

Design Features :

We offer both external and internal opening hinged doors that have been designed to complement our other thermal products.

Series 729 incorporates Thermal Heart™ 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 Thermal Heart™ awning is 32% more efficient than a standard non-thermally broken window.

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

Thermal Heart is also suitable for hot climates it that takes more energy to cool a home in a hot area compared to heating a home in a cold climate zone.

We offer Thermal Heart™ 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 380Pa for external swing doors and 150Pa water resistance for internal opening doors, 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.

Sharp square external glazing beads are standard.

100mm frame and transom have a soft 2mm internal radius.

Doors can be fitted with a variety of custom lever sets (ICON or Miro) with Lever Compression Lock (LCL) motor as standard. After closing the door panel you can lift the handle to activate the compression feature. This throws bolts into head and sill and deploys the central locking bolt. The individual features of all three furniture sets are shown later in this section.

ICON lever sets are available in 316 Stainless steel finish.

The door frame is compatible (appearance, strength and performance) with the high performance Thermal Heart™ bi-fold doors and matches the Thermal Heart™ awning window. We have light and heavy 180° couplers that will joint windows to doors without unsightly rivets or screws while maintaining the thermal break.

Fixed lowlights/sidelights use the matching Series 726 fixed frame. The glazing beads are the same as adjoining door panels.

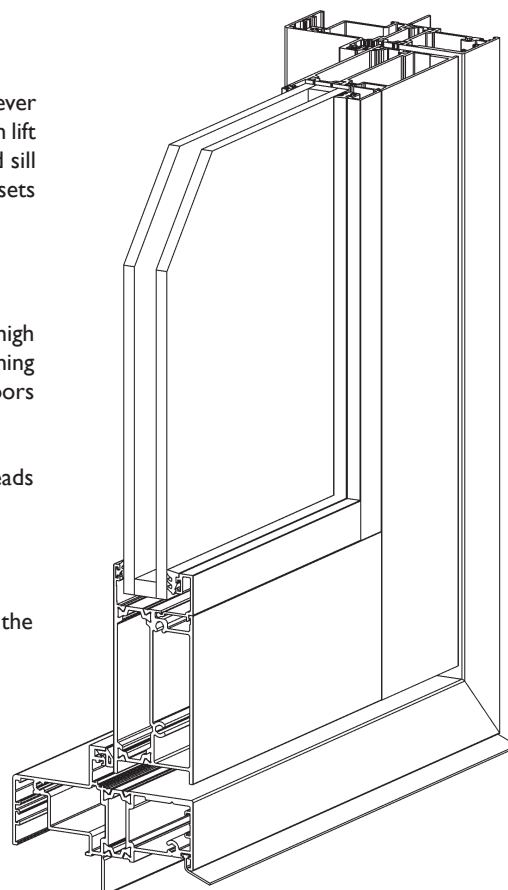
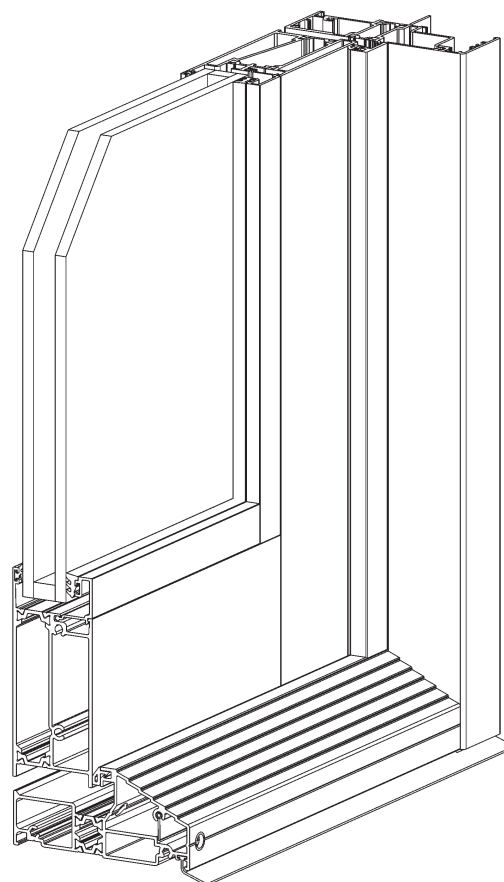
Panels are hung on heavy duty custom hinges, refer details later in this section.

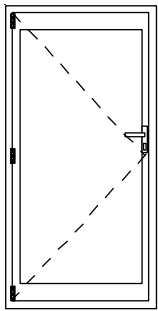
We also offer custom parliament hinges for external swing doors that allow the panel to lay back against the wall, refer details later in this section.

Panels and sidelights will accept a variety of glass thicknesses from 4mm single panes to 32mm insulating glass units.

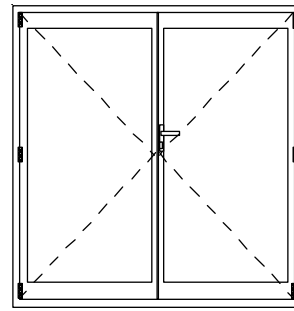
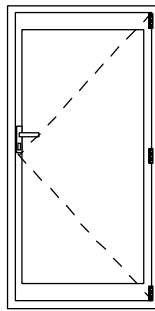
WERS (Window Energy Rated System) tables are in section 04. Sound reduction ratings can be found in section 55.

