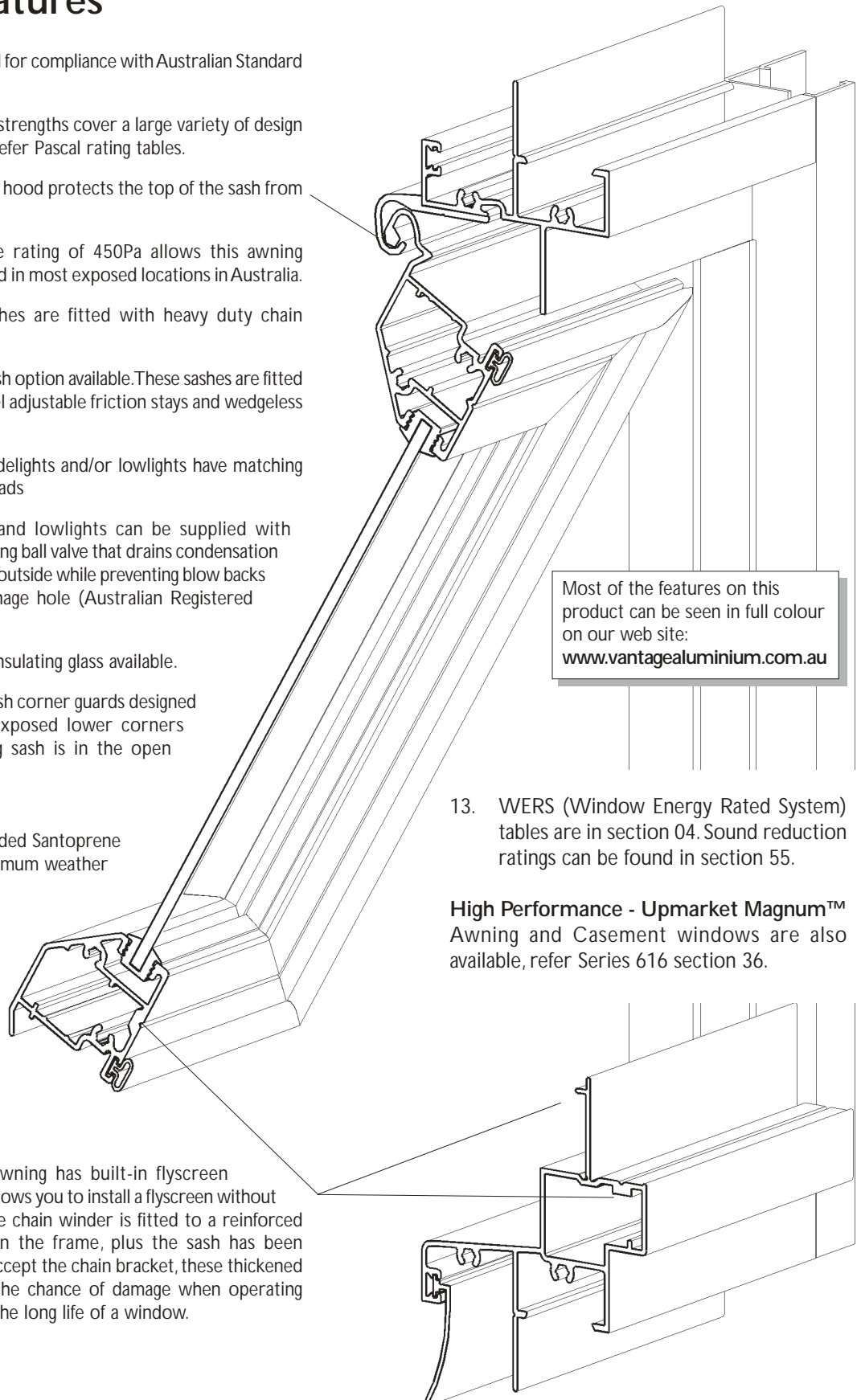


Design Features

1. Successfully tested for compliance with Australian Standard AS 2047.
2. Optional mullion strengths cover a large variety of design wind load areas, refer Pascal rating tables.
3. Continuous hinge hood protects the top of the sash from water intrusion.
4. Water resistance rating of 450Pa allows this awning window to be used in most exposed locations in Australia.
5. Awning type sashes are fitted with heavy duty chain winders.
6. Casement type sash option available. These sashes are fitted with stainless steel adjustable friction stays and wedgeless cam handles.
7. Adjoining fixed sidelights and/or lowlights have matching splayed glazing beads
8. Fixed sidelights and lowlights can be supplied with optional self draining ball valve that drains condensation water back to the outside while preventing blow backs through the drainage hole (Australian Registered Design).
9. Optional 20mm insulating glass available.
10. Moulded nylon sash corner guards designed to protect the exposed lower corners when the awning sash is in the open position.
11. Custom co-extruded Santoprene bulb seal for maximum weather performance.
12. The sill of the awning has built-in flyscreen support leg that allows you to install a flyscreen without add on trims. The chain winder is fitted to a reinforced tubular section in the frame, plus the sash has been thickened up to accept the chain bracket, these thickened sections reduce the chance of damage when operating the winder over the long life of a window.



