

Series 616
MAGNUM™ Awning Window



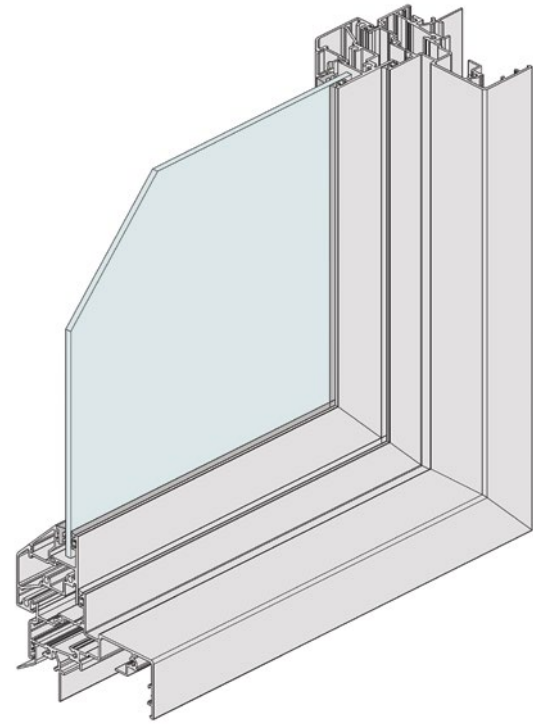
Photo courtesy of DLG Aluminium & Glazing



Series 616 MAGNUM™ Awning Window

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

KEY FEATURES / PERFORMANCE CHARACTERISTICS



- Tested for compliance with the relevant Australian Standards and achieved a very high water resistance of 1000Pa, this makes the product suitable for most applications including multi-storey apartments.
- Low air infiltration, makes the product suitable for air conditioned buildings.
- The extra strong sashes allow large sash windows to be fabricated for high wind load areas, refer Pascal rating tables later in these notes.
- Splayed or square glazing beads available.
- 102mm frames, mullion and transom have a soft 2mm internal radius.
- Awning sashes can be fitted with cam handles, manual chain winders or concealed electric winders. The winder options suit fixed flyscreen installation as detailed in these notes.
- Sashes are hung on heavy duty four bar stainless steel or aluminium stays.
- Sashes and sidelights will accept a variety of glass thicknesses from 4mm single panes to 24mm insulating glass units.

Series 616 Awning window internal view with heaviest sash 72839 into heavy tubular frame 72922

AWNINGS

Maximum Panel Height*	2100mm
Maximum Panel Width*	1210mm
Maximum Glass Thickness	≤ 24mm

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

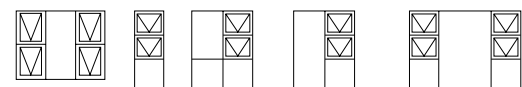
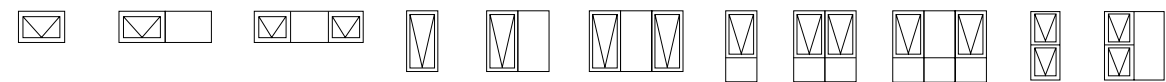
CASEMENTS

Maximum Panel Height*	1800mm
Maximum Panel Width*	900mm
Maximum Glass Thickness	≤ 24mm

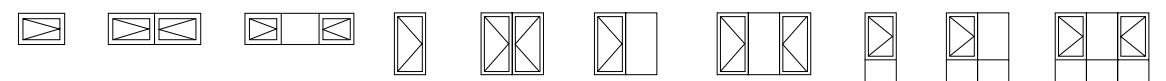
Caseament Sash Height to Width Ratio
The maximum width of the casement sash is limited to 50% of the sash height.

TYPICAL CONFIGURATIONS

Awning Style



Casement Style



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SOUND REDUCTION

Acoustic performance of the Series 616 MAGNUM™ Awning Window has been tested with a number of glass combinations. Opening sash was fitted with Santoprene fin seal on all inner sides.

Glass Description		
4mm Annealed glass	30dB(A)	RW32
6.38mm Laminated glass	34dB(A)	RW34
10.38mm Laminated glass	36dB(A)	RW36
24mm Insulating glass unit	35dB(A)	RW35

WERS RATINGS

Single Glazed

Glass Description	COOLING	HEATING	Uw	SHGCw	Tvw	Inf
4mm Clear	26%	23%	6.8	0.55	0.55	0.12
5mm Clear	27%	26%	6.6	0.56	0.56	0.12
5mm Grey	37%	19%	6.6	0.42	0.32	0.12
5mm EverGreen	39%	18%	6.6	0.40	0.46	0.12
6.38mm Laminated	29%	26%	6.6	0.53	0.56	0.12
6.38mm Solace	41%	40%	5.3	0.46	0.51	0.12
6.38mm Comfort Plus	48%	34%	5.3	0.36	0.37	0.12

Double Glazed

Glass Description	COOLING	HEATING	Uw	SHGCw	Tvw	Inf
4Clr/10Gap/4Clr	41%	47%	4.9	0.49	0.49	0.12
4Az/10Gap/4EA	58%	40%	4.4	0.28	0.37	0.12
4Clr/10Ar/4EA	46%	53%	4.2	0.46	0.45	0.12
4Clr/10Gap/4EA	46%	51%	4.4	0.46	0.45	0.12
5Clr/8Gap/5Clr	41%	45%	4.9	0.48	0.48	0.12
5EG/8Ar/5EA	58%	42%	4.3	0.28	0.37	0.12

MORE INFORMATION, 2D & 3D CAD FILES

For the latest updates regarding this product visit our website: specifyaws.com.au

HOW TO SPECIFY

SYSTEM NAME

Vantage Series 616 MAGNUM™ Awning Window

FINISH

Powder Coat
Anodised

COLOUR

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

GLASS

Specify thickness ≤ 24mm
Specify thermal performance where applicable (Uv & 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. Most have light weight sashes that are stabilised by the strength of the glass - but if you want your windows to perform and match the architectural appearance you are looking for there are some things you should check/compare when choosing your supplier.

