on the frame and sash members wherever possible. Modern paint finishes don't like sharp corners.	YES	
Condensation draining fixed sill and transom The Vantage awning fixed lights can be fitted with optional anti blow back condensation draining ball valve (Australian Registered Design)	YES	

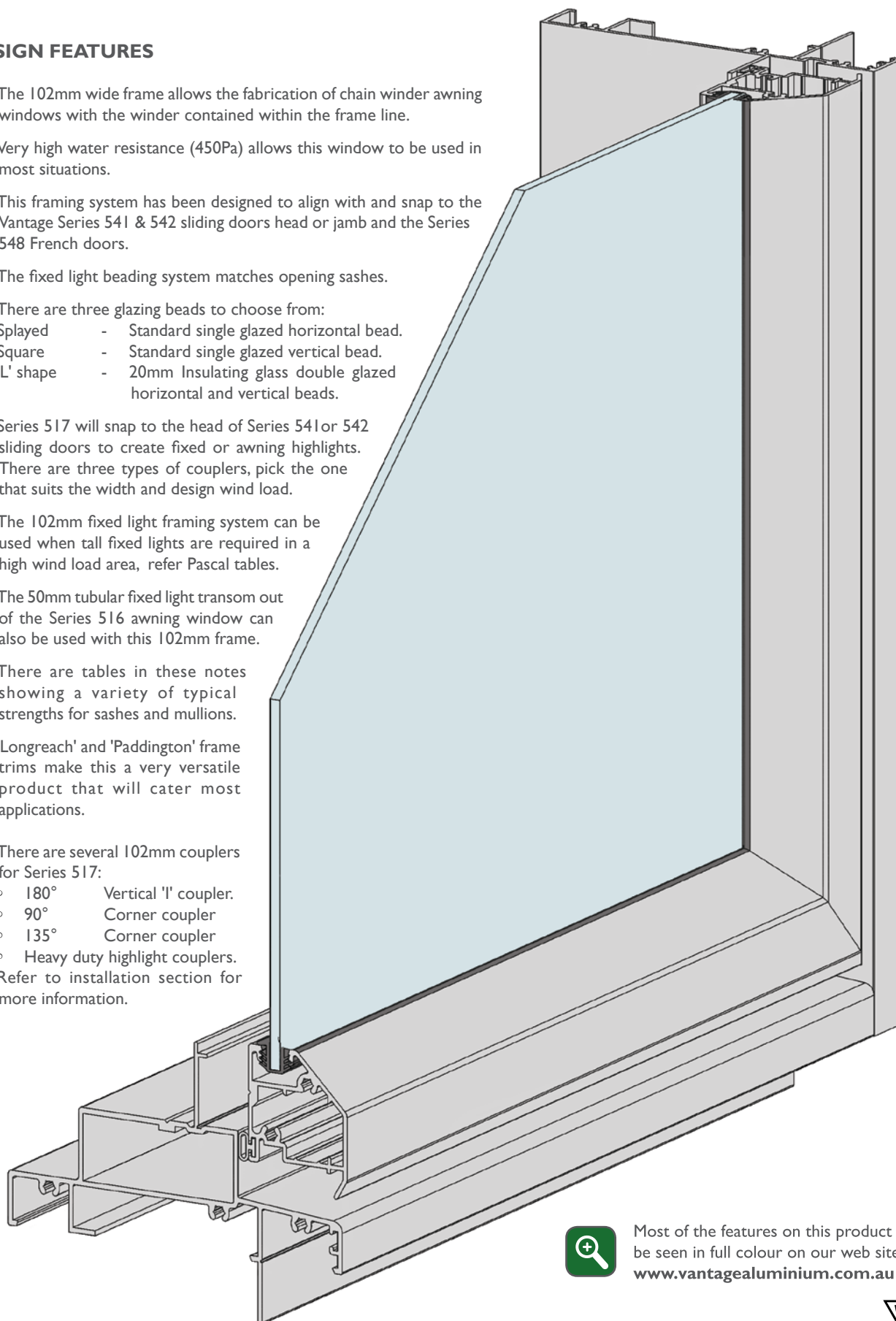
Series 517

Residential Awning Window

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 SCALE: NOT TO SCALE

DESIGN FEATURES

1. The 102mm wide frame allows the fabrication of chain winder awning windows with the winder contained within the frame line.
2. Very high water resistance (450Pa) allows this window to be used in most situations.
3. This framing system has been designed to align with and snap to the Vantage Series 541 & 542 sliding doors head or jamb and the Series 548 French doors.
4. The fixed light beading system matches opening sashes.
5. There are three glazing beads to choose from:
 - Splayed - Standard single glazed horizontal bead.
 - Square - Standard single glazed vertical bead.
 - 'L' shape - 20mm Insulating glass double glazed horizontal and vertical beads.
6. Series 517 will snap to the head of Series 541 or 542 sliding doors to create fixed or awning highlights. There are three types of couplers, pick the one that suits the width and design wind load.
7. The 102mm fixed light framing system can be used when tall fixed lights are required in a high wind load area, refer Pascal tables.
8. The 50mm tubular fixed light transom out of the Series 516 awning window frame can also be used with this 102mm frame.
9. There are tables in these notes showing a variety of typical strengths for sashes and mullions.
10. 'Longreach' and 'Paddington' frame trims make this a very versatile product that will cater most applications.
11. There are several 102mm couplers for Series 517:
 - 180° Vertical 'I' coupler.
 - 90° Corner coupler
 - 135° Corner coupler
 - Heavy duty highlight couplers.
 Refer to installation section for more information.



