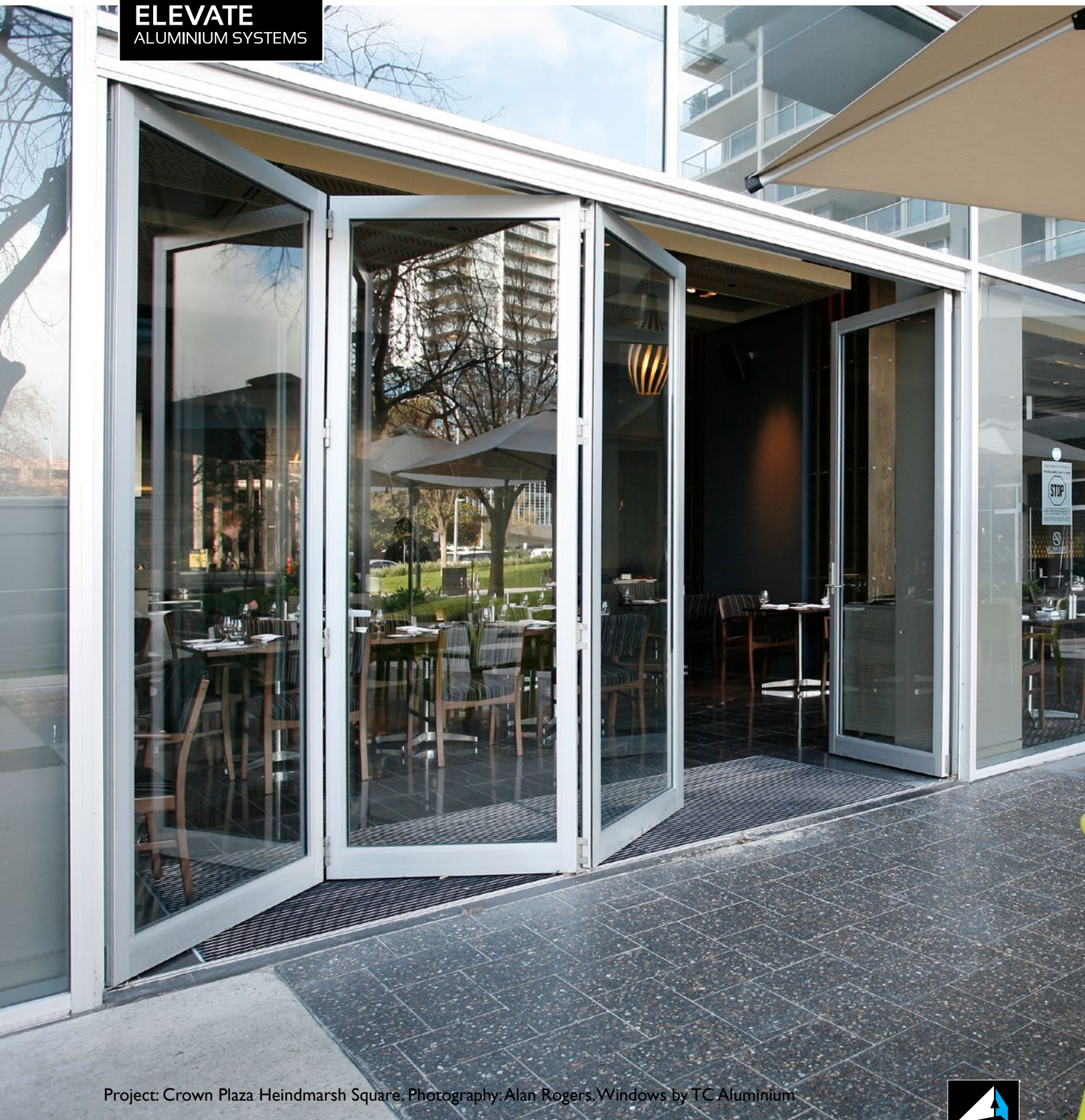




Series 411 ViewMASTER™ Bi-fold Door



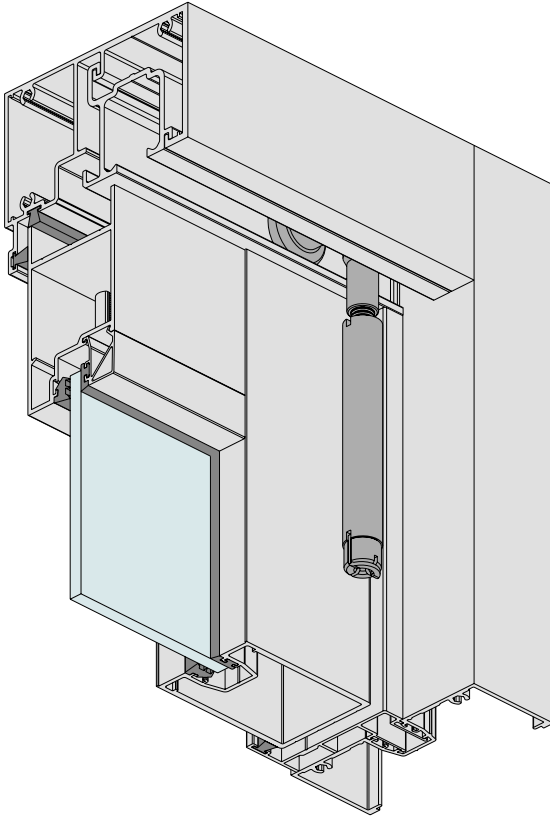
Project: Crown Plaza Heindmarsh Square. Photography: Alan Rogers. Windows by TC Aluminium



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

KEY FEATURES/PERFORMANCE CHARACTERISTICS



- Series 411 Bi-fold door (top hung) has been designed to accept the 50mm thick heavy-duty Series 50 and 52 doors.
- Can be manufactured with compliant panels up to 3000mm high.
- Bi-fold doors are hung on Centor™ twin stainless steel bearing rollers running in heavy-duty dual overhead tracks.
- The standard E2 rollers will carry door panels up to 40kg.
- Heavy-duty E3 will carry door panels up to 80kg.
- The Surelock™ adjustment on the pivots and carriers allow all panels to be lifted or lowered easily with a flat screwdriver. Doors can be adjusted vertically up to 5mm plus or minus.
- Carriers, pivots, hinges and fixings supplied in 304 stainless steel.
- Snap-on jamb adaptor allows us to use any of the Series 400 CentreGLAZE™ jambs including corner mullions and nailing fin jambs.
- A variety of lever and lock options including multi-point and lever compression locking for added security and improved weather performance.
- Successfully tested to resist 450Pa water and suitable for airconditioned buildings when weather resisting sill is used.
- Can be configured to incorporate single or double entry doors so access can be achieved without opening the whole unit.

Series 411 ViewMASTER™ Bi-fold Door
External view.

Maximum Panel Height*	3000mm
Maximum Panel Width*	1000mm
Maximum Glass Thickness	≤24mm

* 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

Series 411

ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
 REPLACES: MAY 13
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SOUND REDUCTION

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

Glass Description	Rating
6.5mm Laminated glass	Rw28
8.38 Laminated glass	Rw31



WERS RATINGS

Single Glazed

Window ID	Glass Type	Uw	SHGCw	Tvw	Inf
AWS-029-01	5CLR	6.1	0.59	0.60	0.43
AWS-029-02	5SG	6.1	0.41	0.50	0.43
AWS-029-03	5GY	6.2	0.44	0.34	0.43
AWS-029-04	6.38Sct	4.6	0.48	0.55	0.43
AWS-029-05	6.38VLam	6.0	0.57	0.60	0.43
AWS-029-06	6SnClr	5.0	0.42	0.46	0.43
AWS-029-07	6EVanBG	4.8	0.32	0.38	0.43
AWS-029-08	6EVanClr	4.8	0.44	0.45	0.43
AWS-029-09	6EVanGy	4.8	0.29	0.22	0.43
AWS-029-10	6EVanSpB	4.8	0.26	0.26	0.43
AWS-029-11	6EVanSpGn	4.8	0.26	0.32	0.43
AWS-029-12	6.38LamSpGy	6.1	0.26	0.09	0.43
AWS-029-13	6.38TLam	6.1	0.29	0.23	0.43
AWS-029-14	6.38SnClr	4.9	0.41	0.46	0.43
AWS-029-15	6.38SnGy	5.0	0.31	0.21	0.43
AWS-029-16	6.38CPClr	4.6	0.48	0.56	0.43
AWS-029-17	6.38CPGn	4.6	0.36	0.48	0.43
AWS-029-18	6.38CPGy	4.6	0.35	0.26	0.43
AWS-029-19	10SnClr	4.9	0.41	0.45	0.43
AWS-029-20	10.38TLam	4.5	0.36	0.41	0.43
AWS-029-21	10.38SnClr	4.8	0.39	0.45	0.43
AWS-029-22	10.38ClrLam	5.90	0.45	0.46	0.43
AWS-029-23	10.38GyLam	5.90	0.20	0.08	0.43

HOW TO SPECIFY

SYSTEM NAME

Elevate Aluminium Systems Series 411
 ViewMASTER™ Bi-fold Door

FINISH

Powder Coat
 Anodised

COLOUR

Select from the AWS 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)



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. Twv 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 Twv 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

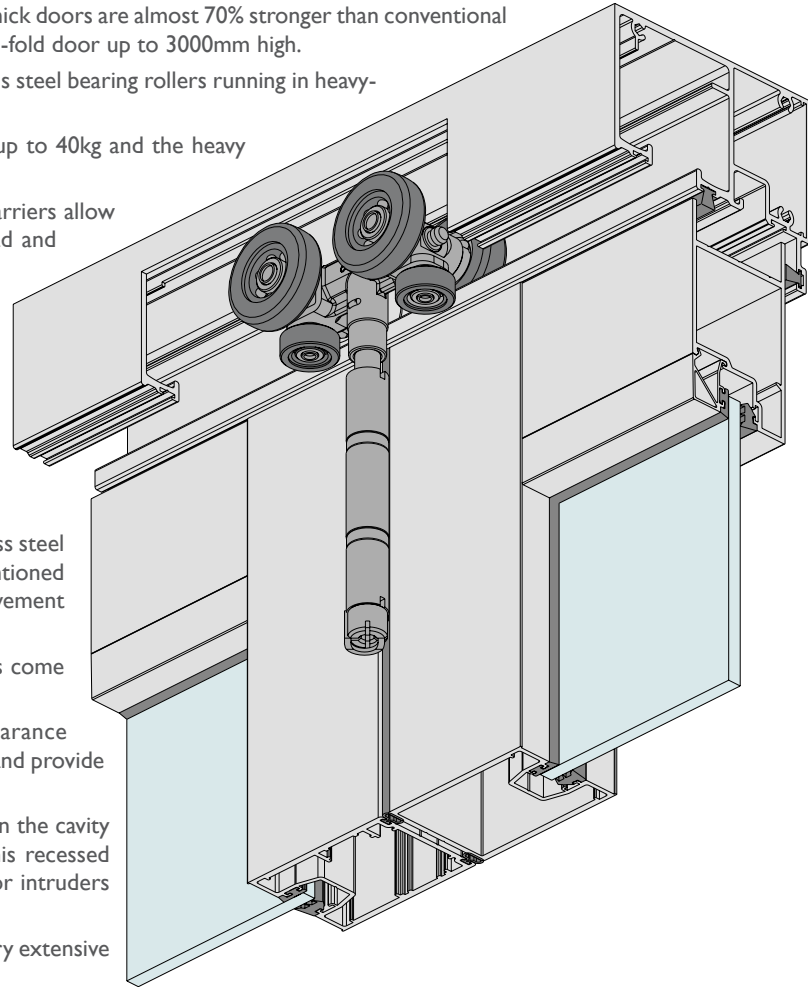
For the latest WERS data for this system visit www.wers.net

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

DESIGN FEATURES

- The Elevate™ Series 411 ViewMASTER™ top hung bi-fold door has been designed to accept the 50mm thick heavy-duty Series 50 and 52 doors. 50mm thick doors are almost 70% stronger than conventional 45mm thick doors. This allows us to make this bi-fold door up to 3000mm high.
- Bi-fold doors are hung on Centor™ twin stainless steel bearing rollers running in heavy-duty dual overhead tracks.
The standard E2 rollers will carry door panels up to 40kg and the heavy duty E3 will carry door panels up to 80kg.
- The Surelock™ adjustment on the pivots and carriers allow all panels to be lifted or lowered to follow head and sill easily with a flat screwdriver. There are no locknuts which could come undone. As the structure (building) settles the doors can be adjusted to suit. Door panels have 5mm plus and minus vertical adjustment.
- Top carriers are also fitted with side-thrust roller/s. This protects the main load bearing from damage and inside scraping. This provides a silent smooth rolling action.
- Large diameter side thrust sill nylon tyred stainless steel bearing rollers complete the package and as mentioned above they have 5mm plus and minus vertical movement as the carriers above are adjusted.
- Carriers, pivots, hinges and accompanying fixings come in 304 stainless steel as standard.
- Rebated French door stiles give a flush appearance when the two doors meet (e.g. 3L1R and 3L3R) and provide superior weather protection.
- Concealed lock keeper specially designed to fit in the cavity on the leading edge of the "lazy side" door. This recessed keeper plus the rebated stile makes it difficult for intruders to access the latch and bolt for forced entry.
- With the snap-on jamb adaptor we can offer a very extensive range of jambs to cover almost any situation.
- Doors can be supplied with a variety of lever lock options including multi-point and lever compression locking for added security and improved weather performance.
- Successfully water tested at 450Pa (refer water rating table) and is suitable for airconditioned buildings when using the weather resisting sill detail.
- Seamless type door panel construction (rails nest into stiles) to conceal the assembly joint.
- Bi-fold panels can be secured with key operated twinbolts.
- This bi-fold door can be supplied with Centor™ SIE roller flyscreen. this screen system can't be retro fitted to existing Bi-fold doors.
- Compatible with most 102mm Elevate™ commercial framing and window systems.



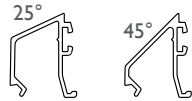
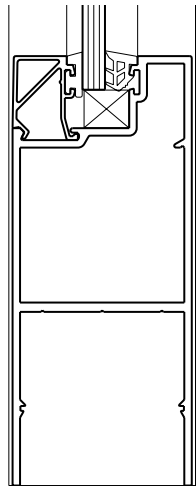
Limitations:

- Overhead structure (the building lintel) must be capable of supporting the weight of the door panels with less than 3mm of point load deflection.
- The ramp and recessed door sills and internal opening doors have no water resistance rating.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

DOOR OPTIONS AWS offer two different types of doors that are suitable for Series 411 ViewMASTER™ as shown below.



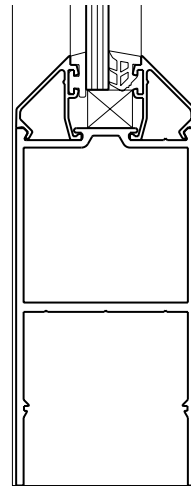
Series 50
Horizontal external glazing beads only on rails with wrap around stiles. Heavy duty extruded aluminium corner spigot joinery.

Series 50 doors are about 34% stronger than Series 52,

Series 50 will accept glass from 4mm to 10.50mm thick.

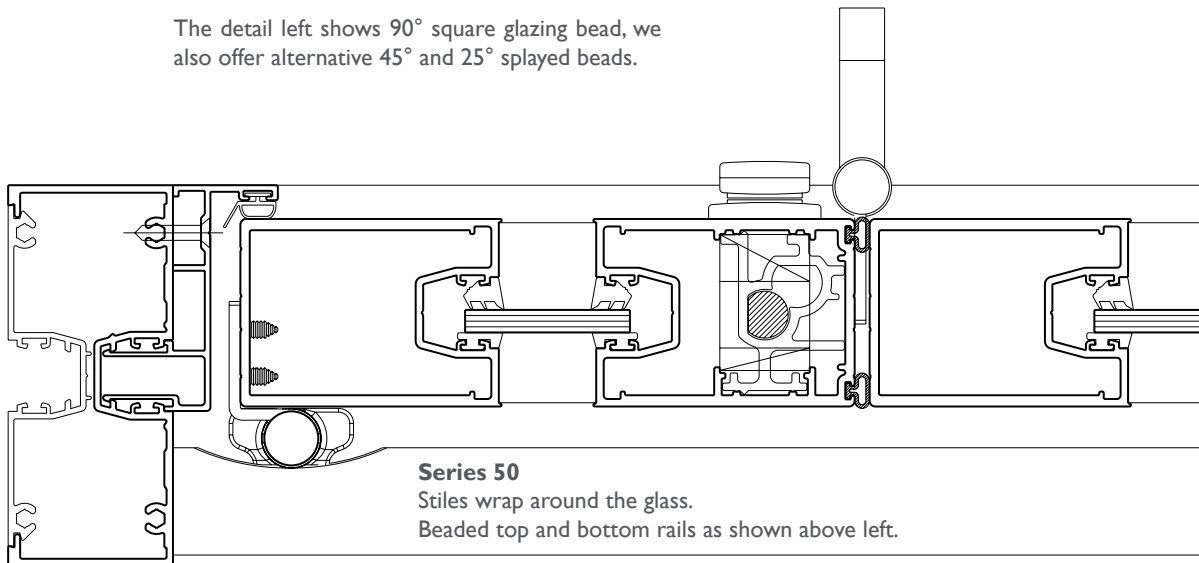
Tall braced glazing beads with captive co-extruded Santoprene security glazing wedge option.

The detail left shows 90° square glazing bead, we also offer alternative 45° and 25° splayed beads.



Series 52
Fully beaded (inside and out) on rails and stiles with heavy duty extruded aluminium corner spigot joinery.

We offer a large variety of glazing beads to cover glass thickness from 4mm to 34mm thick.



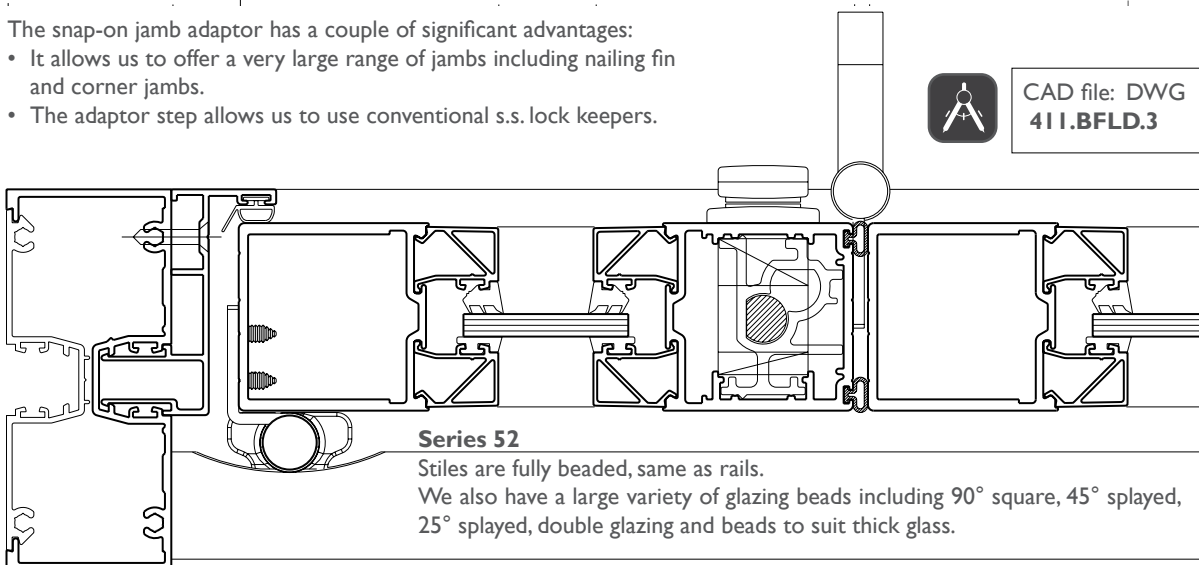
Series 50
Stiles wrap around the glass.
Beaded top and bottom rails as shown above left.

The snap-on jamb adaptor has a couple of significant advantages:

- It allows us to offer a very large range of jambs including nailing fin and corner jambs.
- The adaptor step allows us to use conventional s.s. lock keepers.



CAD file: DWG
411.BFLD.3

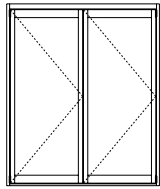


Series 52
Stiles are fully beaded, same as rails.
We also have a large variety of glazing beads including 90° square, 45° splayed, 25° splayed, double glazing and beads to suit thick glass.

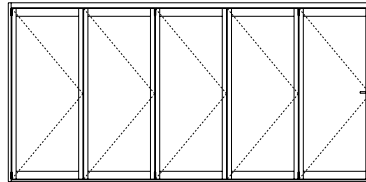
Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

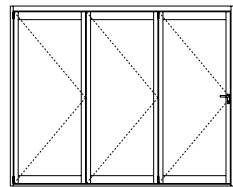
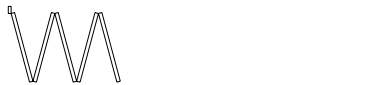
PRODUCT RANGE AND LIMITATIONS



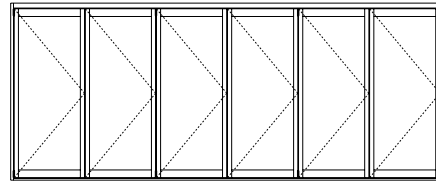
type 2L
Doors fold to one side with no loose leaves.
Min. width = 1528mm
Max. width = 2128mm



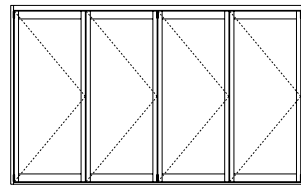
type 5L
Doors fold to one side with one loose leaf on the end.
Min. width = 3640mm
Max. width = 5140mm



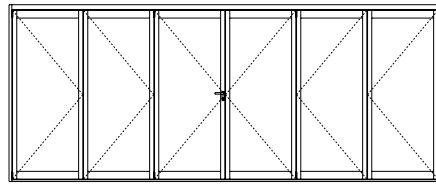
type 3L
Doors fold to one side with one loose leaf on the end.
Min. width = 2232mm
Max. width = 3132mm



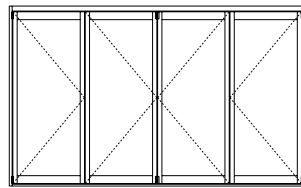
type 6L
Doors fold to one side with no loose leaves.
Min. width = 4344mm
Max. width = 6144mm



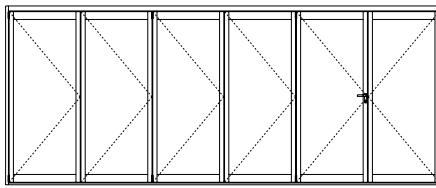
type 4L
Doors fold to one side with no loose leaves.
Min. width = 2936mm
Max. width = 4136mm



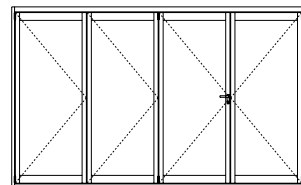
type 3L3R
Doors fold to both sides with pair of French doors.
Min. width = 4344mm
Max. width = 6144mm



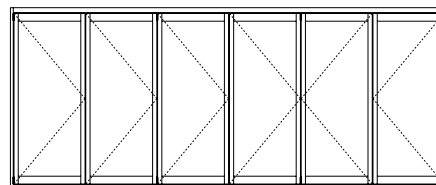
type 2L2R
Doors fold to both sides with no loose leaves.
Min. width = 2936mm
Max. width = 4136mm



type 5LIR
Doors fold to one side with pair of French doors at end.
Min. width = 4344mm
Max. width = 6144mm



type 3LIR
Doors fold to one side with pair of French doors at end.
Min. width = 2936mm
Max. width = 4136mm



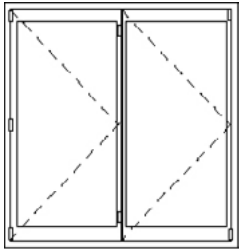
type 4L2R
Doors fold to both sides with no loose leaves.
Min. width = 4344mm
Max. width = 6144mm



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

PERFORMANCE AND LIMITATIONS



Typical example
type.2L

Important Notes:

The ratings listed right cover the strength of the meeting stiles only.