Australian registered design.





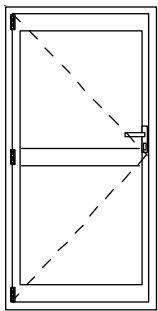
Standard lock
 Lever latch set
 (key both sides)



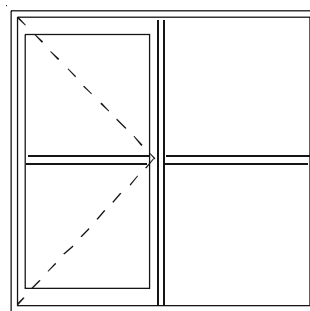
Type. '**LEH**' (external swing)
 Type. '**LIH**' (internal swing)

Type. '**REH**' (external swing)
 Type. '**RIH**' (internal swing)

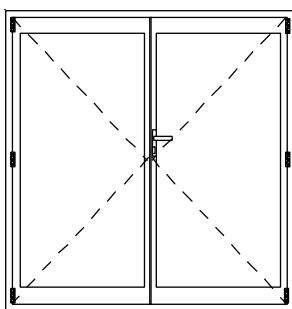
Type. '**EHH**' (external swing)
 Type. '**IHH**' (internal swing)



Optional
 76mm Chair rail can be applied through door and sidelight.



Optional
 Sidelight created by coupling Series 726 Fixed light to door frame with thermally broken 'I' coupler.



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,

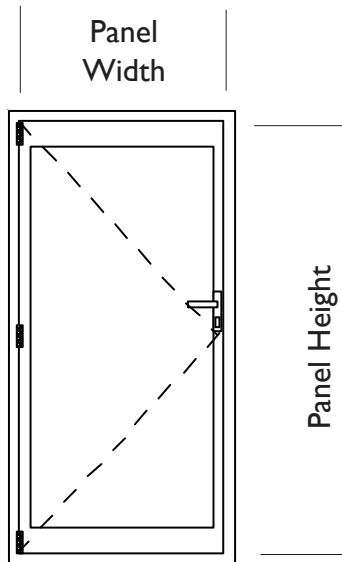
Ultimate strength rating has been limited to 4500 Pa.

2200 Serviceability ratings were restricted by the maximum water resistance (300Pa) achieved on this product.

Blank Denotes rating under 500 Pa.

Frame Sizes		Ratings		
O/A Height mm	O/A Width mm	Serviceability I/150	Serviceability I/180	Ultimate
2100	1600	2300 Pa	1916 Pa	4500 Pa
2100	1800	2066 Pa	1722 Pa	4416 Pa
2200	1600	1979 Pa	1649 Pa	4453 Pa
2200	1800	1775 Pa	1479 Pa	3986 Pa
2300	1600	1715 Pa	1429 Pa	4045 Pa
2300	1800	1536 Pa	1280 Pa	3616 Pa
2400	1600	1497 Pa	1247 Pa	3691 Pa
2400	1800	1339 Pa	1116 Pa	3296 Pa
2500	1600	1314 Pa	1095 Pa	3382 Pa
2500	1800	1175 Pa	979 Pa	3018 Pa
2600	1600	1160 Pa	967 Pa	3111 Pa
2600	1800	1036 Pa	863 Pa	2774 Pa

Table 85.1 Wind Ratings (Pa)
 Meeting stiles.



Maximum French Door Panel Sizes with Cast Hinges

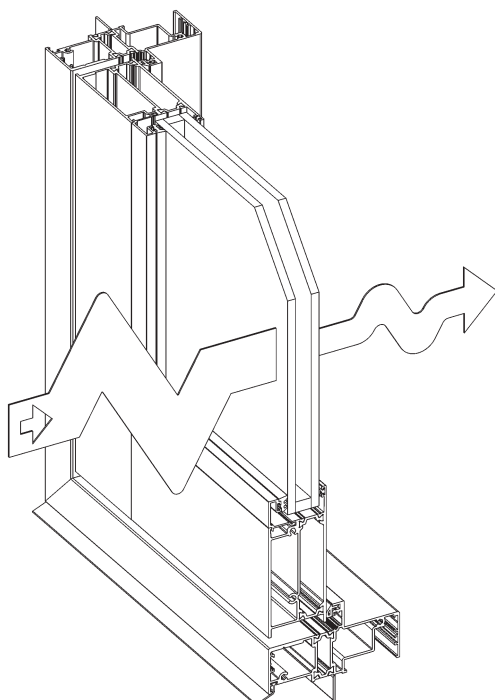
Hinge quantity	3. hinges - height less than or equal to 2200mm 4. hinges - height greater than to 2200mm.	
Maximum weight	with 3. hinges	45 kg
	with 4. hinges	60 kg
Maximum panel width	900mm	
Maximum panel height	2600mm - Will vary depending on weight.	

with Parliament Hinges

Maximum weight	with 3. hinges	50 kg
	with 4. hinges	60 kg
Maximum panel width	900mm	
Maximum panel height	2600mm - Will vary depending on weight.	