Most of the features on this product can be seen in full colour on our web site:
www.vantagealuminium.com.au

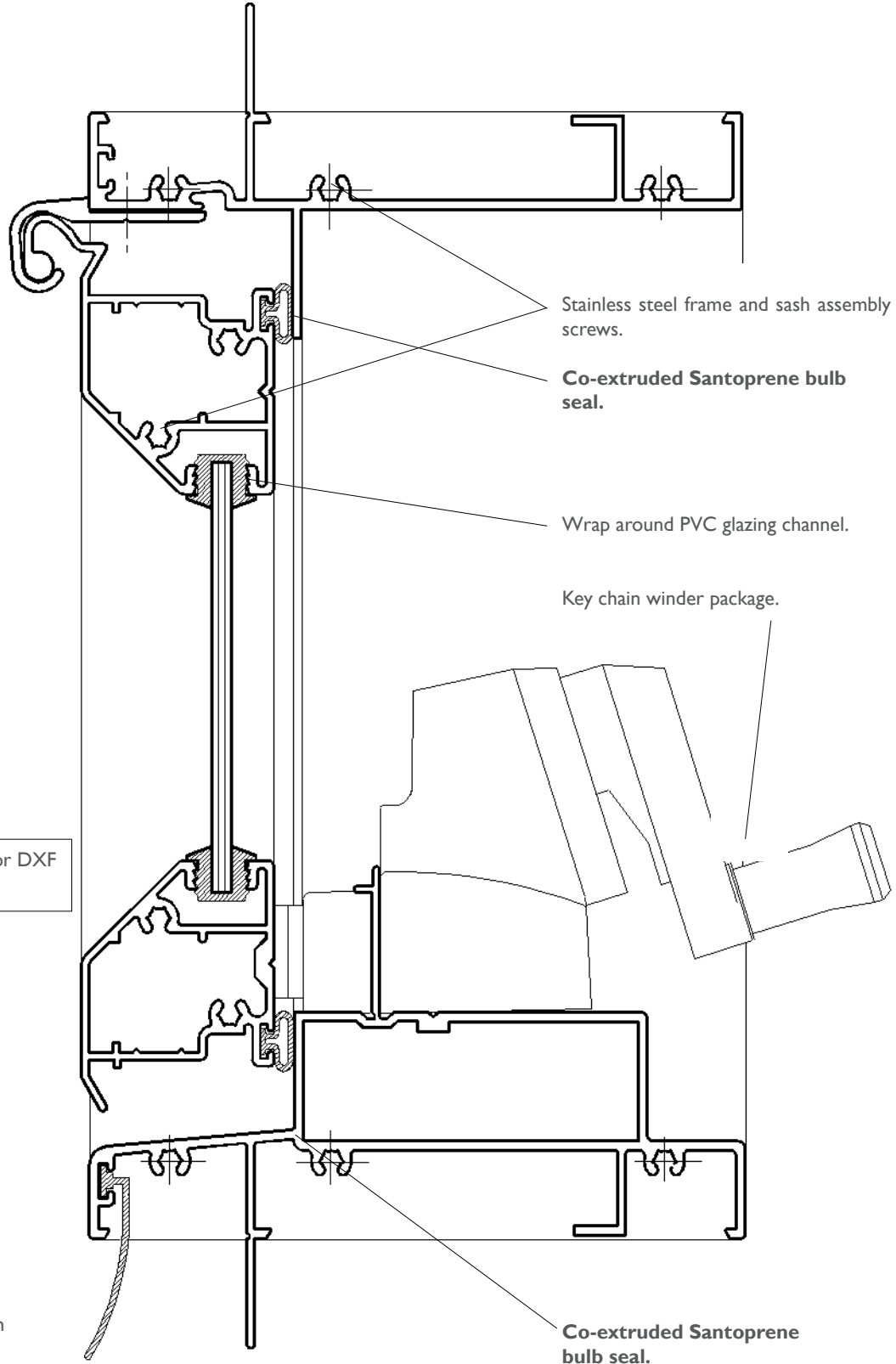


Series 517
Residential Awning Window

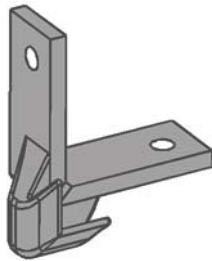
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SCALE: FULL SIZE

VERTICAL SECTION THROUGH AWNING WINDOW

Continuous aluminium hooded hook hinge.



CAD file: DWG or DXF
VAN_517



Injection moulded nylon corner guard.