S = Serviceability limit state (deflection = L/180 and L/250).

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

These tables have been calculated using section properties.

Serviceability strength rating has been limited to 3333 Pa and Ultimate strength rating has been limited to 5000 Pa.

Bi-fold Door Meeting Stile Strength Guide

Panel Height mm	Panel Width mm	Series 50			Series 52		
		S (Pa) I/180	S (Pa) I/250	U (Pa)	S (Pa) I/180	S (Pa) I/250	U (Pa)
2100	700	2627	1891	5000	1957	1409	4550
2100	800	2331	1678	5000	1736	1250	4029
2100	900	2105	1516	4890	1568	1129	3630
2100	1000	1929	1389	4469	1437	1035	3318
2400	700	1741	1254	4651	1297	934	3453
2400	800	1540	1109	4106	1147	826	3048
2400	900	1385	997	3687	1032	743	2738
2400	1000	1264	910	3357	942	678	2493
2700	700	1214	874	3562	904	651	2711
2700	800	1071	771	3218	798	575	2389
2700	900	961	692	2884	716	516	2141
2700	1000	874	630	2619	651	-	1944
3000	700	880	634	2945	656	-	2187
3000	800	776	558	2592	578	-	1924
3000	900	695	500	2319	518	-	1722
3000	1000	631	-	2102	-	-	-

Wind Ratings (Pa) Bi-fold door meeting stiles.

Applies to those doors that don't have French meeting stiles:

2L, 2L1R, 3L, 4L, 2L2R, 4L1R, 3L2R, 5L, 4L2R, 6L, 2R, 2R1L, 3R, 4R, 4R1L, 3R2L, 5R, 4R2L and 6R.

The following configurations are slightly weaker as they contain one set of French meeting stiles: 3L1R, 5L1R, 3L3R, 3R1L and 5R1L.

For this meeting stile combination go to the Series 400 swing door Pa tables.

Maximum Bi-fold Door Panel Sizes

Maximum panel weight 80kg per panel.

Minimum panel width 700mm (on equal panel doors without loose door leaf – 2L, 2R, 4L, 4R, 6L, 6R, 2L2R, 2L4R & 4L2R)
600mm (on remaining door types with a loose leaf in the configuration).

Maximum panel width 1000mm

Maximum panel height 3000mm

Panel sizes will vary depending on weight, design wind load and allowable metal deflection.

Double glazed doors may be limited by the availability of large IGU panels.

Hinge quantity 3. hinges - height less than or equal to 2200mm

4. hinges - height greater than to 2200mm

When using four hinges we recommend that the lower central inner hinge has the pull handle.

Sound Transmission Loss

Door glazed with 6.38mm laminated glass rates 31 dB(A)

Door glazed with 19mm IGU made up of two layers of 5mm toughened glass rates 32 dB(A)

Based on tests carried out on a similar product (Series 548)

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

E2 HEAD

Head bolted to structure with M8 bolts @ 600mm max. cts.

Type E2 head detail illustrated will support door panel weights up to 40kg. The heavy duty E3 head illustrated on following page will support panels up to 80kg.

Water Resistance:

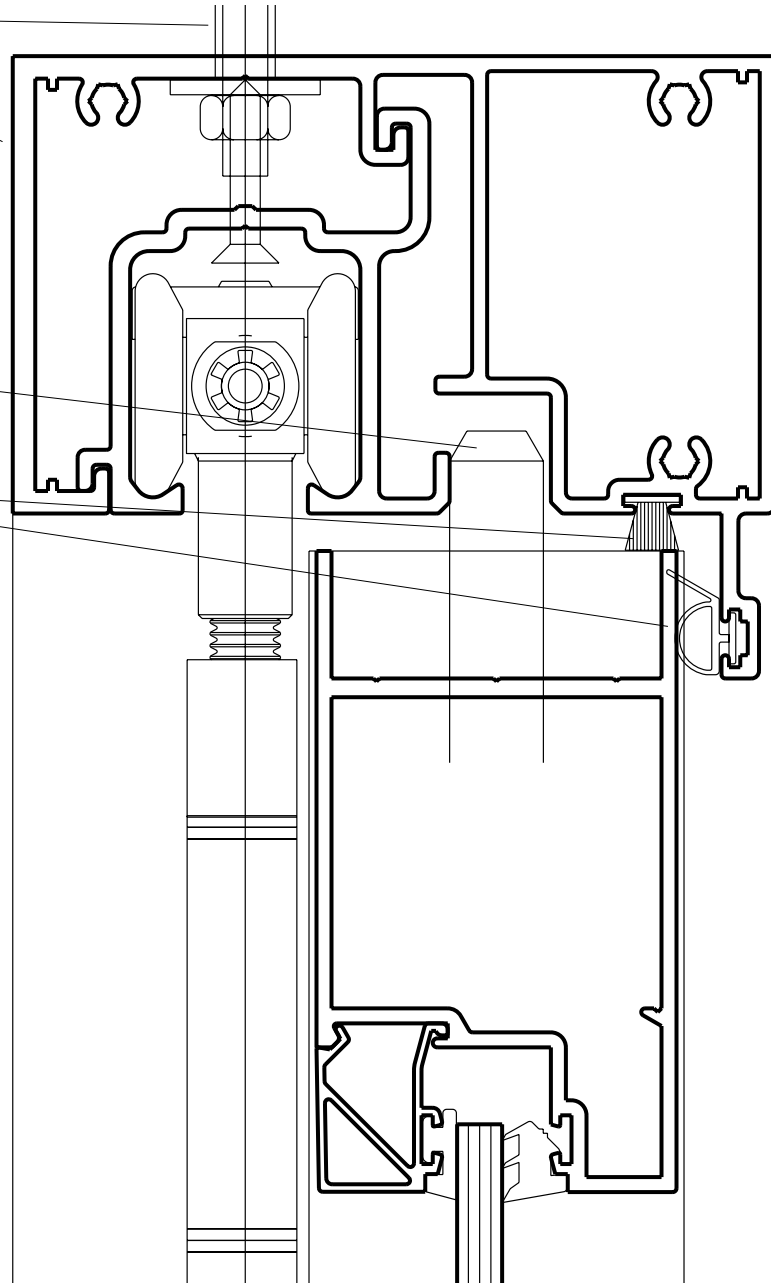
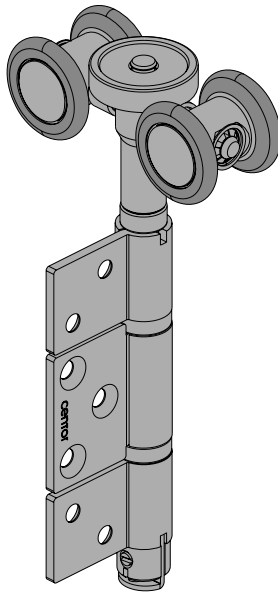
Type E2 head shown on this page has a water resistance rating of 150Pa.

Heavy duty tubular head.

Stainless steel shoot bolts.

Double head seals.

Height adjustable type E2 stainless steel overhead roller carrier.



Series 50 door illustrated top right. Fully beaded Series 52 door also available - illustrated bottom right..

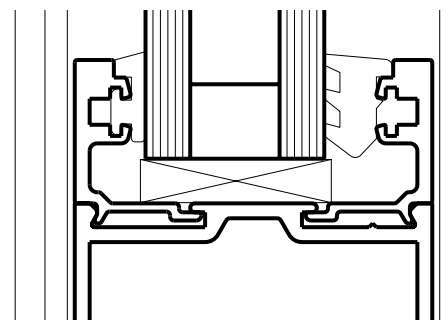
50mm thick doors allow large (tall) door panels, refer Pascal rating tables on previous page.

Safety glass in accordance with AS 1288.

Series 52 doors will accept insulating glass units up to 34mm thick.



CAD file: DWG
411.BFLD.2



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

E3 HEAD

Head bolted to structure with M8 bolts @ 600mm max. cts.

Type E3 head detail illustrated will support door panel weights up to 80kg.

Water Resistance:

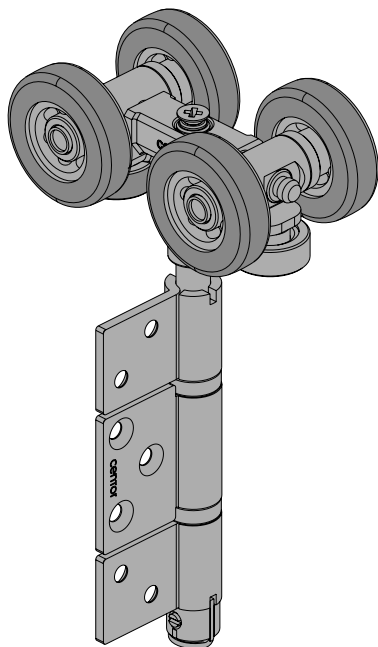
Type E3 head shown on this page has been tested to resist 450Pa water.

Head rollers fitted with sealed side thrust bearings to protect main load bearing rollers.

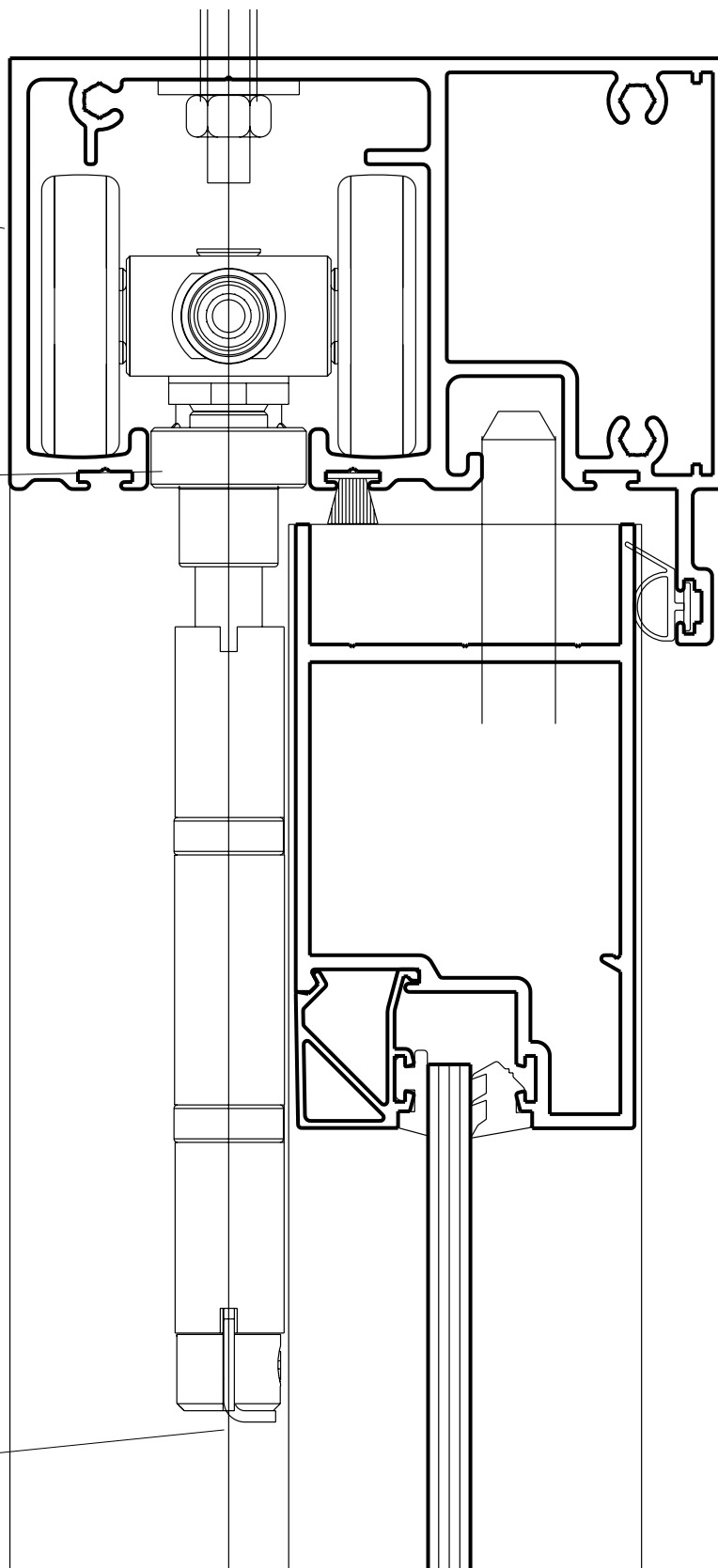


CAD file: DWG
411.BFLD.1

Type E3 heavy duty stainless steel top roller carrier.



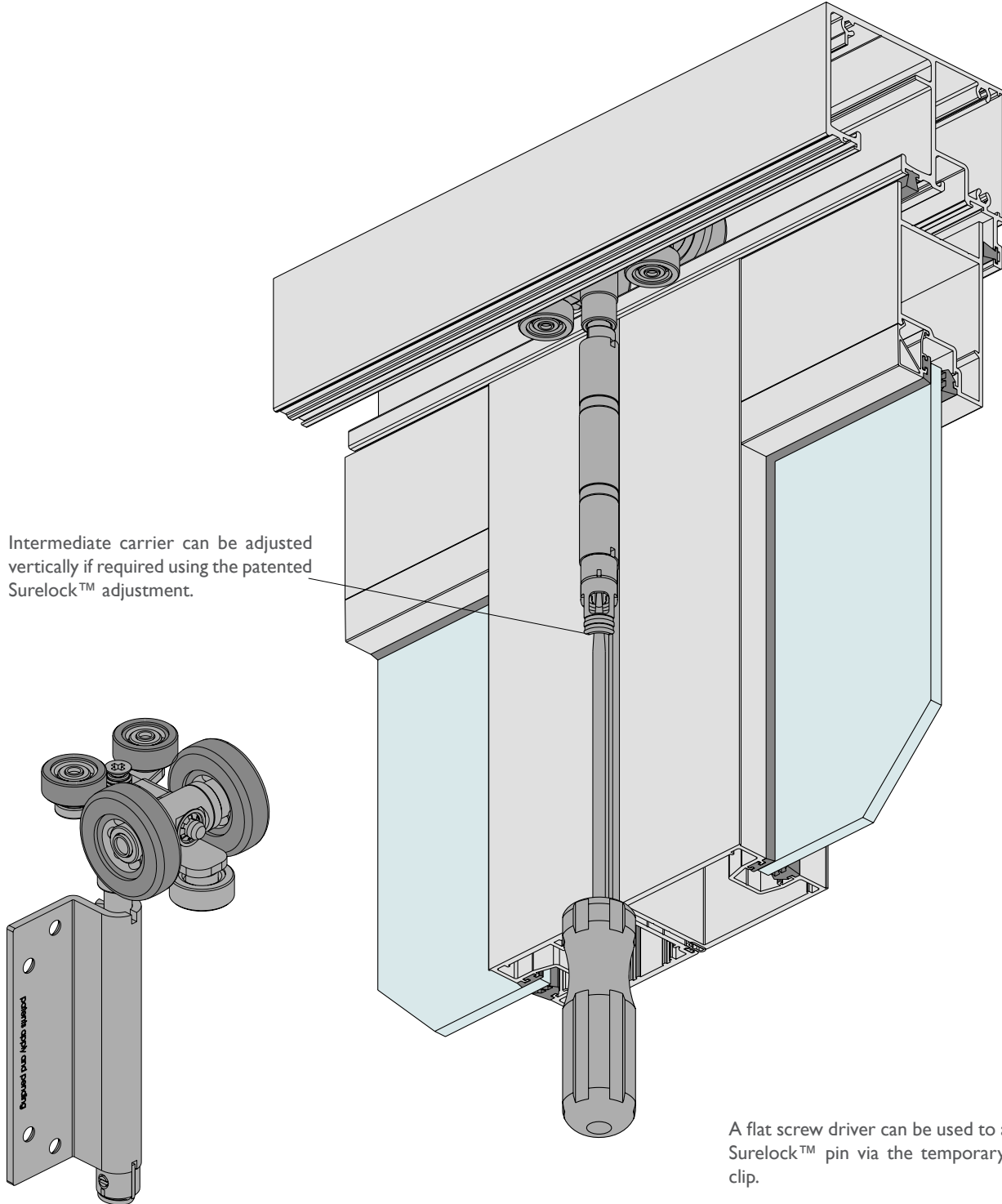
The spring loaded Surelock™ adjustment on the pivots and carriers allow all panels to be lifted or lowered to follow head and sill easily with a flat screwdriver.



Series 411
ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

E3 HEAD



Intermediate carrier can be adjusted vertically if required using the patented Surelock™ adjustment.

Edge carrier sets have two load carrying wheels and side thrust bearings. This carrier is also height adjustable.

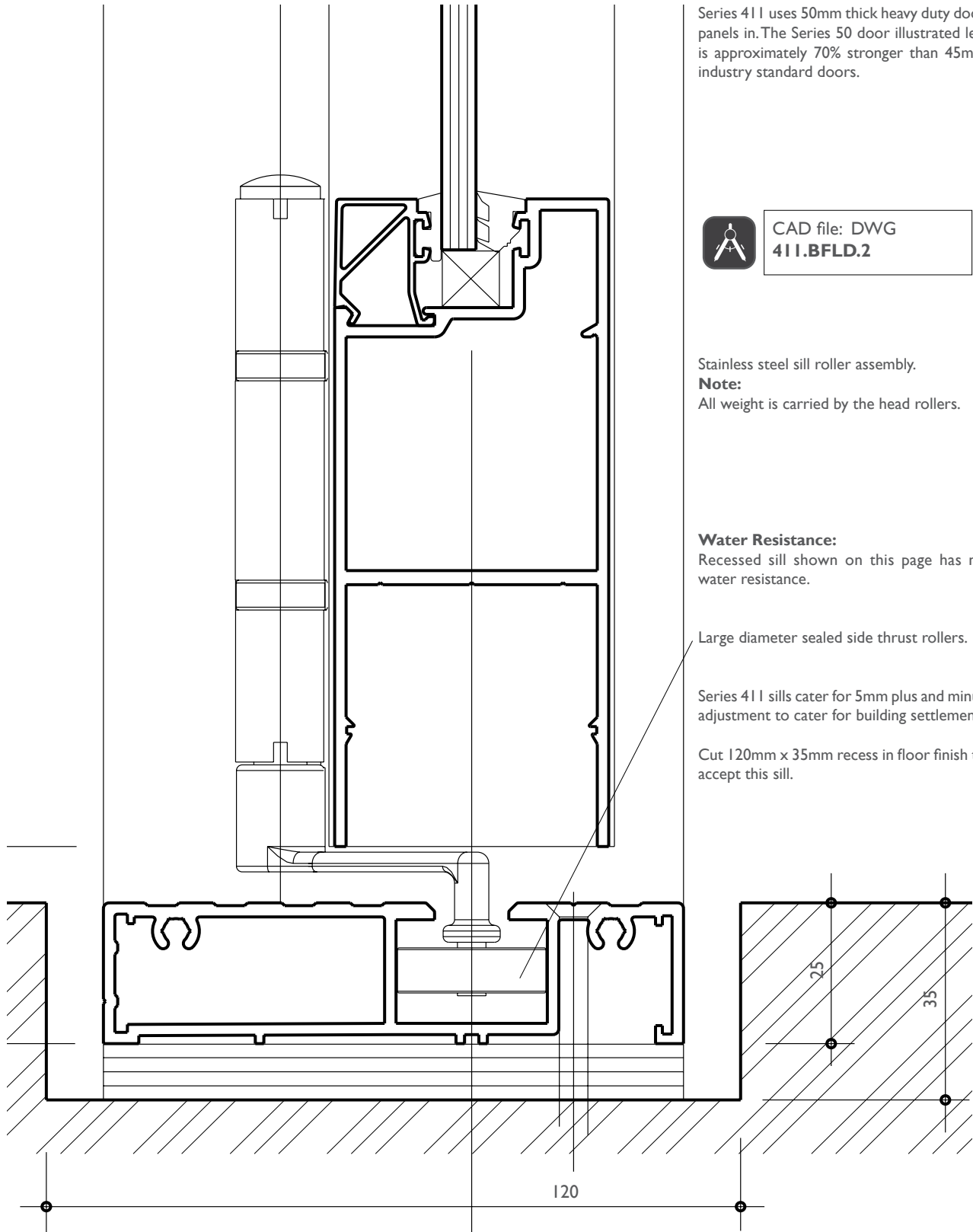
A flat screw driver can be used to adjust the Surelock™ pin via the temporary shipping clip.