Note: Thermal Heart hinged doors are fitted with multi-point locking Lever Compression Locks as standard.

Most of the features on this product can be seen in full colour on our web site:
www.vantagealuminium.com.au



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.

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

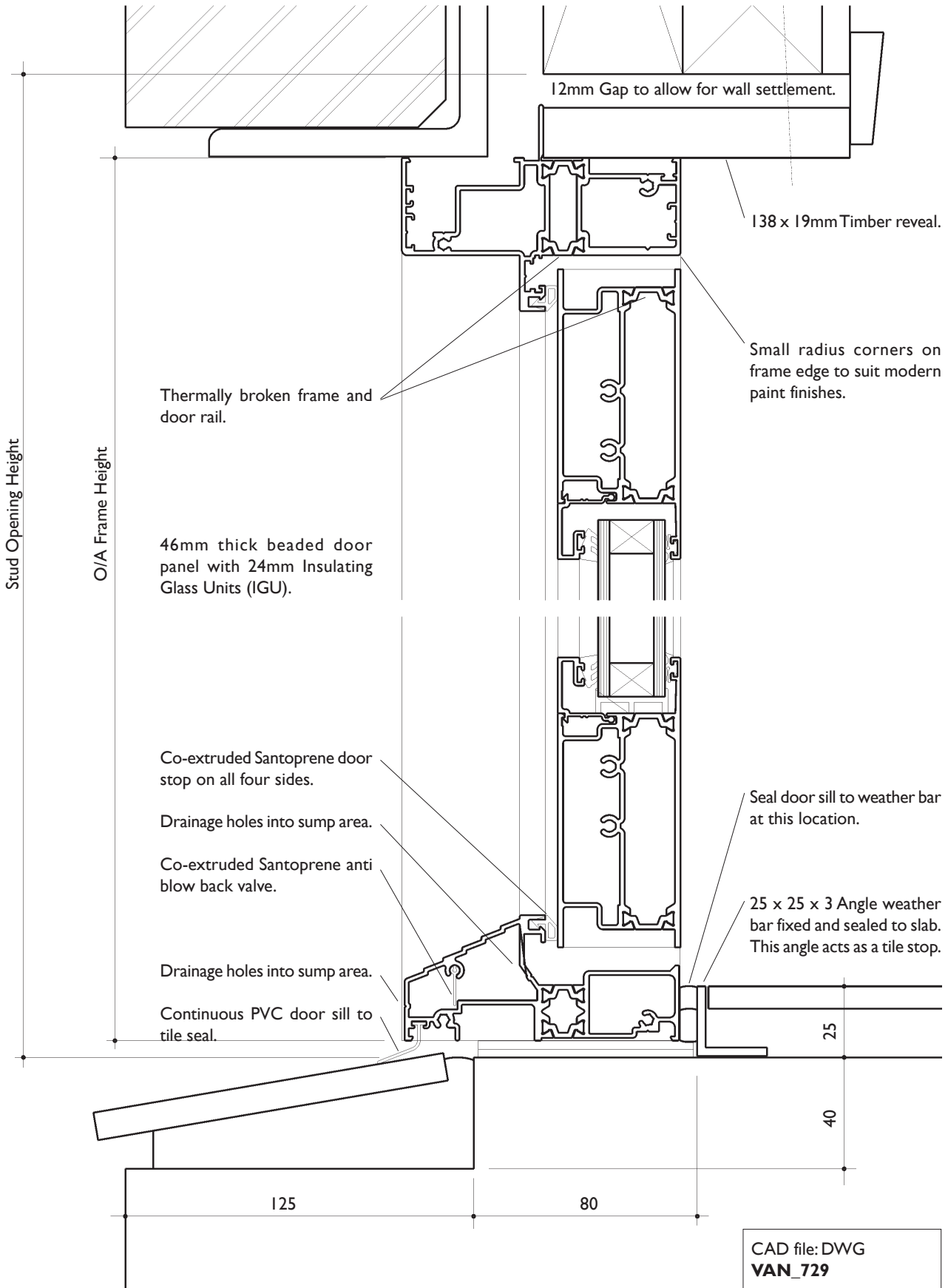
Go to the SoundOUT section 55 for other options.



Thermal Transmission WERS

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

Architectural Information
Series 729 Thermal Heart™ Hinged Door
 Internal Swing - Vertical Section



Design Features - Internal Opening Doors:

The perimeter frame has been designed to match any adjoining bi-fold or awning frames. The frames are all 100mm wide.

The thermal break is maintained through frame and door panel.

Low line splayed sill / threshold with inbuilt drainage sump.

Internal swing doors can be fitted with custom flydoor adaptor on the outside. This adaptor allows us to secretly fit screen doors in front of the main glass door.

The adaptor is spaced the flydoor the right distance away from the glass door panel to suit the custom lever sets (ICON, Miro and ANDO).

We have tested this internal swing door for compliance with relevant Australian Standards achieving:

150Pa water resistance.