FEATURE	Series 616	Opposition
Does the window comply with the relevant Australian Standards. All windows should comply but it pays to ask for written proof.	YES	
Designed for very exposed locations. Series 616 has a 1000pa water resistance as standard. This makes the product suitable for very exposed locations anywhere in Australia.	YES	
Can I make large windows and still comply. We can make this awning and casement sashes the size of doors and still comply. Our sashes and matching fixed sidelight will accept glass from 4mm single glaze to 24mm insulating glass units.	YES	
Wide frame with bold sashes. 102mm wide perimeter frame. 40mm and 50mm thick sashes.	YES	
Heavy duty stay support. MAGNUM™ awning and casement sashes are supported on heavy duty four bar aluminium or stainless steel stays.	YES	
All locking options. We can fit manual chain winders to awnings. Our heavy duty winder comes with corrosion resistant stainless steel chain as standard and to ensure that we don't get any galvanic reaction between winder and frame the winder has a Polesium™ base. Winders can be colour matched to the sash finish. We also offer concealed electric winders with touch pad operation. These winders can be fitted with rain sensors that will instruct the winder to close automatically if it rains. We offer a large range of wedgeless cam handles for awning and casement sashes. This now includes the custom ICON™ cam that comes in 316 stainless steel.	YES	
Clean flyscreen installation. Flyscreens nest onto the winder bases and are secured to jambs with custom nylon spring clips.	YES	
Window can be coupled to sliding doors or other windows without visible rivets.	YES	
Rounded internal frame corners where ever possible. The main perimeter frame has 2mm soft internal corner radius. Mullions and transoms also have the same soft internal radius plus they are setback 2mm from the edge like timber windows to give a clean finish. Modern paint finishes don't like sharp corners.	YES	
Condensation on fixed lowlights can be drained back to the outside. In colder areas glass can condensate and produce pools of water on the sill members, if this moisture can't be drained back to the outside staining may occur on timber linings. The proprietary Vantage drainage system transfers moisture back to the outside. Specify condensation drainage when ordering.	YES	
Compatible products. MAGNUM™ 616 awning window has been designed to match and couple with a large range of other MAGNUM™ products. Refer to installation section for more information.	YES	

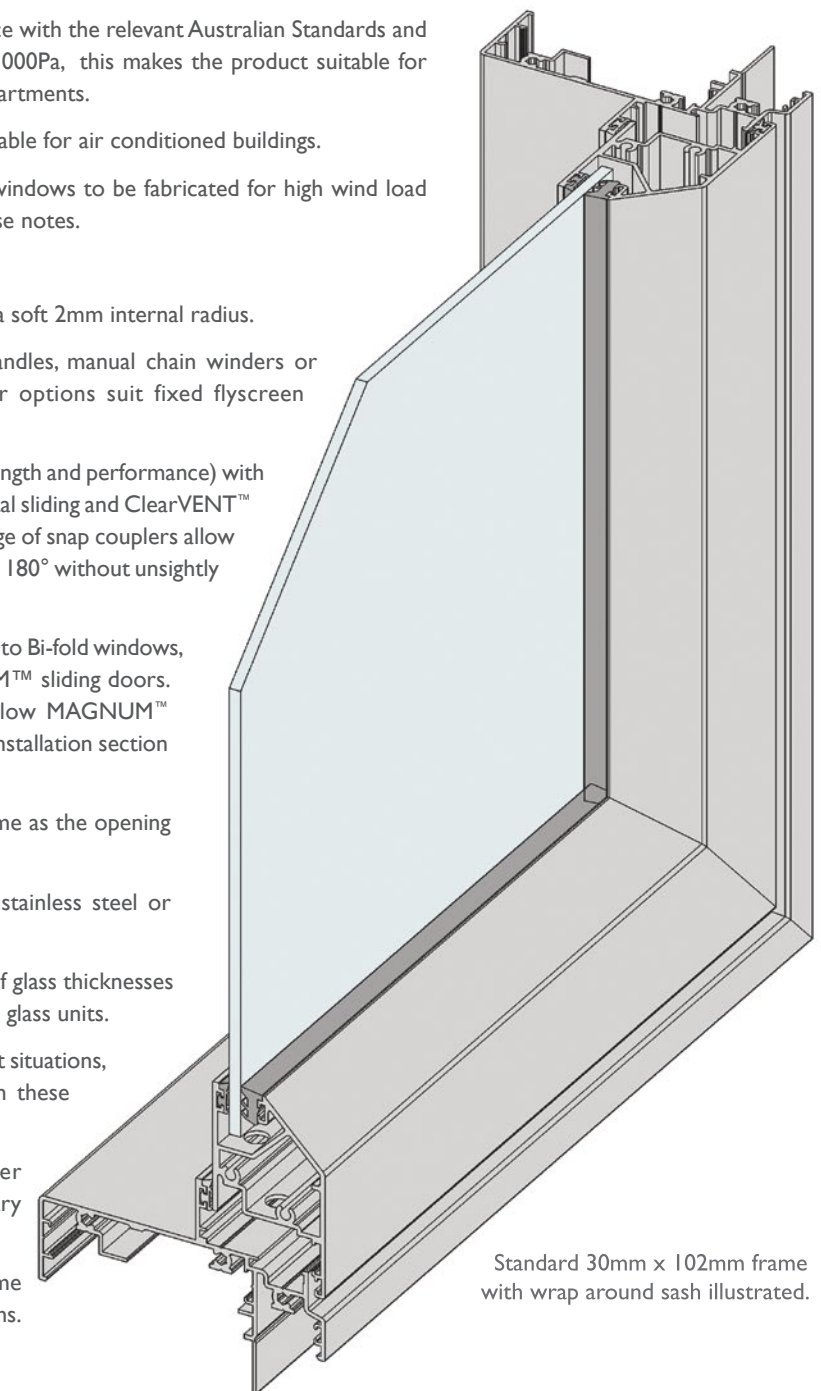
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DESIGN FEATURES

