COMMERCIAL SERIES

ELEVATE
ALUMINIUM SYSTEMS

Series 452

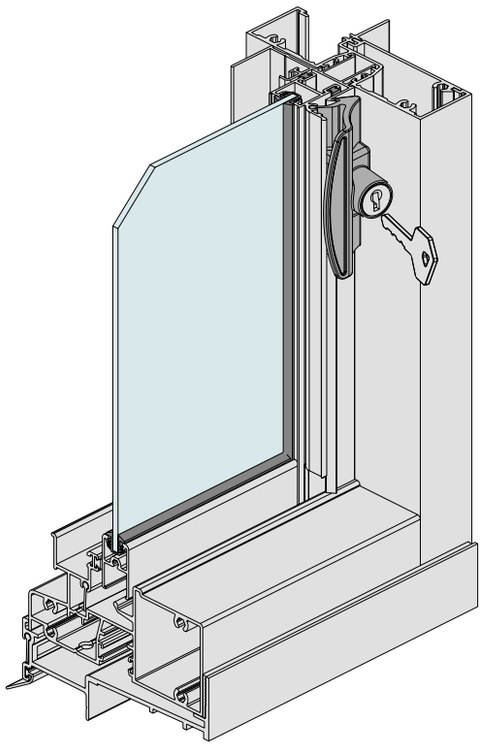
Commercial Sliding Window

Photo courtesy of AVS Windows & Doors

Series 452
COMMERCIAL SLIDING WINDOW

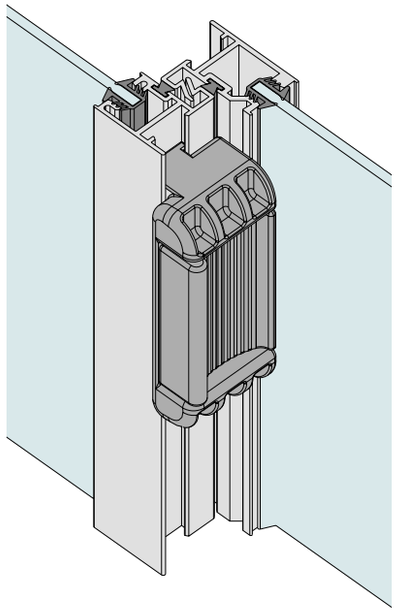
DATE: MAY 13
REPLACES: JUNE 06
SCALE: NOT TO SCALE

KEY FEATURES/PERFORMANCE CHARACTERISTICS



Series 452 Commercial Sliding Window.
External view.

- Series 452 Sliding windows incorporate 17mm thick sliding window sashes fitted into Series 400 CentreGLAZE™ framing using a custom head and sill and an inlay adapter on the jambs.
- Double sash design with the external sash fixed.
- Both fixed and opening sashes can be installed, replaced and/or reglazed from inside the building. This could be an important feature in elevated situations.
- There is a large variety of window combinations possible (SF, FS, SFS or FSSF) with and without highlights/lowlights.
- Sliding sashes can be fitted with a variety of latches and locks including centre multi-point lock.
- The ventilation lock allows the opening sash to be key locked in the closed and partly open (ventilation) position.
- Flyscreens can be clipped into the frame without unsightly rivets, metal clips or turnbuckles.
- The detail left shows standard jamb key lock.
- Alternative centre latch illustrated below.



Maximum Panel Height*	1600mm
Maximum Panel Width*	900mm
Maximum Glass Thickness	≤20mm

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

2D & 3D CAD FILES AVAILABLE

To access 2D & 3D CAD models visit our online specifier resource centre
www.specifyaws.com.au

MORE INFORMATION

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

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SOUND REDUCTION

A number of glass combinations have been tested with this system to acheive sound reduction numbers listed below.

Glass Description	Rating
6.38mm Laminated glass	STC 31 dB
7.52mm Laminated glass	STC 32 dB

NOTE:The actual tests were carried out on a product very similar to this window (Series 504).

