DESIGNER SERIES | THERMAL HEART™

Series 731

Thermally Broken Sliding Door

VANTAGE® WINDOWS & DOORS

AWS
ARCHITECTURAL WINDOW SYSTEMS PTY LTD

DATE: MARCH 2021. REPLACES: AUGUST 2020.

Series 731
Thermally Broken Sliding Door

DATE: MARCH 2021
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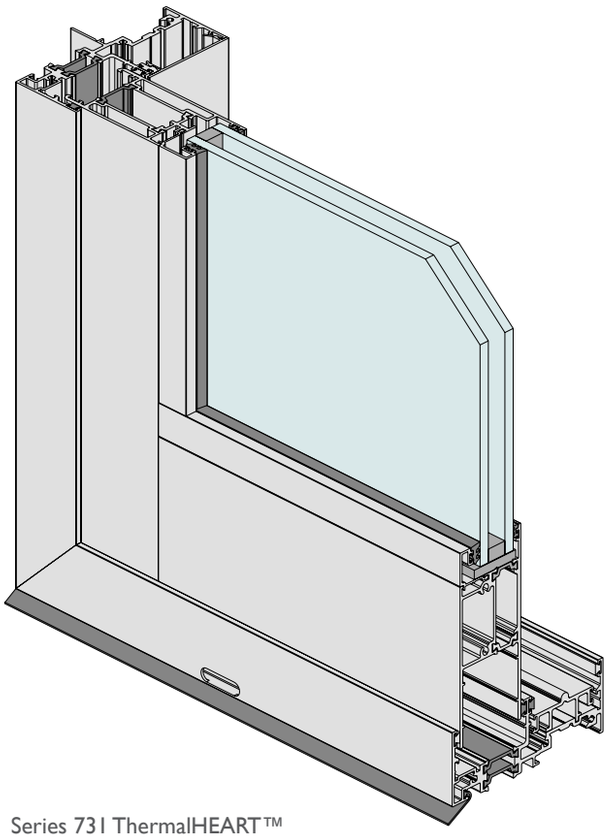
SCALE: NOT TO SCALE

KEY FEATURES / PERFORMANCE CHARACTERISTICS



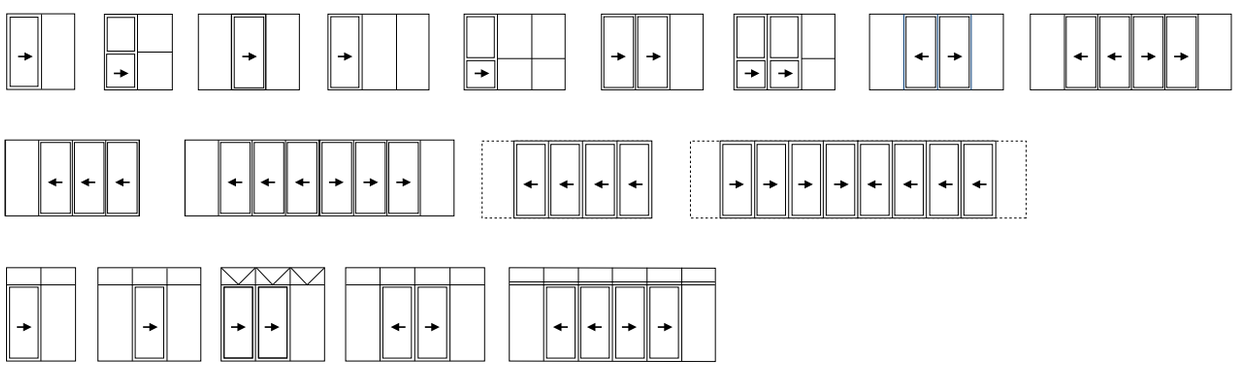
Series 731 ThermalHEART™
Sliding door internal view

- Series 731 incorporates ThermalHEART™ technology giving a true wide thermal break between the outside and inside faces. WERS (Window Energy Rating System) data shows that using the same IGU in a ThermalHEART™ door is 32% more efficient than a standard non-thermally broken door.
- A major advantage with ThermalHEART™ in cold climates is the reduction in internal condensation. This saves potential damage to timber reveals and floor finishes.
- ThermalHEART™ is also suitable for hot climates - ThermalHEART™ Windows and Doors will help to reduce the cooling load on air conditioning units in hot climates.
- We offer ThermalHEART™ in a range of stocked colours including dual colour ClearMIST™ (Clear anodised external with Surfmist powder coat internal).
- The doors have been tested for compliance with the relevant Australian Standards and achieved a high water resistance of 300Pa this makes the product suitable for most residential applications.
- Low air infiltration, makes the product suitable for air conditioned buildings.
- The extra strong door stiles allow over size door panels to be fabricated, refer Pascal rating tables later in these notes.

Maximum Panel Height*	2640mm
Maximum Panel Width*	1995mm
Maximum Glass Thickness	≤ 32mm

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

TYPICAL CONFIGURATIONS



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SOUND REDUCTION

A number of glass combinations have been tested in a similar door system. Panel stiles were fitted with co-extruded Santoprene fin seals.

Glass Description		
6.38mm Laminated glass	31dB(A)	RW32
19mm Insulating glass unit	32dB(A)	RW33

WERS RATINGS

Double Glazed

Glass Description	COOLING	HEATING	Uw	SHGCw	Tvw	Inf
4Clr/10Gap/4Clr	44%	45%	3.3	0.55	0.58	0.53
4Clr/10Gap/4EA	50%	49%	2.7	0.51	0.53	0.53
4Clr/10Ar/4EA	50%	51%	2.5	0.52	0.53	0.53
4Az/12Gap/3EA	64%	37%	2.7	0.30	0.45	0.53
5Clr/8Gap/5Clr	45%	43%	3.4	0.53	0.58	0.53
5EG/8Ar/5EA	64%	38%	2.6	0.31	0.44	0.53
6Clr/12Gap/6Clr	47%	44%	3.2	0.52	0.57	0.53
6Clr/12Gap/6EA	51%	49%	2.7	0.49	0.53	0.53
6EG/12Gap/6Clr	62%	31%	3.2	0.30	0.42	0.53
6EG/12Gap/6EG	67%	35%	2.7	0.26	0.39	0.53

2D & 3D CAD FILES AVAILABLE

GO TO: www.specifyaws.com.au

CAD file: DWG and PDF 730.SLD

MORE INFORMATION

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

HOW TO SPECIFY

SYSTEM NAME

Vantage Series 731 ThermalHEART™ Sliding Door

FINISH

Powder Coat

Anodised

COLOUR

Select from the ThermalHEART range of approved powder coat or anodising colours. Dual colour options available.

GLASS

Specify thickness ≤ 32mmSpecify 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 sliding doors are the same. If you want your doors to perform, keep the elements on the outside where they belong and operate smoothly for years to come there are some things you should check/compare when choosing your supplier - compare us with the others.

FEATURE	Series 731	Opposition
True thermal break The Vantage Series 731 sliding door frame and panels are thermally broken.	**YES**	
Thick Insulating Glass Units (IGU's) The Vantage Series 731 sliding door will accept very thick IGU's up to 32mm thick. Matching fixed sidelights and awning overlights will also accept glass up to 32mm thick.	**YES**	
Will the door keep the water out - has it been tested? The Vantage Series 731 sliding door has been successfully tested to keep water out. The door will resist up to 300Pa of water.	**YES**	
Is the product suitable for air-conditioned apartments? Very low air infiltration makes the product ideal for air-conditioned buildings.	**YES**	
Does the door comply with the relevant Australian Standards All sliding doors should comply but it pays to ask for written proof.	**YES**	
Multiple stackers We offer numerous door configurations including multiple stacking options. Recessed doors are also available including types 'XX', 'XXX' and 'XXXX'.	**YES**	
Clean frame lines All unwanted frame recesses are closed off with flat fillers inside and out. Minimal sill recess and also minimal visible sill drain holes improve visual appearance. Both frame and panels are clean and square. Tall bottom rail standard on Magnum™ door panels.	**YES**	
Recess sill option With a flat sill design we can offer a completely recessed sill detail, shown on later page.	**YES**	
Series 731 sliding doors can be fitted with Centor S1 retractable screens.	**YES**	
Strong panels We have designed this door for very exposed locations with clean stiles.	**YES**	
Numerous locking options including mortice locks We offer a large variety of locks and pull handles. For the ultimate finish we also have mortice locks with raised 316 stainless steel pull handles or recessed finger pulls.	**YES**	
Sliding doors can be coupled to windows without visible rivets.	**YES**	

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DESIGN FEATURES

The Series 731 Sliding door has been designed to compliment our existing range of Designer Series ThermalHEART™ products.