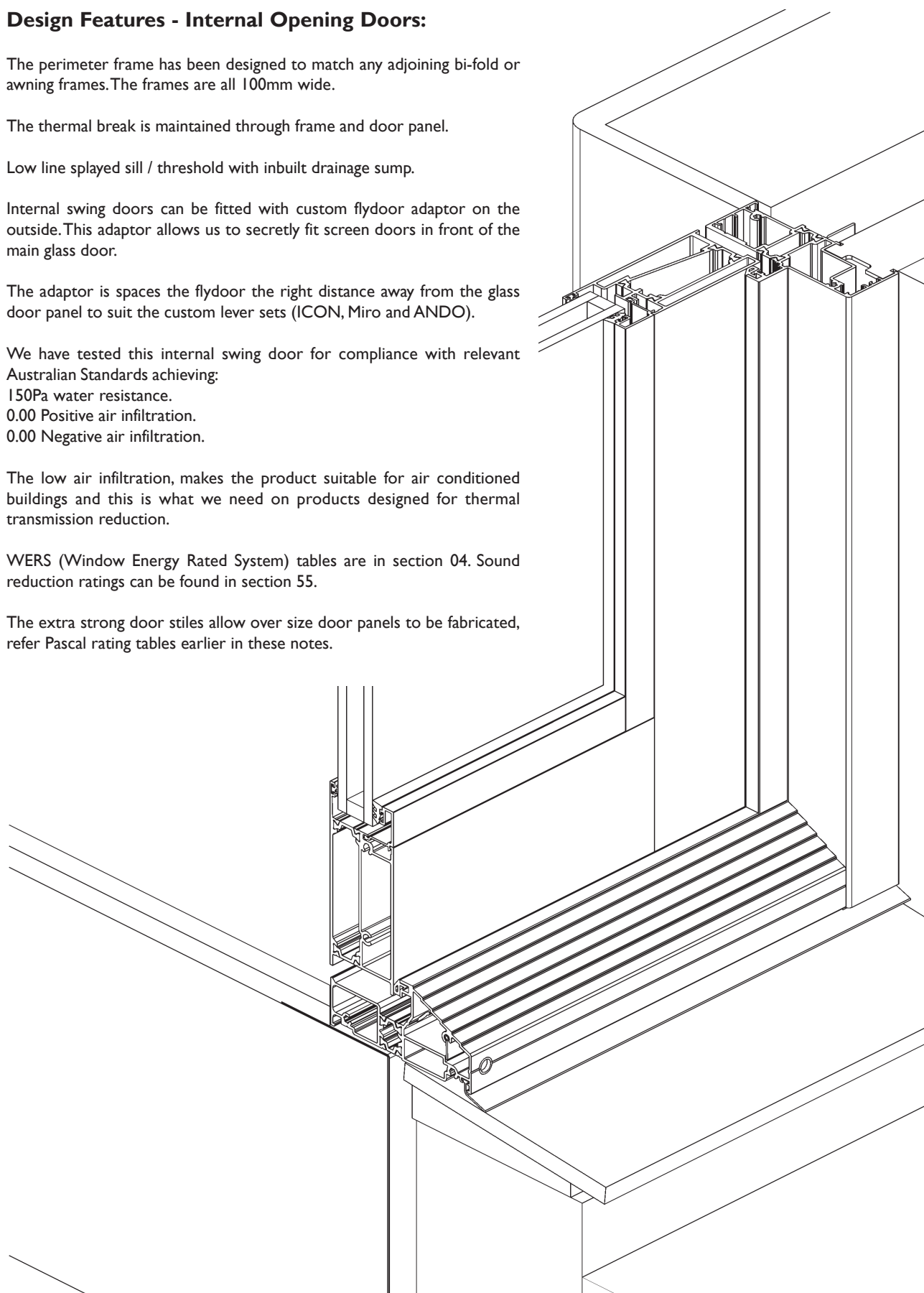
0.00 Positive air infiltration.

0.00 Negative air infiltration.

The low air infiltration, makes the product suitable for air conditioned buildings and this is what we need on products designed for thermal transmission reduction.

WERS (Window Energy Rated System) tables are in section 04. Sound reduction ratings can be found in section 55.

The extra strong door stiles allow over size door panels to be fabricated, refer Pascal rating tables earlier in these notes.