WERS RATINGS

Single Glazed

Window ID	Glass Type	Uw	SHGCw	Tvw	Inf
AWS-047-01	4SnClr	5.5	0.50	0.54	1.61
AWS-047-02	6SnClr	5.4	0.49	0.54	1.61
AWS-047-03	6EVanBG	5.2	0.37	0.45	1.61
AWS-047-04	6EVanClr	5.2	0.51	0.53	1.61
AWS-047-05	6EVanGy	5.2	0.34	0.25	1.61
AWS-047-06	6EVanSpB	5.2	0.30	0.31	1.61
AWS-047-07	6EVanSpGn	5.2	0.30	0.38	1.61
AWS-047-08	6.38VLam	6.6	0.66	0.71	1.61
AWS-047-09	6.38VLamGy	6.7	0.30	0.10	1.61
AWS-047-10	6.38TLam	6.7	0.34	0.26	1.61
AWS-047-11	6.38SnClr	5.4	0.47	0.53	1.61
AWS-047-12	6.38SnGy	5.4	0.36	0.25	1.61
AWS-047-13	6.38Sct	5.1	0.55	0.64	1.61
AWS-047-14	6.38CPNtrl	5.1	0.42	0.47	1.61
AWS-047-15	6.38CPClr	5.0	0.56	0.65	1.61
AWS-047-16	6.38CPGn	5.0	0.41	0.56	1.61
AWS-047-17	6.38CPGy	5.0	0.41	0.31	1.61
AWS-047-18	10.38ClrLam	6.7	0.48	0.48	1.61
AWS-047-19	10.38SnClr	5.6	0.42	0.47	1.61
AWS-047-20	10SnClr	5.3	0.39	0.43	1.61
AWS-047-21	10.38TLam	5.3	0.39	0.43	1.61
AWS-047-22	10.38GyLam	6.7	0.21	0.08	1.61

HOW TO SPECIFY

SYSTEM NAME

Elevate™ Aluminium Systems Series 452 Commercial Sliding Window

FINISH

Powder Coat

Anodised

COLOUR

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

GLASS

Specify thickness ≤ 20mm

Specify thermal performance where applicable (Uv & SHGC)

Specify acoustic performance where applicable (RW)

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.

NOTES

1. Uw is the whole window U-value
2. SHGCw is the whole window solar heat gain coefficient
3. Tvw is the whole window visible (light) transmittance
4. Maximum air infiltration is 5.0L/s.m2 at a positive pressure difference of 75 Pa as measured according to AS 2047
5. Static performance (Uw SHGCw Tvw Tdw) calculated using Window 6.3 and Therm 6.3 software (LBNL), 1999-2010
6. Results disclosed at Australian Fenestration Rating Council (AFRC) regulations.
7. Ratings for use with Section J of the Building Code of Australia - Class 2-9

For the latest WERS data for this system visit www.wers.net

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WERS RATINGS

Double Glazed

Window ID	Glass Type	Uw	SHGCw	Tvw	Inf
AWS-047-23	3/12Ar/3ET	3.9	0.53	0.53	1.61
AWS-047-24	3SG/12/3	4.6	0.39	0.49	1.61
AWS-047-25	4Az/10/4ET	4.1	0.31	0.44	1.61
AWS-047-26	4/10/4	4.6	0.55	0.57	1.61
AWS-047-27	4/10/4ET	4.1	0.51	0.53	1.61
AWS-047-28	4/10Ar/4ET	3.9	0.52	0.53	1.61
AWS-047-29	4SnClr/10/4	4.2	0.40	0.44	1.61
AWS-047-30	4SnClr/10Ar/4	4.1	0.40	0.44	1.61
AWS-047-31	5/8/5	4.7	0.54	0.57	1.61
AWS-047-32	5SG/8Ar/5ET	4.0	0.31	0.43	1.61
AWS-047-33	6.38CPClr/8/4	4.2	0.45	0.53	1.61
AWS-047-34	6.38CPClr/8Ar/4	4.0	0.45	0.53	1.61
AWS-047-35	6.38CPGy/8/4	4.2	0.33	0.25	1.61
AWS-047-36	6.38CPGy/8Ar/4	4.0	0.32	0.25	1.61
AWS-047-37	6SnClr/10/6	4.2	0.38	0.43	1.61
AWS-047-38	6SnClr/10Ar/6	4.0	0.38	0.43	1.61
AWS-047-39	10SnClr/6/6	4.5	0.37	0.42	1.61
AWS-047-40	10SnClr/6Ar/6	4.3	0.37	0.42	1.61

NOTES
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2. SHGCw is the whole window solar heat gain coefficient
3. Tvw is the whole window visible (light) transmittance
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DESIGN FEATURES

The 17mm thick sliding window sashes have been fitted into Series 400 CentreGLAZE™ shopfront framing using custom head and sill and an inlay adaptor that snaps into CentreGLAZE™ frame as shown below.

Double sash design with the external sash fixed.