- This high performance awning/casement window has been designed to complement our existing high quality product range including SlideMASTER™ and MAGNUM™ sliding doors, Bi-fold doors and the MAGNUM™ horizontal sliding and ClearVENT™ double-hung windows.
- The window has been tested for compliance with the relevant Australian Standards and achieved a very high water resistance of 1000Pa, this makes the product suitable for most applications including multi-storey apartments.
- Low air infiltration, makes the product suitable for air conditioned buildings.
- The extra strong sashes allow large sash windows to be fabricated for high wind load areas, refer Pascal rating tables later in these notes.
- Splayed or square glazing beads available.
- 102mm frames, mullion and transom have a soft 2mm internal radius.
- Awning sashes can be fitted with cam handles, manual chain winders or concealed electric winders. The winder options suit fixed flyscreen installation as detailed in these notes.
- The window is compatible (appearance, strength and performance) with the high performance MAGNUM™ horizontal sliding and ClearVENT™ double-hung sashless windows. A large range of snap couplers allow these windows to be joined at 90°, 135° and 180° without unsightly rivets or screws.
- These couplers allow this window to couple to Bi-fold windows, Bi-fold doors, French doors, and MAGNUM™ sliding doors. There are also horizontal couplers to allow MAGNUM™ windows to be fitted over doors. Refer to installation section for more information.
- Fixed lowlights/sidelights use the same frame as the opening sashes.
- Sashes are hung on heavy duty four bar stainless steel or aluminium stays.
- Sashes and sidelights will accept a variety of glass thicknesses from 4mm single panes to 24mm insulating glass units.
- Four frame and four sash designs cover most situations, all frame and sash options are detailed in these notes.
- The tubular 39mm x 102mm perimeter frame (72822) can be fitted with proprietary condensation draining ball valve.
- The same 39mm x 102mm perimeter frame will also accept 'Paddington' federation trims.
- WERS rated product.



All of the important features are shown in full colour at: www.vantagealuminium.com.au

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SCALE: HALF FULL SIZE

VERTICAL CROSS SECTION - AWNING WITH CHAINWINDER

Wrap around sash fitted with stays and chain winder, in 102mm x 30mm standard frame (72821).

Rating tables for alternative sash side rails on this page.
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.

Please note: There are size and strength limitations on the sash hardware as shown earlier in these notes.

Window		Sash Types				
Height mm	Width mm	72836	72837	72838	72839	
1600	910	S	1484	1484	1484	1484
		U	3526	3202	2874	4379
1600	1210	S	1102	1102	1102	1102
		U	2676	2431	2182	3324
1700	910	S	1395	1395	1395	1395
		U	3103	2819	2530	3854
1700	1210	S	1036	1036	1036	1036
		U	2349	2134	1915	2918
1800	910	S	1315	1281	132007	1315
		U	2753	2500	2244	3419
1800	1210	S	977	971	977	977
		U	220079	1889	1695	2583

Wind Ratings (Pa) sashes.

CAD file: DWG or DXF
VAN_616

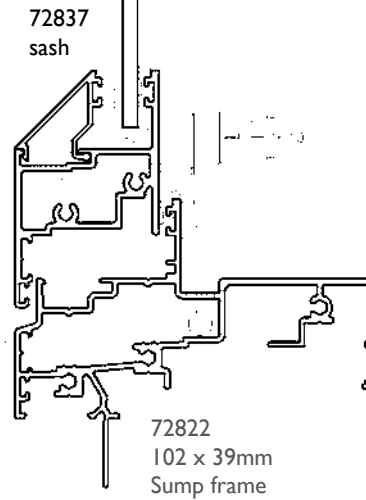
72836 sash

72821
102 x 30mm
Standard frame

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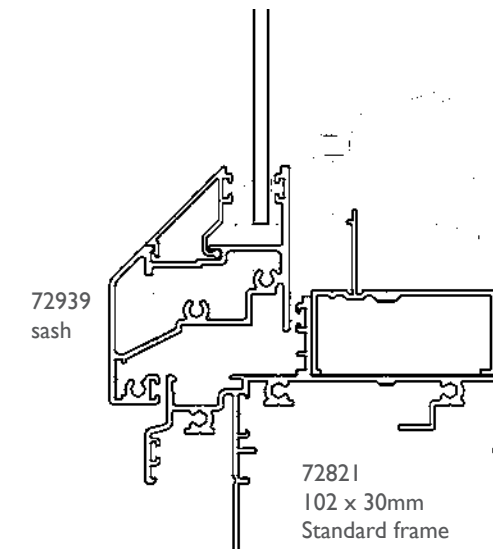
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ALTERNATIVE FRAMES AND SASHES

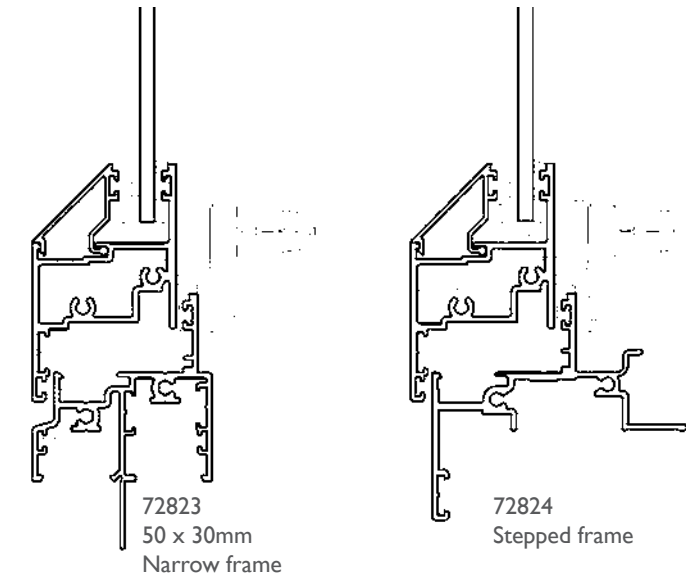


Beaded 40mm sash (72837) fitted with stays and cam handles, in 102mm x 30mm sump frame. This frame is designed to accept the Vantage proprietary condensation draining ball valve.