Series 517 Residential Awning Window

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REPLACES: NOV 06
SCALE: NOT TO SCALE

STANDARD CHAIN WINDER PERFORMANCE AND SASH STRENGTH

Window type	Window		Standard Sash 16012		H.D. Sashes 16014 & 16024		H.D. Beaded Sash 16026	
	Height mm	Width mm	S	U	S	U	S	U
A	1200	910	1244	1998	1998	3627	1998	4500
A	1200	1010	1132	1814	1791	3292	1791	4500
A	1200	1210	970	1547	1484	2809	1484	4500
A	1500	910	611	1239	1001	2249	1586	4021
A	1500	1010	553	1120	906	2032	1422	3634
A	1500	1210			766	1741	1178	3066
A	1800	910			565	1533	1131	2741
A	1800	1010			510	1382	1021	2471
A	1800	1210					858	2073
A	2100	910					701	1990

Wind Ratings (Pa) Heavy meeting stiles.

S = Serviceability limit state (deflection = L/150).

U = Ultimate strength limit state (factored yield strength = 104 MPa).

These tables have been calculated using nominal section properties.

A typical assembly has been tested as per the requirements of AS2047,

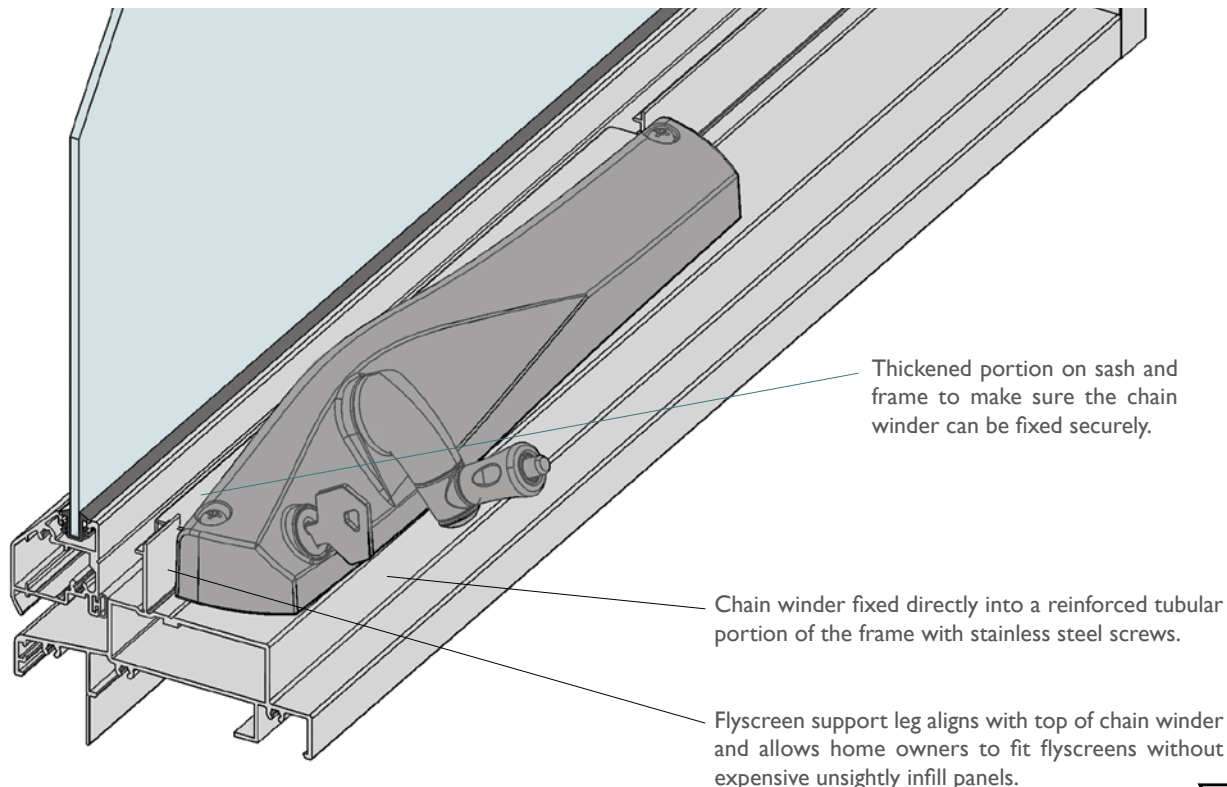
Ultimate strength rating has been limited to 4500 Pa.

Blank Denotes rating under 500 Pa.

The frame and sash have been designed so that the winder sits neatly on the sill platform and is screwed to reinforced sections in frame and sash.

Secure fixings in these areas are critical to the long term performance of the window.