Both fixed and opening sashes can be installed, replaced and/or reglazed from inside the building. This could be an important feature in elevated situations.

There is a large variety of window combinations possible (SF, FS, SFS or FSSF) with and without highlights/lowlights.

102mm x 44mm head and sill, 102mm x 30mm jamb, 44mm mullion and 44mm transom match CentreGLAZE™ shopfront framing.

The alternative wide (102mm x 44mm) jamb can also be used on this window.

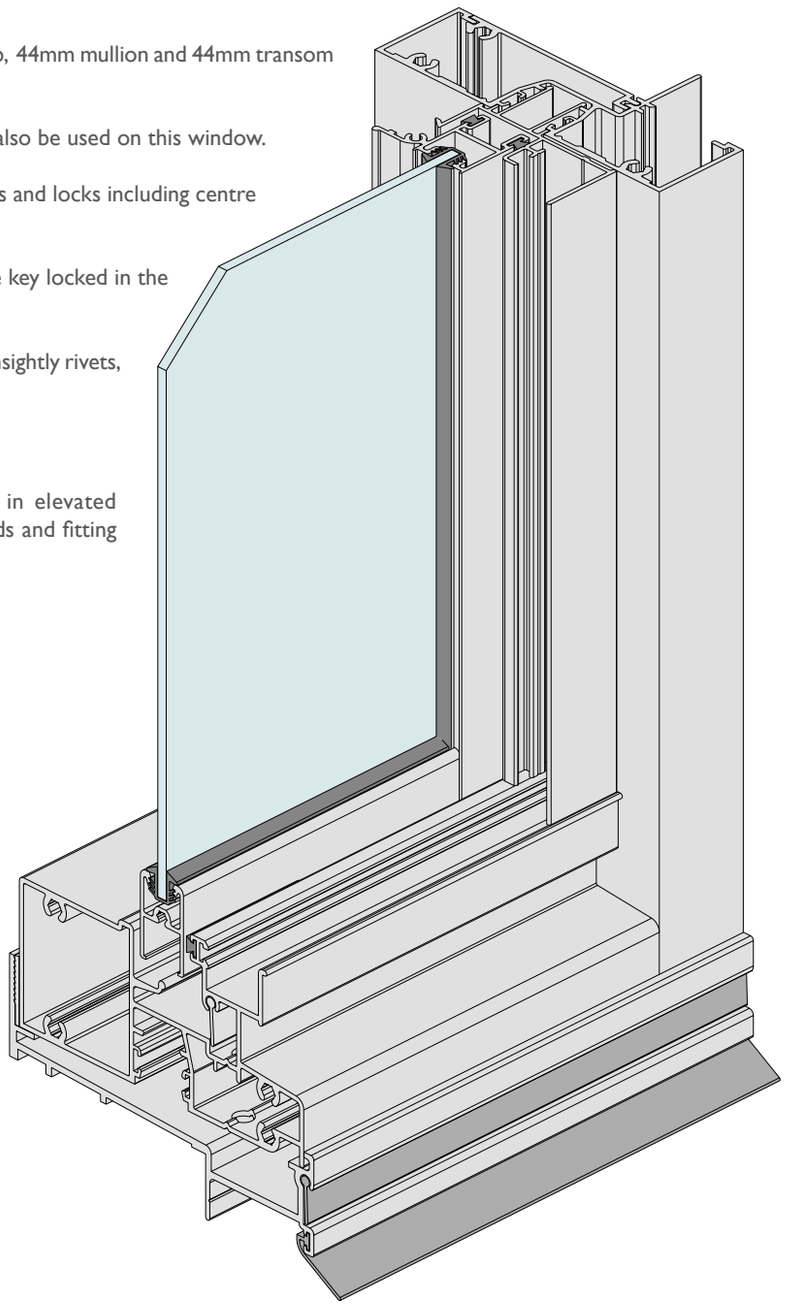
Sliding sashes can be fitted with a variety of latches and locks including centre multi point lock.

The ventilation lock allows the opening sash to be key locked in the closed and partly open (ventilation) position.

Flyscreens can be clipped into the frame without unsightly rivets, metal clips or turnbuckles.

Sashes will accept glass up to 6.76mm thick.

Fixed lowlights can be glazed from the inside in elevated situations by reversing the removable glazing beads and fitting custom captive wedge to the outside.



This image shows the standard nailing fin sub-sill. Sub-sills are standard on Series 452 sliding windows.