If the doors need adjusting in the future, wedge the bottom of the door panels to remove the dead load from top carrier. Release the spring loaded Surelock™ pin and adjust as required. Then remove the sill wedges.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

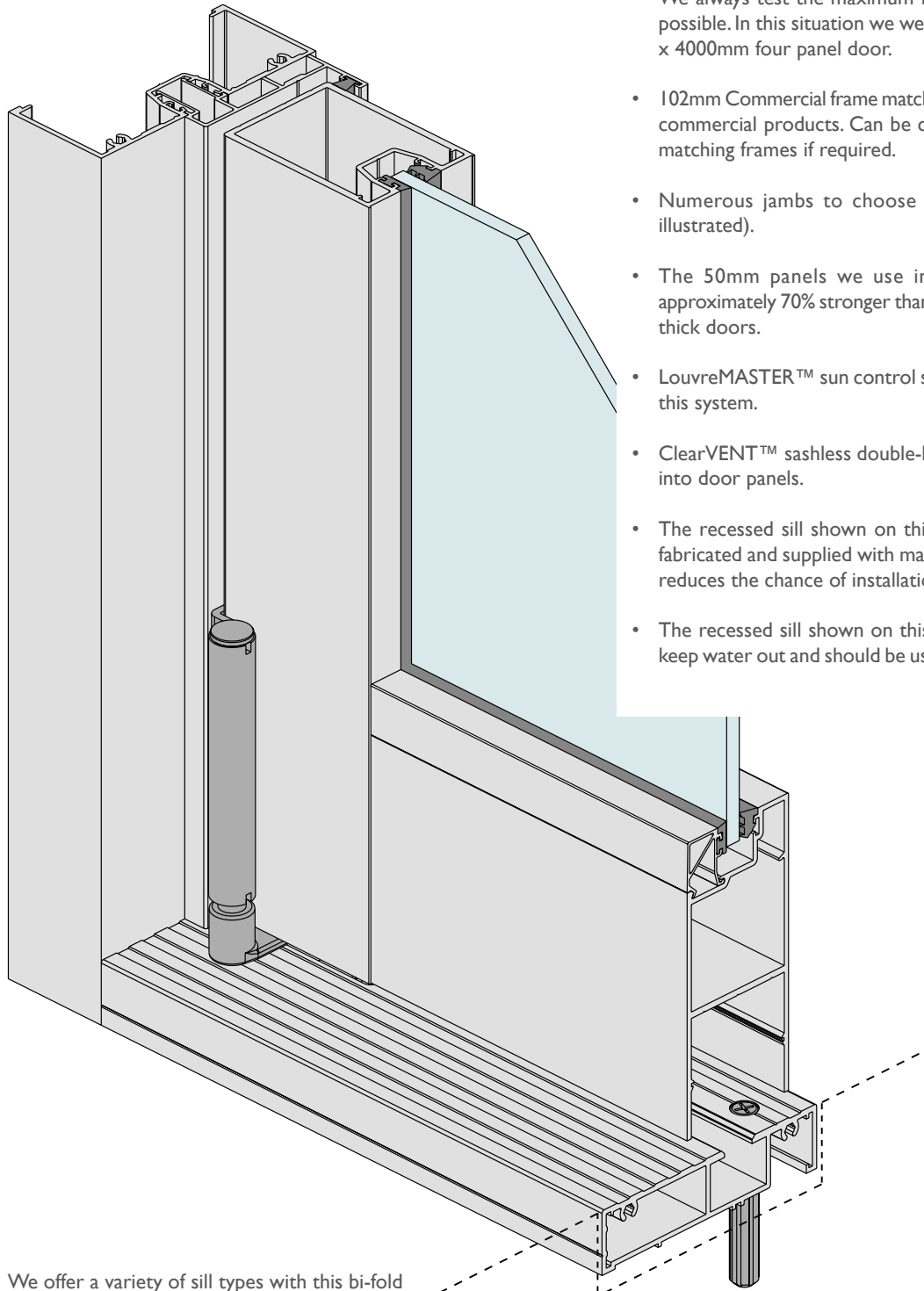
SILL - RECESSED



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

SILL – RECESSED



Some of the major features with the Elevate™ ViewMASTER™ Bi-fold door frame are:

- Tested for compliance with relevant Australian Standards. We always test the maximum recommended size when possible. In this situation we were able to test a 3000mm x 4000mm four panel door.
- 102mm Commercial frame matches adjoining Architectural commercial products. Can be coupled to most of these matching frames if required.
- Numerous jambs to choose from (102mm x 44mm illustrated).
- The 50mm panels we use in this Bi-fold door are approximately 70% stronger than industry standard 45mm thick doors.
- LouvreMASTER™ sun control shutters can be fitted into this system.
- ClearVENT™ sashless double-hung inserts can be fitted into door panels.
- The recessed sill shown on this page is designed to be fabricated and supplied with main frame. This significantly reduces the chance of installation errors.
- The recessed sill shown on this page is not designed to keep water out and should be used in sheltered locations.

We offer a variety of sill types with this bi-fold door system. The detail on this page shows the recessed option.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

FLOOR CHANNEL

Series 50 doors will accept glass up to 10.50mm thick.

For thicker glass use the fully beaded door Series 52.

Stainless steel sill roller assembly.

Note:
All weight is carried by the head rollers.

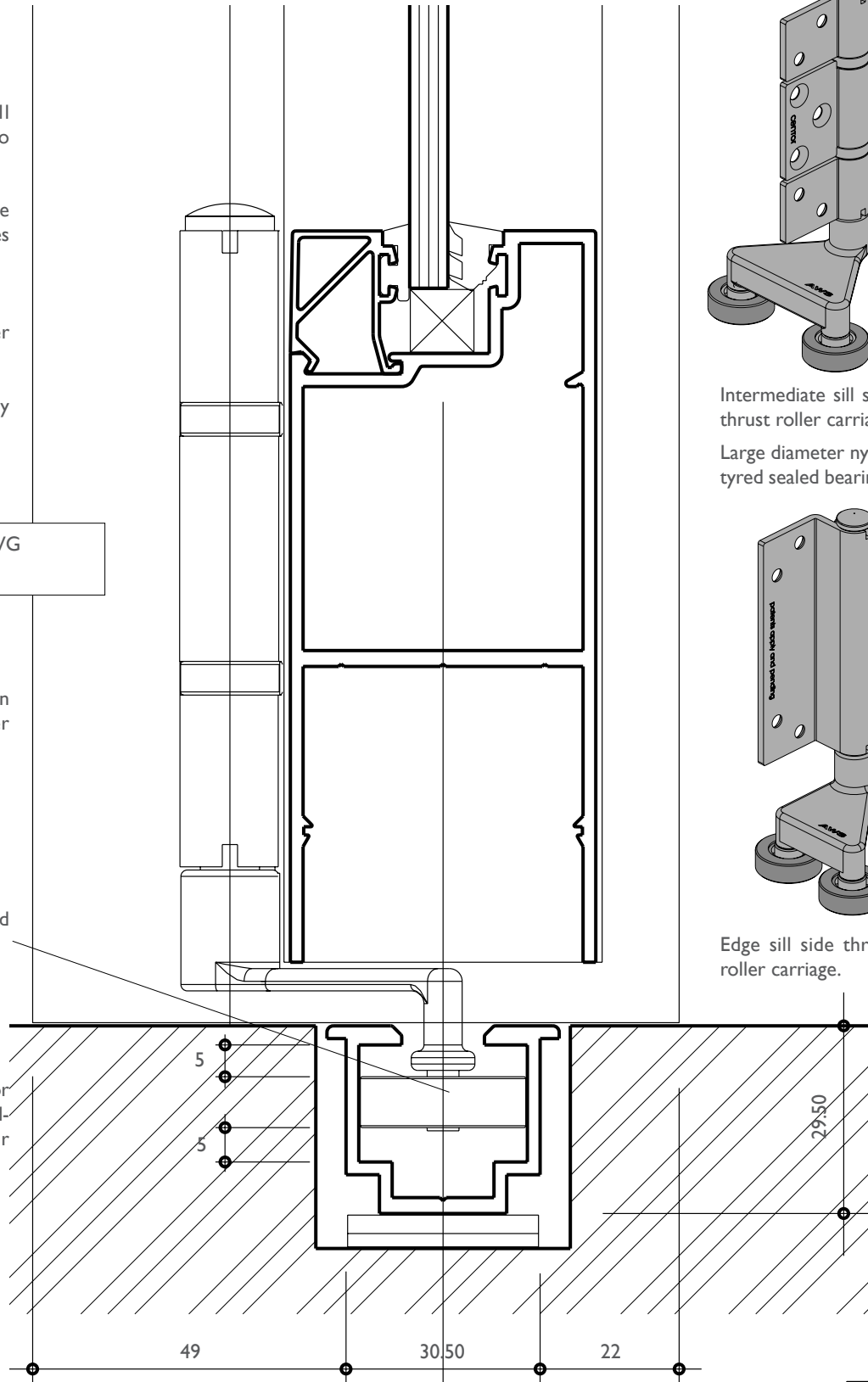


CAD file: DWG
411.BFLD.2

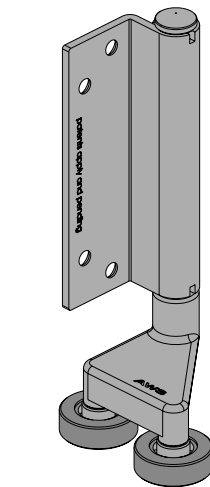
Water Resistance:
Recessed sill shown on this page has no water resistance.

Large diameter sealed side thrust rollers.

Series 411 sills cater for 5mm plus and minus adjustment to cater for building settlement.



Intermediate sill side thrust roller carriage.
Large diameter nylon tyred sealed bearings.

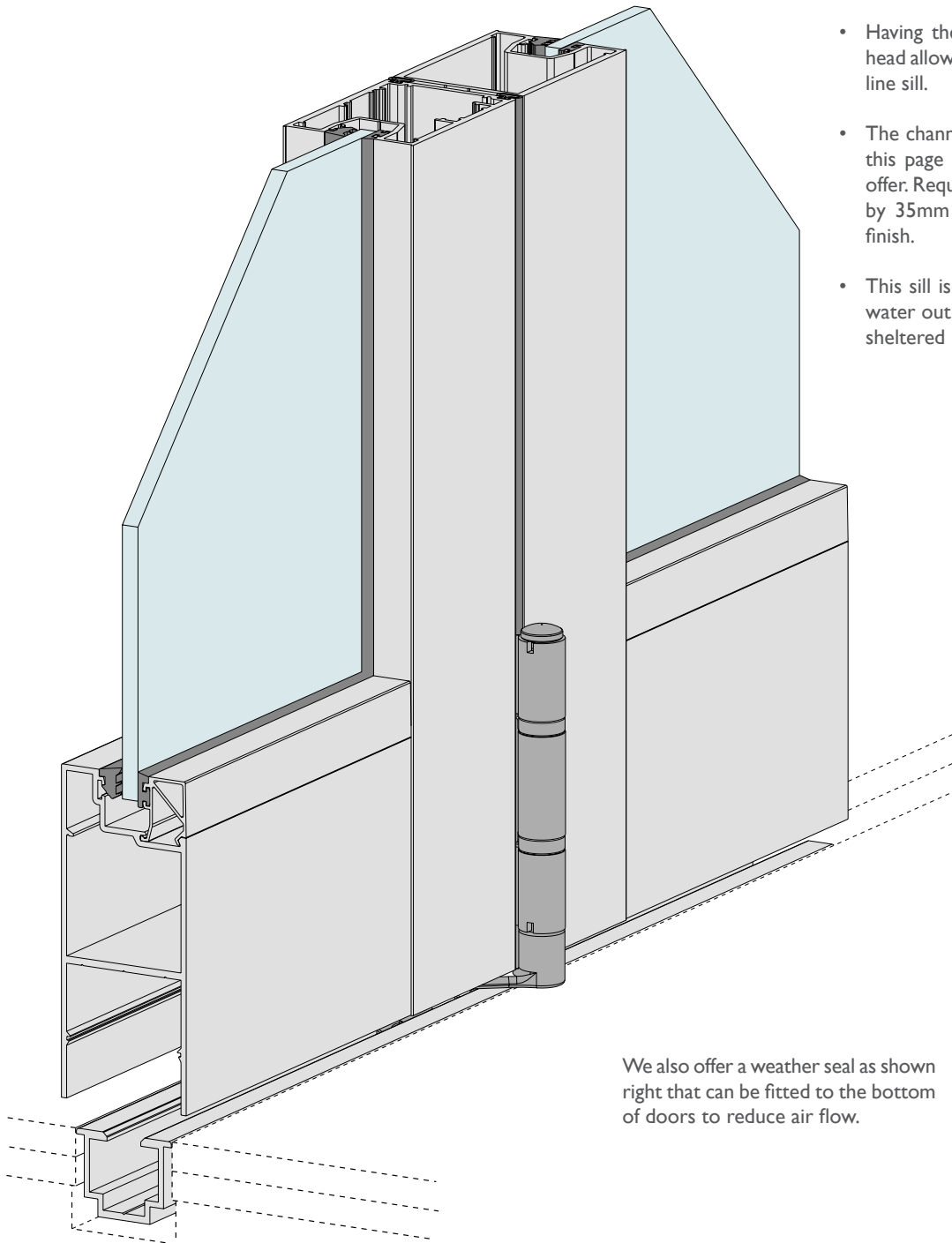


Edge sill side thrust roller carriage.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

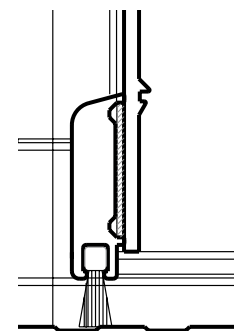
FLOOR CHANNEL



Some of the major features with the ElevateViewMASTER™ Bi-fold door frame are:

- Having the support gear at the head allows us to offer a very low line sill.
- The channel guide sill shown on this page is the smallest sill we offer. Requiring only 40mm wide by 35mm deep recess in floor finish.
- This sill is not designed to keep water out and should be used in sheltered locations.

We also offer a weather seal as shown right that can be fitted to the bottom of doors to reduce air flow.



We offer a variety of sill types with this bi-fold door system. The detail on this page shows the channel sill option.

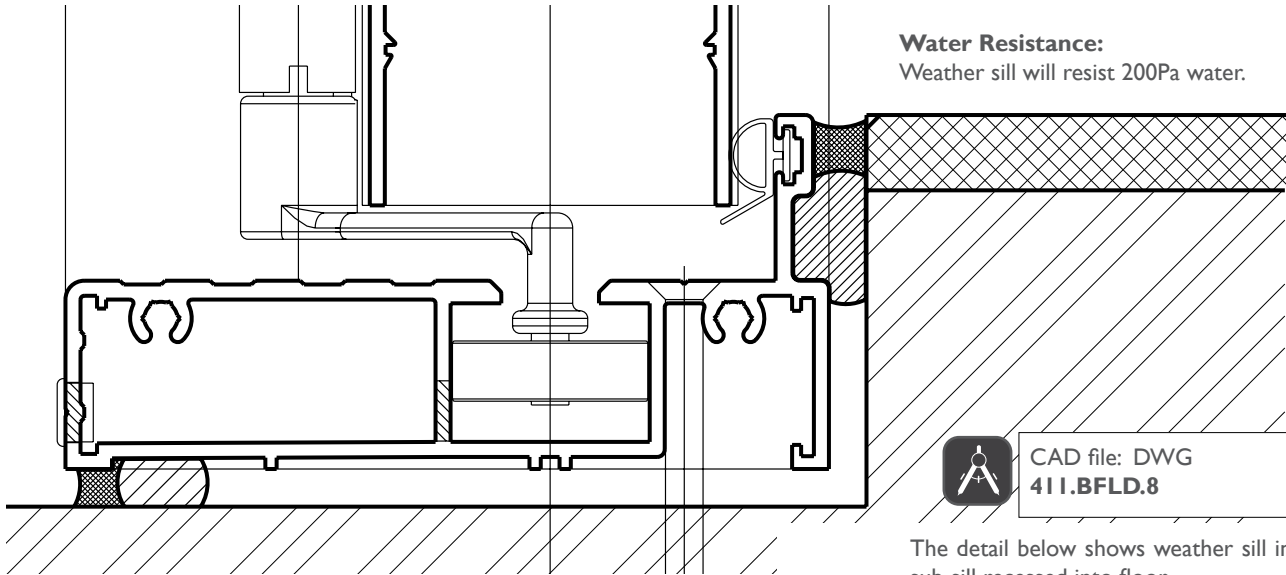
Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

SILL - WEATHER RESISTING

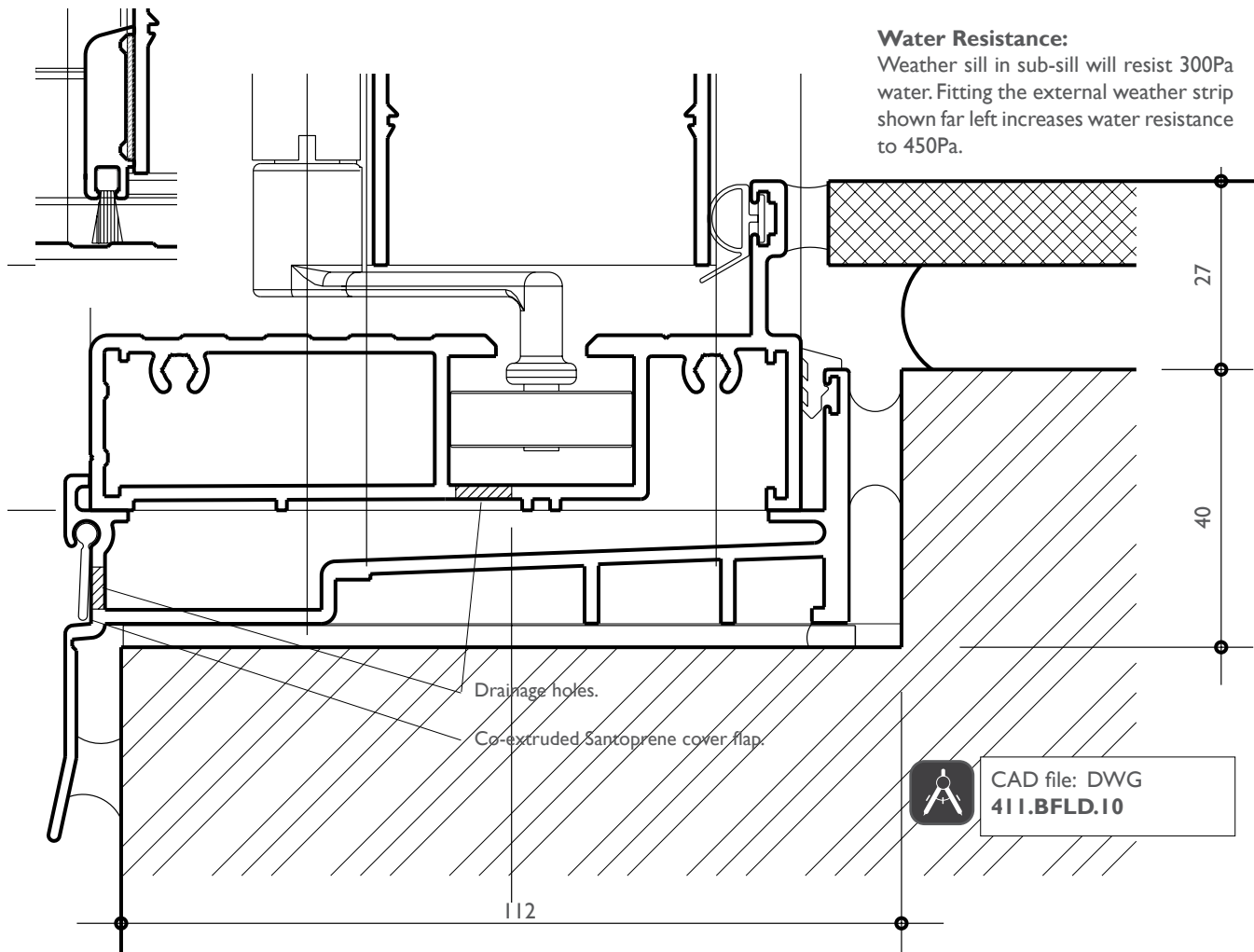
We recommend that the weather sill is recessed into floor as shown below.

Water Resistance:
Weather sill will resist 200Pa water.



The detail below shows weather sill in sub-sill recessed into floor.

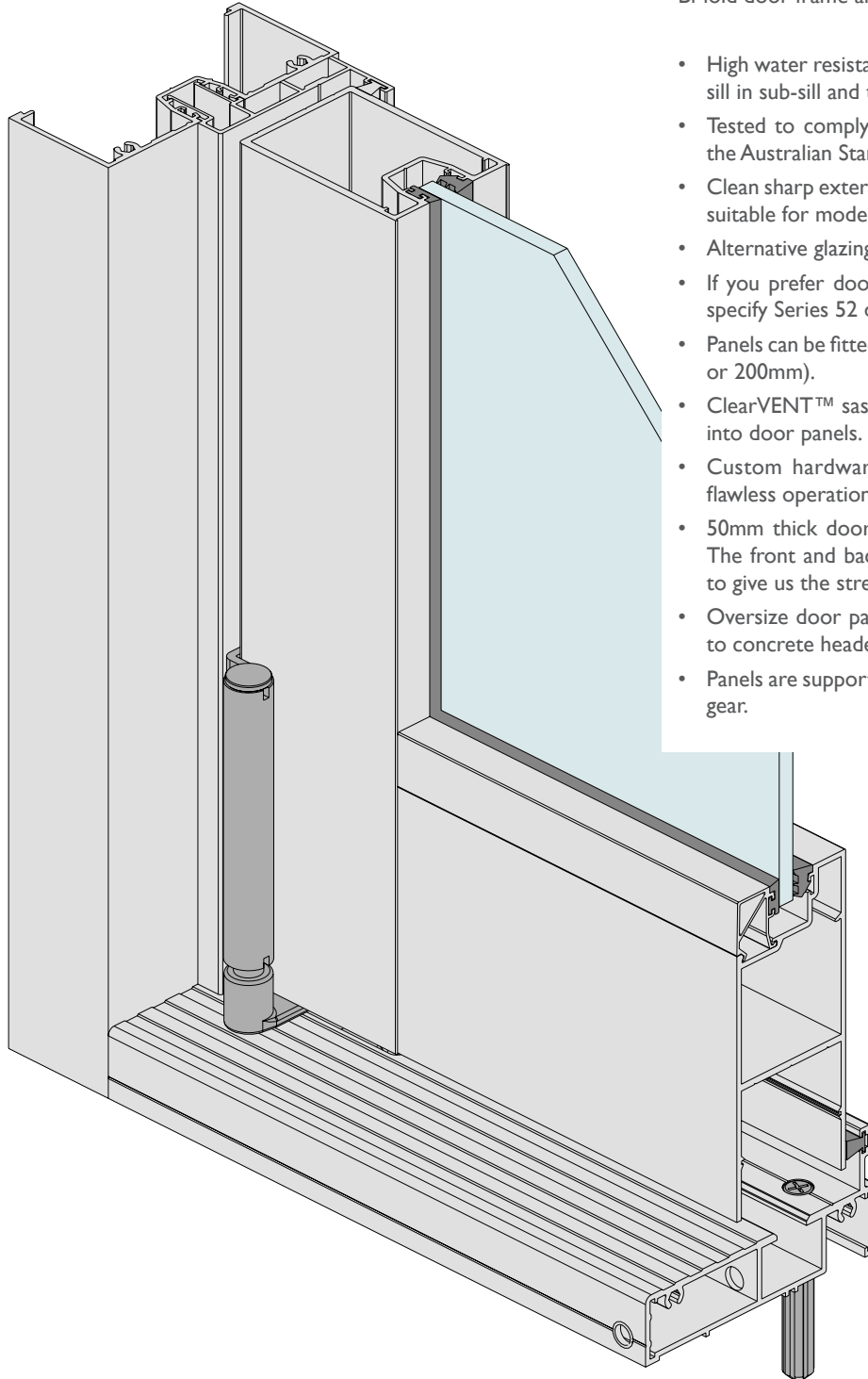
Water Resistance:
Weather sill in sub-sill will resist 300Pa water. Fitting the external weather strip shown far left increases water resistance to 450Pa.



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

SILL - WEATHER RESISTING



Some of the major features with the Elevate™ ViewMASTER™ Bi-fold door frame are:

- High water resistance when fitted with weather resisting sill in sub-sill and the appropriate frame and door seals.
- Tested to comply with airconditioning requirements of the Australian Standard.
- Clean sharp external and internal faces make the product suitable for modern architecture.
- Alternative glazing options including double glazing.
- If you prefer door panels with splayed beads all round specify Series 52 door.
- Panels can be fitted with midrails (50mm, 115mm, 125mm or 200mm).
- ClearVENT™ sashless double-hung inserts can be fitted into door panels.
- Custom hardware designed for easy installation and flawless operation is a feature of the product.
- 50mm thick door panels are designed for large panels. The front and back walls on stiles have been thickened to give us the strength required.
- Oversize door panels will be heavy. The head is bolted to concrete header or steel lintel bar.
- Panels are supported by Centor™ stainless steel running gear.