Series 731 incorporates ThermalHEART™ technology giving a true wide thermal break between the outside and inside faces. WERS (Window Energy Rating System) data shows that using the same IGU in a ThermalHEART™ door is 32% more efficient than a standard non-thermally broken door.

A major advantage with ThermalHEART™ in cold climates is the reduction in internal condensation. This saves potential damage to timber reveals and paint finishes.

ThermalHEART™ is also suitable for hot climates - ThermalHEART™ Windows and Doors will help to reduce the cooling load on air conditioning units in hot climates

We offer ThermalHEART™ in a range of stocked colours including dual colour ClearMIST™ contact your local Vantage fabricator for details.

The doors have been tested for compliance with the relevant Australian Standards and achieved a high water resistance of 300Pa this makes the product suitable for most residential applications.

Low air infiltration, makes the product suitable for air conditioned buildings.

Doors can be fitted with a range of custom lock and handle sets (ICON™ or MIRO™). For the ultimate finish the ICON™ Stainless Steel 'D' or flush pull can be used in conjunction with secure mortice locking.

We have light and heavy 180° couplers that will join windows to doors without unsightly rivets or screws while maintaining the thermal break.

The 44mm thick stiles are ideal for extra large doors in high wind load areas. Full height doors (2700mm) remove the need for highlights in most applications. We have successfully tested 2700mm x 4000mm 'XXF' and 2700mm x 3000mm 'XF' doors for compliance with the relevant Australian Standards. Achieving very high water resistance, refer water rating requirements pages for performance details on both sills.

Reinforced frame legs are designed to retain the door panels in high wind load areas and help us achieve the high ultimate ratings.

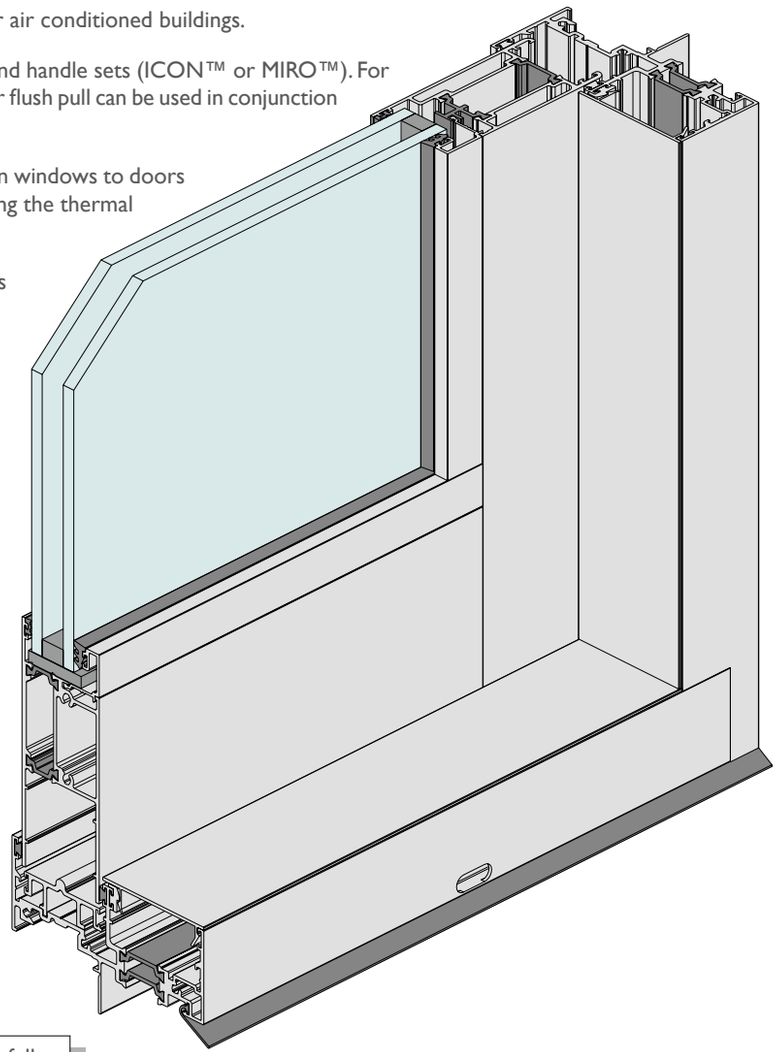
Doors can be fabricated as 'XXF', 'FXX', 'FXXXXF', 'XXXF', 'FXXX', 'FXXXXXXF', 'XF', 'FX', 'FXF', 'XFF', 'FFX', and 'FXXF'

Meeting stiles fitted with custom end closers that restrict water turbulence under extreme conditions.

Square flat faces inside and out.

Unused frame recesses are closed off with snap-in flat fillers for improved appearance and water resistance.

Heavy door panels are fitted with custom designed double bogey wheels for smooth long term operation.



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

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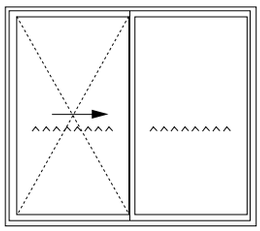
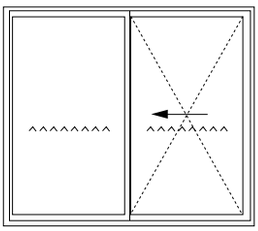
STANDARD CONFIGURATIONS

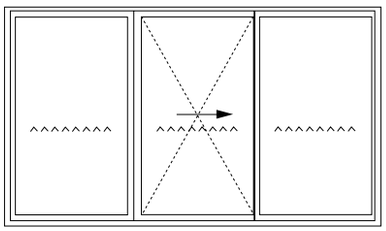




Type 'XF' & 'FX'

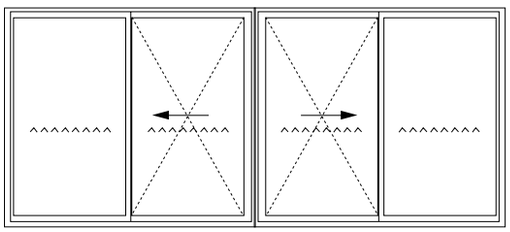
Single track door
Maximum height = 2700mm
Maximum width = 3000mm

Maximum panel weight 105 Kg.



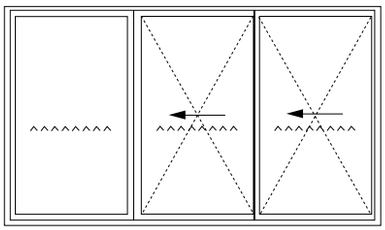
Type 'FXF', 'FFX' & 'XFF'

Single track door
Maximum height = 2700mm
Maximum width = 4500mm



Type 'FXXF'

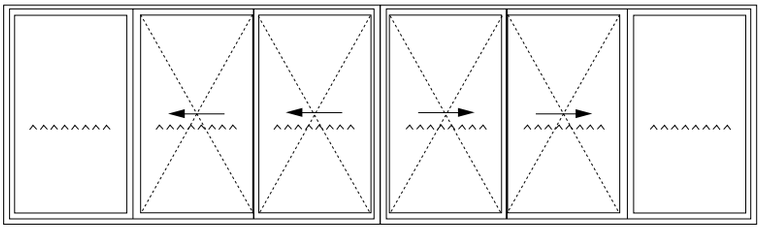
Single track door
Maximum height = 2700mm
Maximum width = 5900mm



Type 'FXX' & 'XXF'

Double track door
Maximum height = 2700mm
Maximum width = 4500mm

Maximum panel weight 105 Kg.



Type 'FXXXXF'

Double track door
Maximum height = 2700mm
Maximum width = 9000mm
Width limited by head and sill stock lengths

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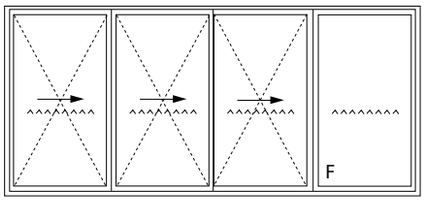
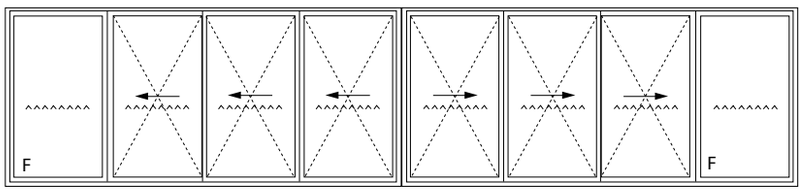


Type 'FXXX' & 'XXXF'

Triple track door

Maximum height = 2700mm
Maximum width = 6000mm

Maximum panel weight 105 Kg.



Type 'FXXXXXXF'

Triple track door

Maximum height = 2700mm
Maximum width = 12000mm
Note: Head and Sill would have to be spliced when width exceeds 6400mm.