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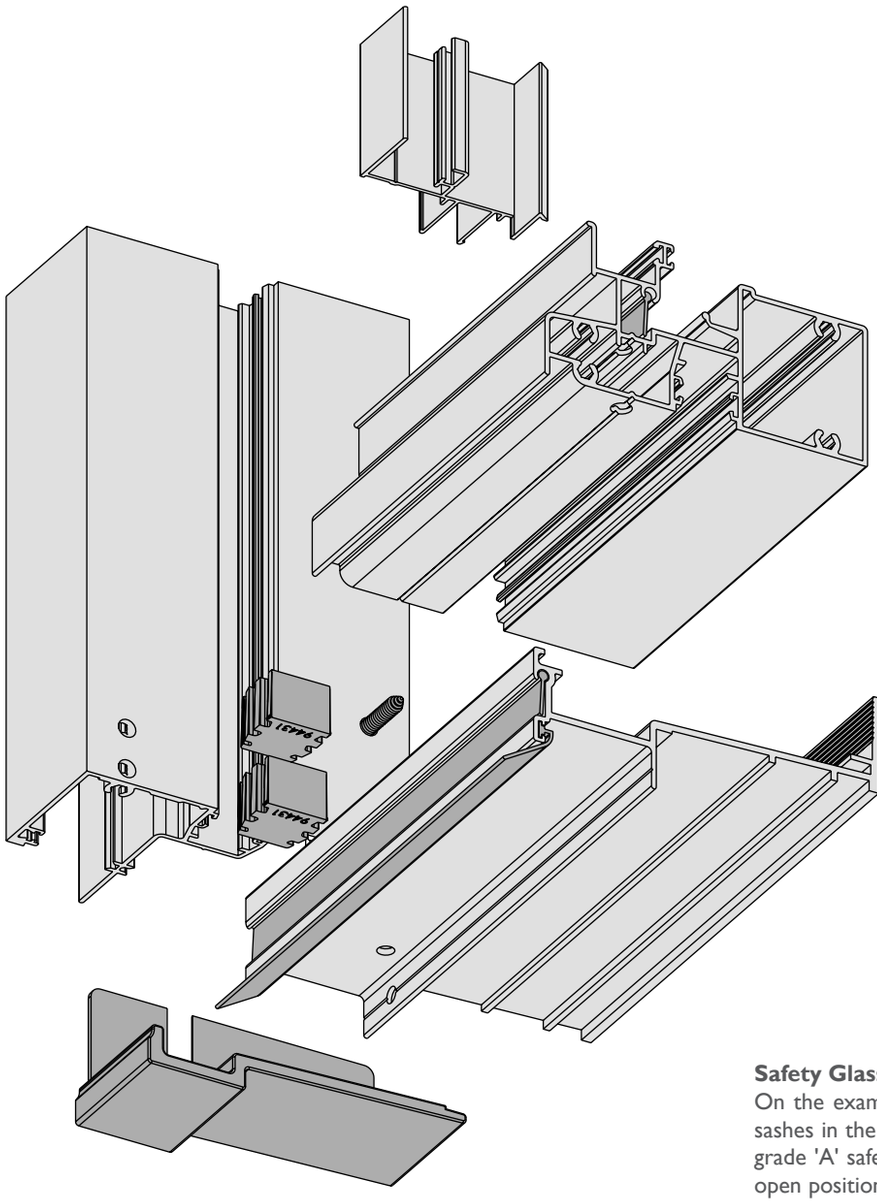
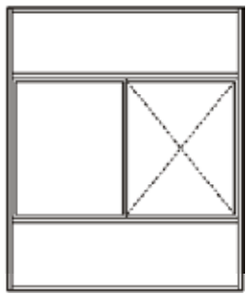
TYPICAL CONFIGURATIONS



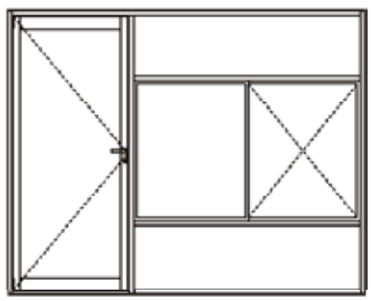


Series 452 can be fabricated as 'SF', 'FS', 'SFS' and 'FSSF' with lowlights and/or highlights as shown above.

Custom nailing fin sub-sill with injection moulded nylon end caps.

Water Resistance:
We always recommend the use of sub-sills under shopfront frames.