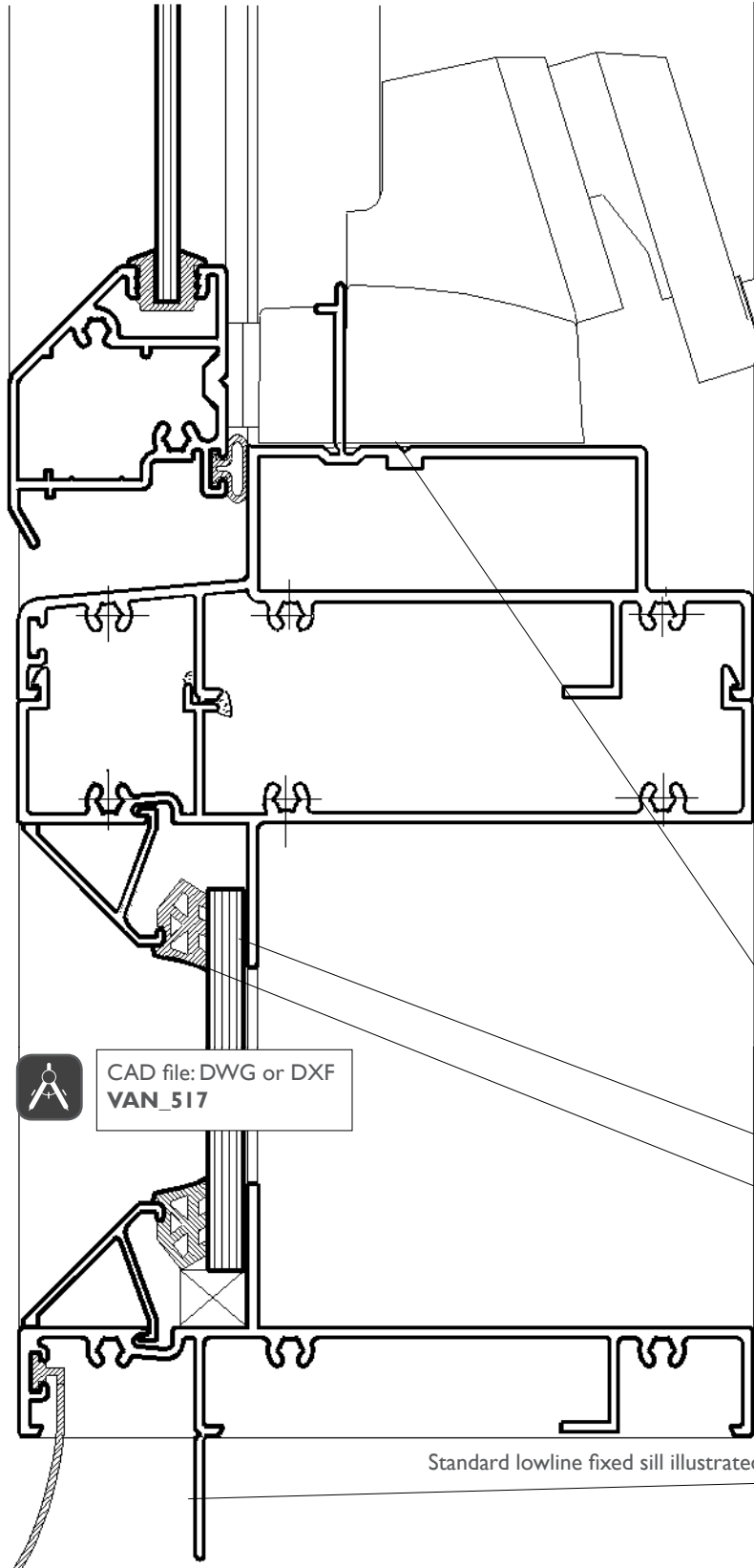
Polesium™ body chain winder and stainless steel chain won't corrode or rust. The standard winder colour is black but for a small extra charge winders can be coloured to match window frames.



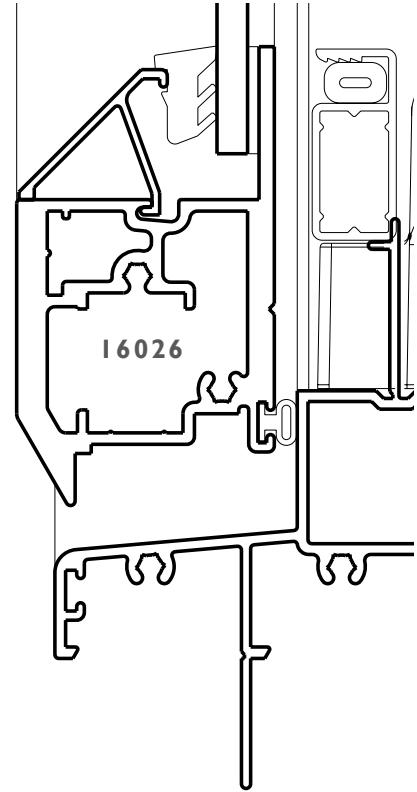
Series 517
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REPLACES: AUG 03
SCALE: FULL SIZE

VERTICAL SECTION THROUGH AWNING/FIXED WINDOW



Alternative Heavy Duty Beaded Sash



The alternative Heavy Duty Beaded Sash can be single glazed as drawn. Sash will also accept 20mm IGU using an alternative glazing bead.

Window platform designed to accept chain winder.

Standard 102mm wide transom.

Closed cell foam glazing tape.

Roll-in PVC glazing wedge.

Alternative tall condensation draining fixed sill also available similar to Series 516.