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Architectural Information

Series 516 Awning Window

Check List



Not all awning windows are the same. Any window company can make a window that will fill the hole in the wall - but if you want your awning windows to 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.

Features

	Vantage 516	Opposition
Does the window comply with the relevant Australian Standards. <ul style="list-style-type: none"> All windows should comply but it pays to ask for written proof. 	Yes	
Standard awning window has very high 450 Pa water resistance.	Yes	
Chain winder with corrosion resisting stainless steel chain (10 year manufacturers warranty) standard.	Yes	
Fixed sidelights and / or lowlights have splayed beads on the outside to match the adjoining awning sash rails. <ul style="list-style-type: none"> This external splayed bead sheds water and dust away from the glass line. 	Yes	
Condensation draining fixed sill and transom. <ul style="list-style-type: none"> The Vantage awning fixed lights can be fitted with optional anti blow back condensation draining ball valve (Australian Registered Design). 	Yes	
Heavy duty hardware. <ul style="list-style-type: none"> Awning sashes fitted with heavy duty chain winder. Casement windows fitted with stainless steel friction stays and wedgeless cam handles. 	Yes	
Reinforced hardware fixing points. <ul style="list-style-type: none"> After keeping out the elements this is the next most important item. No one will accept a window where the hardware (usually the chain winder) is loose and falling off. Chain winders can develop very high loads on the screw fixings especially where they are screwed to the sash. Basically when the sash is being closed the operator can over tighten the winder and this in turn tries to pull the fixing screws out of the sash. Many awning windows suffer from the loose hardware syndrome - Chain winder or cam handles almost falling off. This is caused by fixing the hardware item to a section of the window frame or sash that's not strong enough (too thin) to take the load. This fault is very hard to almost impossible to correct on a defective window and usually results in replacement of the complete unit. The Vantage Series 516 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. <ul style="list-style-type: none"> For all of the reasons listed above the chain winder needs to be fixed as securely as possible to the sill. This is why the Series 516 awning has no spacers or packers under the winder and is screwed directly into a thickened section in the sill. 	Yes	
No screws to catch the fingers on. <ul style="list-style-type: none"> Series 516 awning chain winders are fixed into a tubular section of the sill. Nothing to catch curtains and blinds on. 	Yes	
Sash corner guards. <ul style="list-style-type: none"> Awning and casement sashes in the open position can be dangerous. Series 516 is fitted with moulded nylon corner guards to blunten the sharp corner and reduce the chance of injuries. 	Yes	
Water resisting hinge hood. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> The awning sill has a built-in upstand to accept flyscreen installation. Building in this flyscreen support leg will save the owner money when they come to fit flyscreens as no trims or infills are required.. 	Yes	
Window can be coupled to sliding doors or other windows without visible rivets.	Yes	
Rounded corner on the frame and sash members where ever possible. <ul style="list-style-type: none"> Modern paint finishes don't like sharp corners. 	Yes	

These are what we see as the most important points to be checked - Compare us with the others.

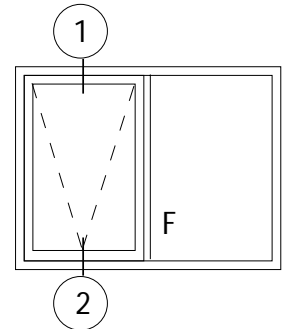


Architectural Information

Series 516 Awning Window

Vertical Section through Awning Window

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Continuous aluminium hooded hook hinge.

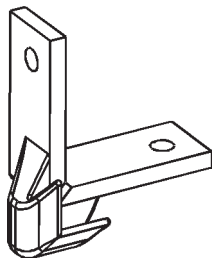
Stainless steel frame and sash assembly screws.

Continuous co-extruded Santoprene bulb seal.

CAD file: DWG or DXF
VAN_516

Wrap around PVC glazing channel.

Non-key chain winder package or Key chain winder option.



Injection moulded nylon corner guard.

Injection moulded nylon sill end cap.

Continuous co-extruded Santoprene bulb seal.