We offer a variety of sill types with this bi-fold door system. The detail on this page shows the weather resisting option.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

SILL - INTERNAL SWING

Series 50 doors will accept glass up to 10.50mm thick.

For thicker glass use the fully beaded door Series 52.

Stainless steel sill roller assembly.

Note:
All weight is carried by the head rollers.



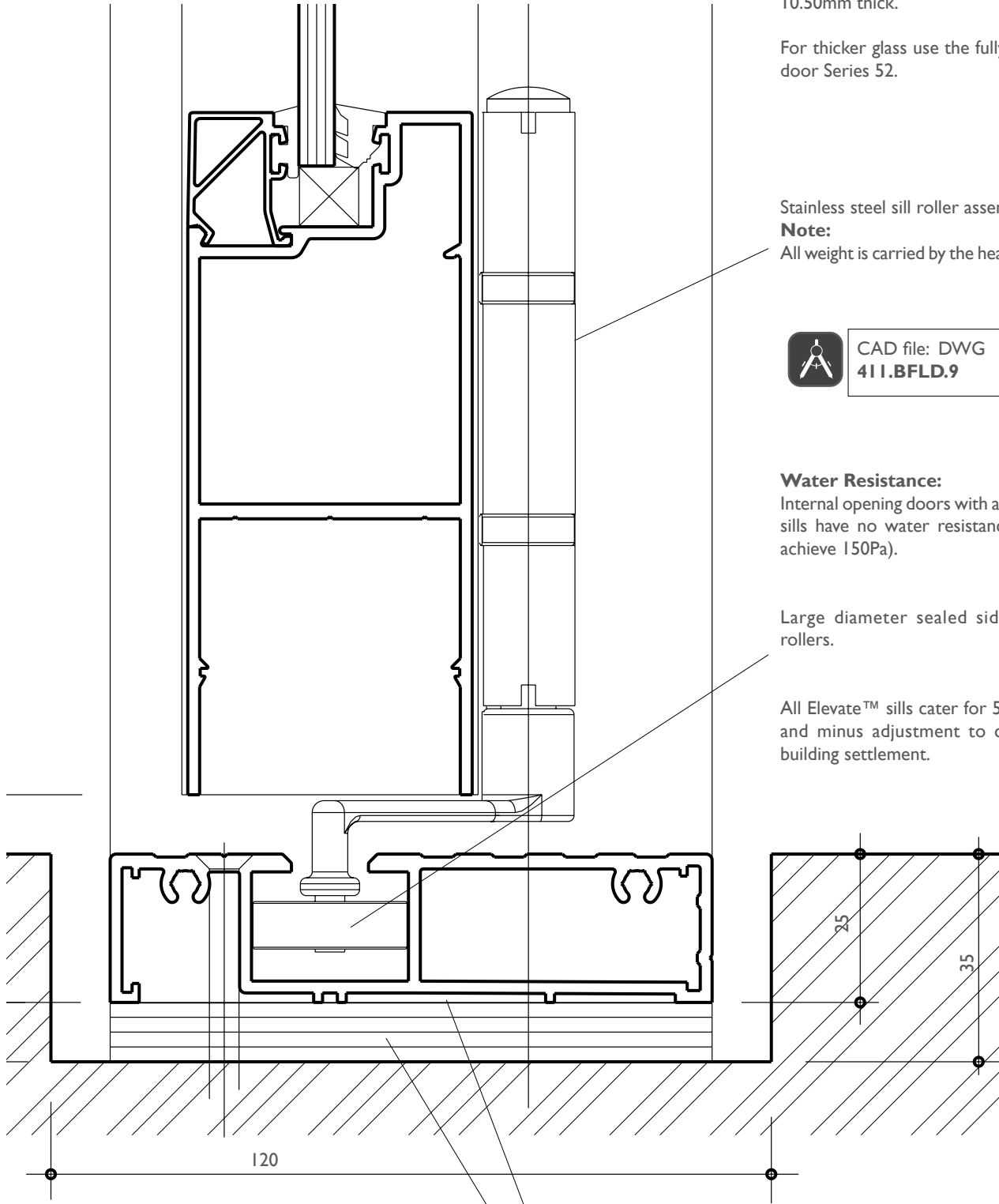
CAD file: DWG
411.BFLD.9

Water Resistance:

Internal opening doors with any of our sills have no water resistance (don't achieve 150Pa).

Large diameter sealed side thrust rollers.

All Elevate™ sills cater for 5mm plus and minus adjustment to cater for building settlement.



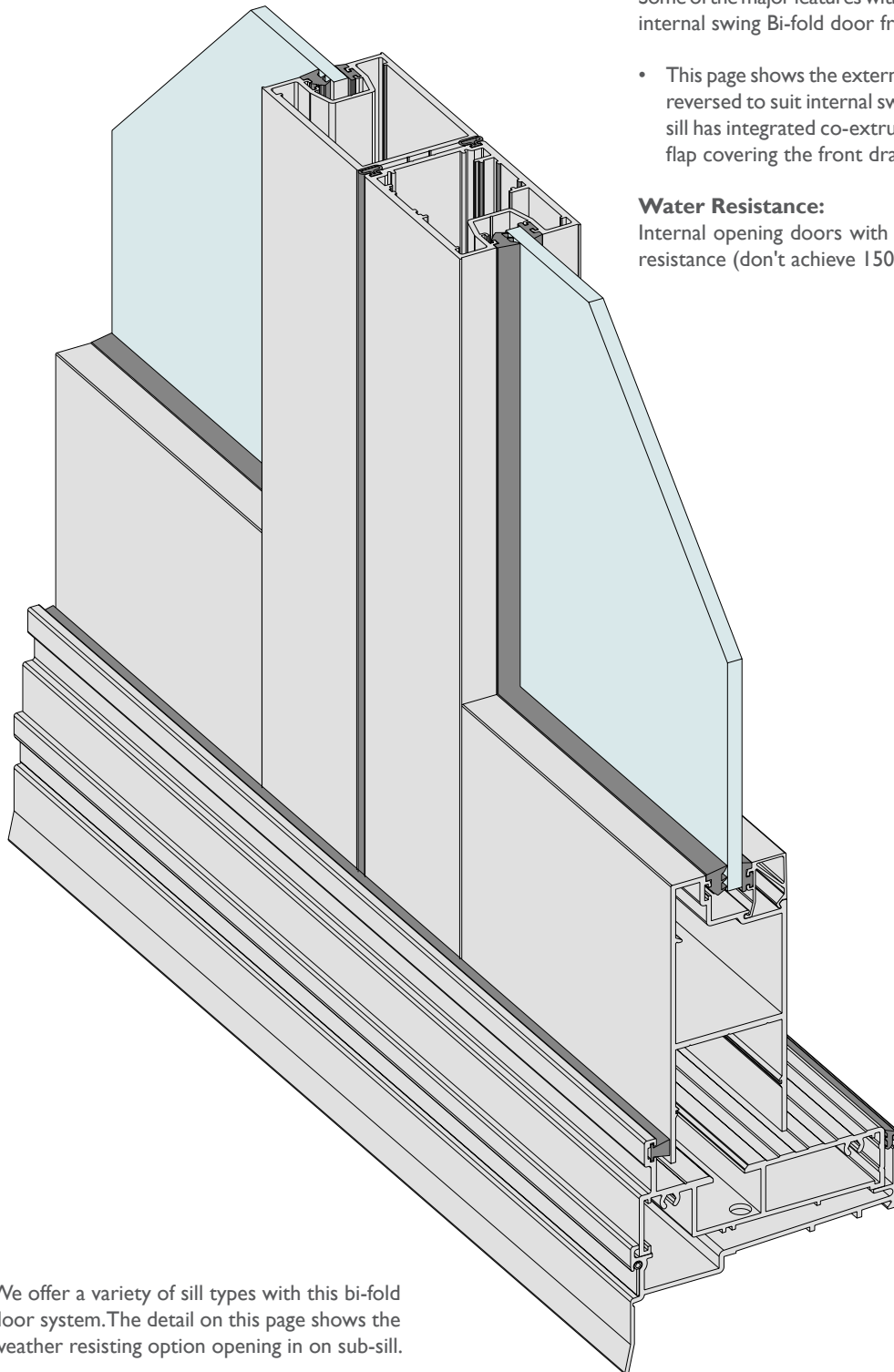
This recessed sill can be fabricated and shipped with the main frame.

Cut 120mm x 35mm recess in floor finish to accept this sill.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

SILL – INTERNAL SWING



Some of the major features with the Elevate™ ViewMASTER™ internal swing Bi-fold door frame are:

- This page shows the external opening weather resisting sill reversed to suit internal swing in custom sub-sill. This sub-sill has integrated co-extruded Santoprene anti-blowback flap covering the front drain holes.

Water Resistance:

Internal opening doors with any of our sills have no water resistance (don't achieve 150Pa).

We offer a variety of sill types with this bi-fold door system. The detail on this page shows the weather resisting option opening in on sub-sill.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

SILL - RAMP

Series 50 doors will accept glass up to 10.50mm thick.

For thicker glass use the fully beaded door Series 52.

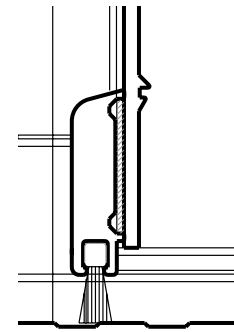
Stainless steel sill roller assembly.
Note:
All weight is carried by the head rollers.

Large diameter sealed side thrust rollers.

Series 411 sills cater for 5mm plus and minus adjustment to cater for building settlement.

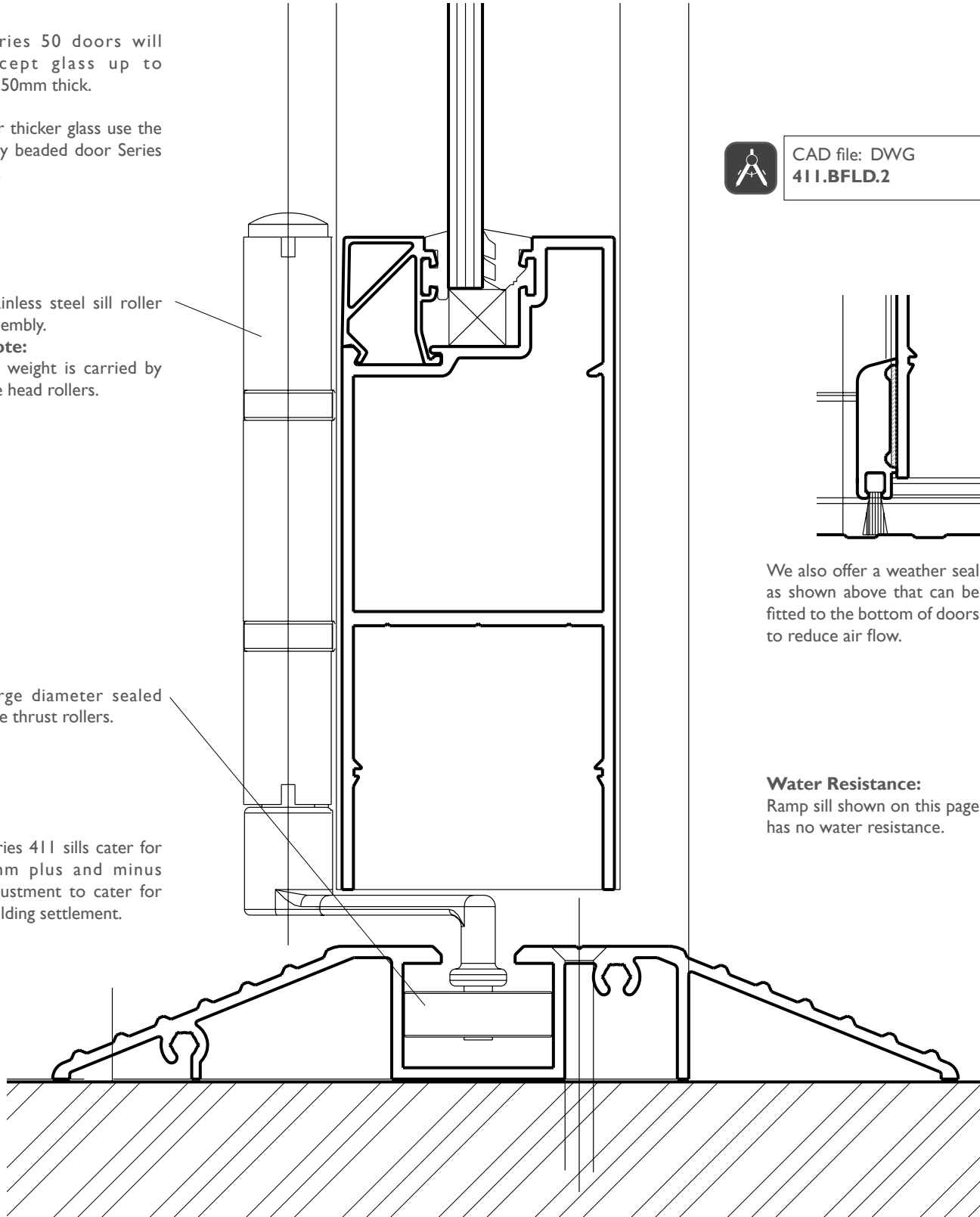


CAD file: DWG
411.BFLD.2



We also offer a weather seal as shown above that can be fitted to the bottom of doors to reduce air flow.

Water Resistance:
Ramp sill shown on this page has no water resistance.



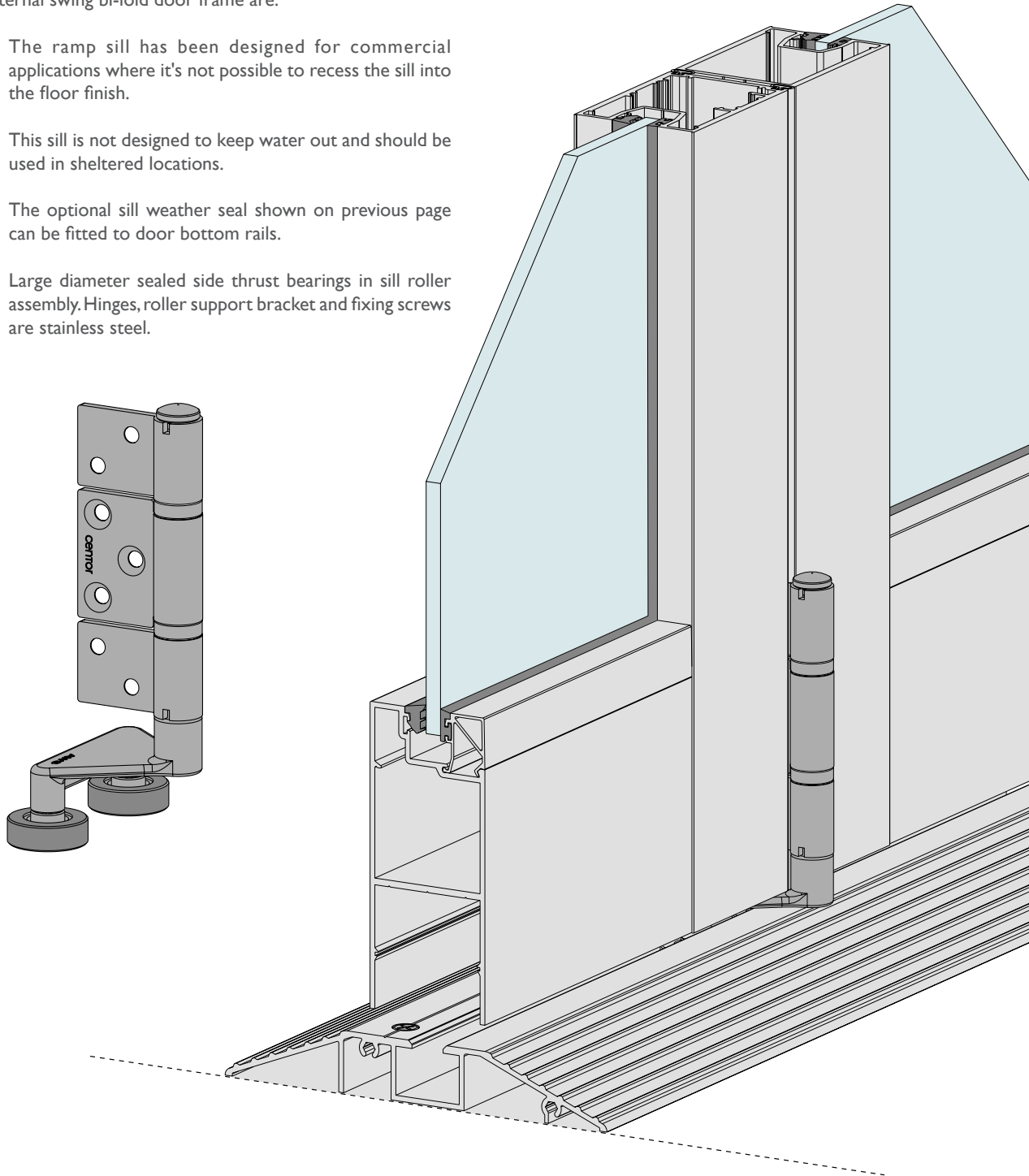
Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

SILL – RAMP

Some of the major features with the Elevate™ ViewMASTER™ internal swing bi-fold door frame are:

- The ramp sill has been designed for commercial applications where it's not possible to recess the sill into the floor finish.
- This sill is not designed to keep water out and should be used in sheltered locations.
- The optional sill weather seal shown on previous page can be fitted to door bottom rails.
- Large diameter sealed side thrust bearings in sill roller assembly. Hinges, roller support bracket and fixing screws are stainless steel.



We offer a variety of sill types with this bi-fold door system. The detail on this page shows the ramp sill option.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

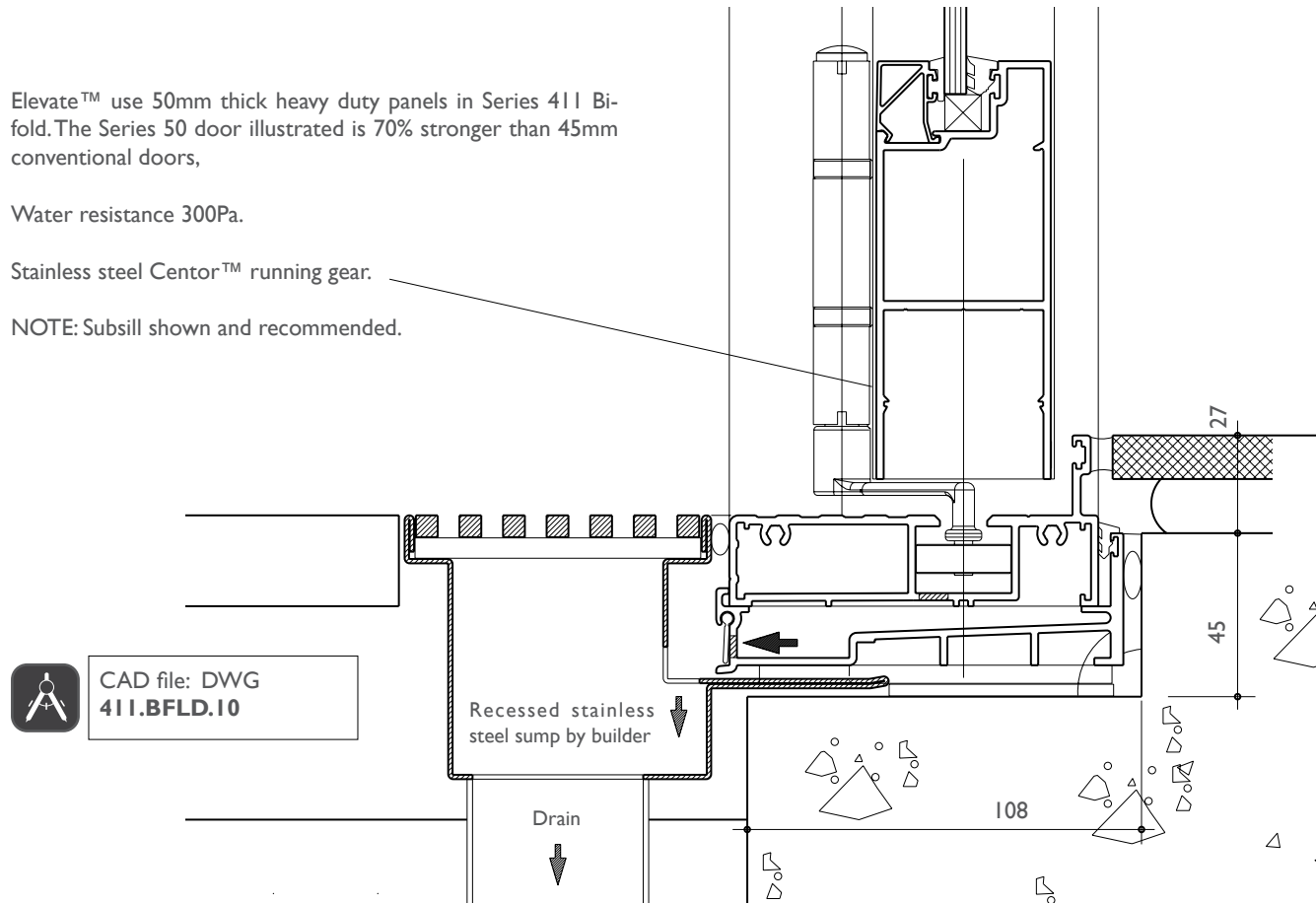
SILL - WEATHER RESISTING with LINEAL DRAIN

Elevate™ use 50mm thick heavy duty panels in Series 411 Bi-fold. The Series 50 door illustrated is 70% stronger than 45mm conventional doors,

Water resistance 300Pa.

Stainless steel Centor™ running gear.