Frame Sizes		Ratings		
O/A Height	O/A Width	Serviceability	Serviceability	Ultimate
mm	mm	1/150	1/180	
2400	2400	807 Pa		1561 Pa
2400	2700	739 Pa		1424 Pa

Wind Ratings (Pa) Light Meeting stiles.

Frame Sizes		Ratings		
O/A Height	O/A Width	Serviceability	Serviceability	Ultimate
mm	mm	1/150	1/180	
2400	2400	2047 Pa	2047 Pa	3071 Pa
2400	2700	1868 Pa	1868 Pa	2801 Pa
2700	2400	1575 Pa	1575 Pa	2363 Pa
2700	2700	1428 Pa	1428 Pa	2143 Pa

Wind Ratings (Pa) Heavy Meeting stiles.

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

These tables have been calculated using nominal section properties.
A typical assembly has been tested as per the requirements of AS2047,

Ultimate strength rating has been limited to 4500 Pa.

3000 Serviceability ratings were restricted by the maximum water resistance (300 Pa) achieved on this product.

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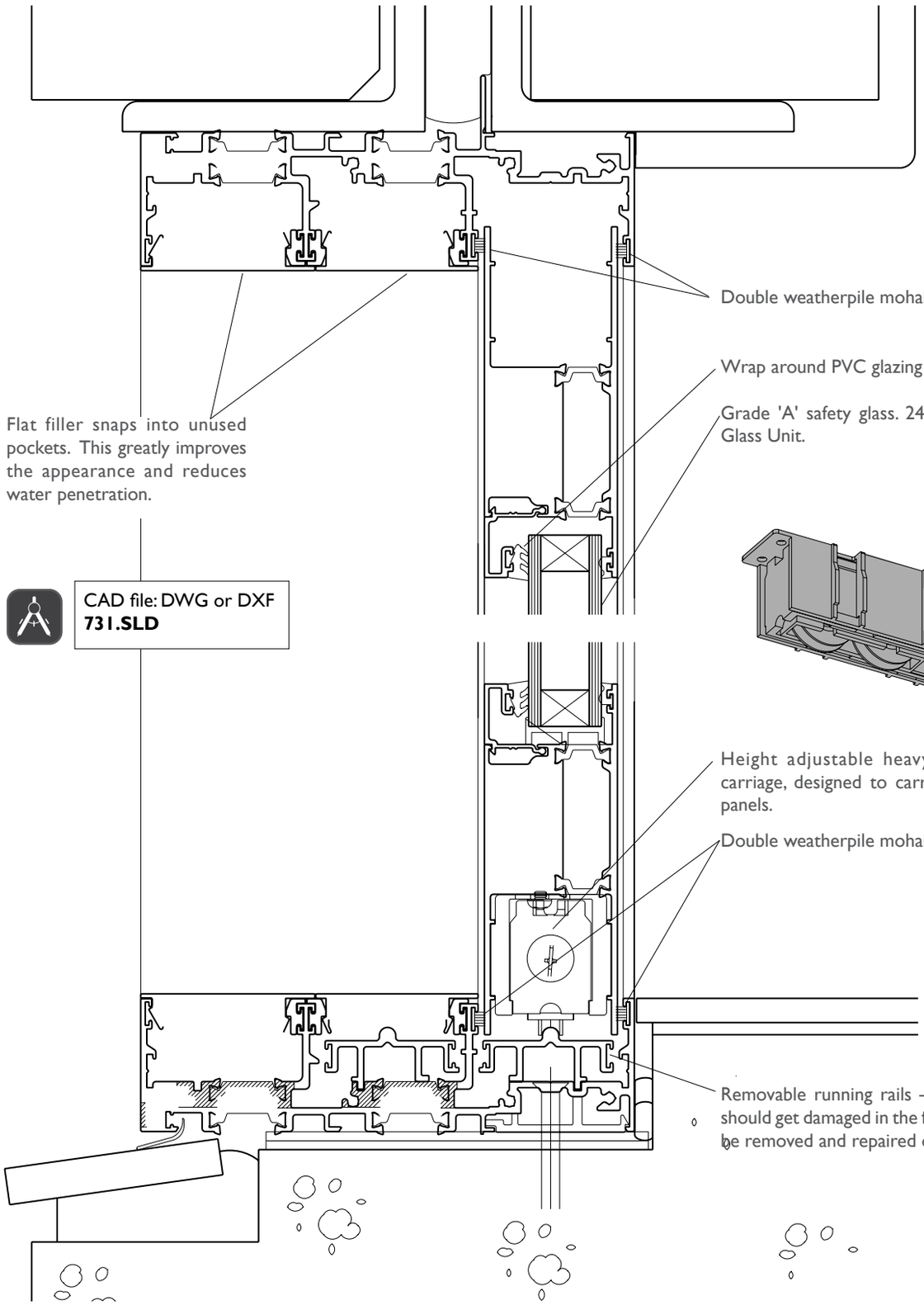
VERTICAL CROSS SECTION THROUGH 'XXF' DOOR



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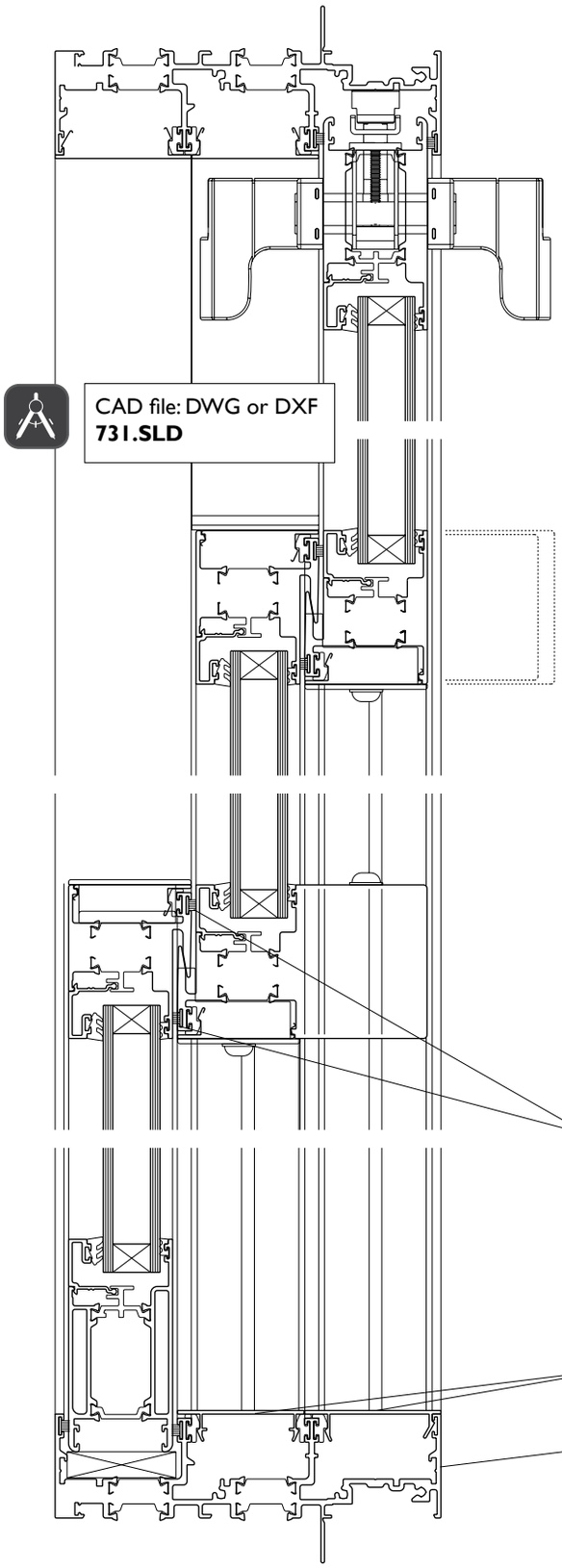
HORIZONTAL SECTION THROUGH 'XXF' MULTI PANEL STACKING DOOR



CAD file: DWG or DXF
731.SLD

ICON™ pull handles with Iseo mortice lock illustrated left. Other lock and pull handle options are shown on following page

Standard light meeting stile combination is ideal for typical residential installations where the frame height is 2400mm or less. The main feature being no internal projection. The heavy meeting stile shown dotted.

In this configuration we have used the heavy meeting stile combination to catch the first door panel.

The middle panel on this three panel stacking door is slightly smaller than the others to allow panels to cassette when open.

Double weatherpile mohair seals.

The 44mm thick panels will accept a variety of glazing beads. The beads shown suit 24mm Insulating Glass Units.

Extruded aluminium flat fillers close off these unused pockets. The fillers are also isolated to reduce the chance of thermal transmission

163mm thick three track frame suits 'stacking doors 'XXF', 'FXX', 'FXXXXF' and cavity sliders 'XXX'.