Square glazing beads. We have an alternative square glazing bead option for both sashes and adjoining fixed lights.

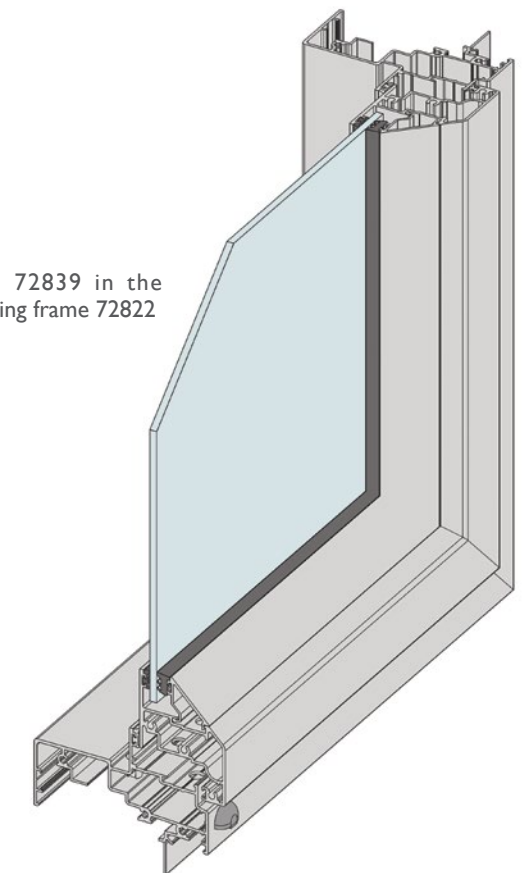


50mm Wide heavy duty beaded sash (72839). Designed for large sashes in very exposed situations.



Beaded 40mm sash fitted with stays and cam handles, in 50mm x 30mm frame and the face fit 40mm stepped frame. These frames are designed for those projects that don't require winders or fixed flyscreens.

Heavy duty sash 72839 in the condensation draining frame 72822



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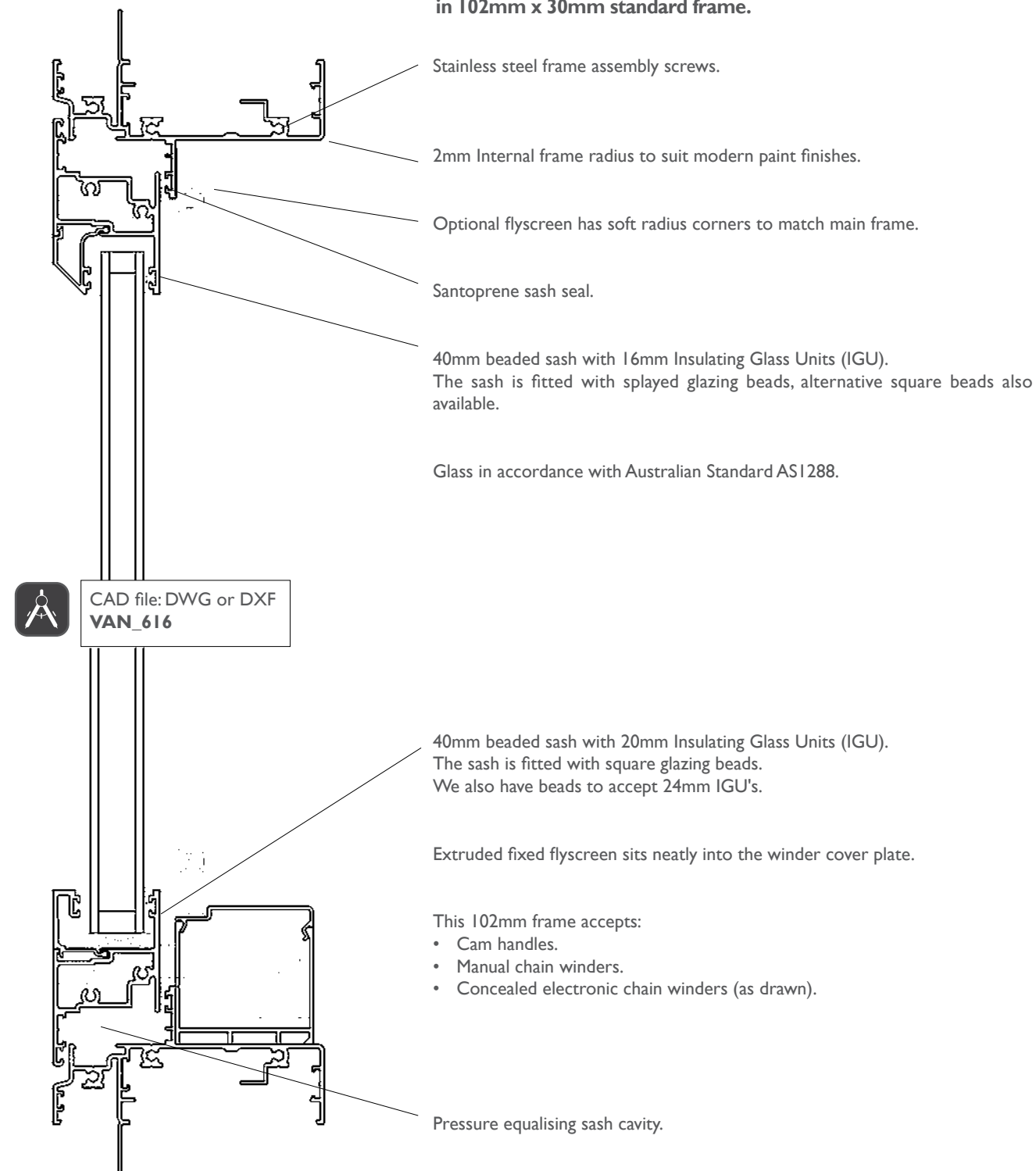
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VERTICAL CROSS SECTION - AWNING WITH ELECTRIC CHAINWINDER