Safety Glass:
On the example below the door panel and the two sashes in the sliding window sidelights would require grade 'A' safety glass. If the opening sash was in the open position it would be within 300mm of the door opening. Refer Australian Standard AS1288 for more information.



Series 452

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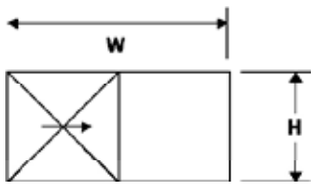
SASH STRENGTH

S = Serviceability limit state (deflection = L/150).
U = Ultimate strength limit state (factored yield strength = 104 MPa).

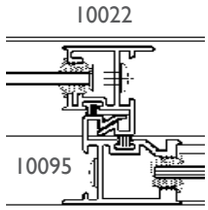
These tables have been calculated using nominal section properties.
A typical assembly has been tested as per the requirements of AS2047,
Blank Denotes rating under 500 Pa.



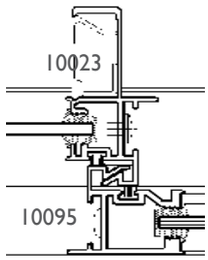
Window		Centre Locking Meeting Stiles					
Height	Width	Light		Medium		Heavy	
mm	mm	S	U	S	U	S	U
1200	1200	913	1728	1697	2546	2200	4500
1200	1300	845	1613	1584	2376	2200	4500
1200	1500	767	1440	1414	2121	2200	4443
1200	1800	687	1280	1257	1885	2200	3948
1300	1200	695	1436	1410	2115	2200	4430
1300	1300	648	1336	1312	1968	2200	4122
1300	1500	577	1185	1164	1746	2200	3656
1300	1800	510	1039	1020	1530	2136	3205
1500	1200			1021	1531	2138	3207
1500	1300			946	1419	1981	2872
1500	1500			831	1247	1741	2612
1500	1800			716	1074	1499	2249
1600	1200			885	1327	1853	2779
1600	1300			819	1228	1715	2573
1600	1500			717	1076	1502	2253
1600	1800			614	921	1286	1929

Wind Ratings (Pa) type '**SF**' Meeting stiles.

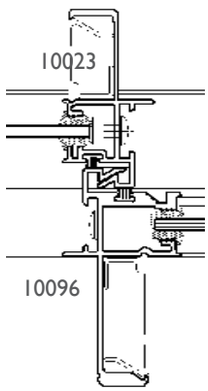
Light
meeting stile
Ixx = 18.18 x 10^3mm^4



Medium
meeting stile
Ixx = 53 x 10^3mm^4

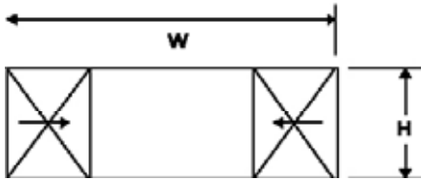


Heavy
meeting stile
Ixx = 135 x 10^3mm^4



Window		Centre Locking Meeting Stiles					
Height	Width	Light		Medium		Heavy	
mm	mm	S	U	S	U	S	U
1200	2100	791	1478	1452	2177	2200	4500
1200	2400	753	1410	1385	2078	2200	4352
1200	2700	722	1401	1376	2063	2200	4321
1200	3000	698	1453	1427	2140	2200	4300
1300	2100	585	1192	1171	1757	2200	3678
1300	2400	550	1117	1098	1646	2200	3447
1300	2700	527	1083	1063	1595	2200	3340
1300	3000	509	1085	1065	1598	2200	3320
1500	2100			815	1223	1708	2561
1500	2400			747	1121	1565	2347
1500	2700			703	1054	1472	2208
1500	3000			678	1017	1419	2129
1600	2100			697	1046	1461	2191
1600	2400			634	952	1329	1993
1600	2700			591	887	1239	1858
1600	3000			564	845	1180	1770

Wind Ratings (Pa) type '**SFS**' Meeting stiles.