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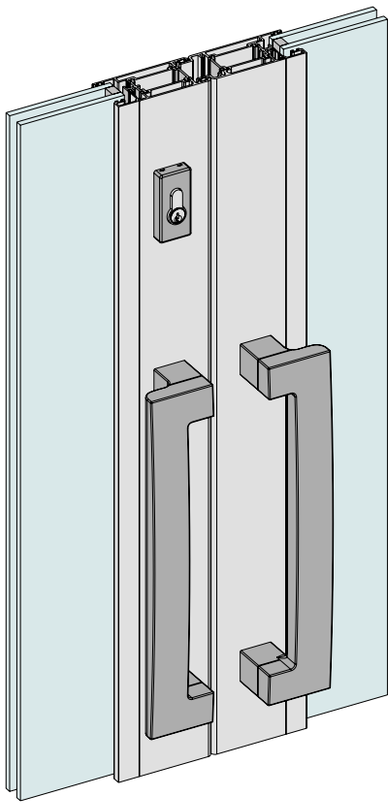
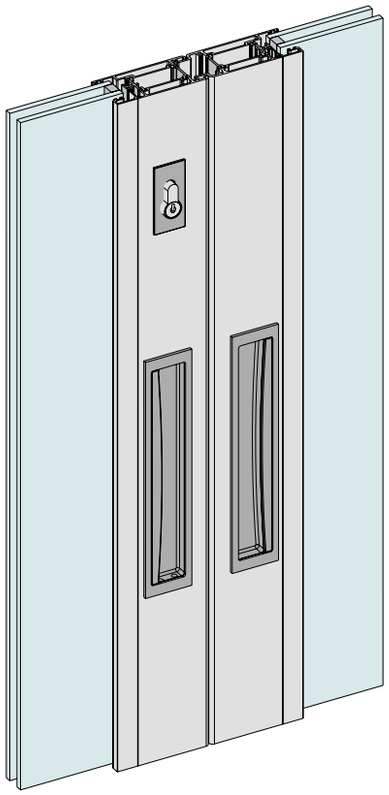
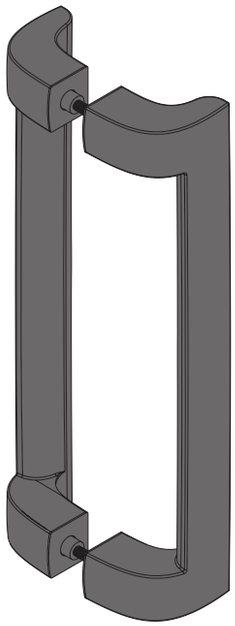
HARDWARE MAKES THE DIFFERENCE



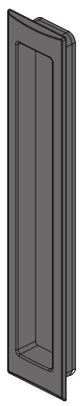
ICON™ S.S. Bold pull handles with mortice lock



ICON™ S.S. Recessed finger pulls with mortice lock



MIRO™ Pull handle with Iseo mortice lock



MIRO™ Recessed Flush Pull

We offer a premium locking option for Series 731 Sliding Doors, Iseo mortice lock with 'D' or recessed finger pulls.

Both ICON™ handle and finger pull options are only available in marine grade 316 stainless steel. The Miro™ pull handle is available in a range of powder coat finishes.

We recommend 'D' pull handles on heavy door panels.

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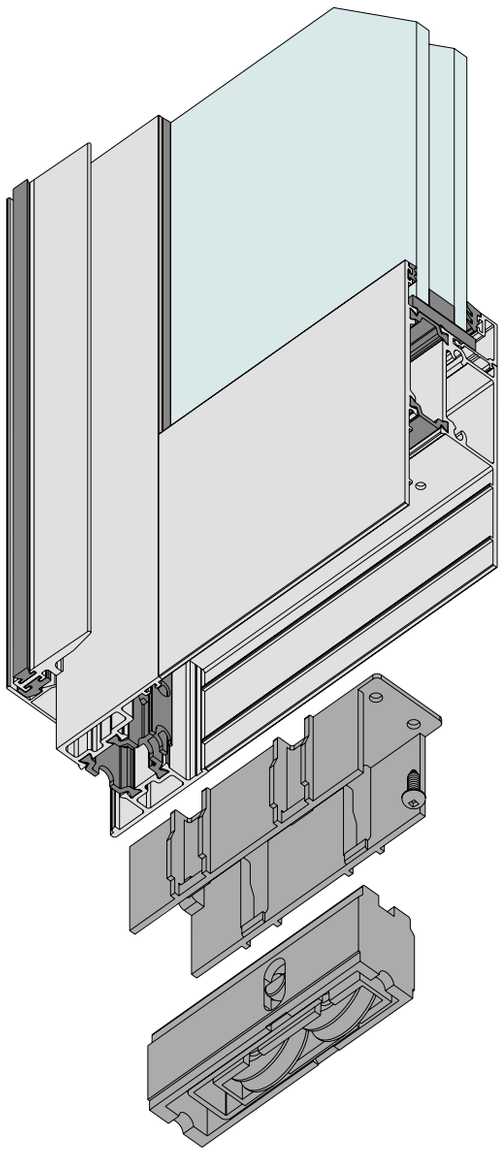


Double Bogey Wheel

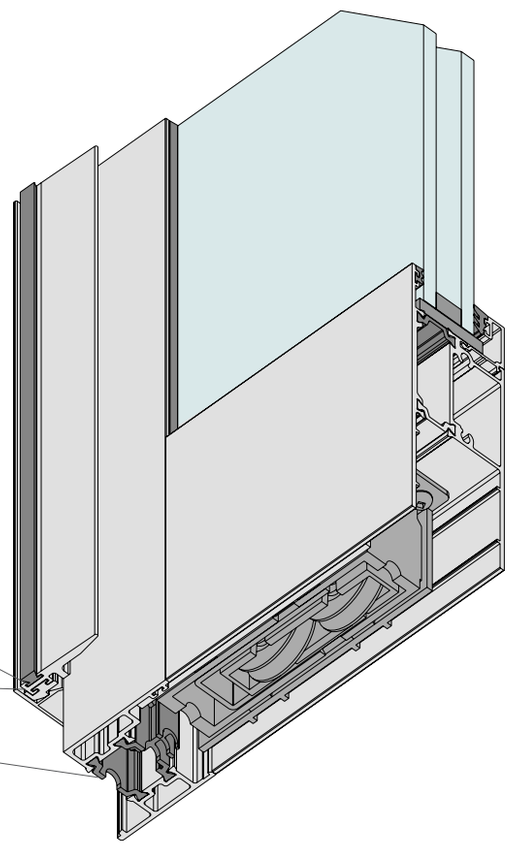
Custom injection moulded nylon wrap around wheel carrier secures the wheel assembly in the bottom rail.

The double bogey wheel illustrated is standard on ThermalHEART™ sliding doors.

The wheel assembly can be removed/replaced without disassembling the door panel.

The wheels can be adjusted (lifted or lowered) via access hole in the edge of the stile with Phillips screw driver. Support the weight of the panel while adjusting the wheel height.

The wheel assembly has been designed to carry very heavy sliding door panels up to 150Kg. The wheel diameter has been matched to the running track. This feature makes the doors run smooth and silent while carrying the weight across the full width of the wheel.



Double weatherpile meeting stile junction.

Meeting stile edge cover thermally isolated from the main body of the stile to reduce the chance of thermal transmission.

All stiles on Series 731 have wide dual thermal strips.

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MEETING STILES

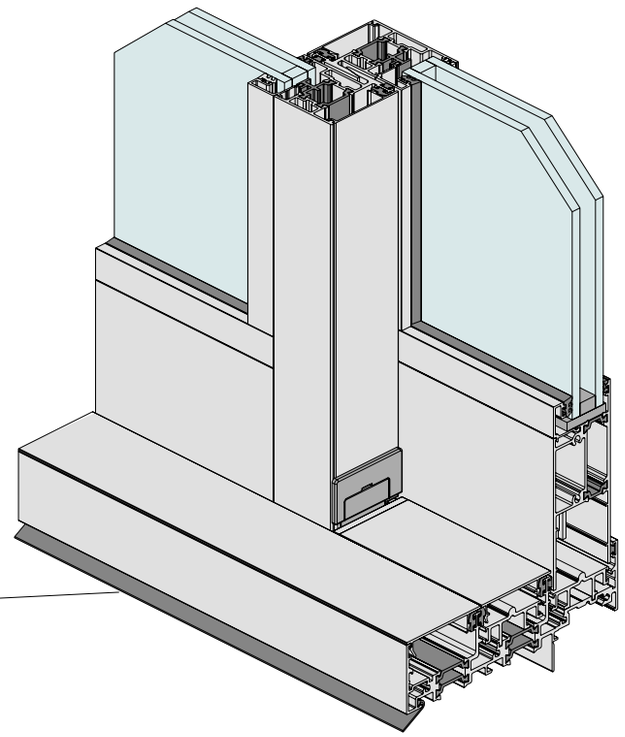
Light Meeting Stile Combination

The light meeting stile combination shown right has been designed to allow us to fit 2400mm high doors with 1350mm wide panels into typical residential installations with 700Pa serviceability wind load.