40mm Beaded sash fitted with stays and concealed electronic winder, in 102mm x 30mm standard frame.



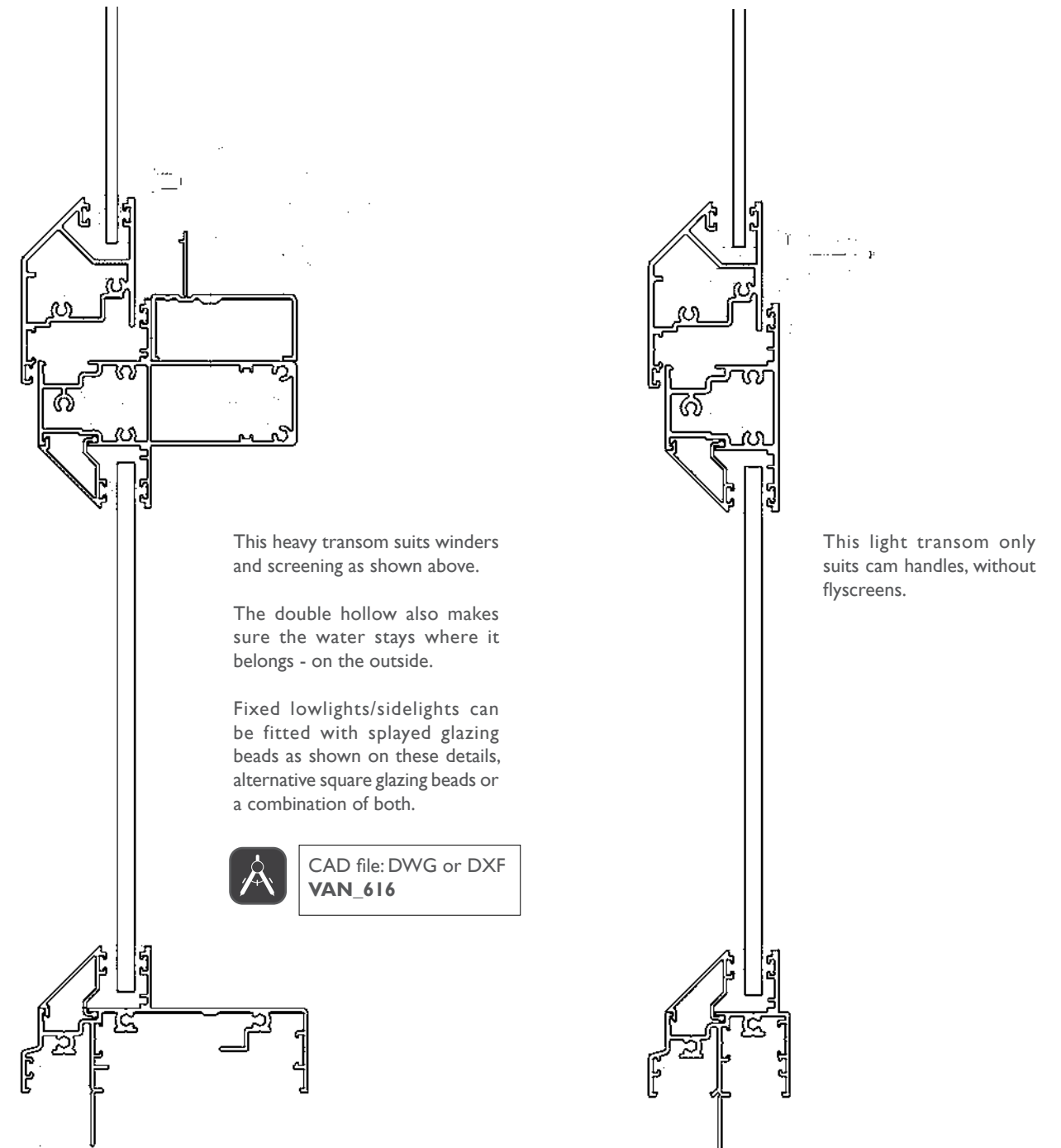
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VERTICAL CROSS SECTION - TRANSOMS

The double hollow transom will accept winders and flyscreens.

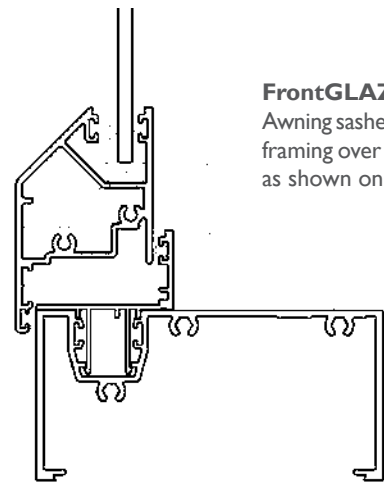


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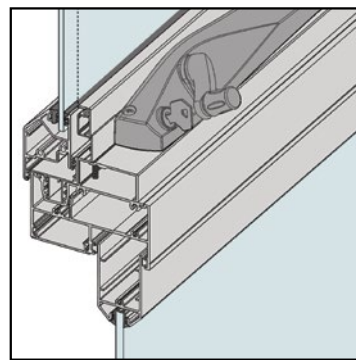
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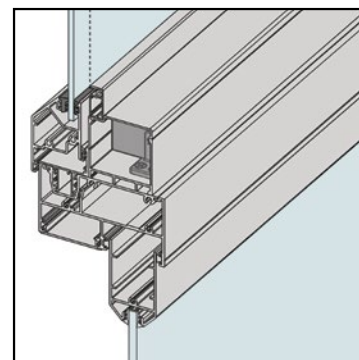
AWNINGS OVER SLIDEMASTER & INTO COMMERCIAL FRAMING



FrontGLAZE™ Framing
Awning sashes can be fitted into commercial framing over SlideMASTER™ sliding doors as shown on this page.