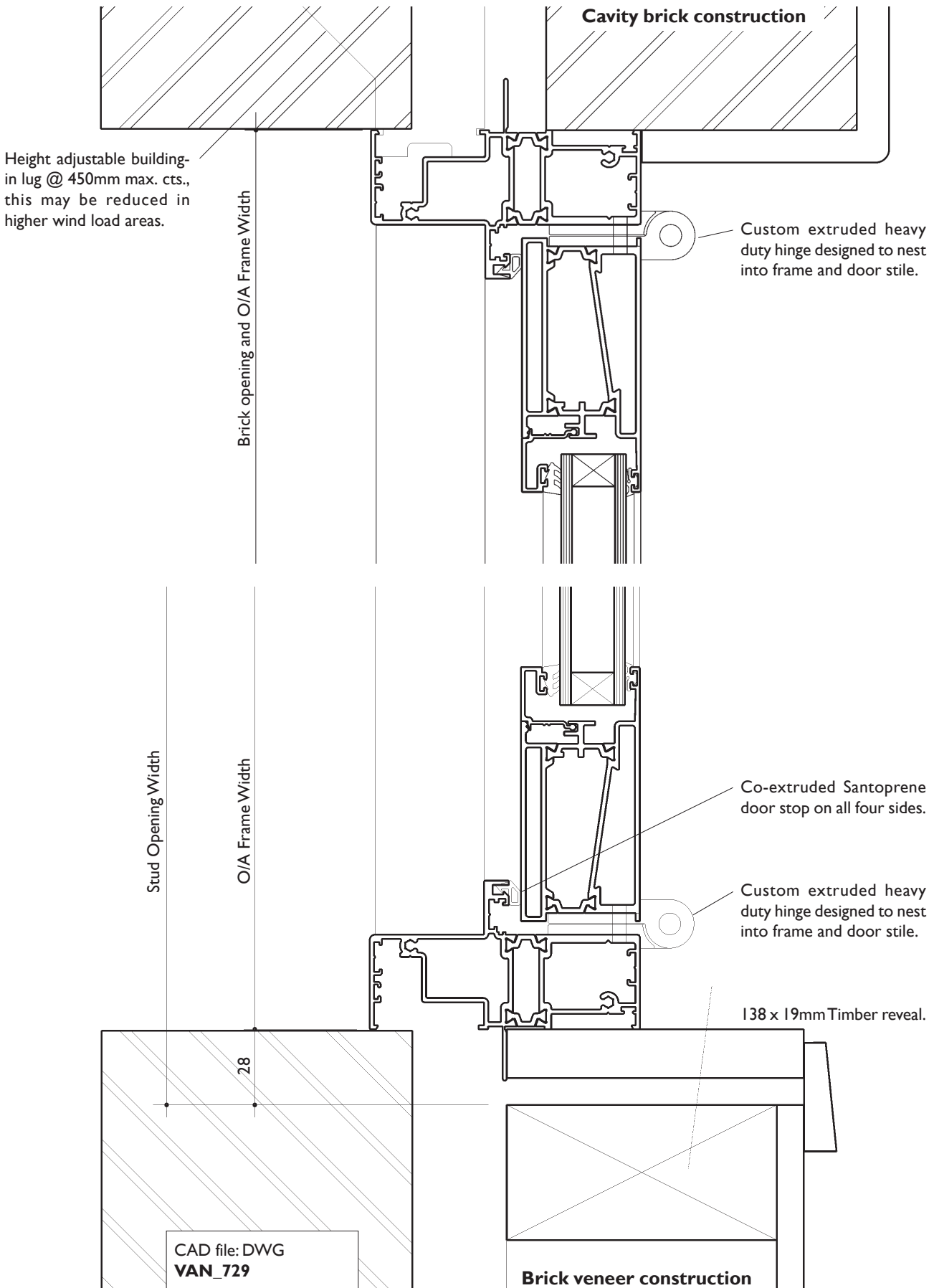


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Architectural Information

Series 729 Thermal Heart™ Hinged Door

Internal Swing - Horizontal Section

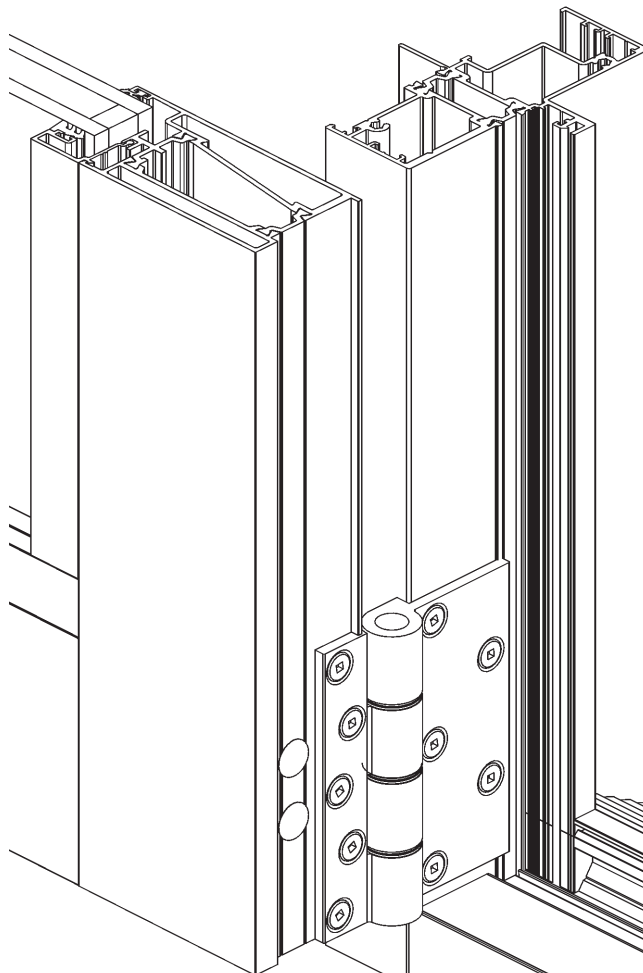
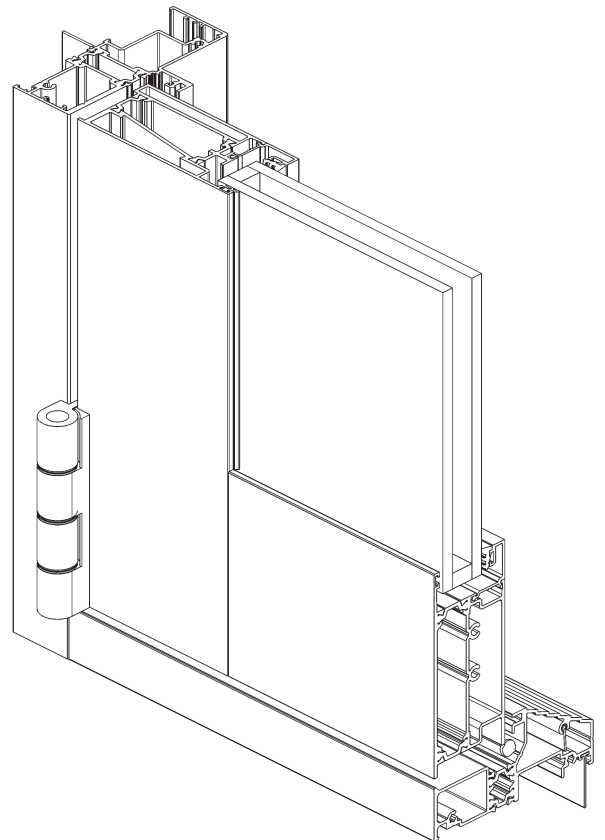