The clean flat sill detail is ideal for recessing the sill into the floor finish.

Custom injection moulded nylon meeting stile end closers – height adjustable with concealed fixings. These closers contribute significantly to the high performance numbers achieved with these doors in the test chamber.'

Threshold fitted with moulded nylon edge block.

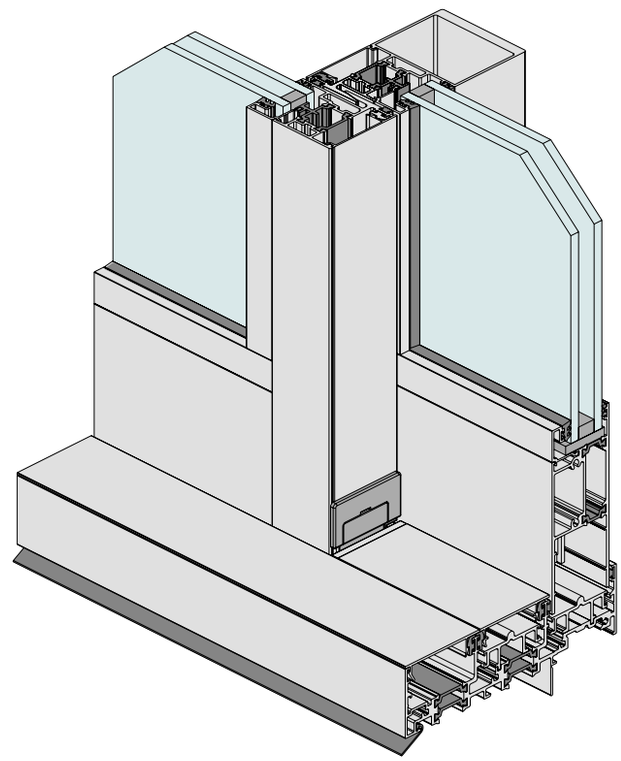


Heavy Meeting Stile Combination

The heavy meeting stile combination with stiffener box on the inside allows us to make 2700mm high doors in high wind load areas.

Removable glazing beads on all four sides make installing expensive Insulating Glass Units easier, with less chance of breakage. IGU's in door panels will be very heavy and you can't waste time installing the unit into the door panel.

Meeting stiles and isolated covers have been designed to maintain true dual colour separation if the ClearMIST™ option has been selected.



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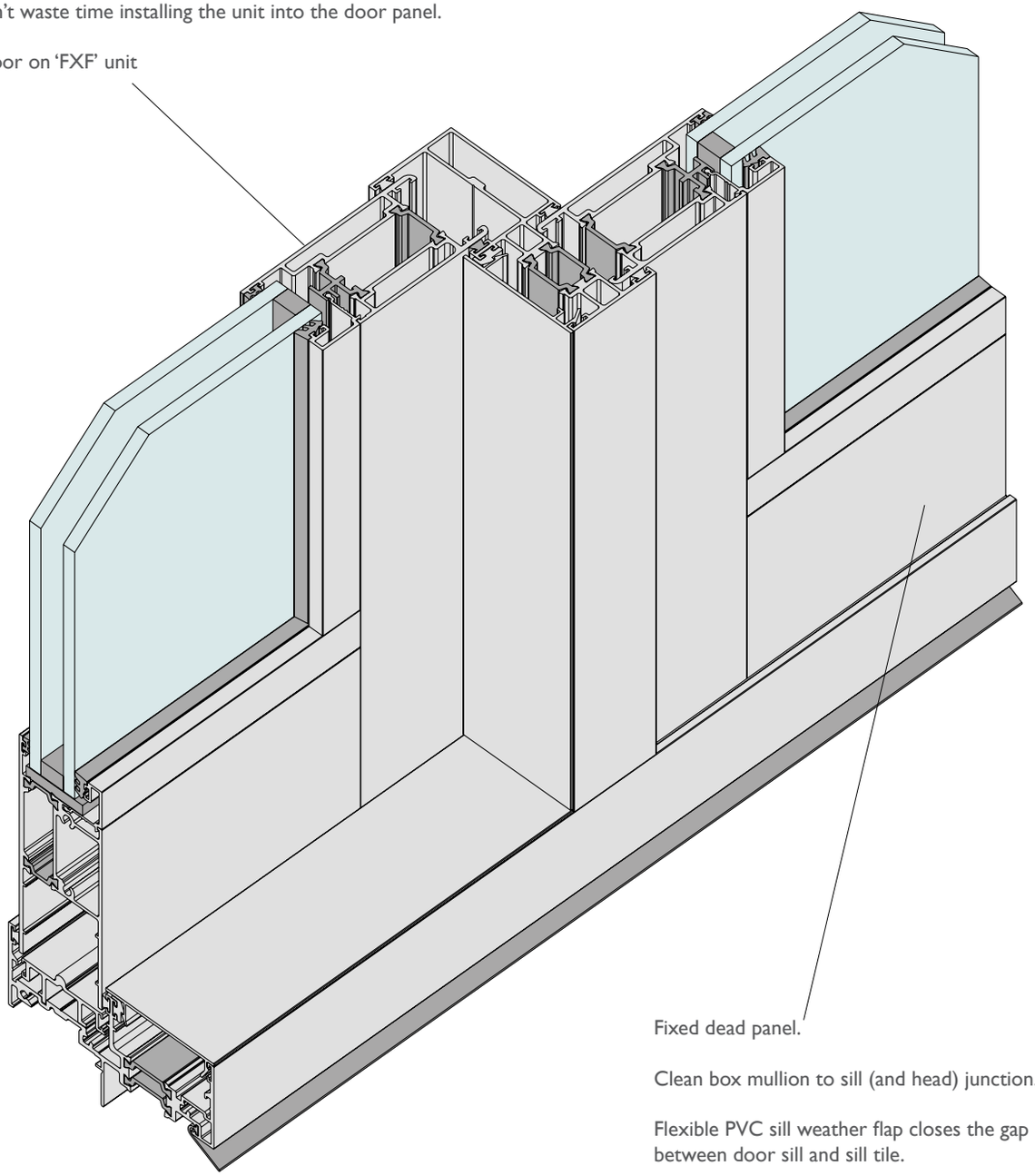
'FXF' MULLION

This 'FXF' fixed mullion has been designed to maintain the true thermal break.

The mullion filler cover has an isolation strip on the central edge to maintain the thermal break.'

Removable glazing beads on all four sides make installing expensive Insulating Glass Units easier, with less chance of breakage. IGU's in door panels will be very heavy and you can't waste time installing the unit into the door panel.

Opening door on 'FXF' unit



Fixed dead panel.

Clean box mullion to sill (and head) junction.

Flexible PVC sill weather flap closes the gap between door sill and sill tile.

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OPTIONAL EXTERNAL FLYDOOR FRAME'