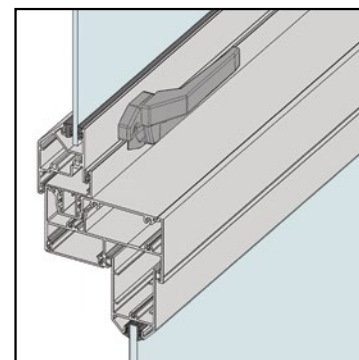


FrontGLAZE™ Framing
MAGNUM™ awnings can be fitted with manual chain winder as shown above.



FrontGLAZE™ Framing
MAGNUM™ awnings can be fitted with concealed electric winder as shown above.

Note: If you are fitting awning sashes over SlideMASTER™ doors we recommend concealed electric winders.



FrontGLAZE™ Framing
MAGNUM™ awnings can be fitted with cam handles as shown above.

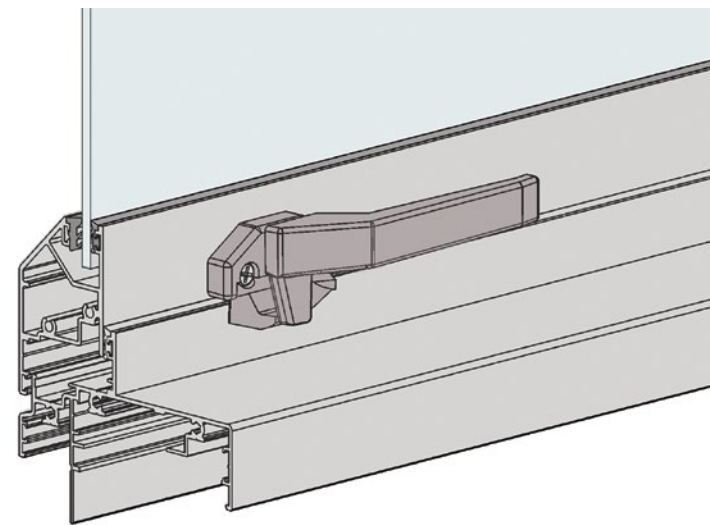
 See the alternative winder options in full colour on our web site: www.vantagealuminium.com.au

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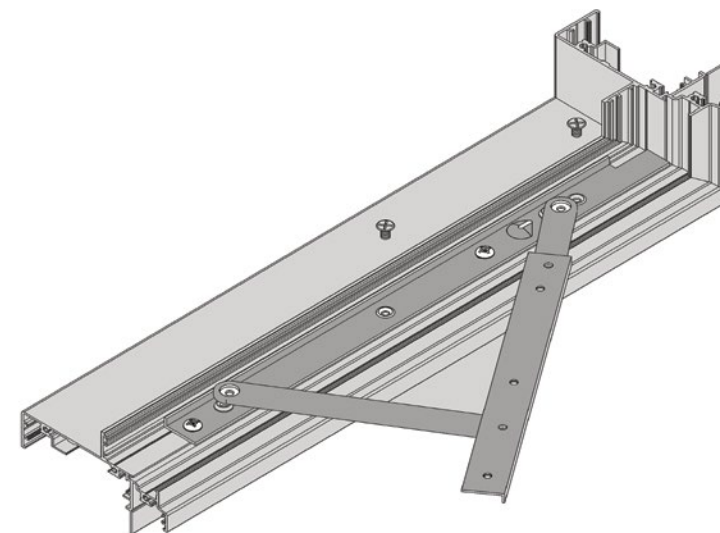
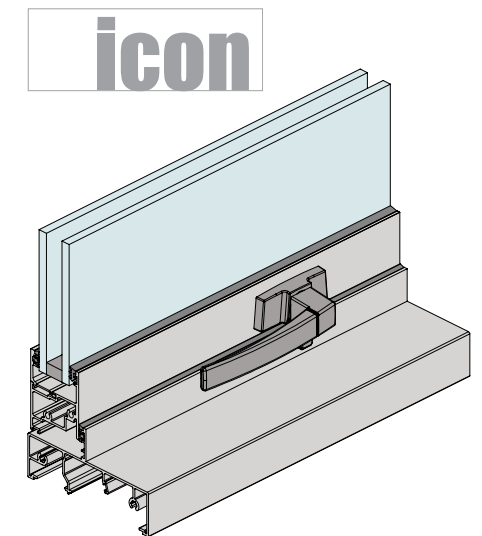
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CAM HANDLES AND STAYS



Manual Cam Handles
Sashes can be fitted with wedgeless cam handles as shown above or the 316 Stainless Steel ICON™ Helix cam handles as shown right.