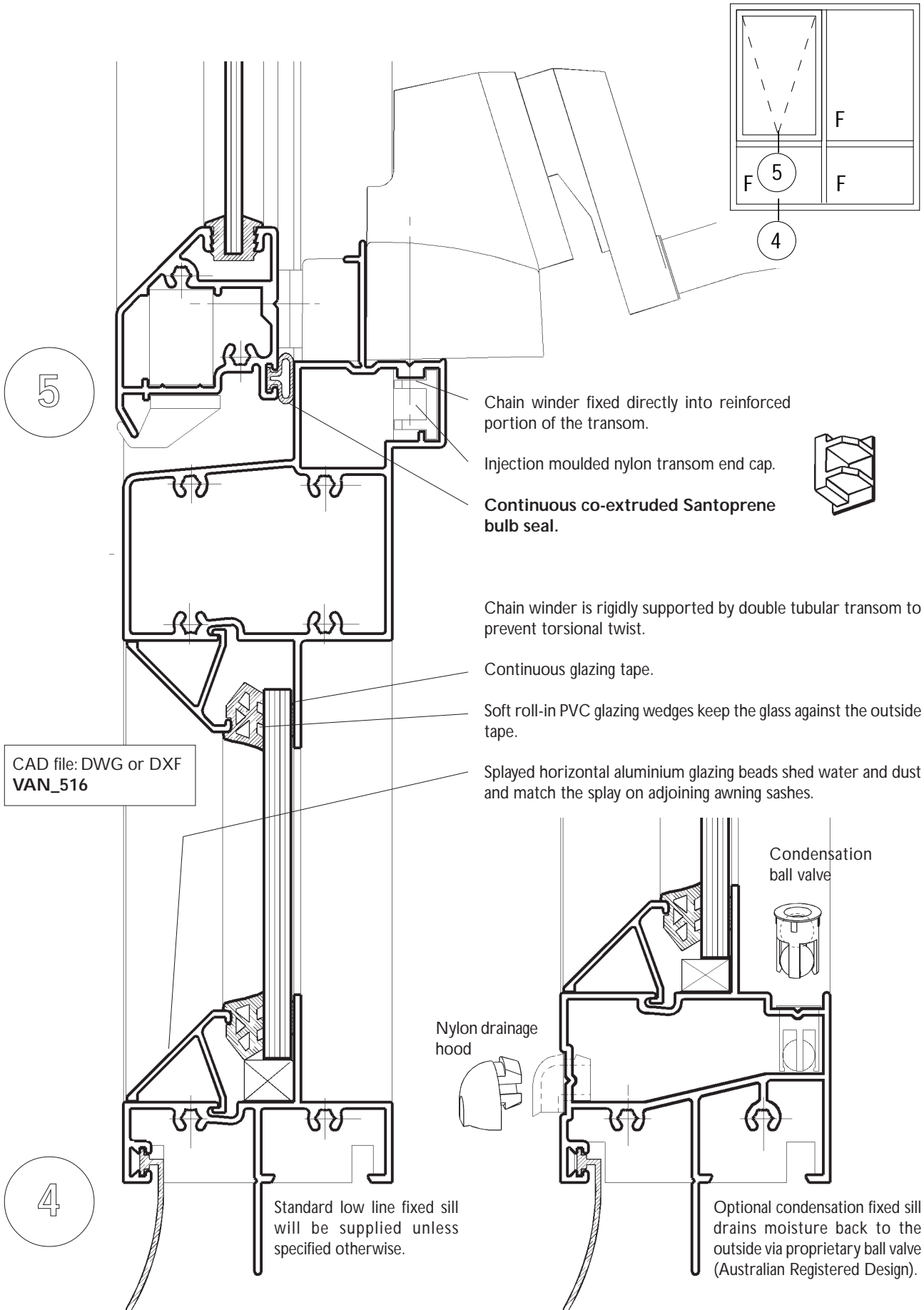


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Series 516 Awning Window

Vertical Section through Transom Awning over Fixed



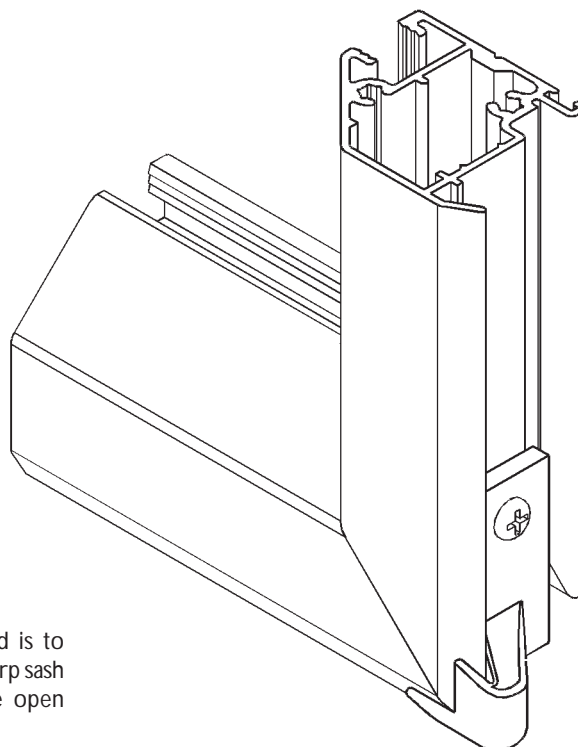
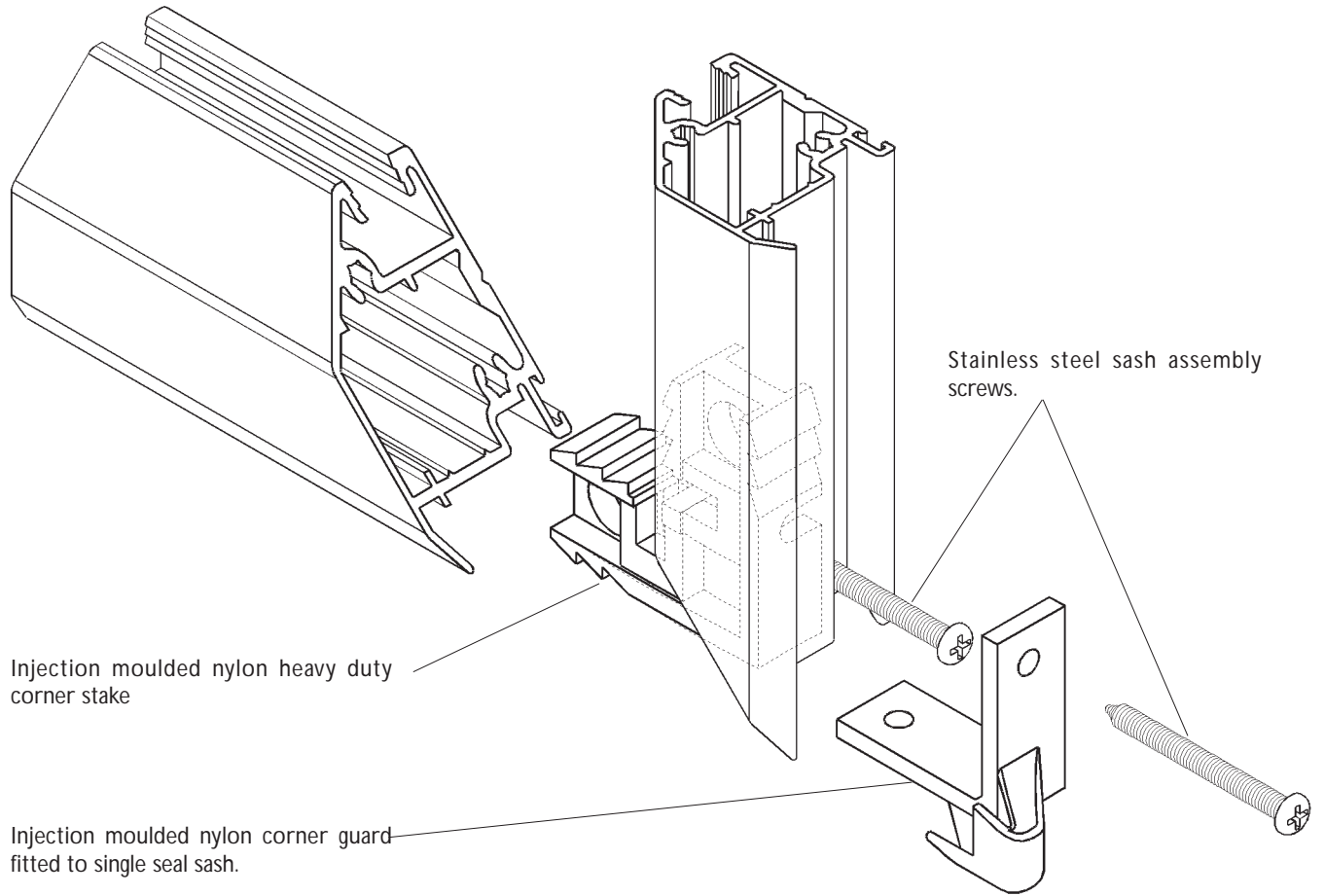


Architectural Information

Series 516 Awning Window

Sash Assembly Detail

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Note:
The purpose of the corner guard is to cover the potentially dangerous sharp sash corner when the sash is in the open position.

Architectural Information

Series 516 Awning Window

Standard Chain Winder & Sash Strength



The frame and sash have been designed to accept the window hardware. Winder sits onto tubular sill platform and is screwed to reinforced sections in frame and sash.

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

Polesium™ body chain winder and the standard 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 frame.

Window			Standard Sash		H.D. Sashes	
type	Height mm	Width mm	16012		16014 & 16024	
			S	U	S	U
A	1200	910	1244	1998	2038	3627
A	1200	1010	1132	1814	1854	3292
A	1200	1210	970	1547	1589	2809
A	1300	910	962	1681	1576	3051
A	1300	1010	873	1523	1431	2764
A	1300	1210	745	1293	1220	2347
A	1400	910	760	1435	1245	2604
A	1400	1010	689	1298	1128	2355
A	1400	1210	585	1098	958	1993
A	1500	910	611	1239	1001	2249
A	1500	1010	553	1120	906	2032
A	1500	1210			766	1741

Sash 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.