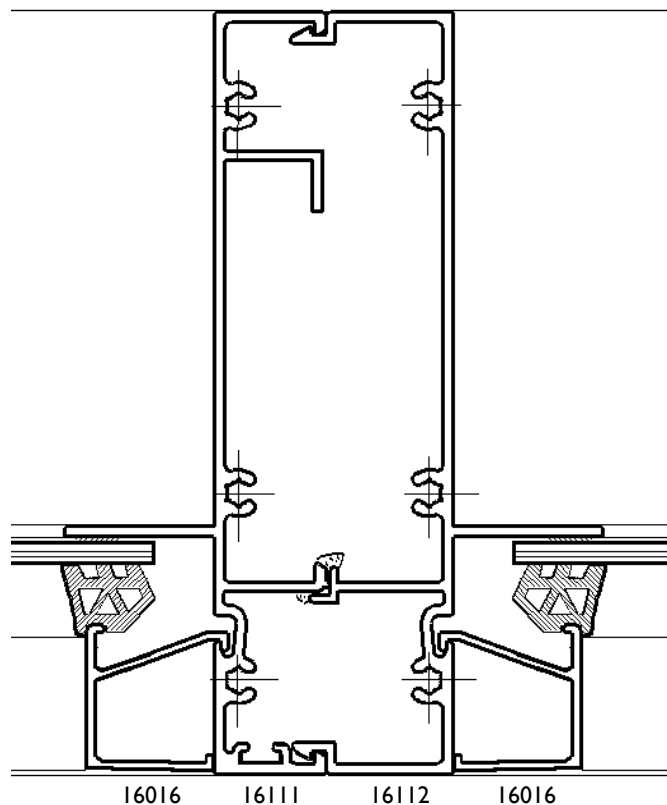
Standard lowline fixed sill illustrated.

PVC sill flap.

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HORIZONTAL CROSS SECTION THROUGH FIXED MULLION



Transom Ratings (Pa)

S = Serviceability limit state (deflection = L/150).

U = Ultimate strength limit state (factored yield strength = 104 MPa).

These tables have been calculated using nominal section properties. A typical assembly has been tested as per the requirements of AS2047, Ultimate strength rating has been limited to 4500 Pa.

Frame Height mm	Mullion Centres mm	Mullion Ratings (Pa)	
		S	U
1800	900	2556	3834
1800	1200	2063	3095
2100	900	1834	2751
2100	1200	1449	2173
2400	900	1383	2074
2400	1200	1078	1618

Wind Ratings (Pa) 16111 with 16112

Snap mullion

$I_{xx} = 674 \times 10^3 \text{mm}^4$

Snap together weatherproof mullions



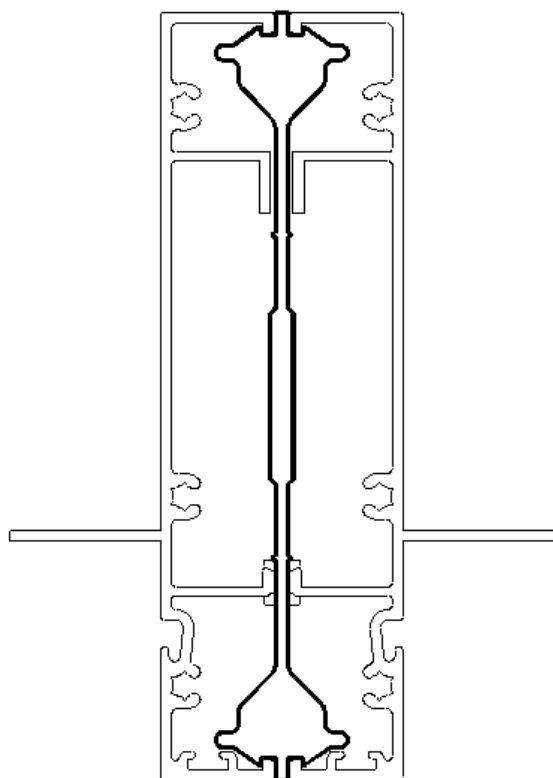
CAD file: DWG or DXF
VAN_517

Mullion with 'I' coupler

$I_{xx} = 1193 \times 10^3 \text{mm}^4$

Frame Height mm	Mullion Centres mm	Mullion Ratings (Pa)	
		S	U
2100	900	3000	4500
2100	1200	2675	4013
2400	900	2554	3830
2400	1200	1991	2987
2700	900	1997	2995
2700	1200	1544	2316
3000	900	1606	2409
3000	1200	1234	1851