Standard Hinge

Designed to allow door panels to open 90°.

The hinge leaves nest into the frame and stile removing the need for unsightly shims, maximise strength and to ensure that the gap between frame and stile is maintained.

Hinge frame leaf fixed through reinforced portions of frame and stile with 10# countersunk stainless steel self tapping screws.

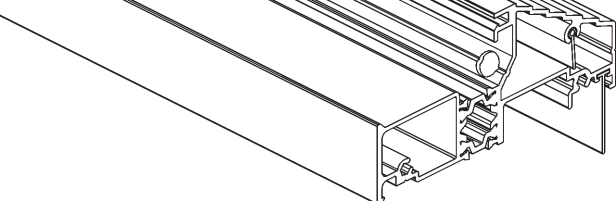


Hinge quantity	3. hinges - height less than or equal to 2200mm	
	4. hinges - height greater than to 2200mm.	
Maximum weight	with 3. hinges	45 kg
	with 4. hinges	60 kg
Maximum panel width	900mm	
Maximum panel height	2600mm - Will vary depending on weight.	

Custom extruded hinge.

finishes available:

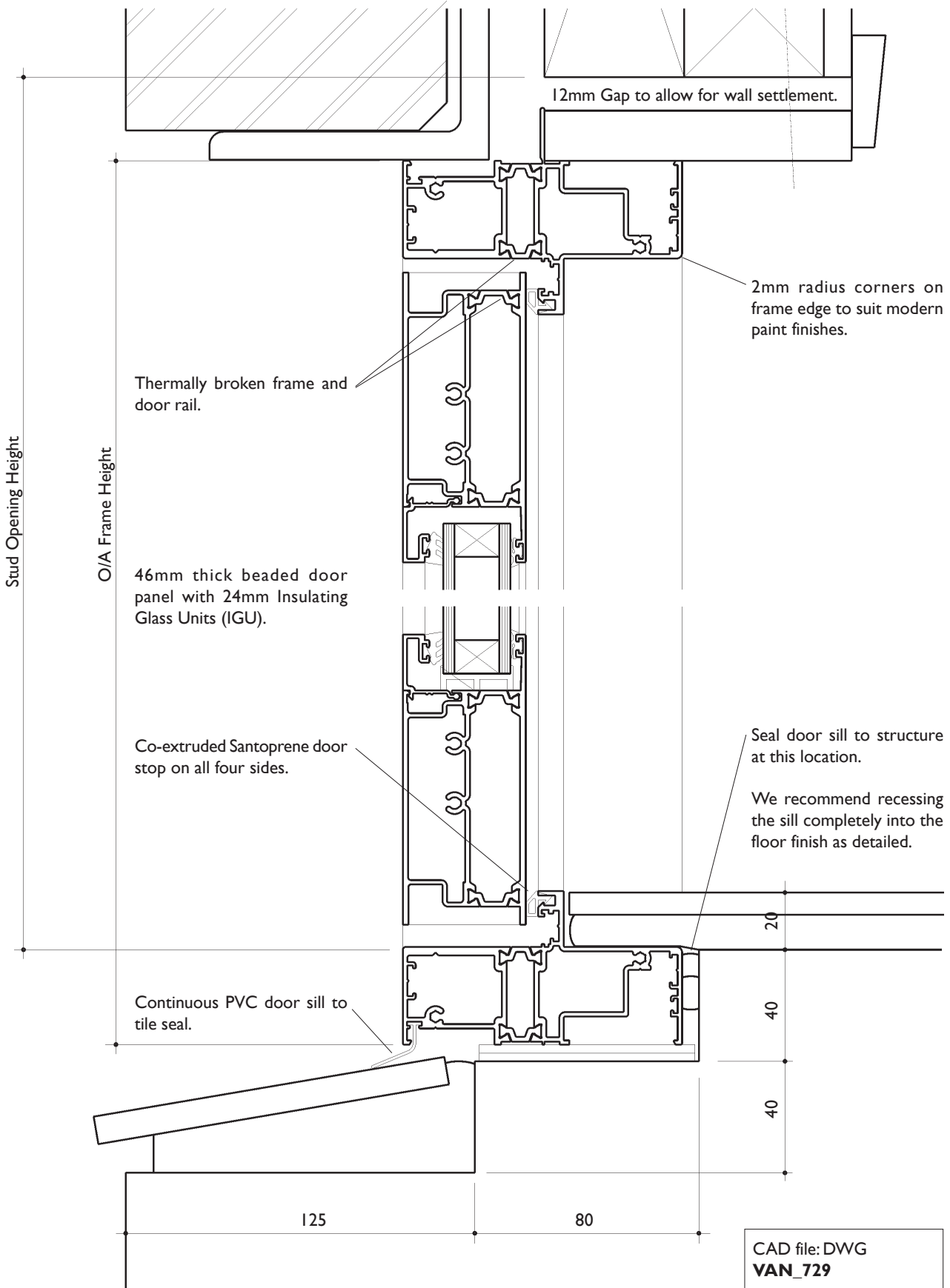
- Clear anodised
- Pearl white
- Surfmist
- AWS Silver
- Special paint