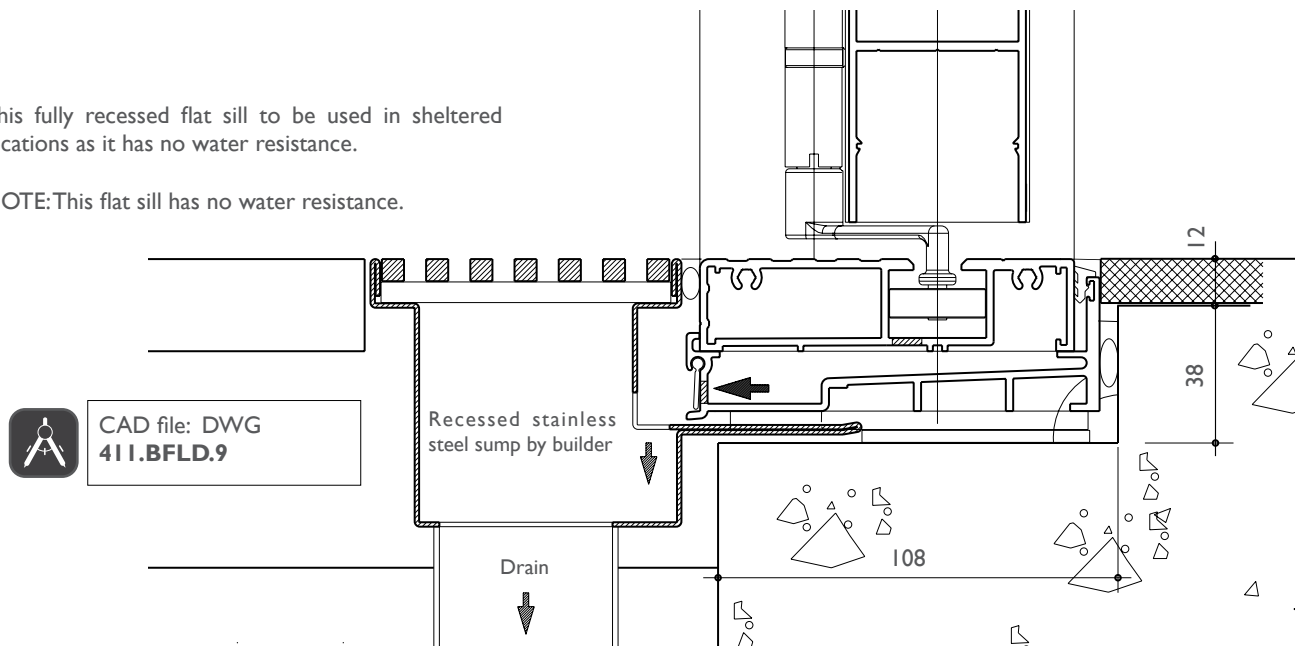
NOTE: Subsill shown and recommended.



SILL - FLAT RECESSED OPEN OUT PANELS with LINEAL DRAIN

This fully recessed flat sill to be used in sheltered locations as it has no water resistance.

NOTE: This flat sill has no water resistance.



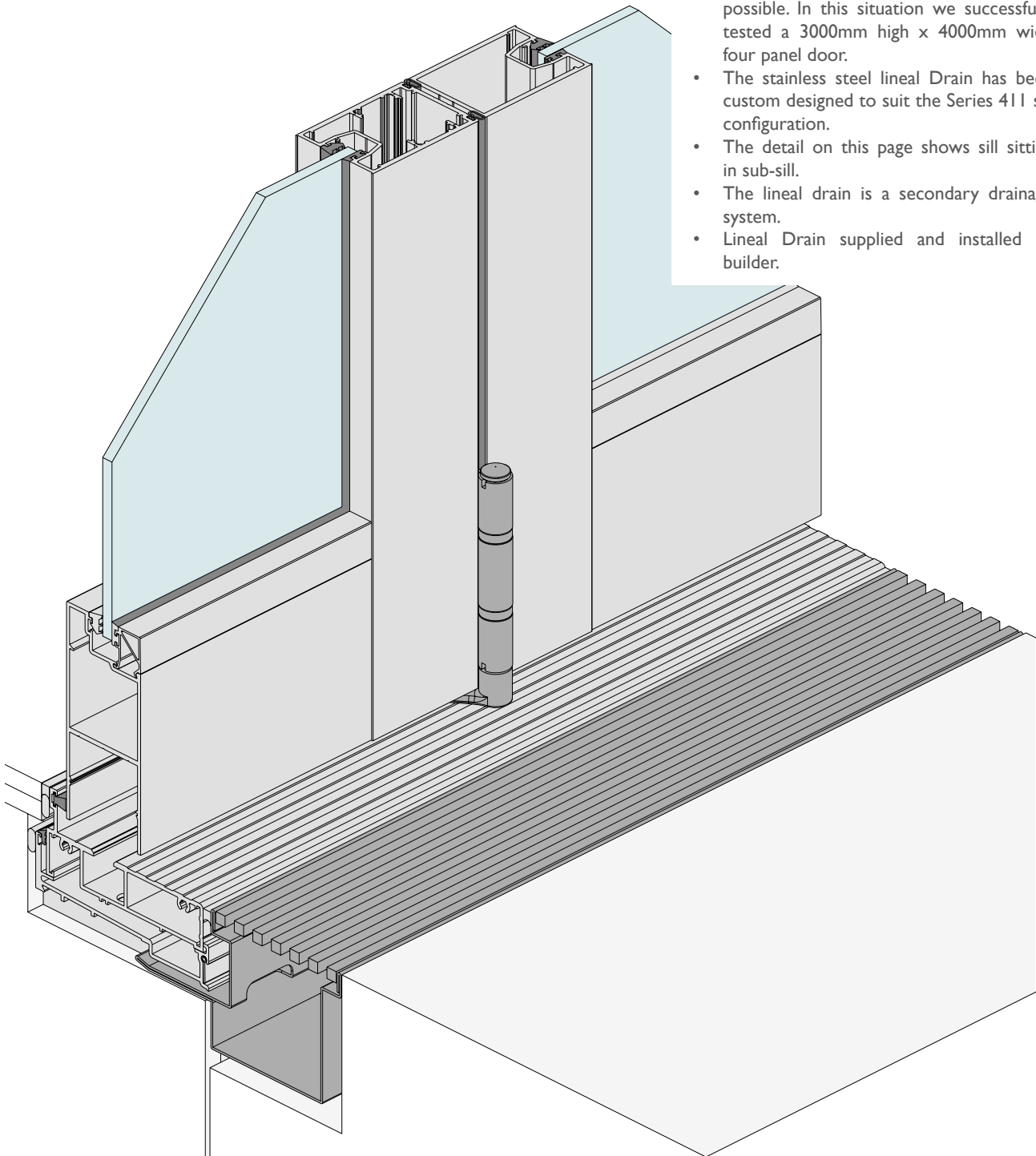
Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

SILL - WEATHER RESISTING with LINEAR DRAIN

Some of the features with Elevate™ ViewMASTER™ top hung weather resisting sill doors are :

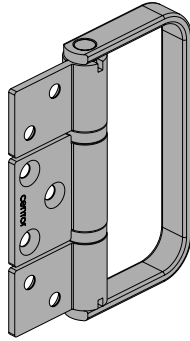
- Tested for compliance with relevant Australian Standards. We always test the maximum recommended size when possible. In this situation we successfully tested a 3000mm high x 4000mm wide four panel door.
- The stainless steel lineal Drain has been custom designed to suit the Series 411 sill configuration.
- The detail on this page shows sill sitting in sub-sill.
- The lineal drain is a secondary drainage system.
- Lineal Drain supplied and installed by builder.



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

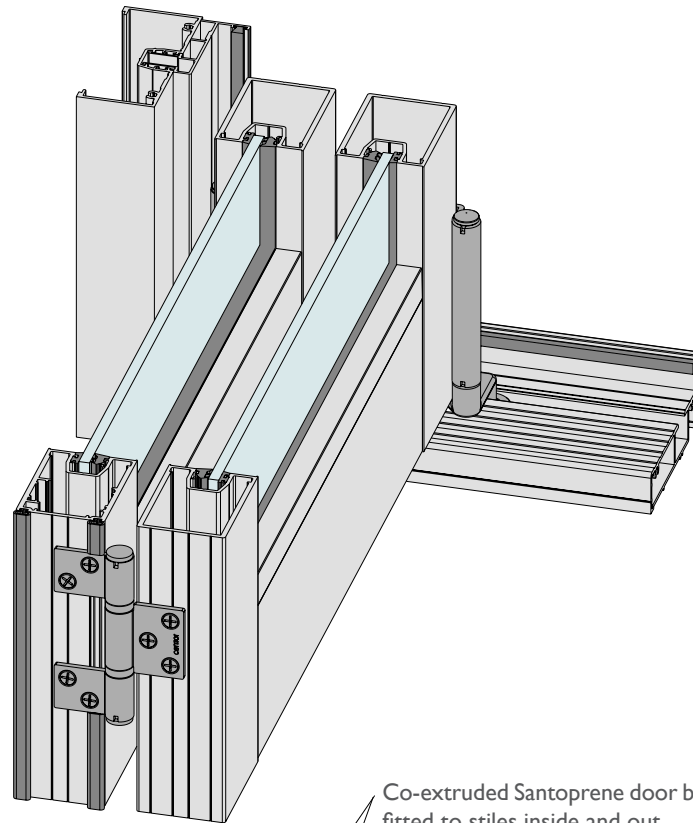
MEETING STILES – INTERNAL HINGE



Custom designed stainless steel central hinge has pull handle as shown above to make it easier to close and secure the folding panels.

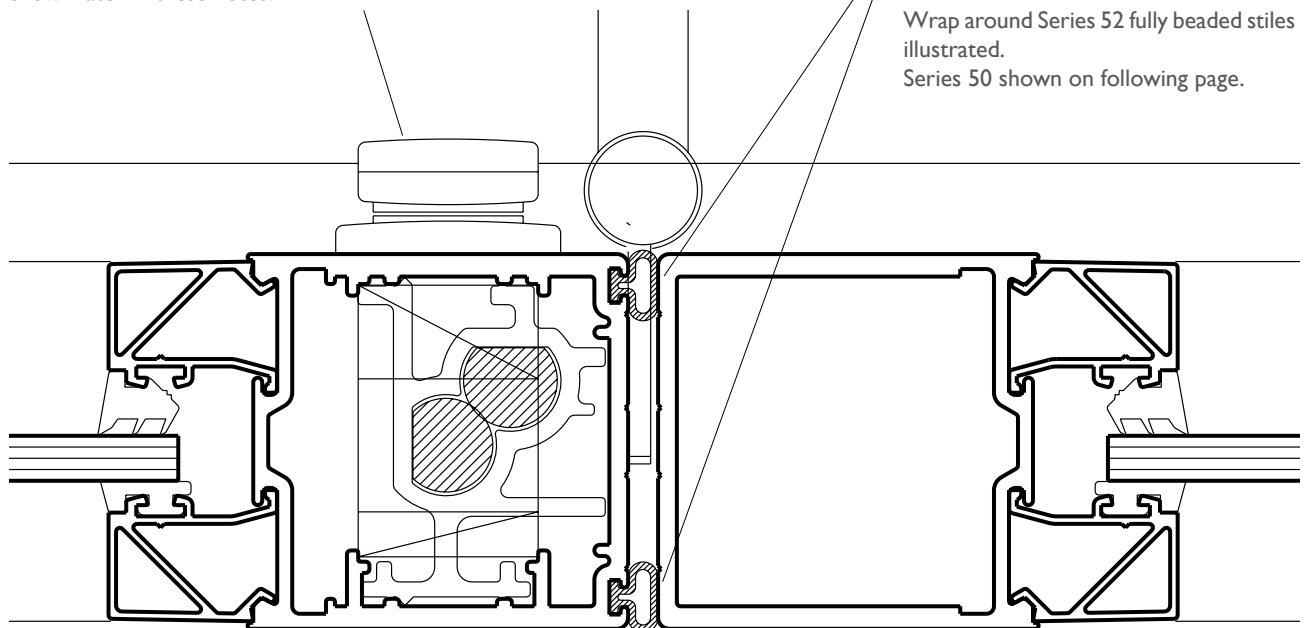
Custom designed stainless steel hinges easily locate into stiles and are fixed with countersunk stainless steel screws.

Proprietary bolt activators come in key or non-key versions. Details on key version shown later in these notes.



Co-extruded Santoprene door bulb seals fitted to stiles inside and out.

Wrap around Series 52 fully beaded stiles illustrated. Series 50 shown on following page.



Heavy duty meeting stiles designed for over height doors, refer span chart at the start of this section.

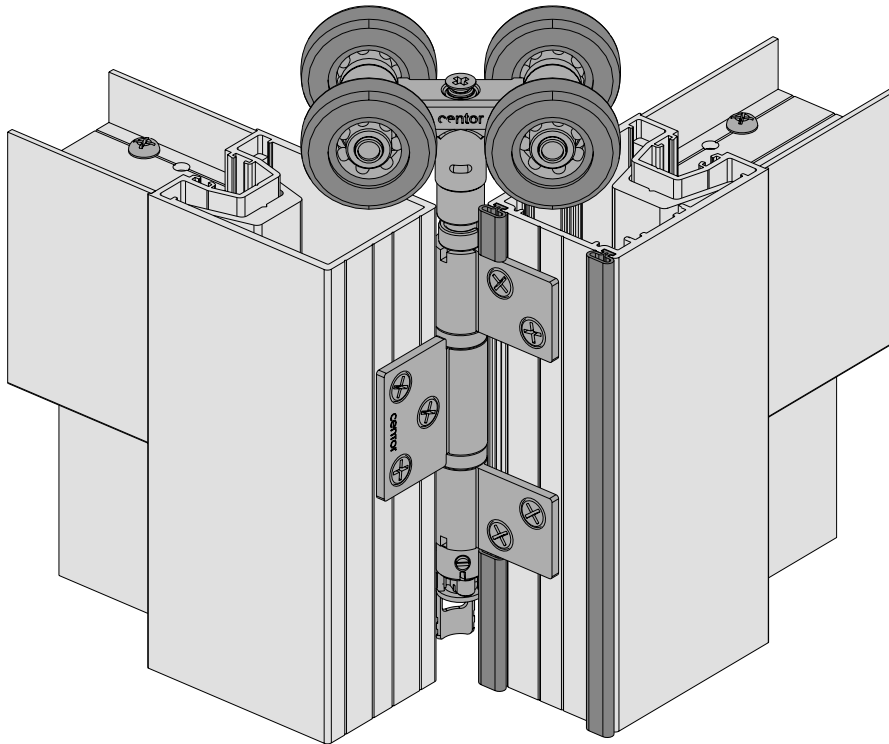


CAD file: DWG
411.BFLD.3

Series 411
ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

MEETING STILES – HEAD ROLLER

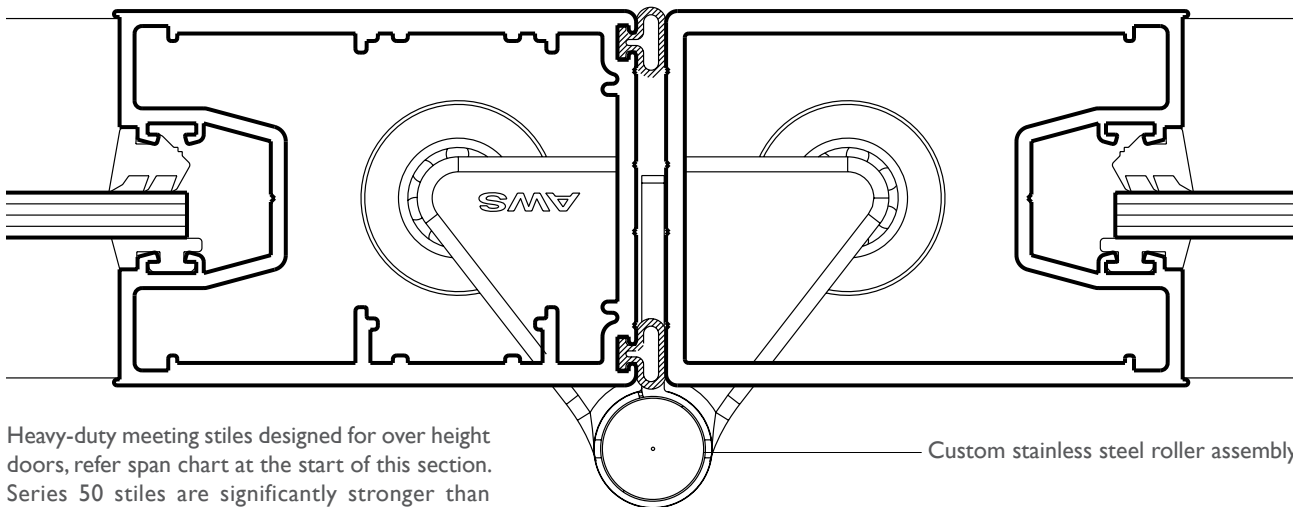


Overhead stainless steel roller hinges designed for this product are fixed with countersunk stainless steel screws.

Heavy-duty E3 roller assembly illustrated.

Co-extruded Santoprene door bulb seals fitted to stiles inside and out.

Wrap around Series 50 stiles illustrated. Series 52 fully beaded stiles shown on previous page.



Heavy-duty meeting stiles designed for over height doors, refer span chart at the start of this section. Series 50 stiles are significantly stronger than Series 52.

Custom stainless steel roller assembly.



CAD file: DWG
411.BFLD.3

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

FRENCH MEETING STILES

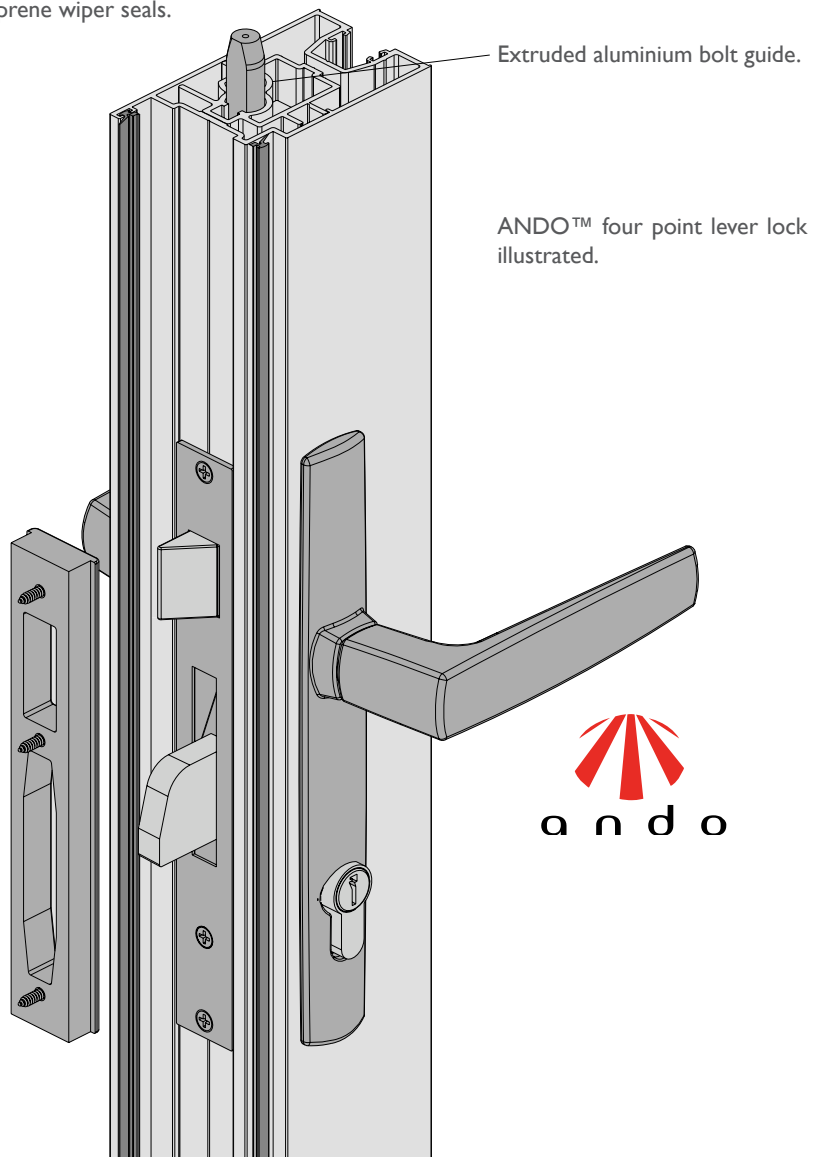
French meeting stiles have been designed to accept:

- ANDO™ Lever twinbolt for the keeper stile.
- ANDO™ Lever latch set illustrated below.
This proprietary locks come in two or four point locking.
When the panel height exceeds 2100mm we recommend four point locking to keep the top and bottom of the stile against the seals under wind load.
- Lock stile will also accept Lockwood 3580 and Legge 995MF latch sets.
- When using the Lockwood, Legge or Dorma latch sets, use finger operated flushbolts on the keeper stile.

Detailed information on all of these hardware options shown on following pages.

Flushbolts, ANDO™, MIRO™ and ICON™ bolts are supported with custom extruded aluminum guides.

Meeting stiles are sealed with co-extruded Santoprene wiper seals.

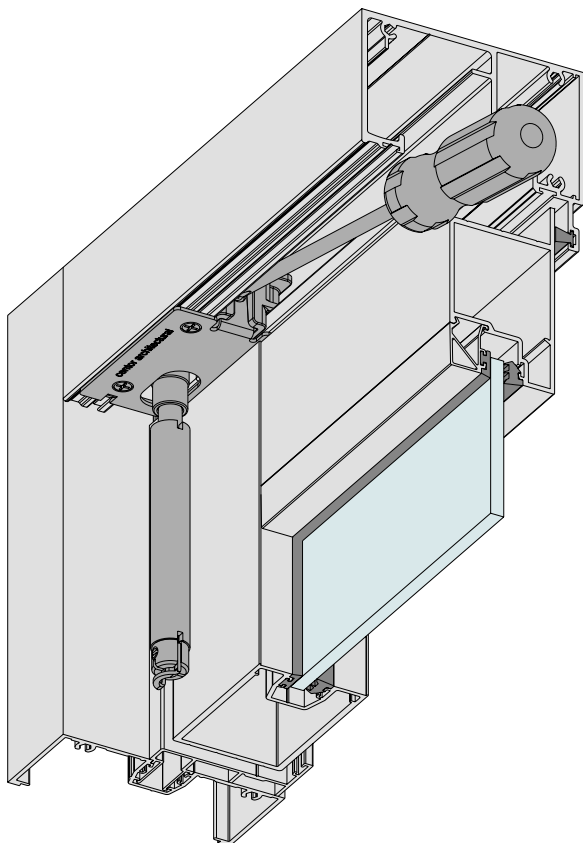


See the ANDO™ and MIRO™ twinbolts open and close on our web site:
www.elevatealuminium.com.au

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

JAMB - PIVOT ASSEMBLY



Pivots are adjustable horizontally via screw in the head guide recess.