Wind Ratings (Pa) 16111 with 42030 and 16111

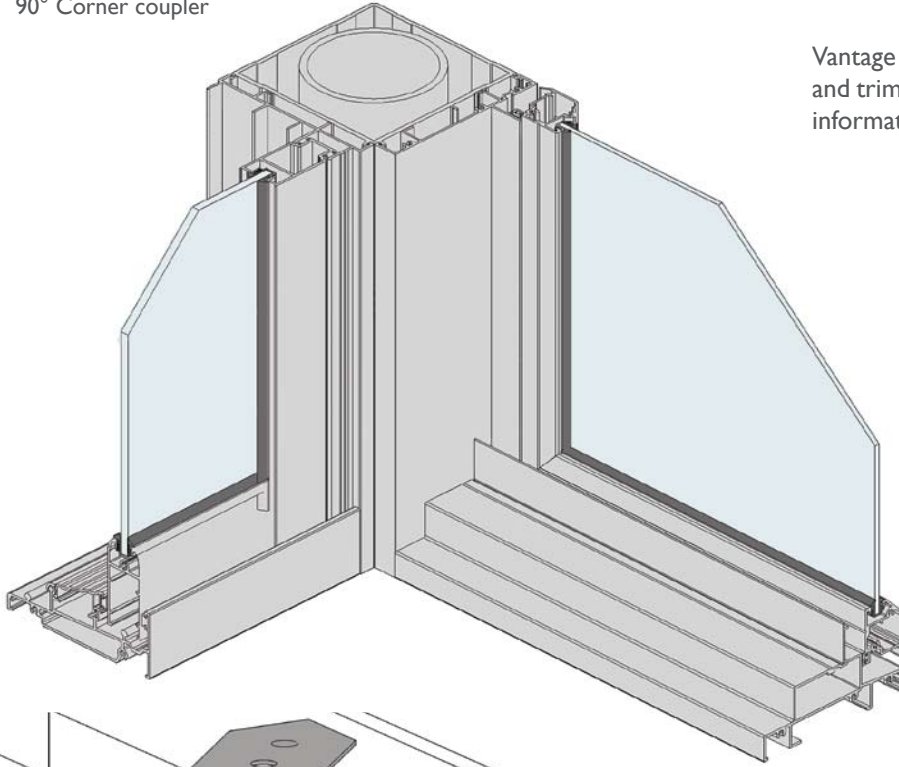


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COUPLERS

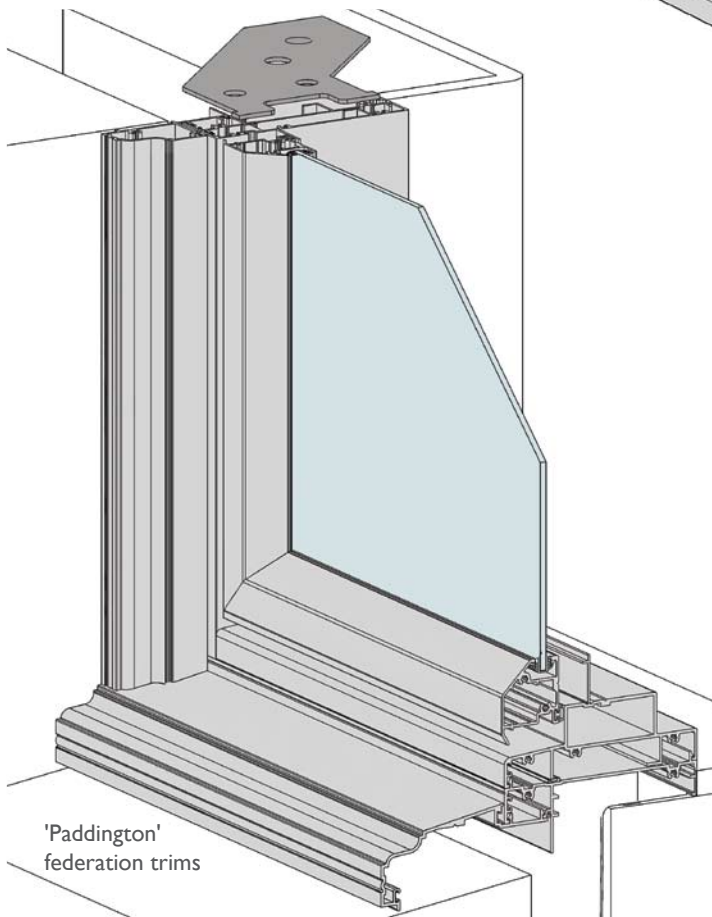
90° Corner coupler



Vantage offer a large range of snap on couplers and trims, Refer to installation section for more information.



CAD file: DWG or DXF
VAN_COUPLERS



'Paddington'
federation trims

Some of the couplers and trims we can offer:

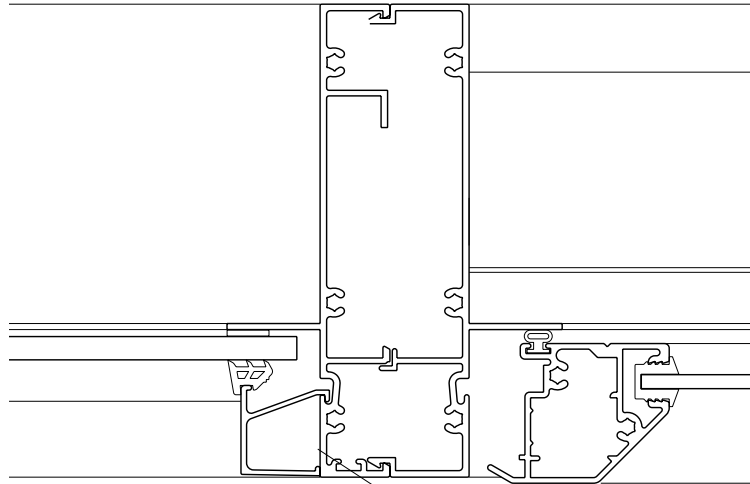
- 135° Bay coupler for 102mm windows or 102mm doors.
- 90° Corner coupler for 102mm windows or 102mm doors.
- 180° Coupler for 102mm windows.
- 'Longreach' frame extender.
- 'Homebush' frame extender.
- 'Paddington' federation trims (illustrated lower left).
- Storm moulds.
- Architraves.
- External flange adaptors.
- Flat jamb closer.