Architectural Information

Series 729 Thermal Heart™ Hinged Door

External Swing - Vertical Section



Design Features - External Opening Doors:

The perimeter frame has been designed to match any adjoining bi-fold or awning frames. The frames are all 100mm wide.

The thermal break is maintained through frame and door panel.

Full perimeter high performance frame.

We have tested this internal swing door for compliance with relevant Australian Standards achieving:
300Pa water resistance.
0.00 Positive air infiltration.
0.00 Negative air infiltration.

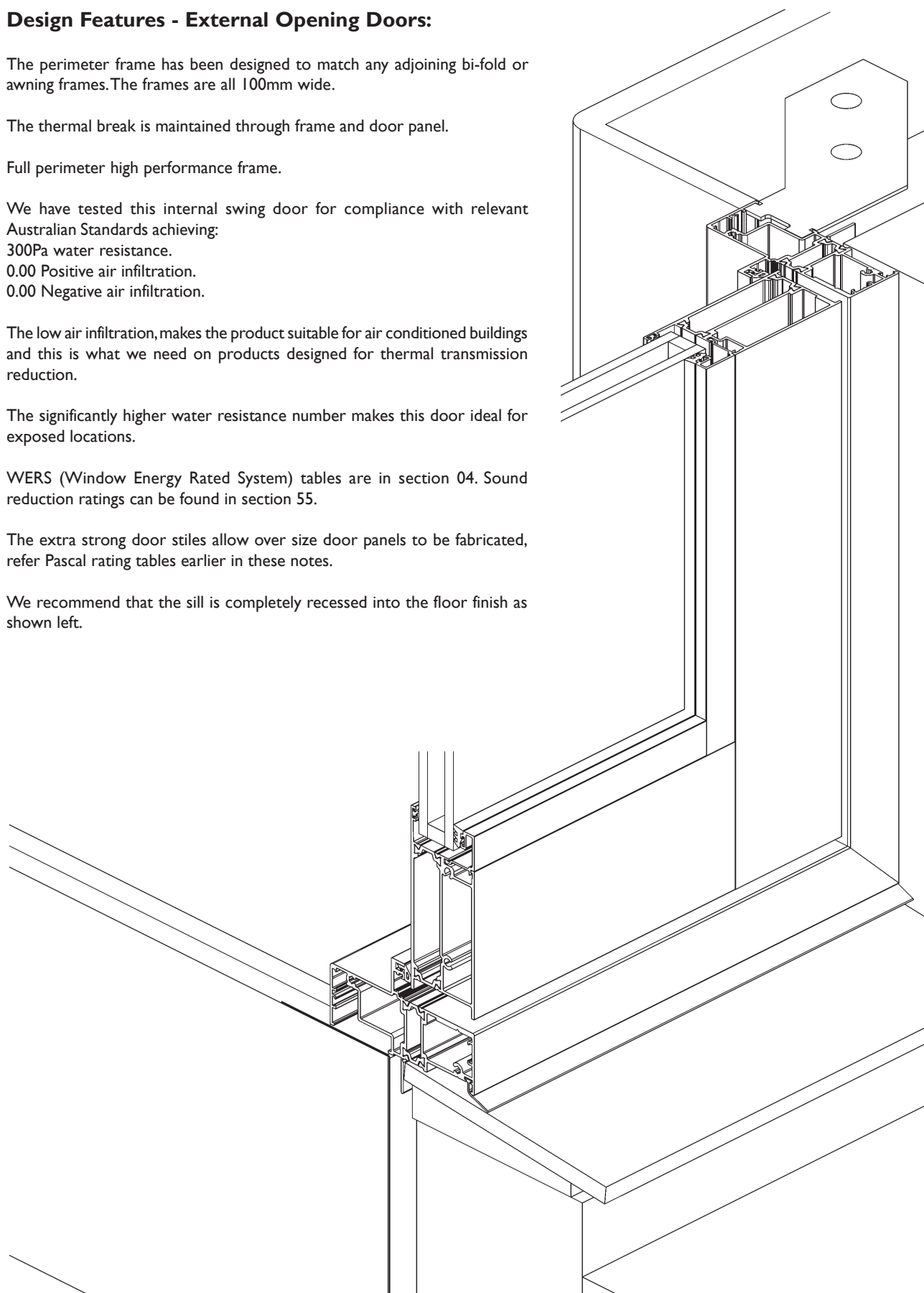
The low air infiltration, makes the product suitable for air conditioned buildings and this is what we need on products designed for thermal transmission reduction.