Friction Stays
Awning and Casement sashes are fitted with heavy duty four bar stainless steel or aluminium friction stays

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SUMMARY

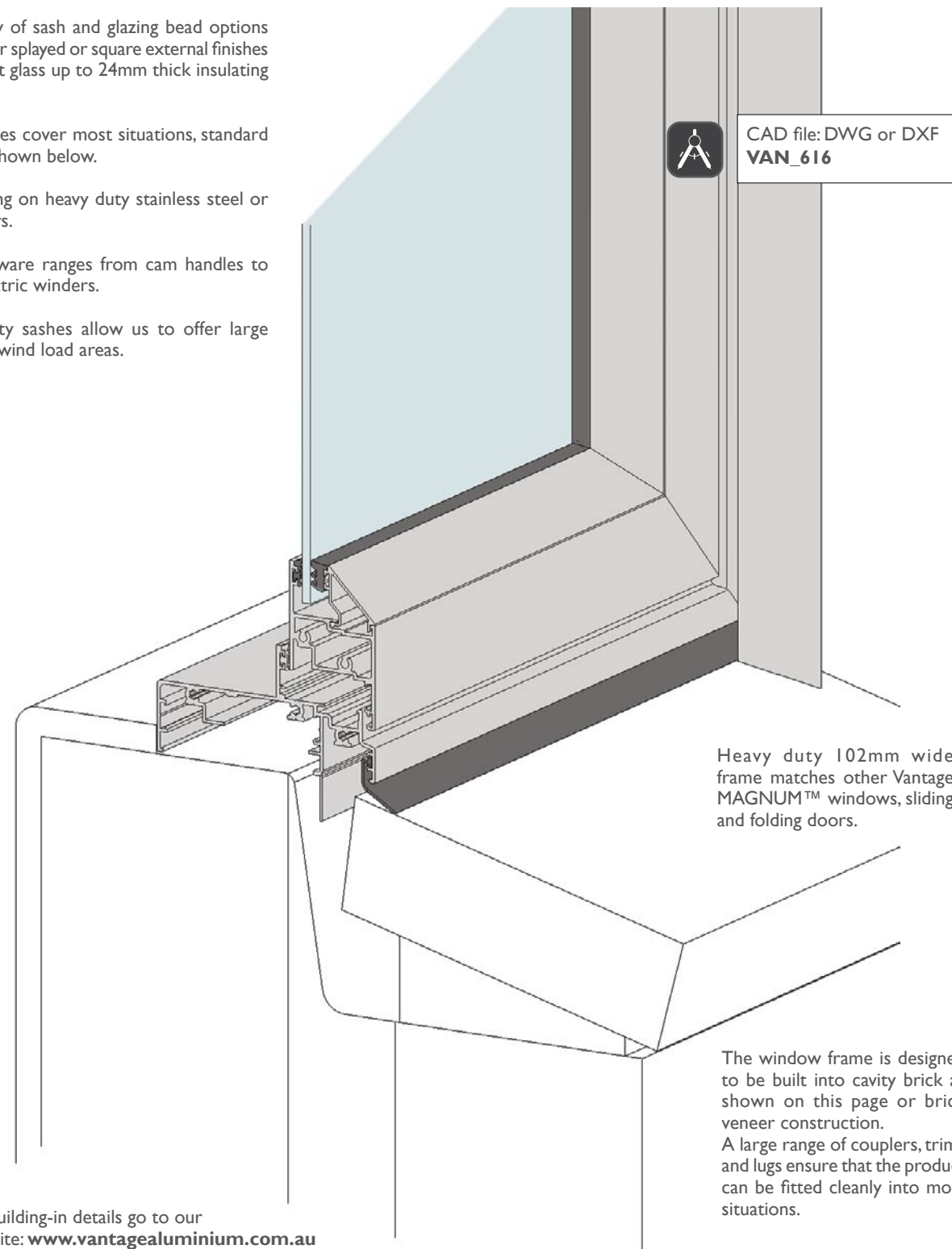
A large variety of sash and glazing bead options allow us to offer splayed or square external finishes that will accept glass up to 24mm thick insulating glass units..

Four frame sizes cover most situations, standard 102 x 30mm shown below.

Sashes are hung on heavy duty stainless steel or aluminium stays.

Opening hardware ranges from cam handles to concealed electric winders.

The heavy duty sashes allow us to offer large sashes in high wind load areas.



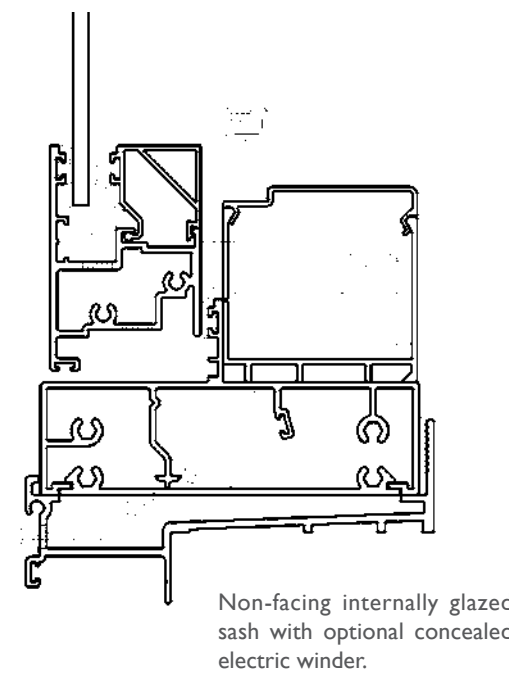
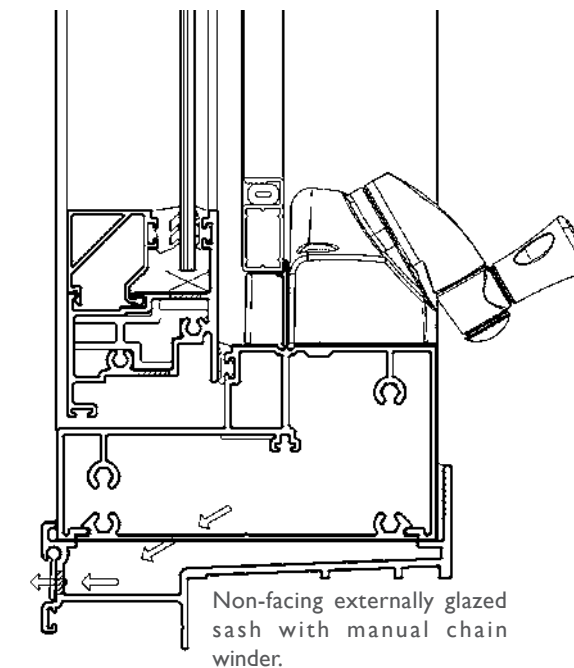
For building-in details go to our web site: www.vantagealuminium.com.au