Refer to installation section for more information.

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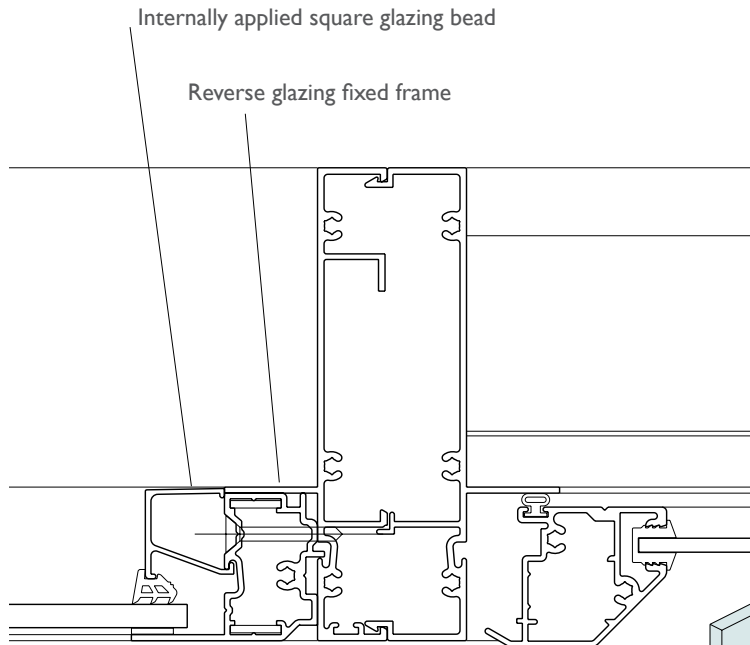
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OPTIONAL REVERSE (INTERNAL) FIXED GLAZING



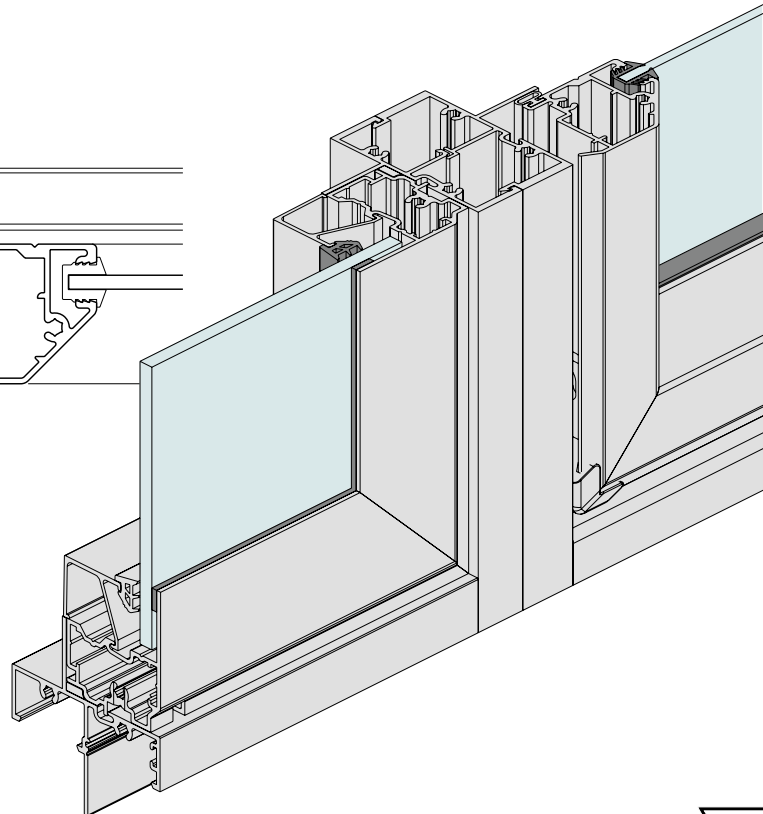
Standard mullion with external glazed fixed light

Externally applied square alternative bead illustrated.