Series 452

COMMERCIAL SLIDING WINDOW

DATE: MAY 13
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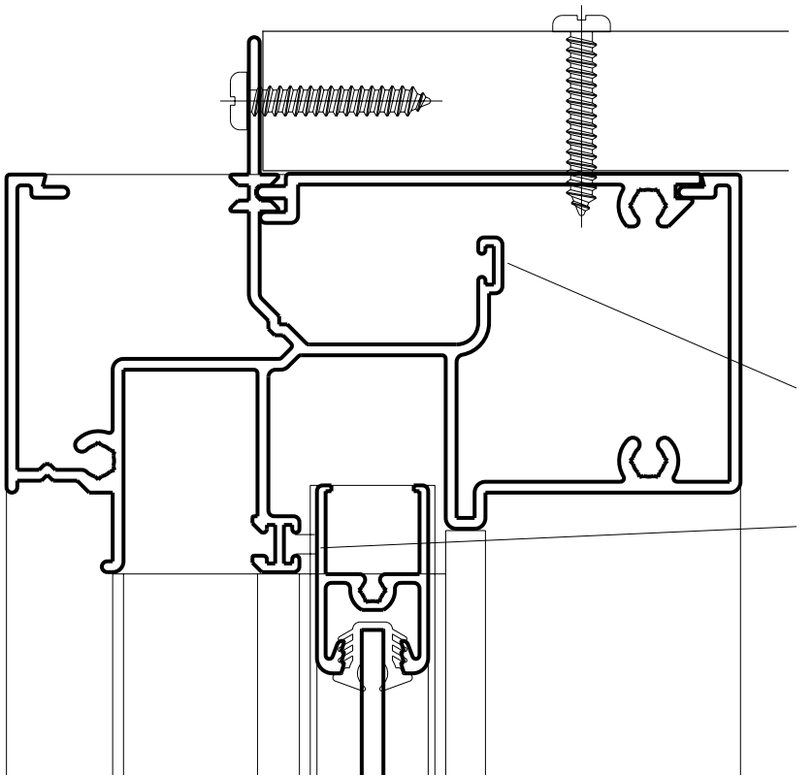
SCALE: FULL SIZE

HEAD AND SILL DETAILS



Head

We have a dedicated head section to allow the installation of sliding window sashes into Series 400 CentreGLAZE™ shopfront framing.

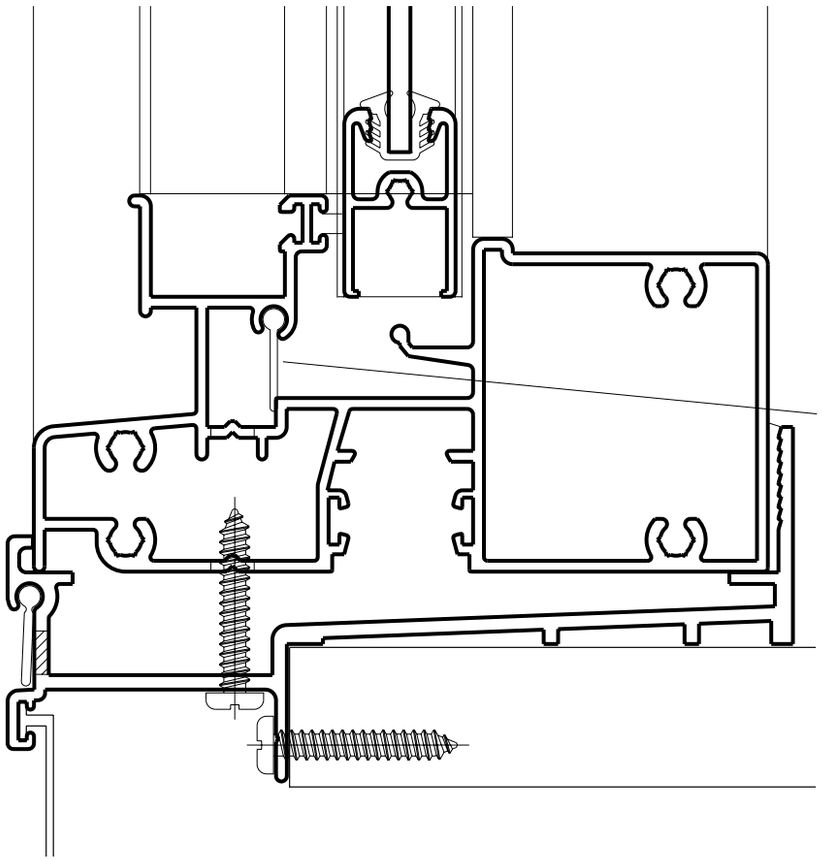
Built-in nailing fin on head, jambs and sub-sill make this window significantly more water proof and easier to install into brick veneer and cavity brick walls

The weather bar on the head is used to seal transom details.

Weatherpile seals.

Sashes will accept glass up to 6.76mm thick.

CAD file: DWG
452.SLW.1



Sill

We have a dedicated sill section to allow the installation of sliding window sashes into Series 400 CentreGLAZE™ shopfront framing.