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ALTERNATIVE ARCHITECTURAL COMMERCIAL AWNINGS & CASEMENTS



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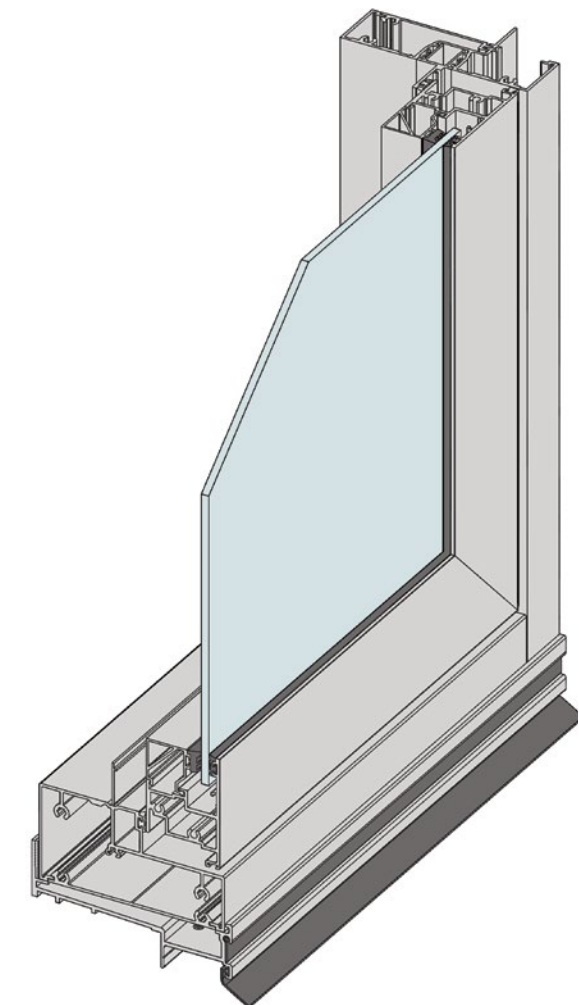
Alternative Commercial Awning and Casement Windows

If you are looking for a bolder frame consider the AWS Commercial project out sash window Series 466.

Features overview:

- Bold square commercial frame with built-in nailing fin.
- Nailing fin sub-sill is standard.
- Compatible with conventional CentreGLAZE™ shopfront framing.

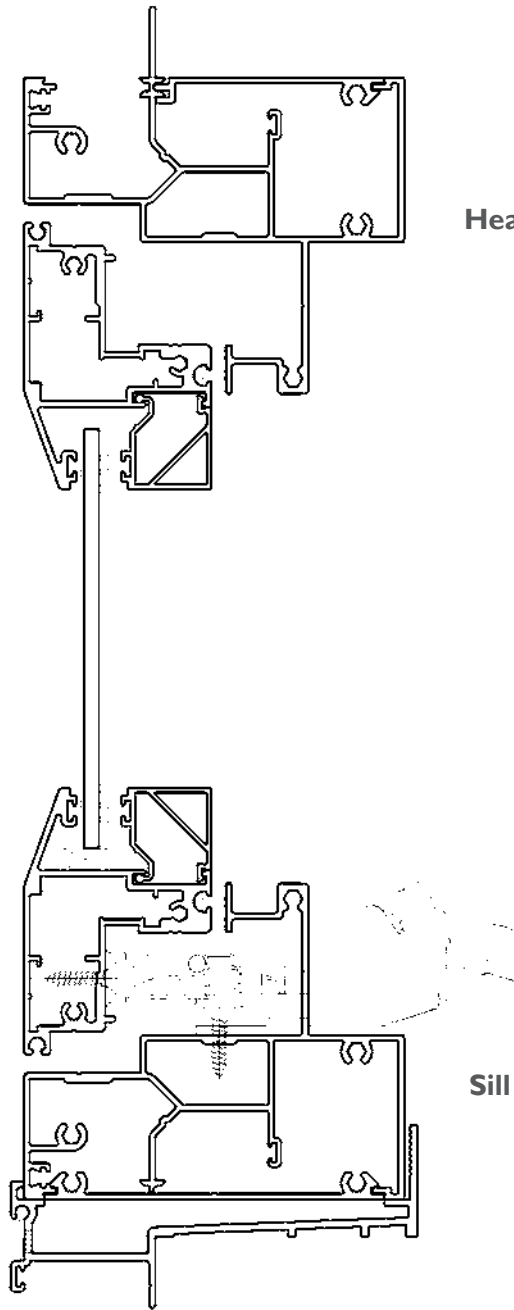
Refer AWS Commercial Specifier Manual for more details. Coloured animated images can be seen on AWS web site: www.awscommercial.com.au



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ALTERNATIVE COMMERCIAL PROJECT OUT SASHES



Alternative Commercial Awning and Casement Windows

If you want very large awnings or casements we have a window that will accept Truth™ winders Series 467.

Features overview:

- Casements that will accept flyscreens and winders.
- Bold square commercial frame with built-in nailing fin.
- Nailing fin sub-sill is standard.
- Compatible with conventional CentreGLAZE™ shopfront framing.



Refer AWS Commercial Specifier Manual for more details.
 Coloured animated images can be seen on AWS web site:
www.awscommercial.com.au