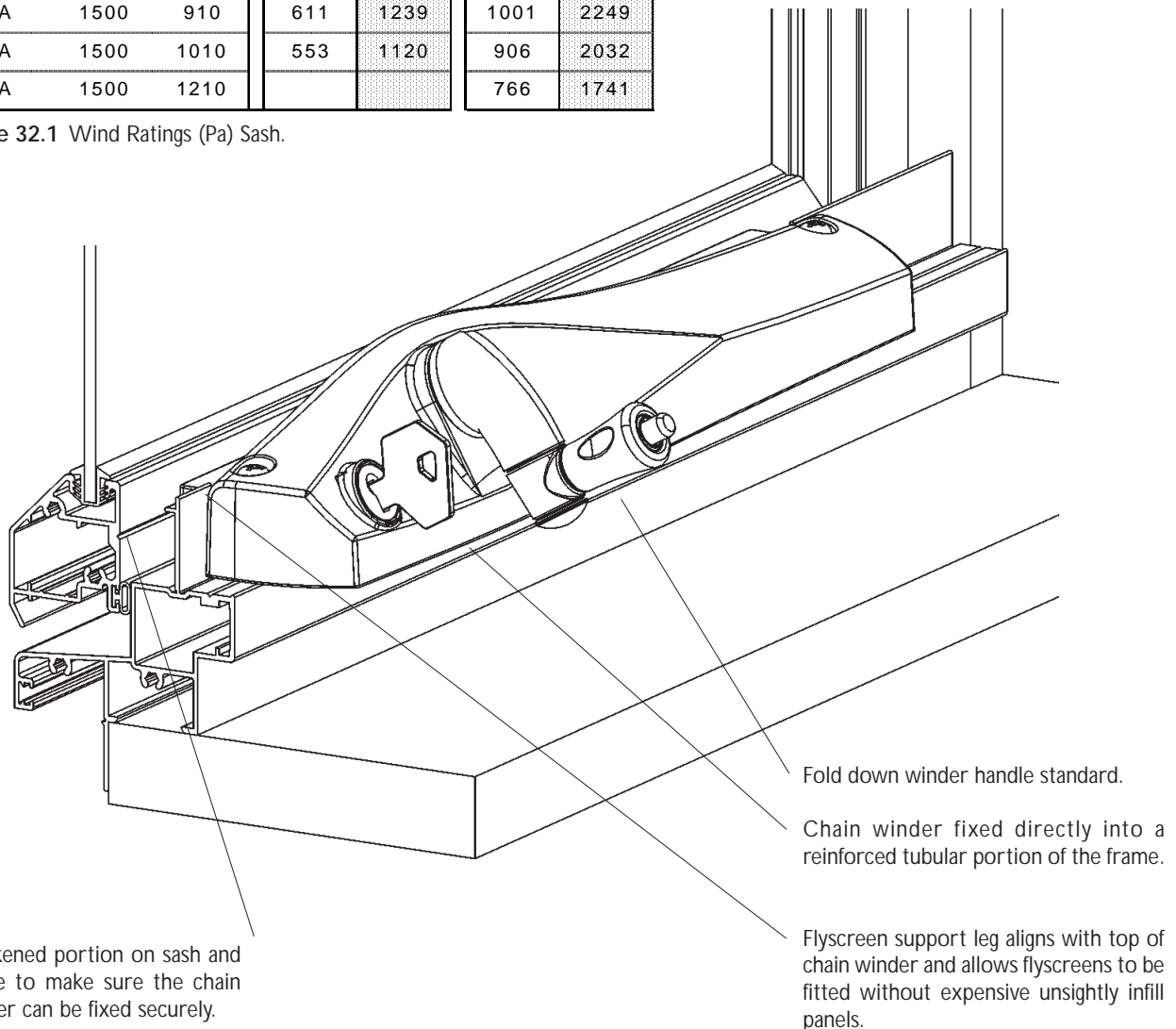
A typical assembly has been tested as per the requirements of AS2047,

Ultimate strength rating has been limited to 4500 Pa.

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

Blank Denotes rating under 500 Pa.

Table 32.1 Wind Ratings (Pa) Sash.





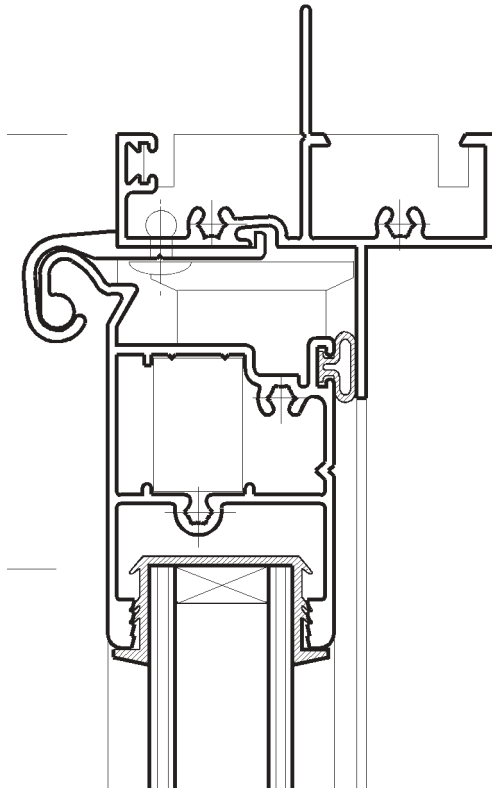
Series 516 Awning Window

Date: May 06

Optional Double Glazing, Sound & Thermal Ratings

Replaces: Aug 03

Scale: Full size



Custom double glazed sash will accept 20mm insulating glass.