Co-extruded Santoprene anti-blow back flap concealed in the sill recess.

Custom nailing fin sub-sill is ideal for brick veneer and cavity brick installation.
We always recommend sub-sill under commercial windows.

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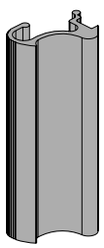
JAMB DETAIL AND MEETING STILES

We have dedicated sections to allow the installation of sliding window sashes into Series 400 CentreGLAZE™ shopfront framing.

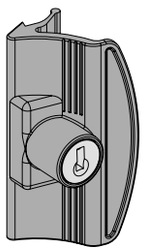
44mm CentreGLAZE™ Nailing fin frame illustrated. Jamb adaptor can be clipped to any of the centre pocket CentreGLAZE™ frames including corners.

On brick veneer wall installations the nailing fin frames are double fixed to reveals to make sure the reveal is tight up to the frame.

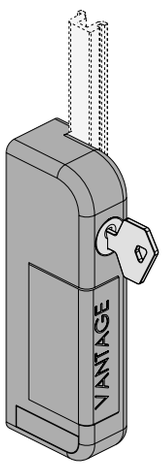
Window can be fitted with a variety of jamb or centre latches and locks. You can view the lock options in colour on our web site **www.elevatealuminium.com.au**