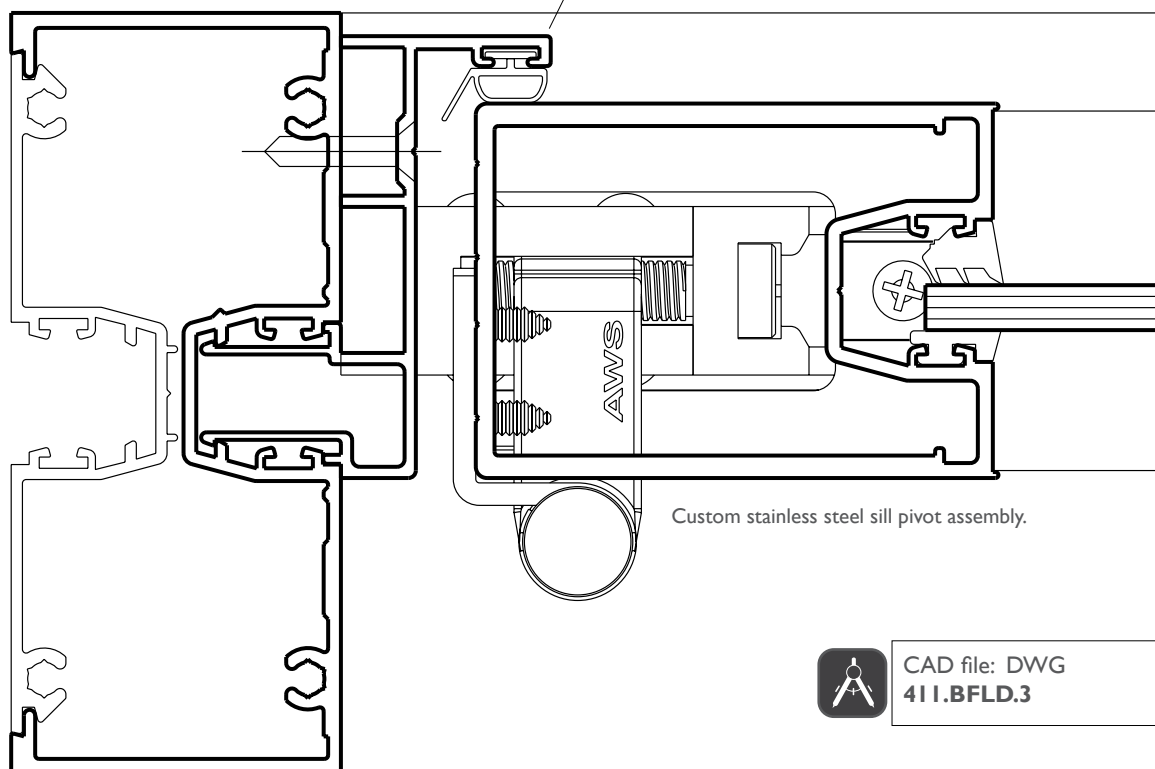
and

Vertically via the Surelock™ adjustment.

When correct adjustment is reached and doors operate well, remove the yellow shipping clip and spacer. Surelock™ will automatically snap into place when the blade and slot are aligned. Support panel weight whilst adjusting.

To re-adjust at a later date, simply pull down the blade and rotate as required to lift or lower. If you can't find the yellow shipping clip it will be necessary to take the load off the pivot while adjusting.

Snap-in raised door stop.



Custom stainless steel sill pivot assembly.

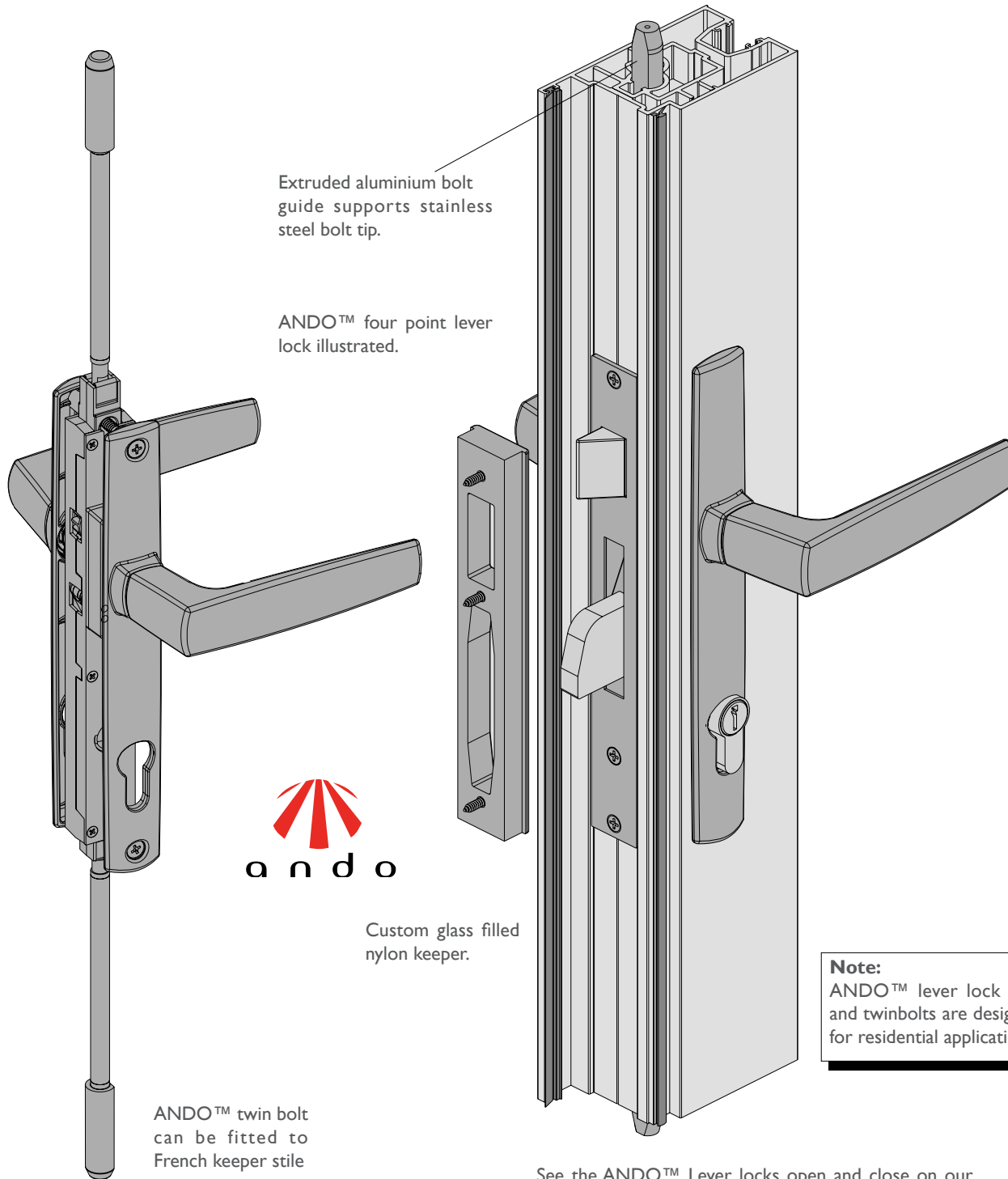


CAD file: DWG
411.BFLD.3

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

PROPRIETARY LEVER LOCK & TWINBOLT



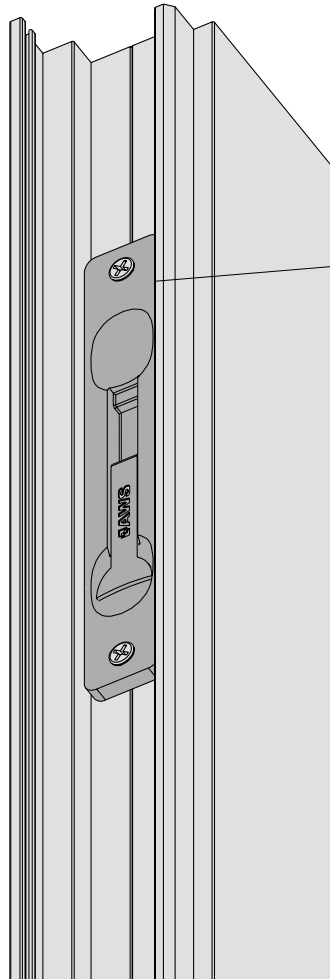
© Architectural Window Systems Pty Ltd 1996-2013

See the ANDO™ Lever locks open and close on our website: www.elevatealuminium.com.au

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

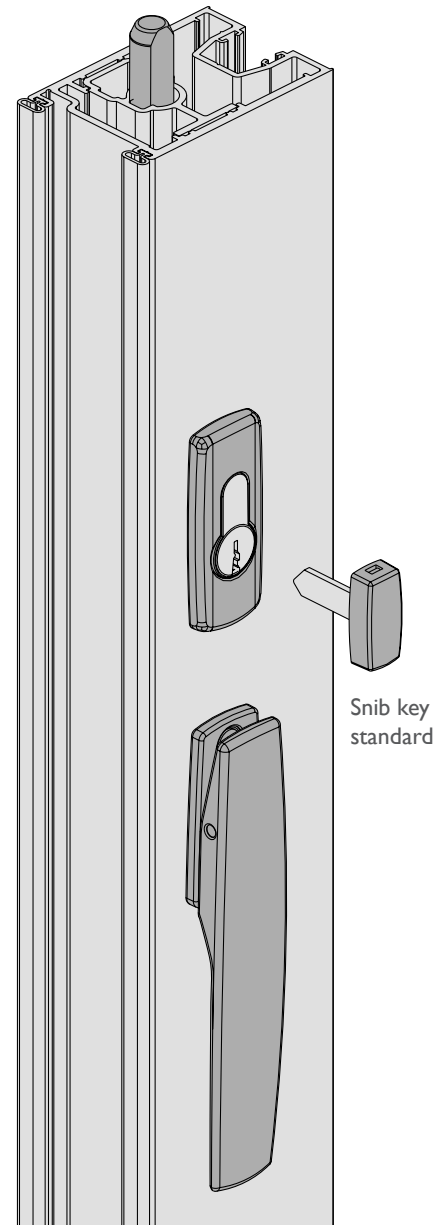
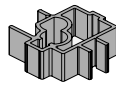
SHOOT BOLTS



Series 50 French keeper stile illustrated on this page.

Surface mounted flushbolt nests into the French keeper stile as detailed left.

Bolts secured with custom extruded aluminium guide both ends of stile that prevents the shoot bolt from turning and dropping.



Non-Key Option

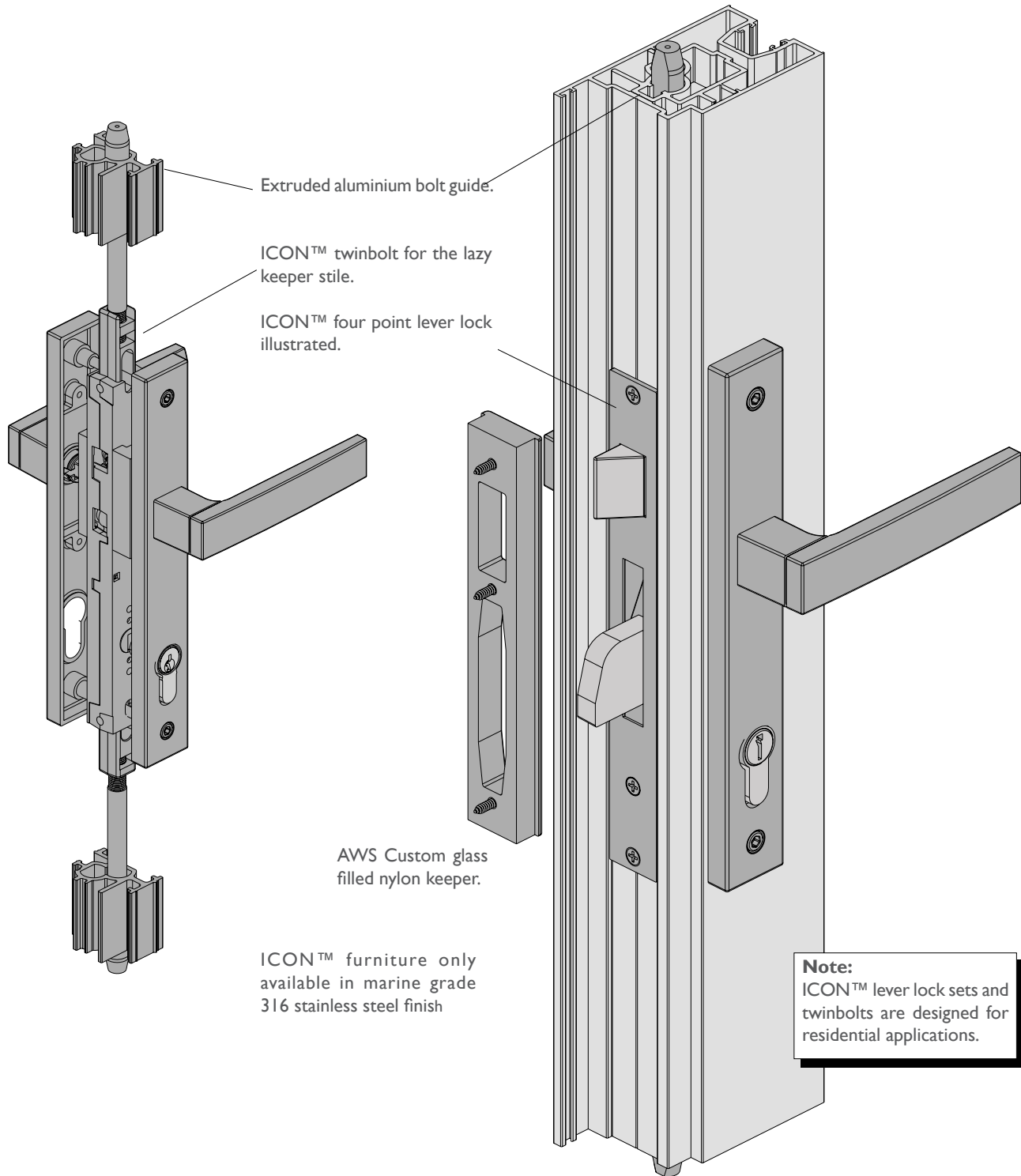
Proprietary ANDO™ key bi-fold activators are also available in a non-key version.

See the ANDO™ Bi-fold activators open and close on our website: www.elevatealuminium.com.au

Series 411
ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

PROPRIETARY ICON™ LEVER LOCK



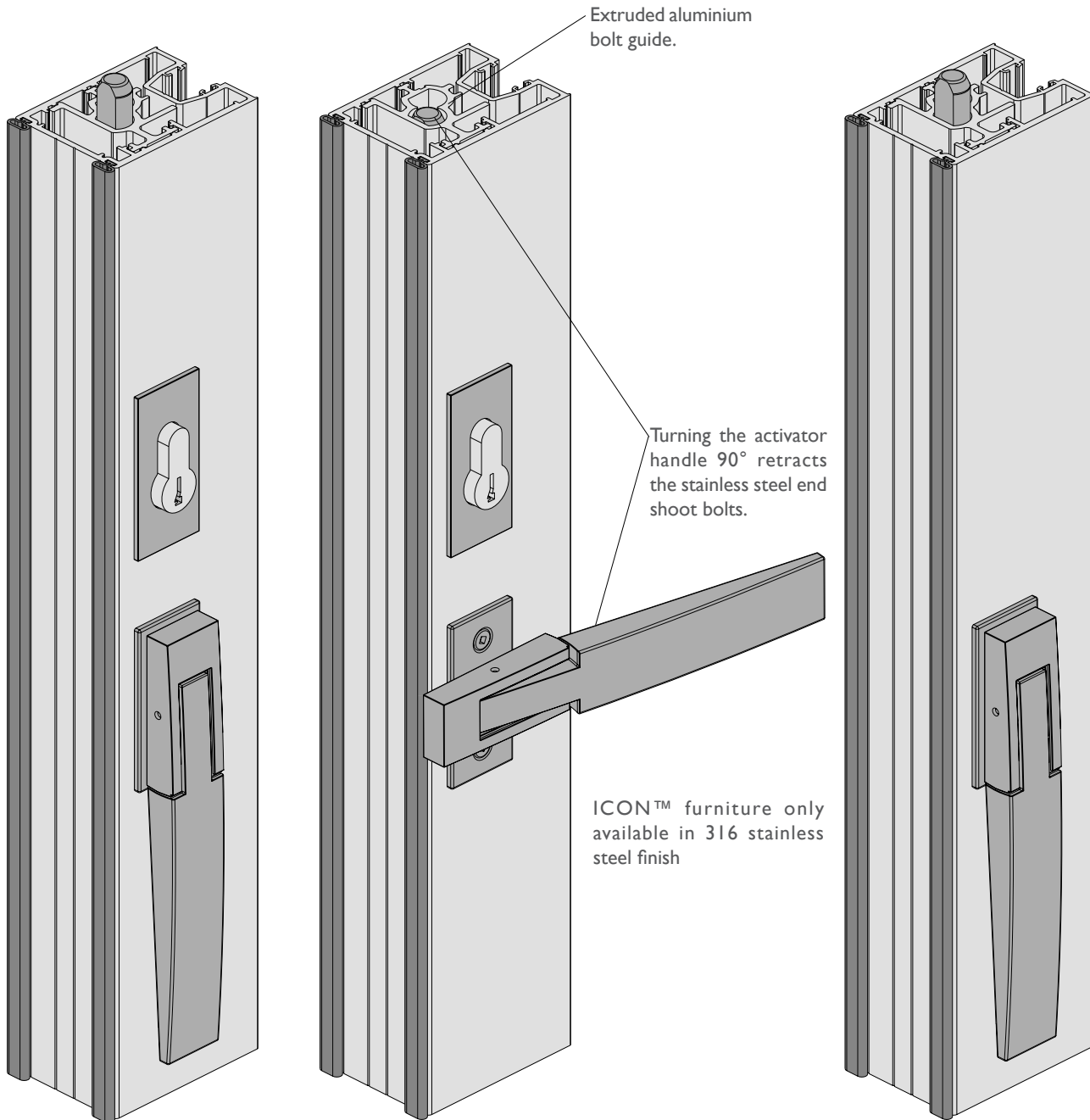
© Architectural Window Systems Pty Ltd 1996-2013

See the ANDO™ Lever locks open and close on our web site: www.elevatealuminium.com.au

Series 411
ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

PROPRIETARY ICON™ BI-FOLD ACTIVATOR



Key Option
Proprietary ICON™ key Bi-fold activator.

Non-Key Option
Proprietary ICON™ non key Bi-fold activator also available.

See the ICON™ Bi-fold activators open and close on our web site: www.elevatealuminium.com.au

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

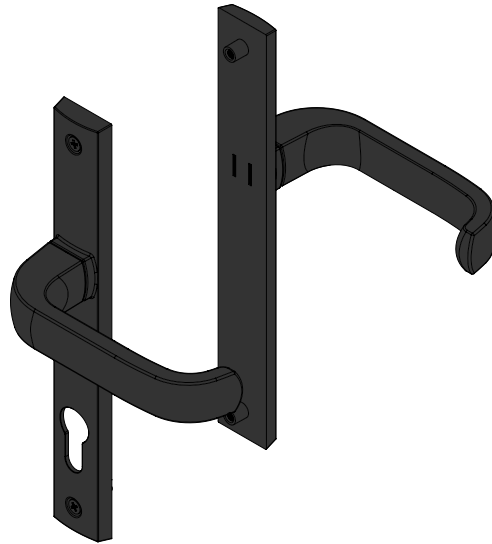
PROPRIETARY MIRO™ HARDWARE



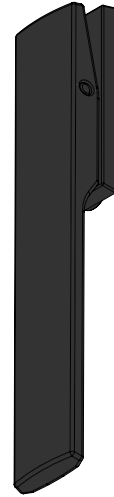
MIRO™ key locking twinbolt activator.

Key on the inside only.

External handle doesn't move.



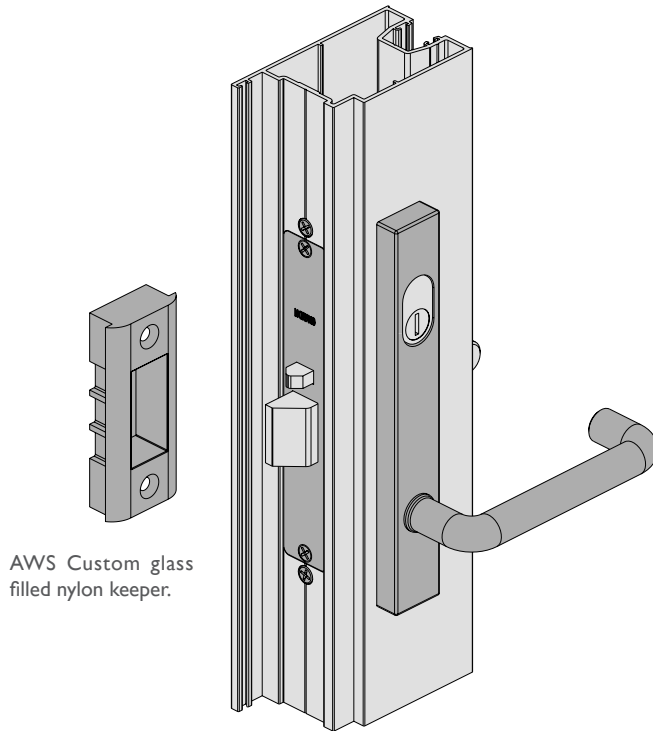
MIRO™ Bi-fold Activator



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

LOCKWOOD 3580 LOCK



AWS Custom glass filled nylon keeper.

Rebated stiles have been designed to accept a variety of locks and bolts in the keeper stile as shown later in these notes.

Lockwood Series 3580 short backset cylinder mortice lock – 30mm backset, with Lockwood Series 4800 or 5800 furniture.

There are numerous lock and furniture options, refer Lockwood catalogue and/or website (www.lockwoodsecurity.com).

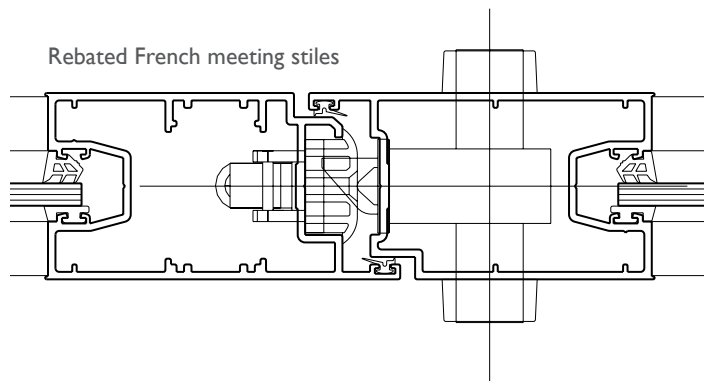
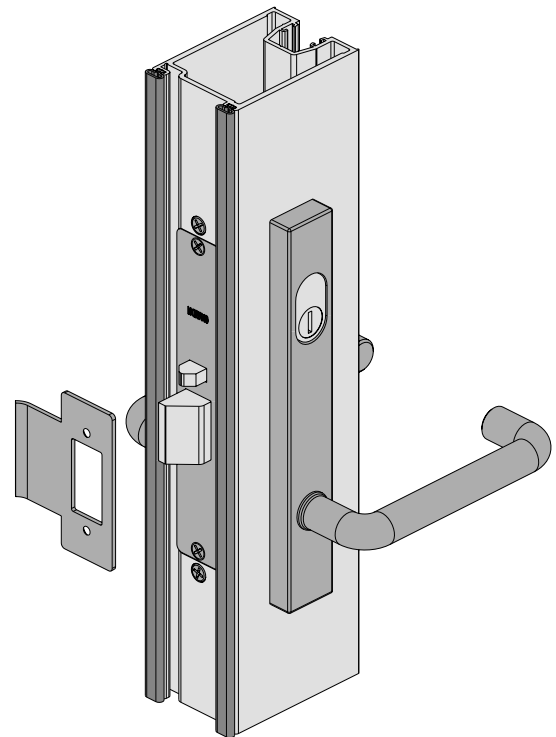
Elevate Series 50 door French lock stile illustrated. This lock can also be fitted into Series 52 fully beaded French stile.

Lockwood Series 3580 short backset cylinder mortice lock – 30mm backset can be fitted into Series 50 Bi-fold stile as shown right.

On Series 52 use 25.40mm backset, with Lockwood Series 4800 or 5800 furniture.