These sashes are heavy and the glass weight restricts the overall sash size as illustrated below :

3mm Glass with 14mm air gap and 3mm glass

1200 x 950

1300 x 880

3mm Glass with 13mm air gap and 4mm glass

1200 x 820

1300 x 760

3mm Glass with 12mm air gap and 5mm glass

1200 x 749

1300 x 690

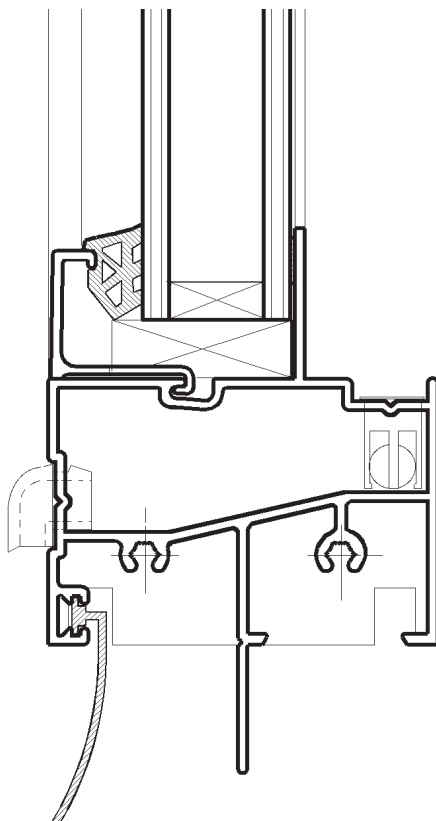
Sound Reduction

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.

- 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

Secondary glazed sliding window will give significantly higher numbers
3mm glass with 6.38mm laminated in SoundOUT
45dB(A) RW47

Go to the SoundOUT section 55 for other options.



Thermal Transmission WERS

This window has been WERS rated. The star ratings for heating and cooling climates with various glass options can be found in the WERS section 04.

Custom double glazed fixed light to match the double glazed sash illustrated above, will accept 20mm insulating glass and the self draining condensation ball valve.

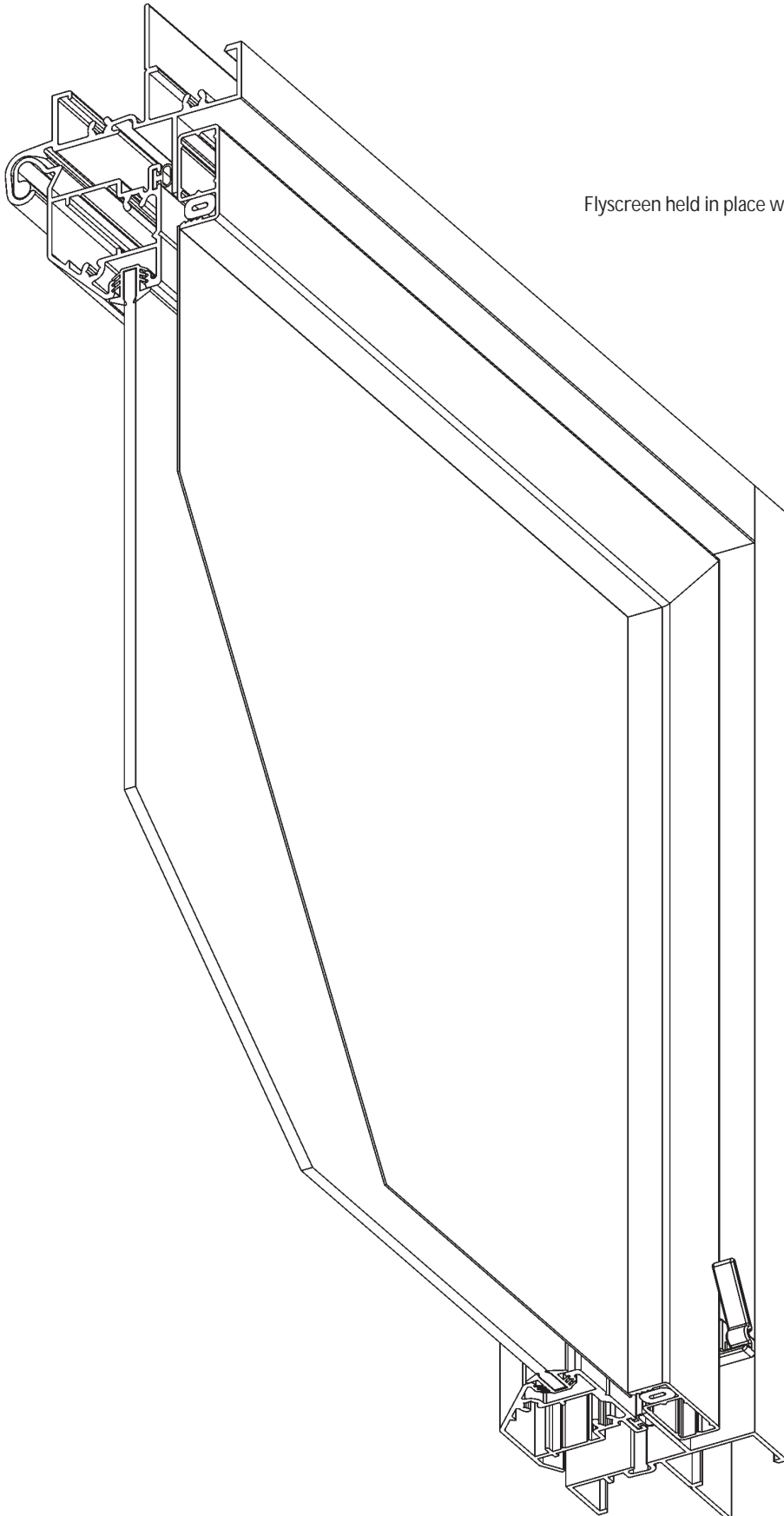
Drawn with the optional condensation draining fixed sill. Can also be supplied with the standard lowline fixed sill (as detailed on previous page).