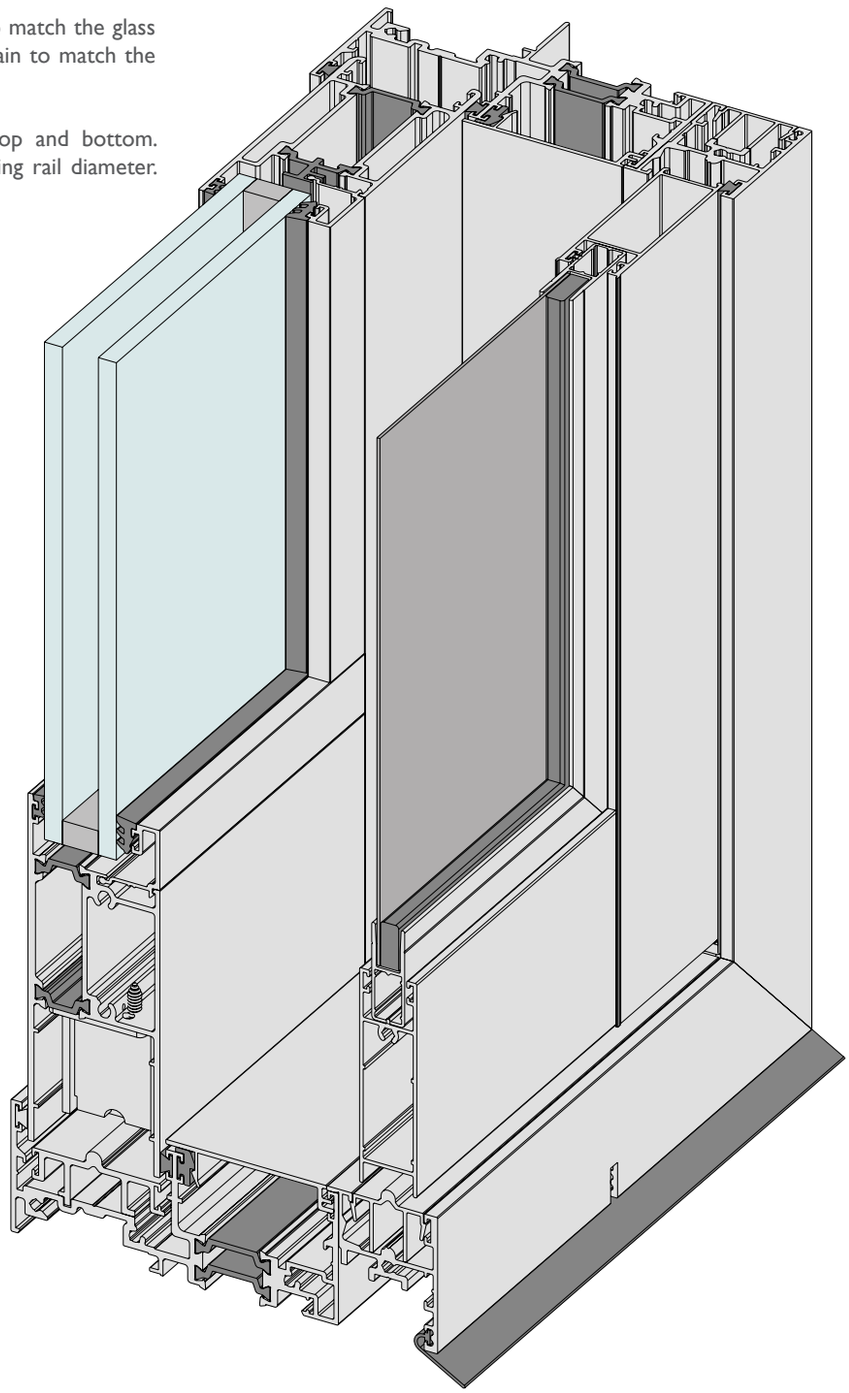
The detail on this page shows an applied single flydoor frame designed for single track sliding doors like type 'XF'.

This flydoor frame is also 44mm high and nests onto the main frame.

Custom sliding flydoor sections designed to match the glass door panel. Flydoor frame is square cut, again to match the glass doors.'

Flydoors runs on spring loaded wheels top and bottom. Wheels designed to match the frame running rail diameter. This ensures silent smooth running.

We also offer internal S1 retractable screen for Series 731 sliding doors.



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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 731 Thermal Heart™ sliding door. The screen can be fitted to any of the Thermal Heart™ sliding door configurations including the maximum opening 'XXF', 'FXXXXF' up to 8890mm wide (with Standard weave mesh).

The S4 screen frame can be coloured to match the Thermal Heart™ 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.

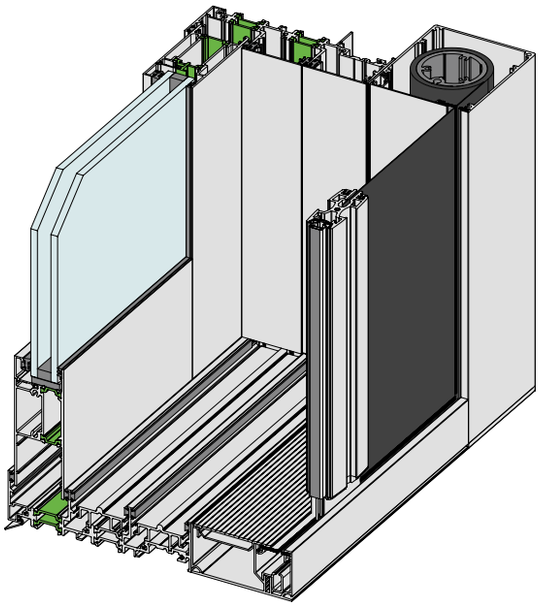
A shock absorption system allows visitors taken in by the screen's unobtrusiveness and near invisibility to walk away with little more than a surprise.

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 blockout 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 731

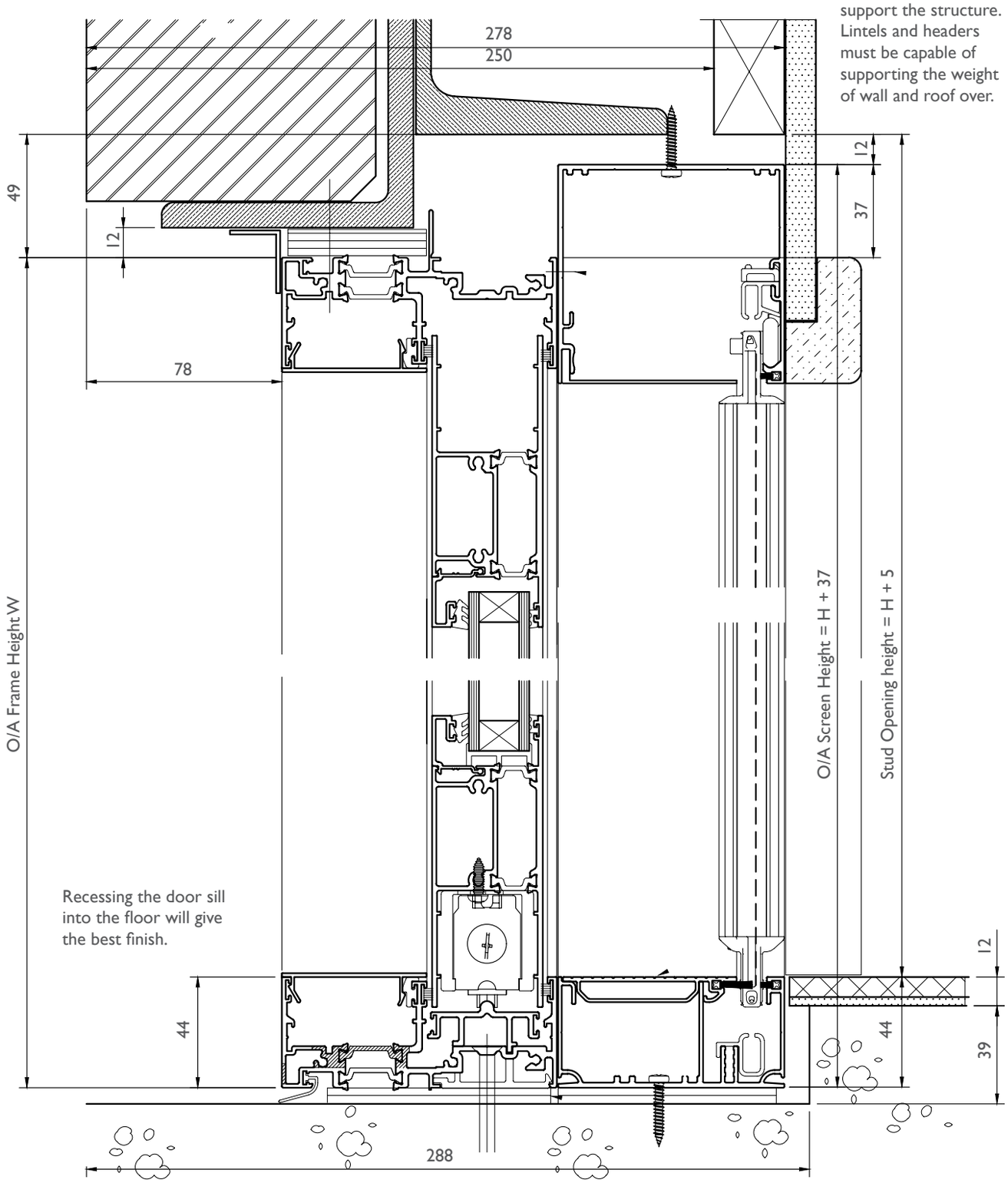
Thermally Broken Sliding Door

DATE: MARCH 2021
REPLACES: AUGUST 2020
SCALE: NOT TO SCALE

TYPICAL VERTICAL CROSS SECTION - CENTOR S4 SCREEN

Type 'XF' door illustrated on this page. Screen can also be fitted to the stacking frames.

Sliding doors cannot support the structure. Lintels and headers must be capable of supporting the weight of wall and roof over.