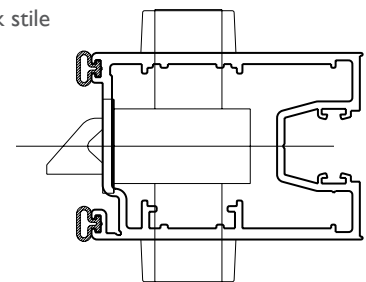
There are numerous lock and furniture options, refer Lockwood catalogue and/or website (www.lockwoodsecurity.com).

Jamb stile uses the standard stainless steel keeper that comes with the lock.



Rebated French meeting stiles

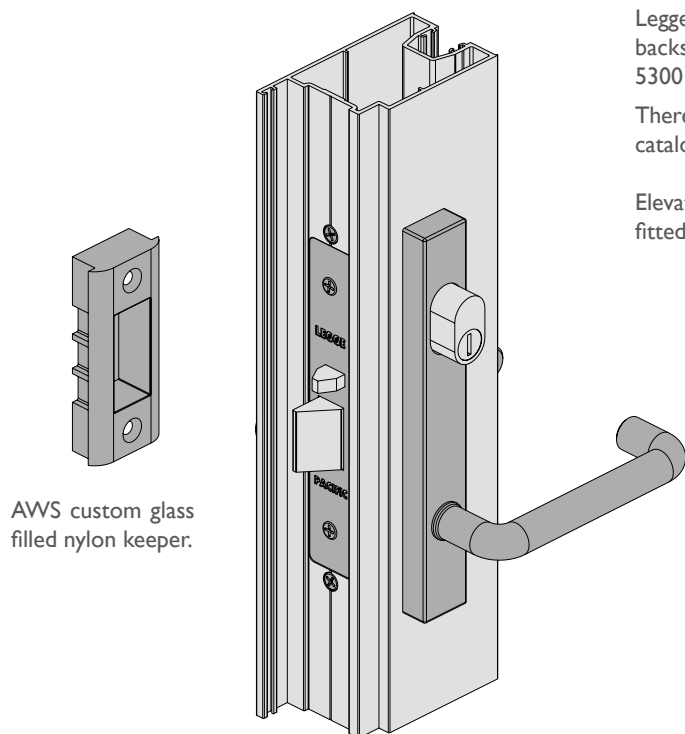
Bi-fold lock stile



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

LEGGE 995MF LOCK

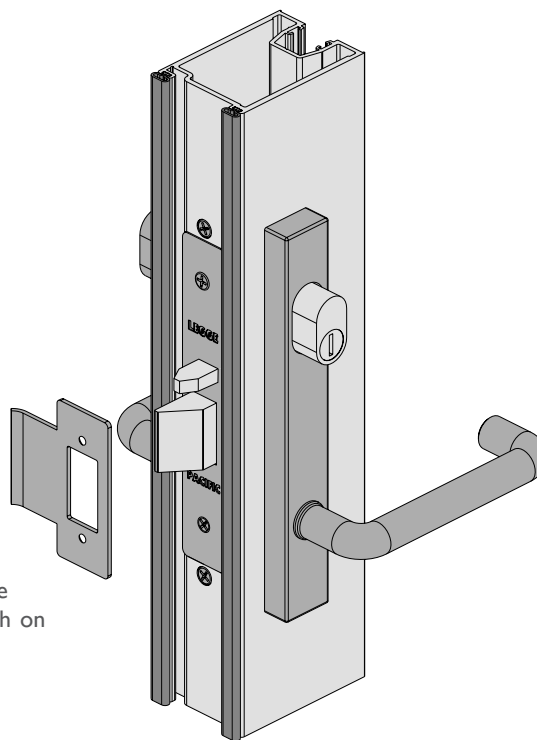


AWS custom glass filled nylon keeper.

Legge Pacific 995MF multi-function narrow stile mortice lock – 30mm backset, with extended cylinders and with Dalco narrow style Series 5300 or 5400 furniture.

There are numerous furniture options, refer Dalco Narrow Style Furniture catalogue and/or website (www.ingersollrand.com.au).

Elevate Series 50 door French lock stile illustrated. This lock can also be fitted into Series 52 fully beaded French stile.

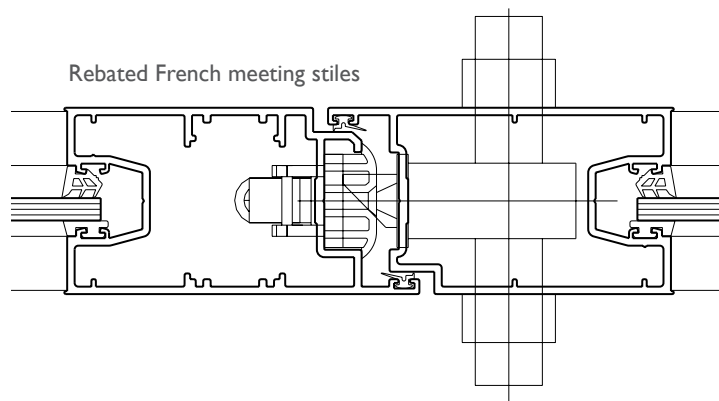


Legge Pacific 995MF multi-function narrow stile mortice lock – 30mm backset can be fitted into Series 50 Bi-fold stile as shown right, with extended cylinders and with Dalco narrow style Series 5300 or 5400 furniture.

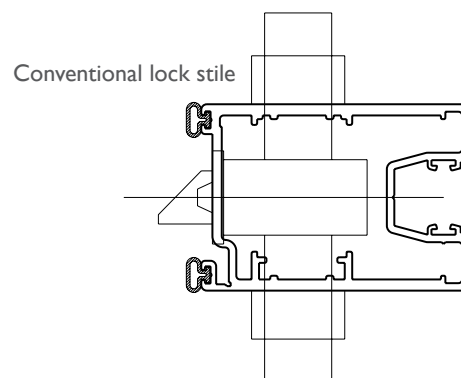
There are numerous furniture options, refer Dalco Narrow Style Furniture catalogue and/or website (www.ingersollrand.com.au).

Series 52 B-fold door panels are **not suitable** with Legge 995MF lock as we can only fit the 23mm backset into the bi-fold stile and 23mm is not enough on bi-fold doors.

Jamb stile uses the standard stainless steel keeper that comes with the lock.



Rebated French meeting stiles



Conventional lock stile

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

CENTOR SCREEN PRODUCTION FEATURES

By far the largest and most robust retractable screening system on the market. The detail in this section show the screen fitted behind Series 411 Bi-fold door. The screen can be fitted to any of the Bi-fold door configurations up to 881mm wide (with Standard weave mesh).

The S4 screen frame can be coloured to match the Bi-fold door frame.

Load Balancing Technology™ (LBT™) allows for effortless fingertip control. With no spring-loading to fight against, the screen's lead-stile remains firmly in any chosen position until further pressure is applied. Load-balancing also means far greater mesh tension across the screen, eliminating any tendency to sag.

Tight Technology™ manufacturing techniques ensure control of the horizontal edges of the screen so they remain straight and tight across the widest spans.

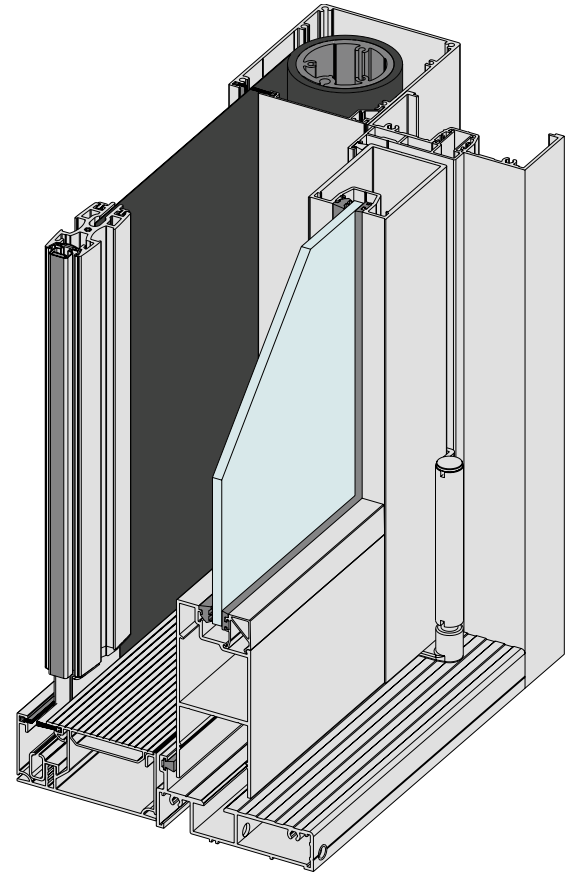
A shock absorption system allows visitors taken in by the screen's unobtrusiveness and near invisibility to walk away with little more than a surprise.

Should strong winds blow the screen out of the top or bottom channels the mesh will self-feed back onto the roll as it is rolled away.

The S4 screen is an evolution of the highly successful S1 screen with completely redesigned operating system including top and bottom tabs on the mesh to improve blowout resistance and allow blackout blinds to be added.

S4 is manufactured in stainless steel and reinforced engineered polymers. PetScreen Lite, the tough PVC coated polyester mesh used in the screen, is hard wearing and resistant to damage from pets and children. The mesh is easy to clean and can be replaced if damaged (service call required).

Large size screens available 3200mm high x 4611mm wide single or 9013mm wide double bi-parting screens (with Standard weave mesh). It's possible with a cavity sliding door and the S4 screen to get about 95% clear opening.



Screen Maintenance

Screen fabric should be cleaned with a soft brush or a damp soft cloth.

Tracking should be regularly cleaned to prevent the build-up of dirt and debris.

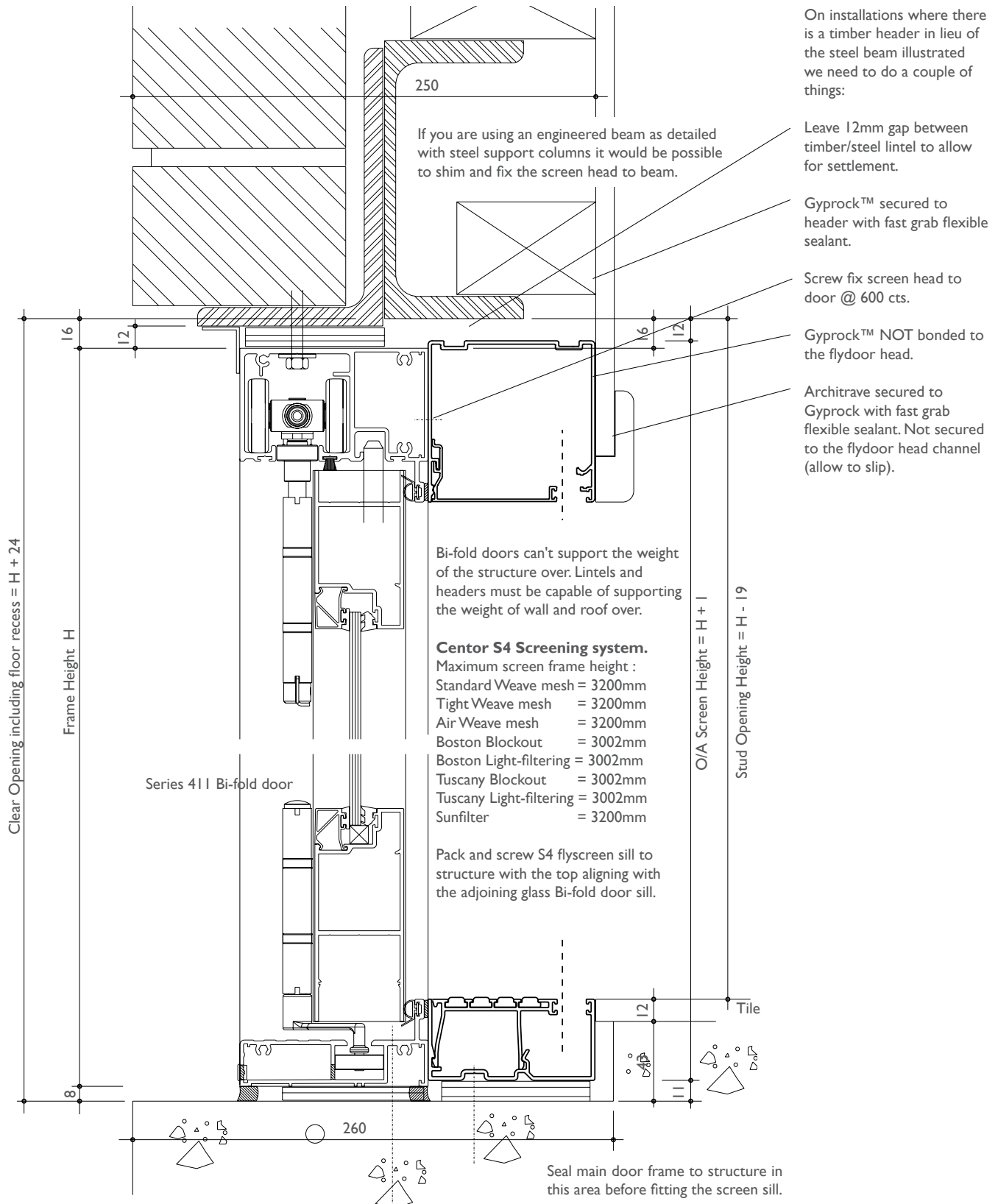
A vacuum cleaner fitted with a nozzle is effective. The S4 has an "easy fit" sill cover to facilitate simple cleaning and maintenance by the homeowner.

Operating mechanisms are fully contained and do not require maintenance other than keeping clear of dirt and debris.

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

TYPICAL VERTICAL CROSS SECTION - Centor™ S4 SCREEN - NO SUB-SILL

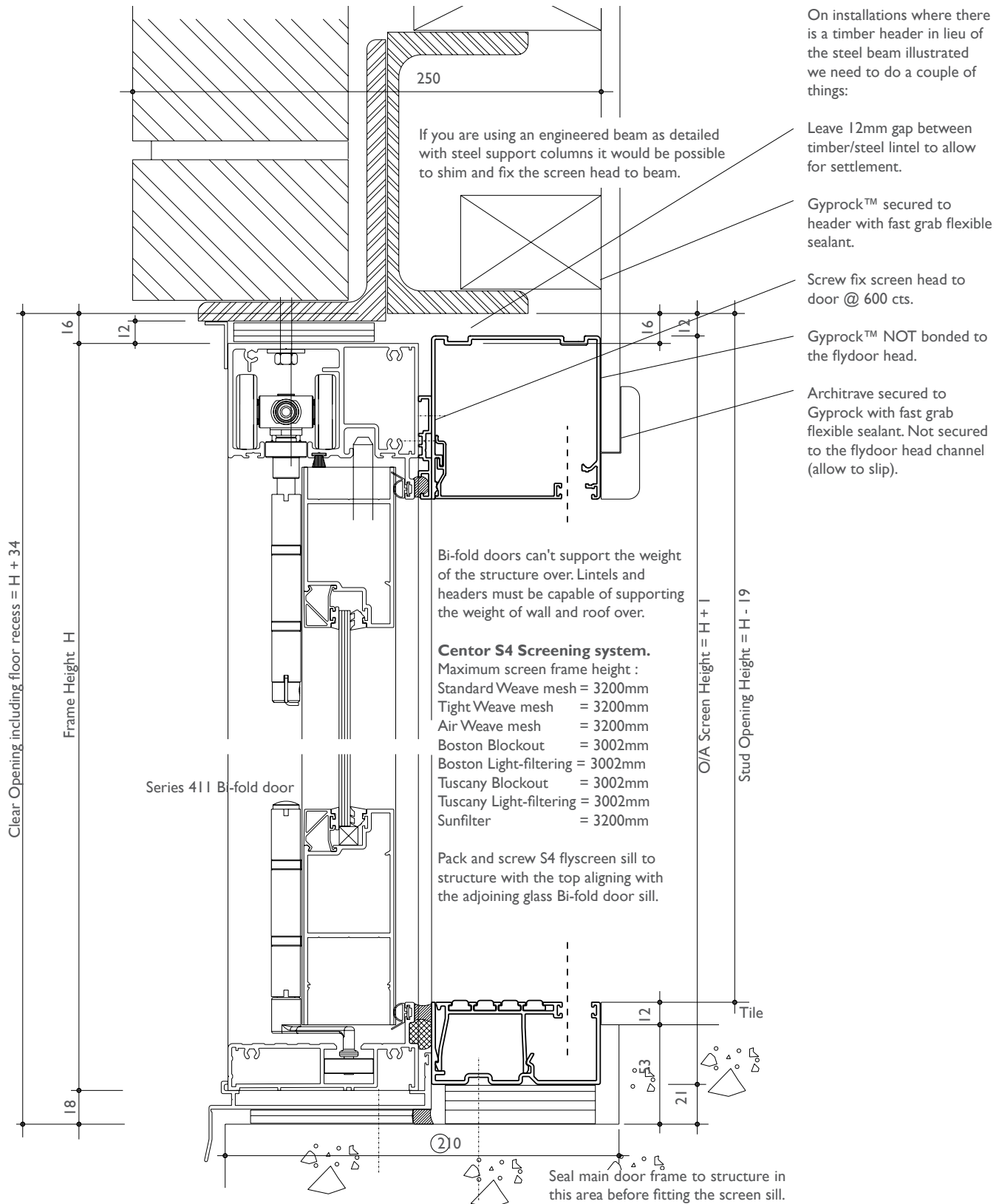


Recessed Sill Detail

Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

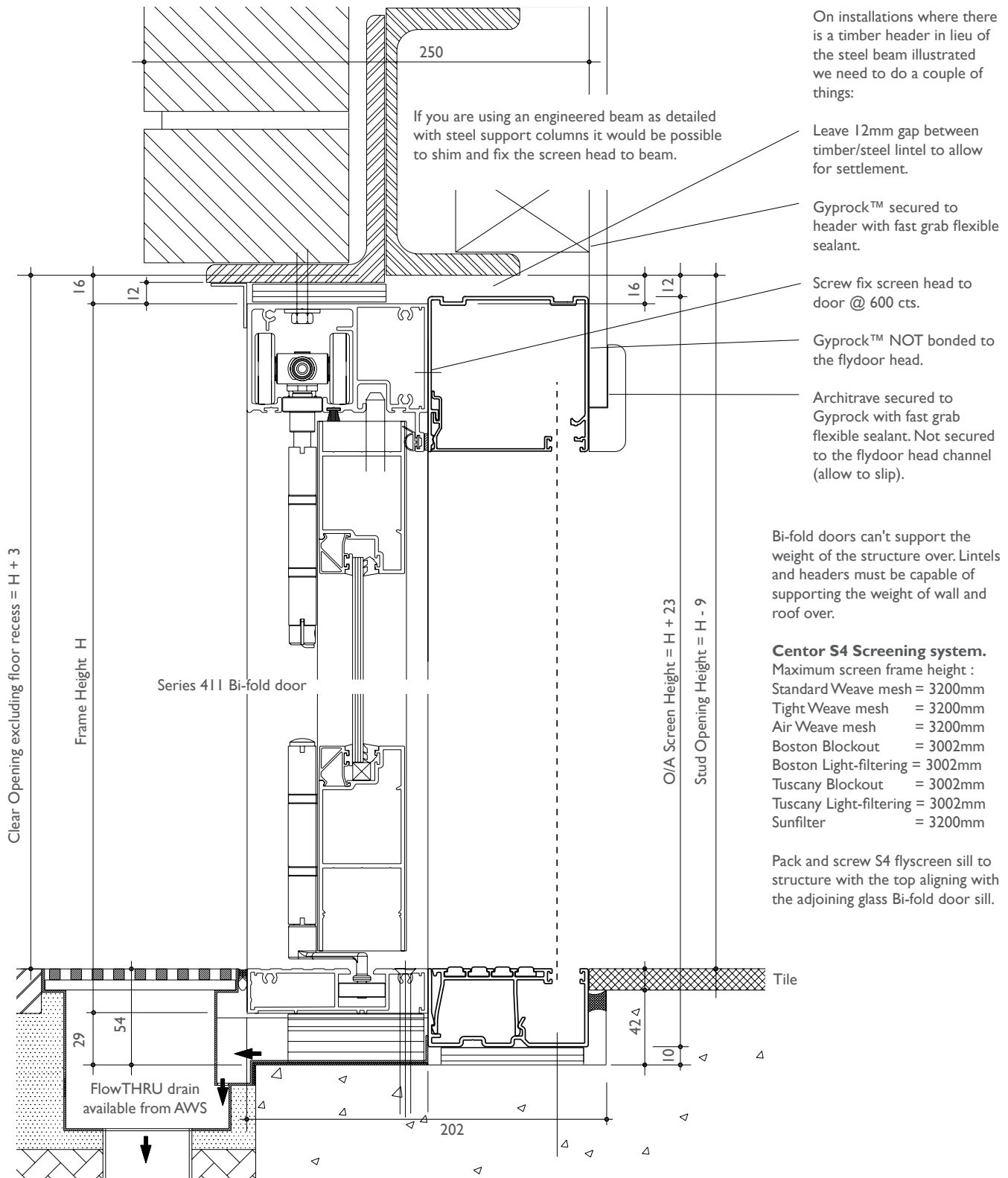
TYPICAL VERTICAL CROSS SECTION - Centor™ S4 SCREEN - WITH SUB-SILL