Alternative mullion with internally glazed fixed light

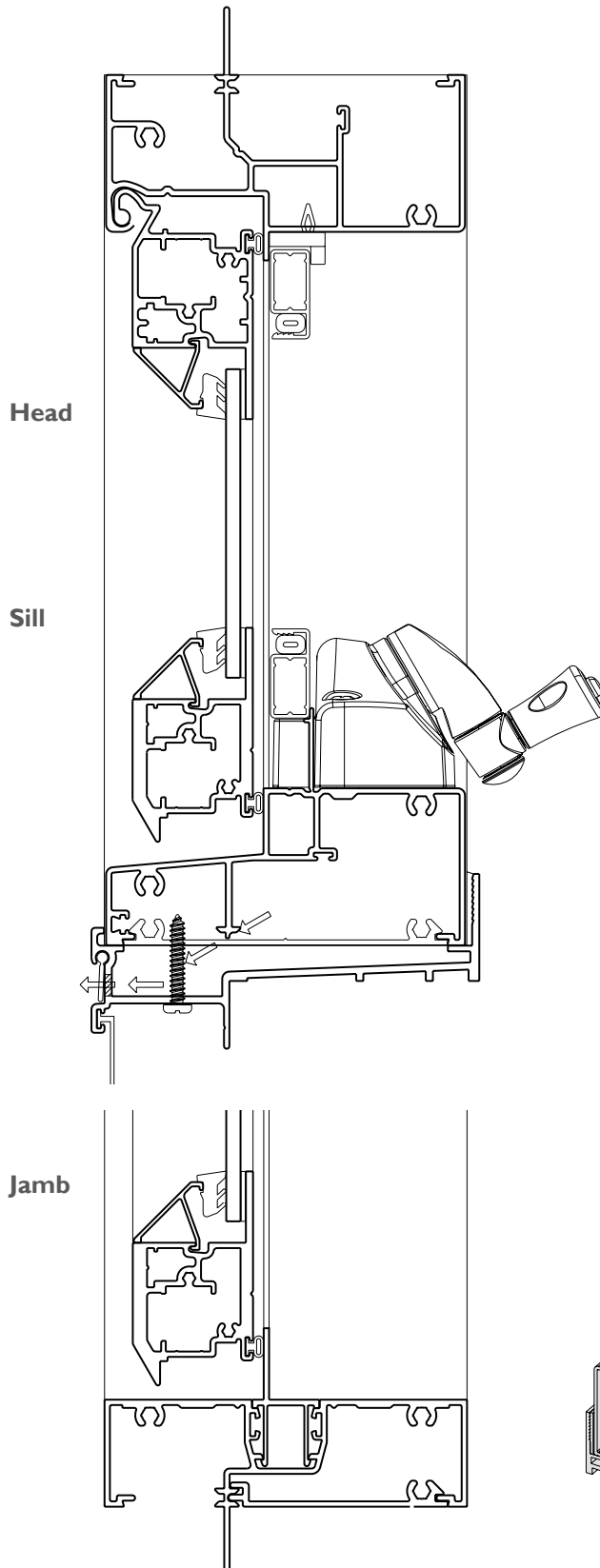
Reverse glazing is ideal for elevated applications where re-glazing of windows may be required i.e Multi-story buildings



Series 517 Residential Awning Window

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ALTERNATIVE AWNING SASHES IN COMMERCIAL FRAMING



Alternative awning sashes in commercial framing

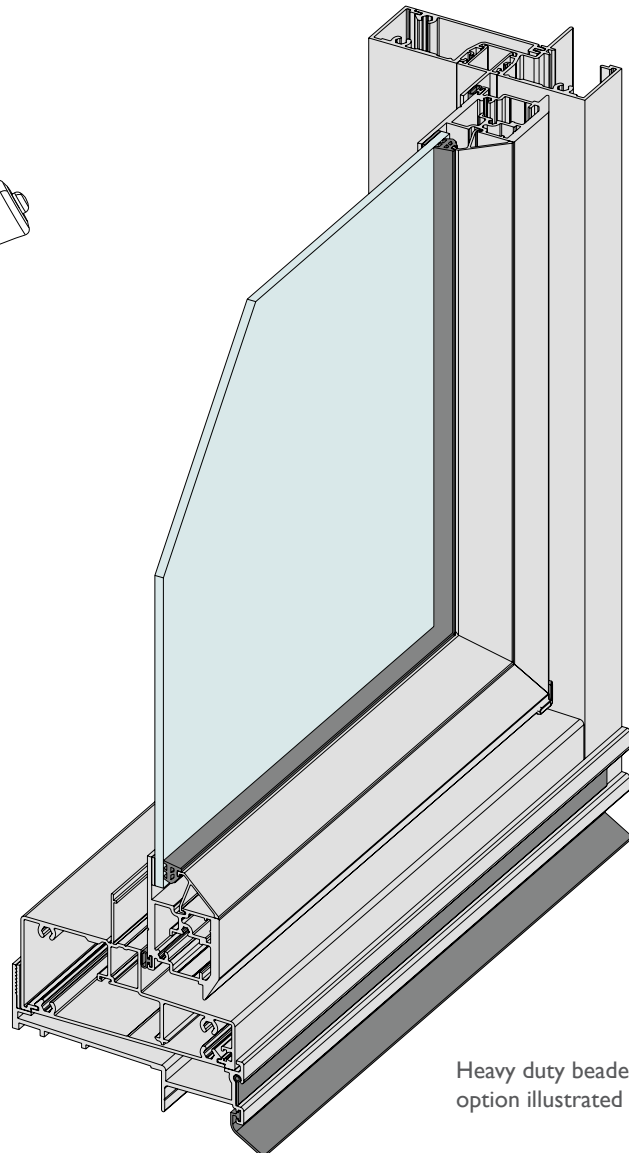
If you are looking for a bolder frame consider the AWS Commercial awning window Series 456.

Features overview:

- Bold square commercial frame with built-in nailing fin.
- Nailing fin sub-sill is standard.
- Compatible with conventional CentreGLAZE™ commercial framing.
- Specifically designed head and sill sections.



For more information visit our website
www.awscommercial.com.au



Heavy duty beaded sash
option illustrated