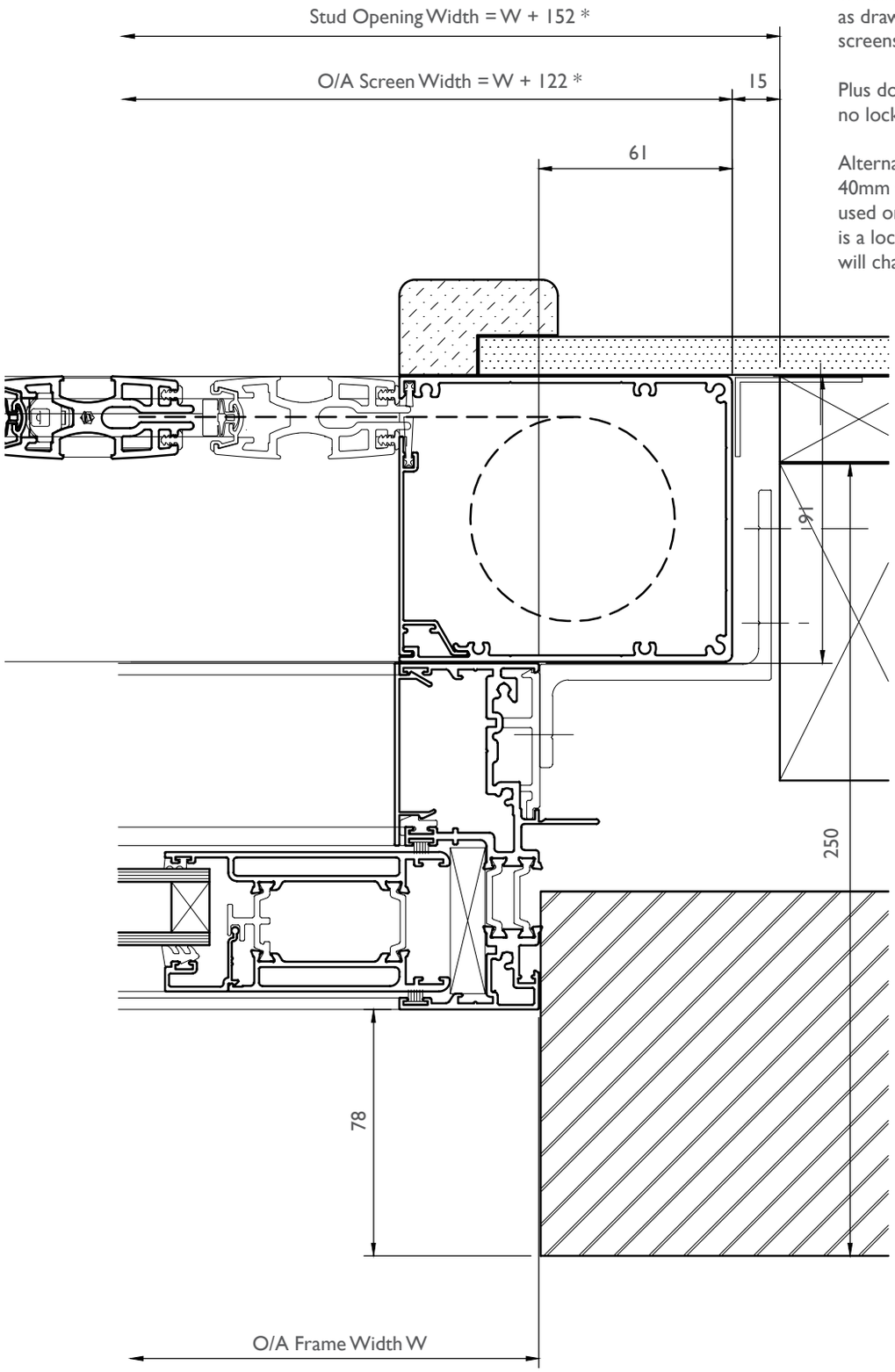


Series 731

Thermally Broken Sliding Door

DATE: MARCH 2021
REPLACES: AUGUST 2020
SCALE: NOT TO SCALE

TYPICAL HORIZONTAL CROSS SECTION - CENTOR S4 SCREEN



Canister with jamb (setback 61mm as drawn) on single direction screens on all bi-fold doors.

Plus double screens when there is no locks at jam.

Alternatively, recess canisters 40mm when double screens are used on bi-fold doors where there is a lock at the jambs. The setback will change from 61mm to 101mm.

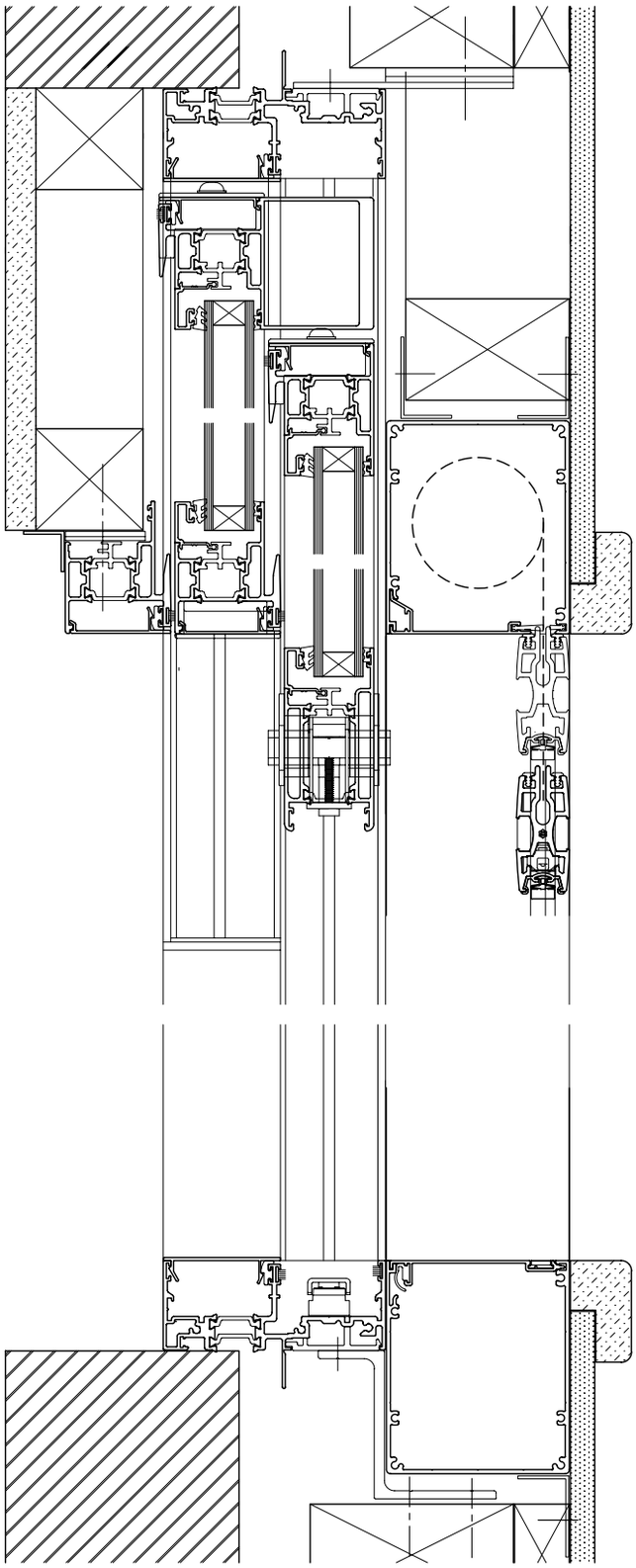
* NOTE: These dimensions suit single direction screens on XF and FX, plus FXF, XFF, FFX and FXXF.

Series 731

Thermally Broken Sliding Door

DATE: MARCH 2021
REPLACES: AUGUST 2020
SCALE: NOT TO SCALE

TYPICAL HORIZONTAL CROSS SECTION - S4 RETRACTABLE SCREEN



This detail shows a two panel 'XX' cavity sliding door fitted with S4 retractable screen.

The second panel aligns with the fixed post when in the fully open position as shown left.

The first panel projects slightly as drawn to keep the lock away from the second panel stile.

We recommend the recess finger pulls on cavity sliding doors to allow the panels to open as wide as possible.

The jamb is rebated to accept the S4 frame.

On this 'XX' door fitted with S4 screen the wall has to be 278mm thick – excluding internal lining.