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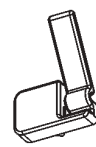
Architectural Information

Series 516 Awning Window

Awning Flyscreen Fitting Details



Flyscreen held in place with custom nylon clips.



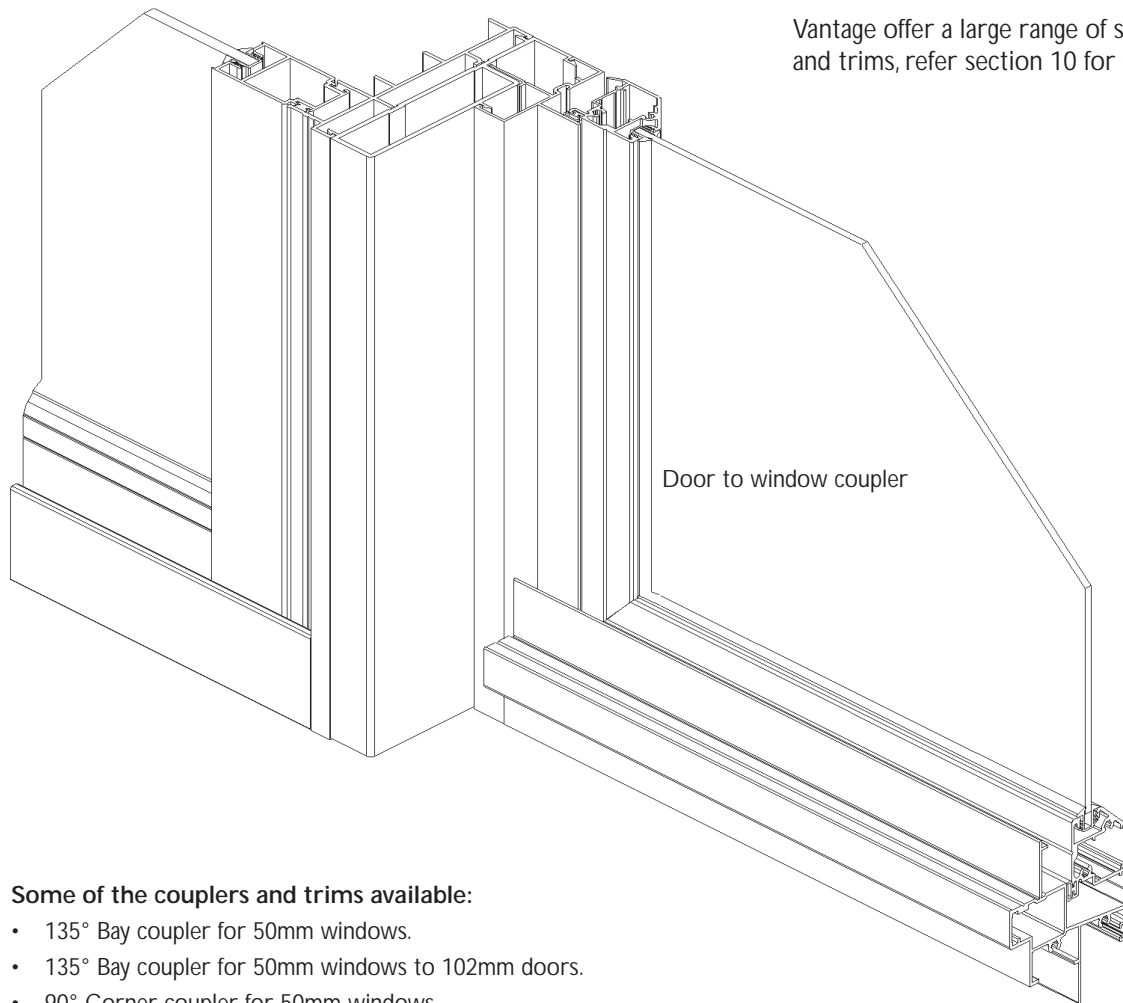


Architectural Information

Series 516 Awning Window

Couplers and Trims

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Vantage offer a large range of snap on couplers and trims, refer section 10 for full details.

Some of the couplers and trims available:

- 135° Bay coupler for 50mm windows.
- 135° Bay coupler for 50mm windows to 102mm doors.
- 90° Corner coupler for 50mm windows.
- 90° Corner coupler for 50mm windows to 102mm doors.
- 180° Coupler for 50mm windows.
- Door to window vertical coupler (illustrated top left).
- Door to window horizontal coupler.
- 'Longreach' frame extender
- 'Paddington' federation trims.
- Storm moulds.
- Architraves.
- External flange adaptors.
- Flat jamb closer.