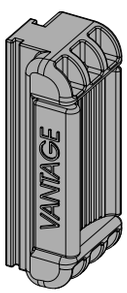
Jamb latch



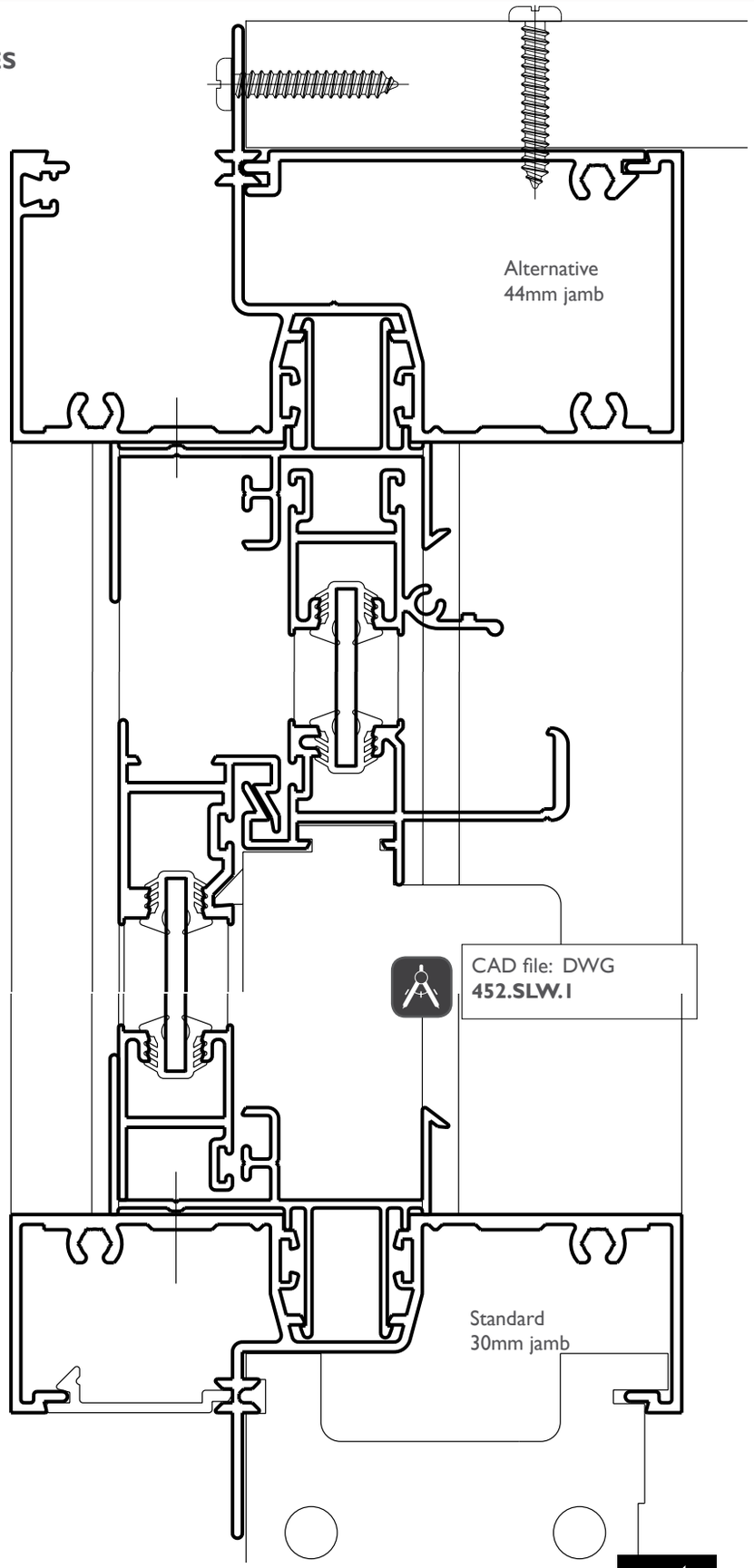
Key lock jamb cam handle



Centre multi-point ventilation key lock



Centre latch



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SUB SILL

Important Note:
The nailing fin sub-sill is standard under Series 452 sliding windows.

Nailing fin jamb will accept height adjustable galvanised building-in lug, these are ideal for cavity brick wall installation.

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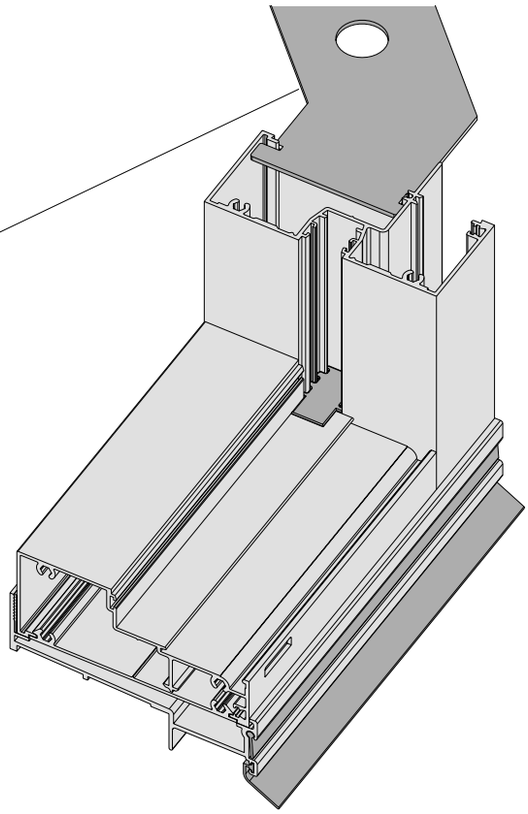

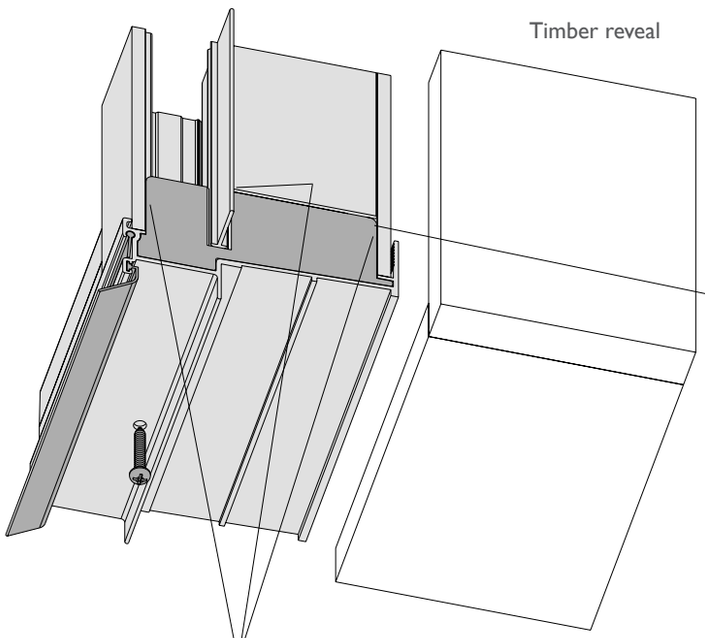

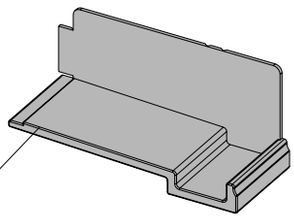

Sub-sill capped with custom moulded nylon stop ends.

Sub-sill caps sealed to nailing fin jamb on both edges and at the nailing fin location.