Series 731
Thermally Broken Sliding Door

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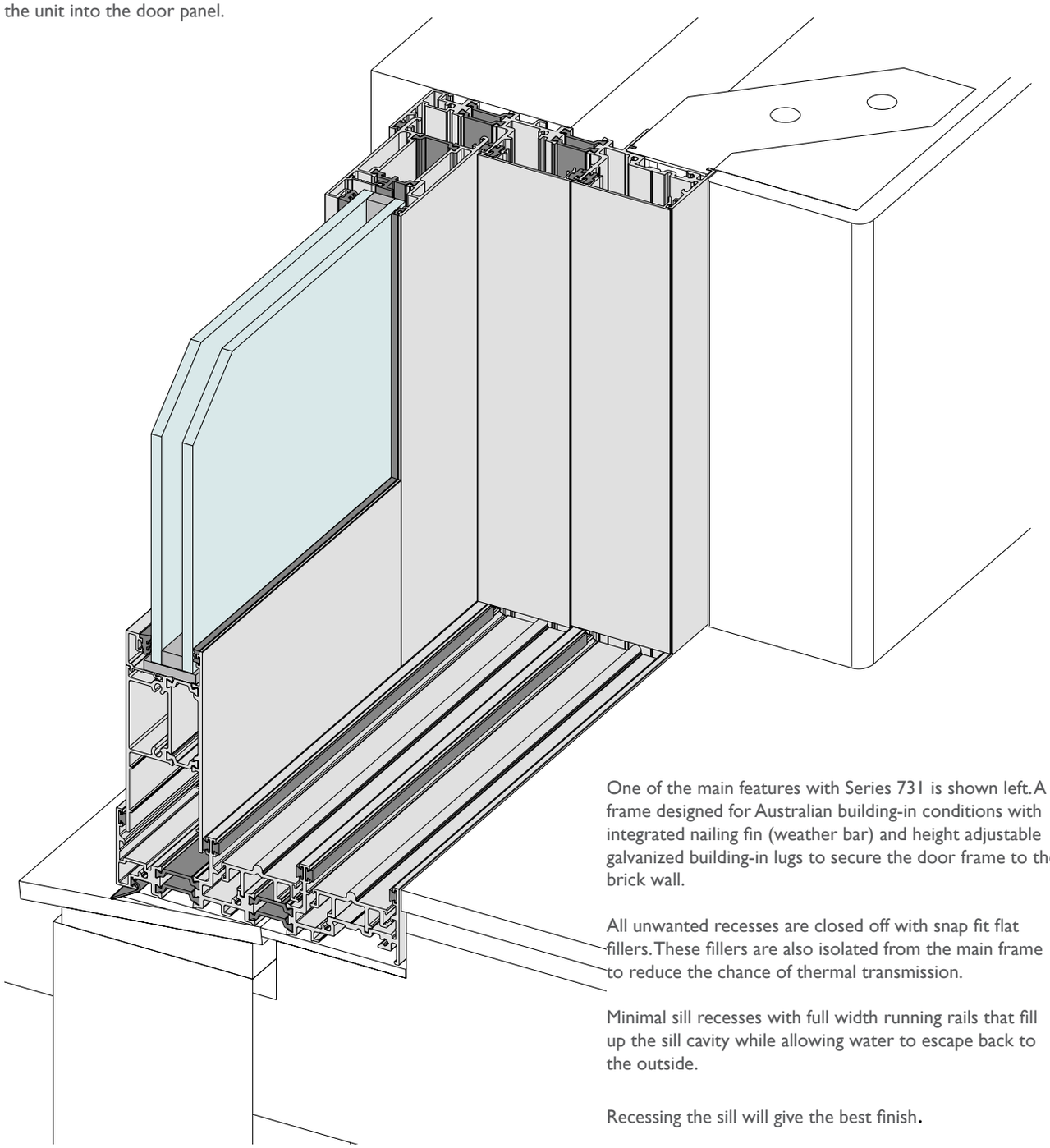
THREE PANEL 'XXF' FRAME- INTERNAL VIEW

On three panel frames the frame is thermally broken twice to maintain the true thermal break as the stacking doors move across the frame.'

Removable glazing beads on all four sides make installing expensive Insulating Glass Units easier, with less chance of breakage. IGU's in door panels will be very heavy and you can't wast time installing the unit into the door panel.



One of the main features with Series 731 is shown left. A frame designed for Australian building-in conditions with integrated nailing fin (weather bar) and height adjustable galvanized building-in lugs to secure the door frame to the brick wall.

All unwanted recesses are closed off with snap fit flat fillers. These fillers are also isolated from the main frame to reduce the chance of thermal transmission.

Minimal sill recesses with full width running rails that fill up the sill cavity while allowing water to escape back to the outside.

Recessing the sill will give the best finish.

Series 731
Thermally Broken Sliding Door

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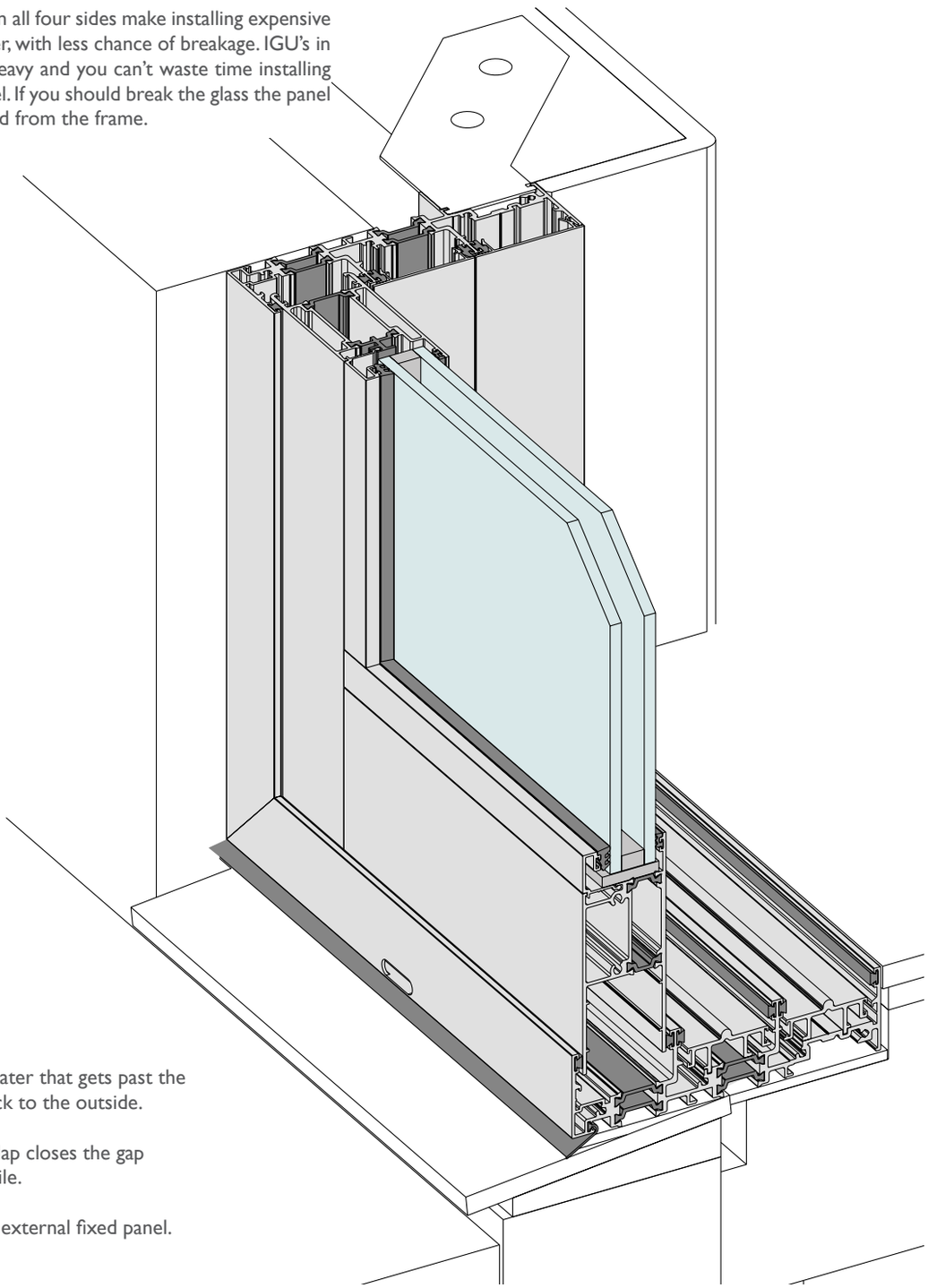
THREE PANEL 'XXF' FRAME- EXTERNAL VIEW

Series 731 door frames can be fitted with applied external fly frames, internal S1 retractable roller screens or without screens as shown right.

The clean square 44mm frame is maintained on all four sides.

Removable glazing beads on all four sides make installing expensive Insulating Glass Units easier, with less chance of breakage. IGU's in door panels will be very heavy and you can't waste time installing the unit into the door panel. If you should break the glass the panel doesn't have to be removed from the frame.



Drainage slots allow any water that gets past the panel weatherpile seals back to the outside.

Flexible PVC sill weather flap closes the gap between door sill and sill tile.

The detail right shows the external fixed panel.