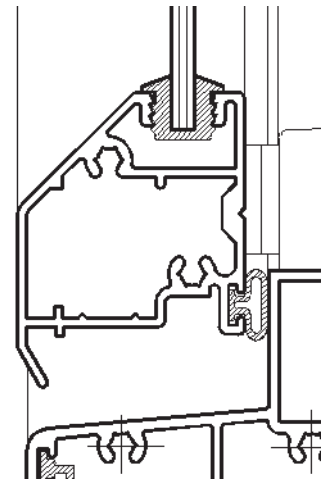


Series 616 Alternative

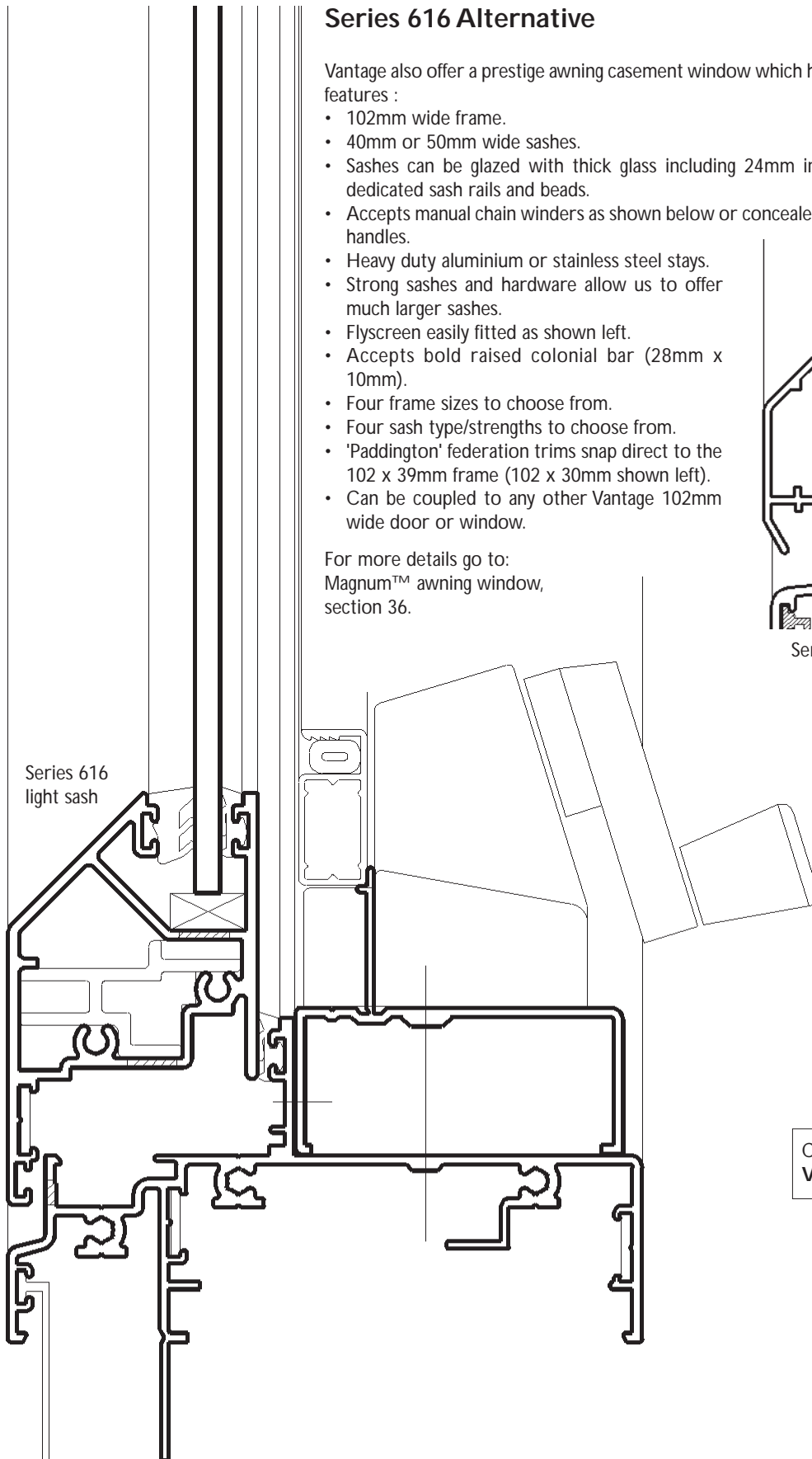
Vantage also offer a prestige awning casement window which has a number of additional features :

- 102mm wide frame.
- 40mm or 50mm wide sashes.
- Sashes can be glazed with thick glass including 24mm insulating glass units with dedicated sash rails and beads.
- Accepts manual chain winders as shown below or concealed electric winders or cam handles.
- Heavy duty aluminium or stainless steel stays.
- Strong sashes and hardware allow us to offer much larger sashes.
- Flyscreen easily fitted as shown left.
- Accepts bold raised colonial bar (28mm x 10mm).
- Four frame sizes to choose from.
- Four sash type/strengths to choose from.
- 'Paddington' federation trims snap direct to the 102 x 39mm frame (102 x 30mm shown left).
- Can be coupled to any other Vantage 102mm wide door or window.

For more details go to:
Magnum™ awning window,
section 36.



Series 516 sash



CAD file: DWG or DXF
VAN_616



Architectural Information

Series 516 Awning Window

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32.6	Chain winder fitting detail.
32.7	Optional double glazing, sound and thermal ratings.
32.8	Awning flyscreen fitting details.
32.9	Couplers and trims.
32.10	Alternative window.

Series 516 Awning window internal view
with standard manual chain winder
(Not to scale)