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

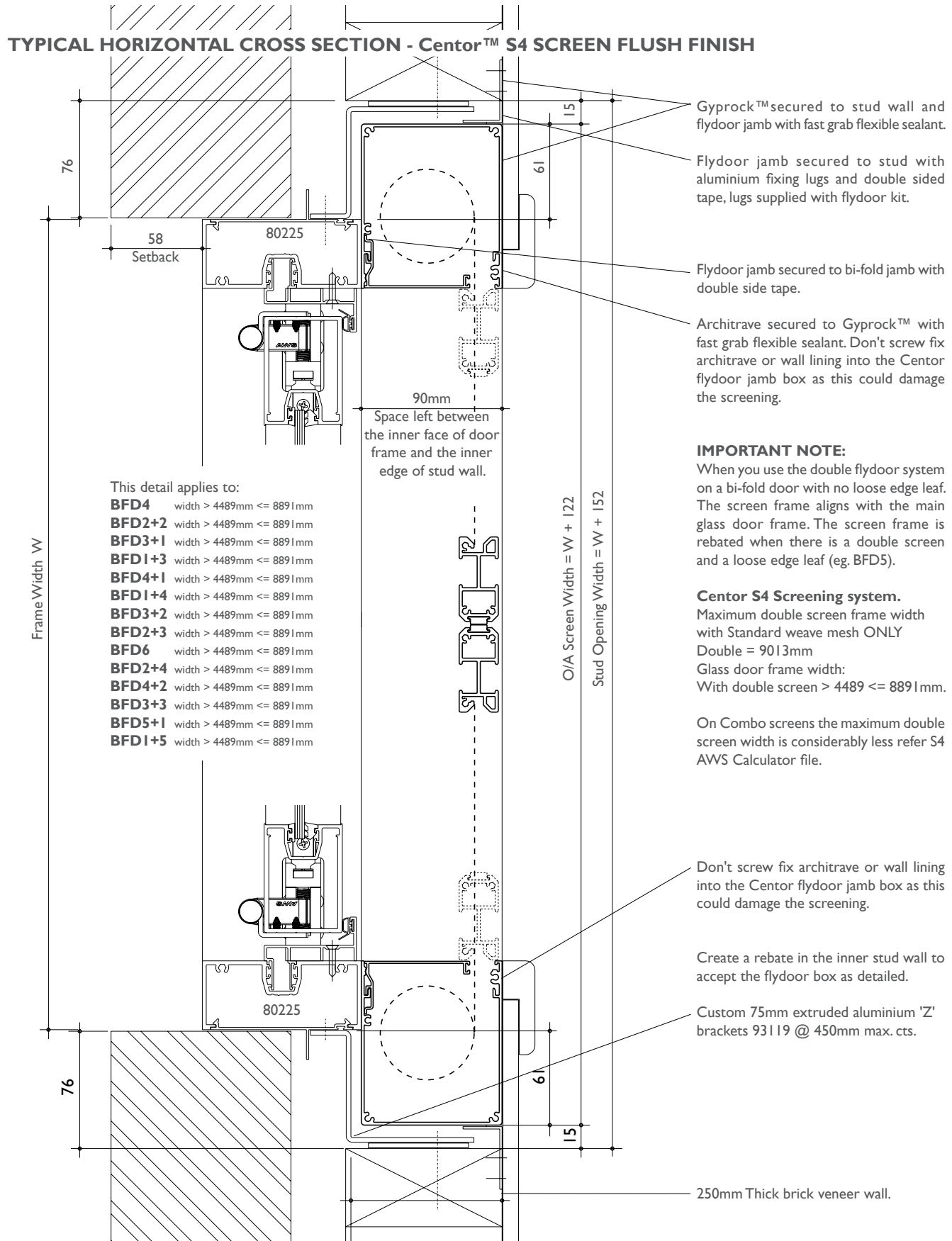
TYPICAL VERTICAL CROSS SECTION - Centor™ S4 SCREEN - FLAT SILL



Recessed Flat Sill Detail
This flat sill has no water resistance

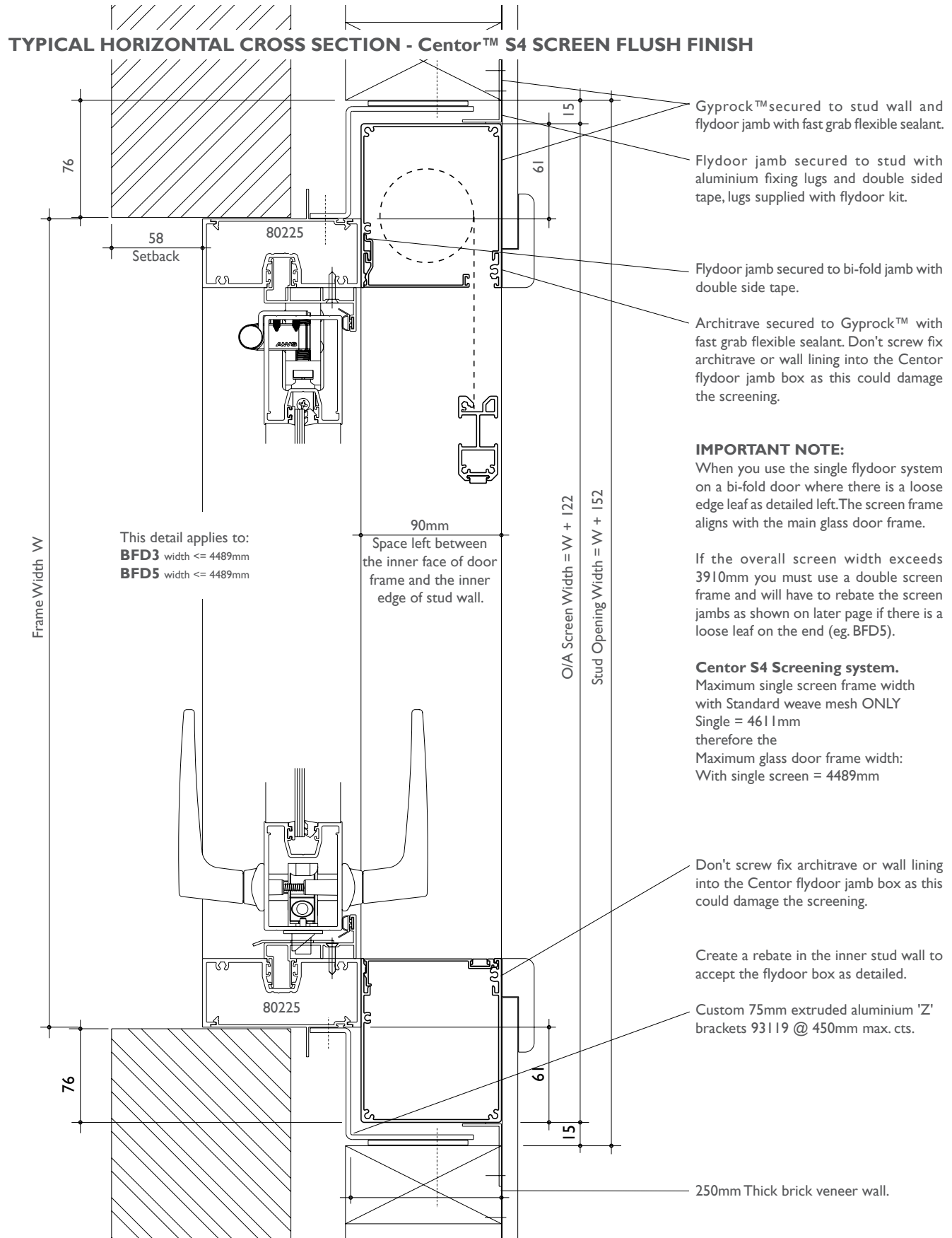
Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE



Series 411 ViewMASTER™ BI-FOLD DOOR

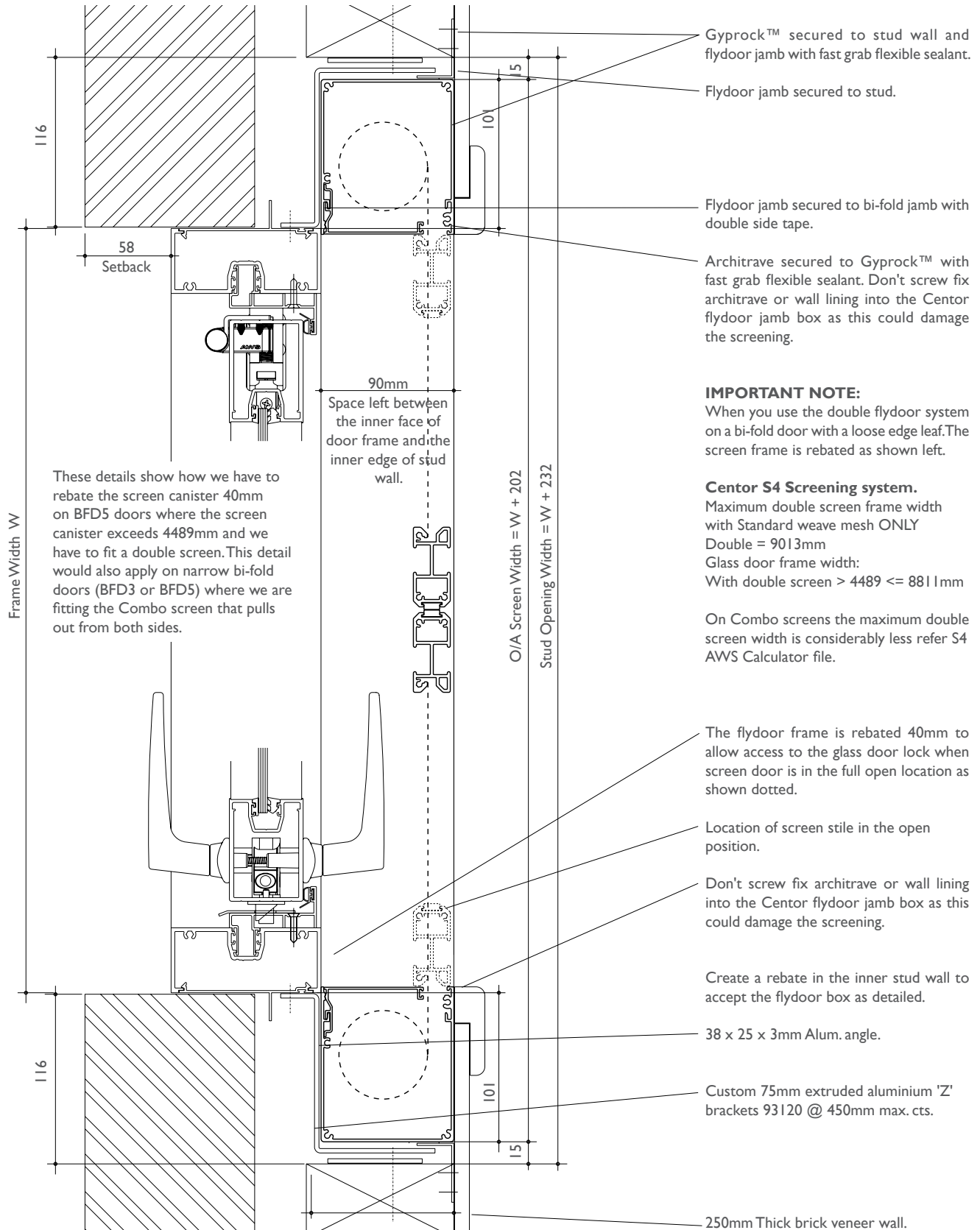
DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

TYPICAL HORIZONTAL CROSS SECTION - Centor™ S4 SCREEN REBATED SCREEN FINISH



Series 411 ViewMASTER™ BI-FOLD DOOR

DATE: AUG 20
REPLACES: MAY 13
SCALE: NOT TO SCALE

ClearVENT™ SASHLESS DOUBLE-HUNG INSERT

ClearVENT™ Sashless double-hung sashes can be inlaid into Series 50 ViewMASTER™ doors as shown on this and the following page.

The ClearVENT™ inlay comes in flyscreen version as displayed on these pages or non-flyscreen (no external screen acceptor channel).

Clearly nominate your preference when specifying.

Inlay sill double weatherpile sealed to glass.

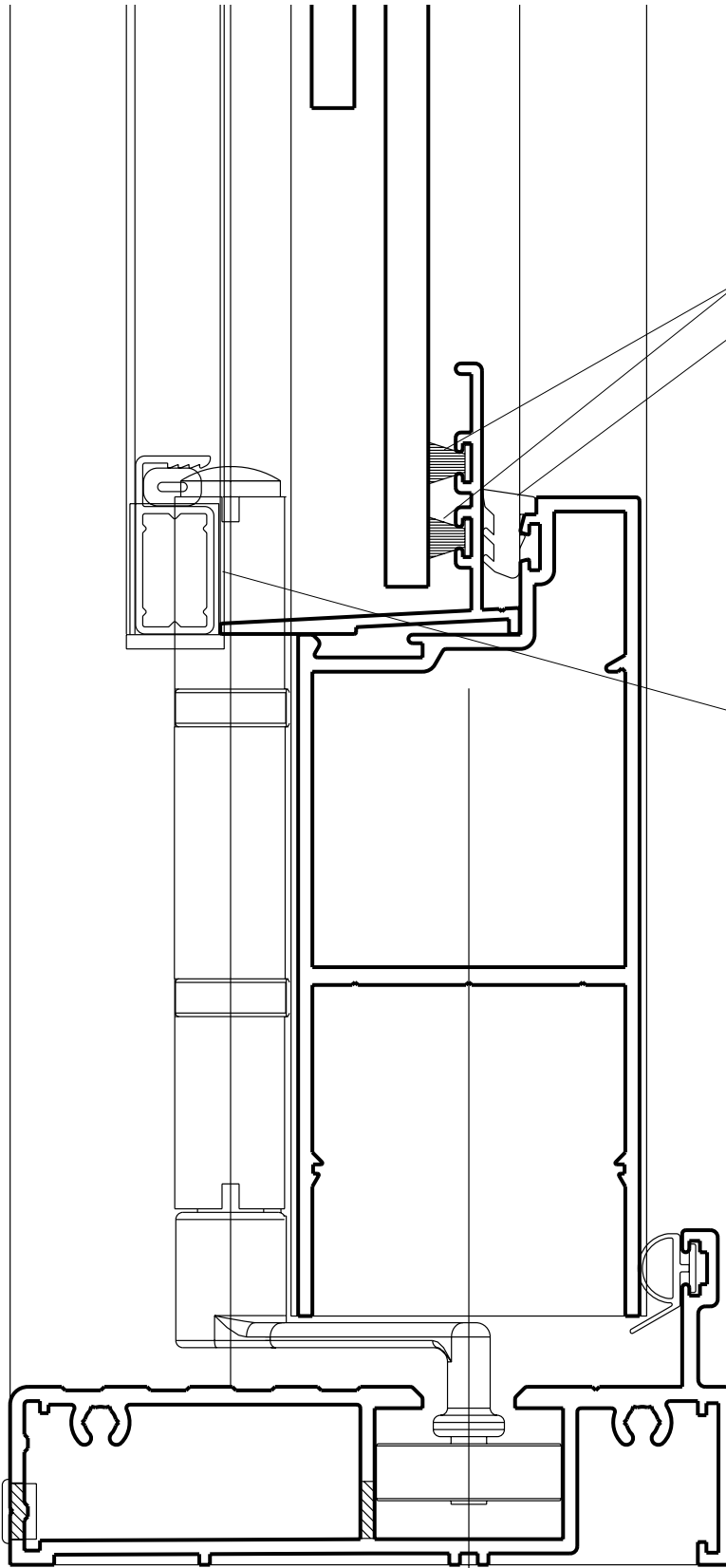
Roll-in wedge closes off the inlay to door sill gap.

Door Bottom Rail

Optional flyscreen inlay system illustrated.

Fitting a screened ClearVENT™ into one of the door panels is a way of screening the bi-fold unit.

For more details on sashless double-hung inserts go to ClearVENT™ windows.



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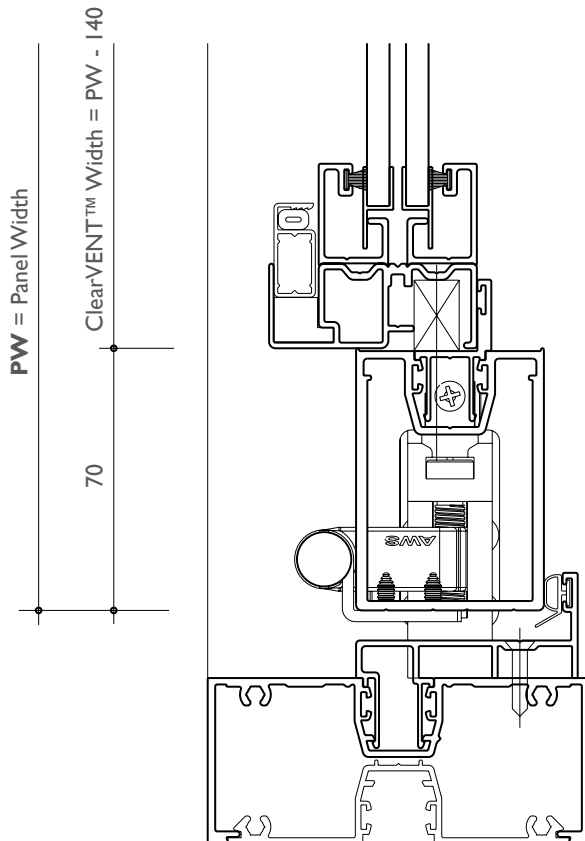
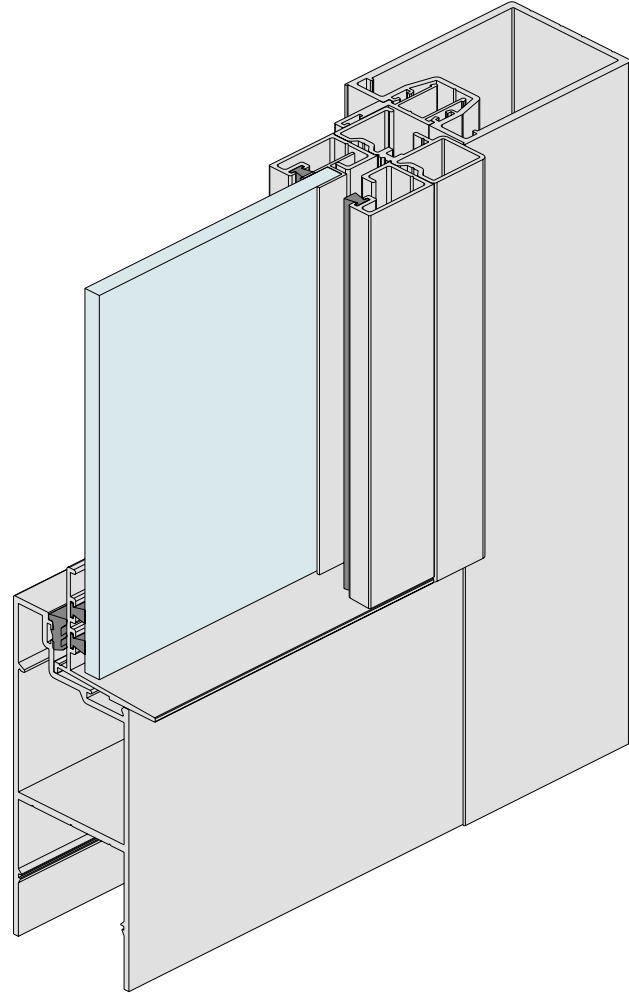
ClearVENT™ SASHLESS DOUBLE-HUNG INSERT

ClearVENT™ insert nests into Series 50 door panel with or without flyscreen. The isometric detail right shows the non-flyscreen jamb adaptor. The plan view below shows the flyscreen adaptor.

Refer Series 464 Architectural Commercial window for full details on ClearVENT™ options and product information.

Recommend

When ClearVENT™ inserts are fitted into door panels, we recommend that you fit a midrail with fixed lowlight to brace the door panel.



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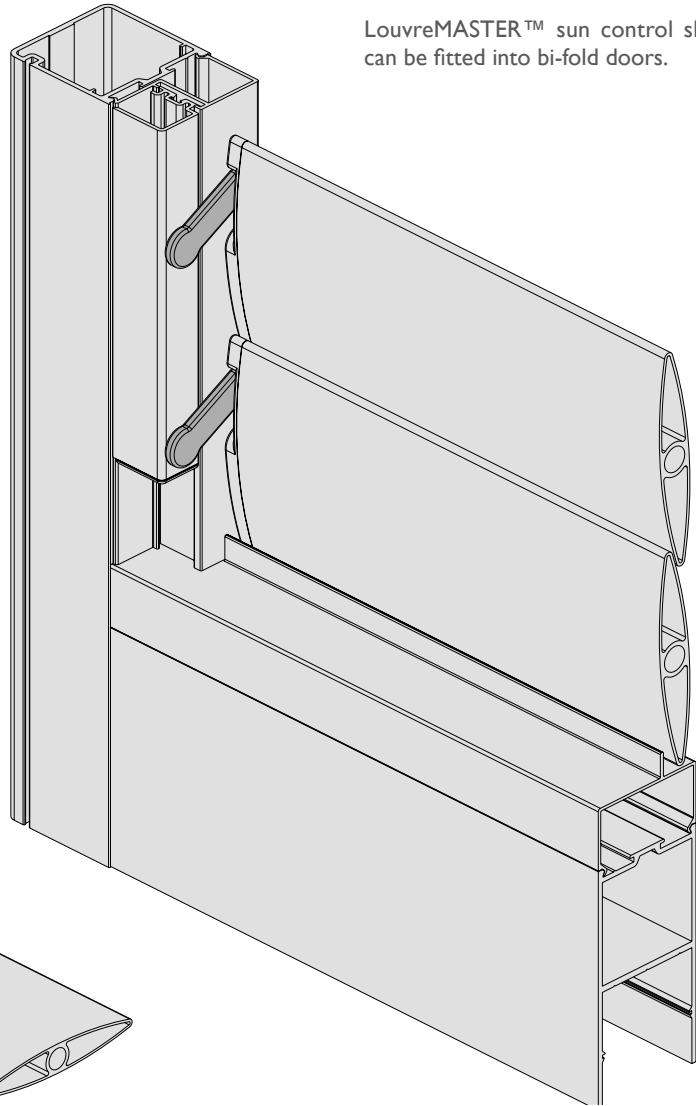
LouvreMASTER™ SUN CONTROL SHUTTERS

LouvreMASTER™ adjustable aluminium shutter adaptors snap into Series 52 door panel. The isometric detail right shows the blades in the closed position.

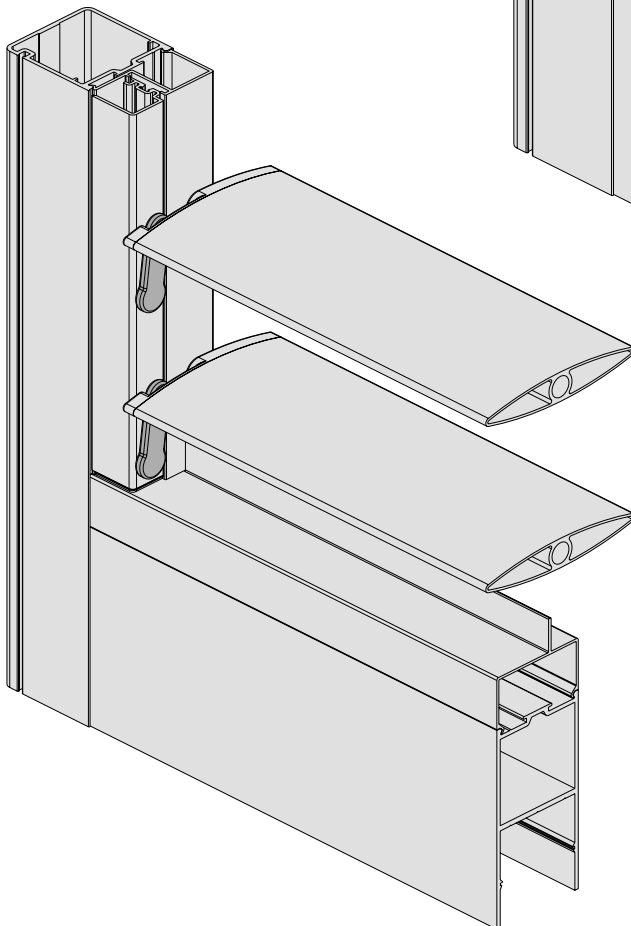
Refer Series 417 LouvreMASTER™ for details.



CAD file: DWG
417.LVR.5



LouvreMASTER™ sun control shutters can be fitted into bi-fold doors.



LouvreMASTER™ sun control shutters (Series 417) can be fitted into a large variety of AWS products:

- Series 411 ViewMASTER™ Bi-fold doors and windows.
- Series 412 ViewMASTER™ Bi-fold doors.
- Series 410 FoldMASTER™ Bi-fold doors and windows.
- Series 52 Hinged or sliding doors.
- Series 400 awning and casement windows.