The significantly higher water resistance number makes this door ideal for exposed locations.

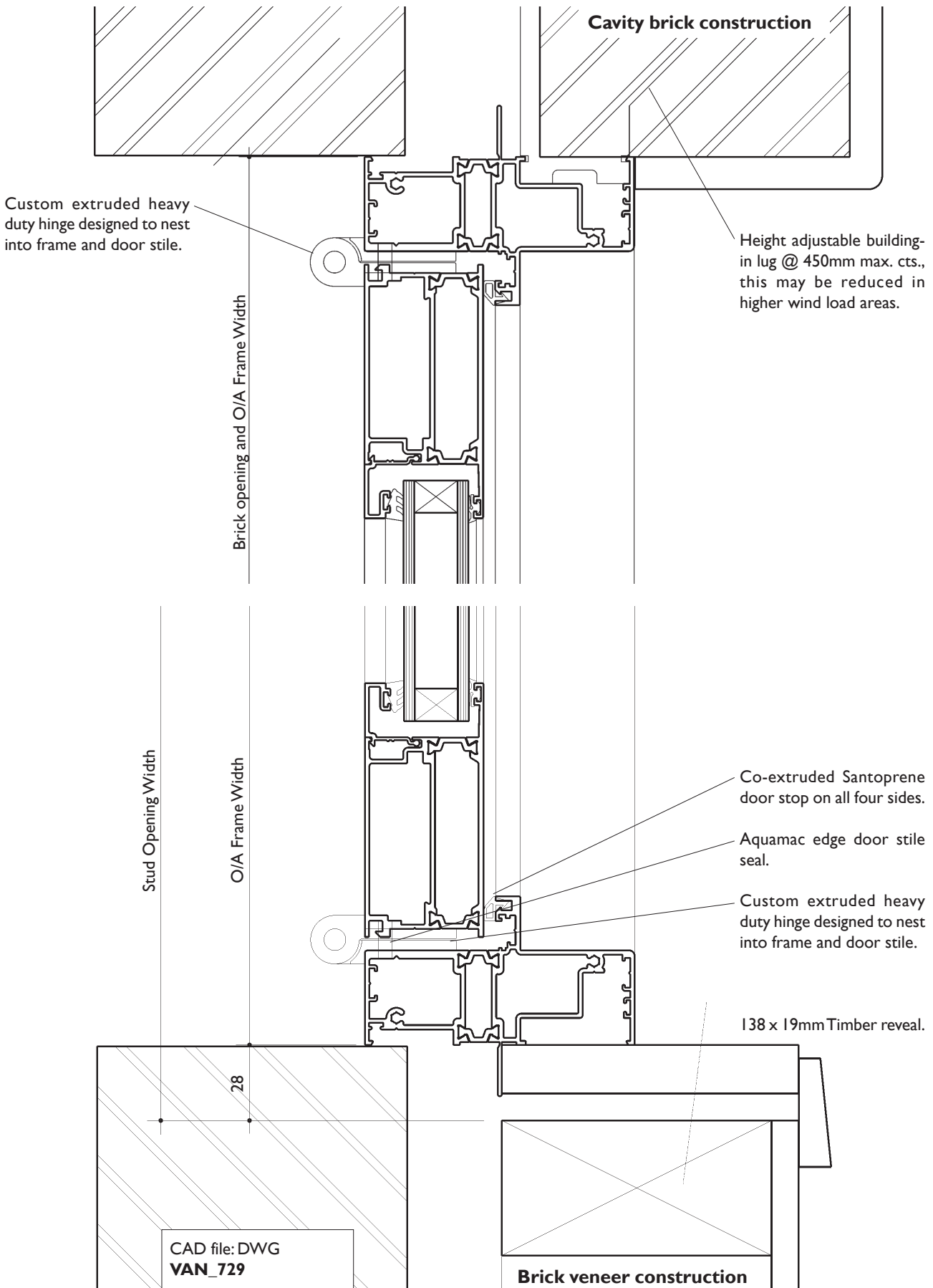
WERS (Window Energy Rated System) tables are in section 04. Sound reduction ratings can be found in section 55.

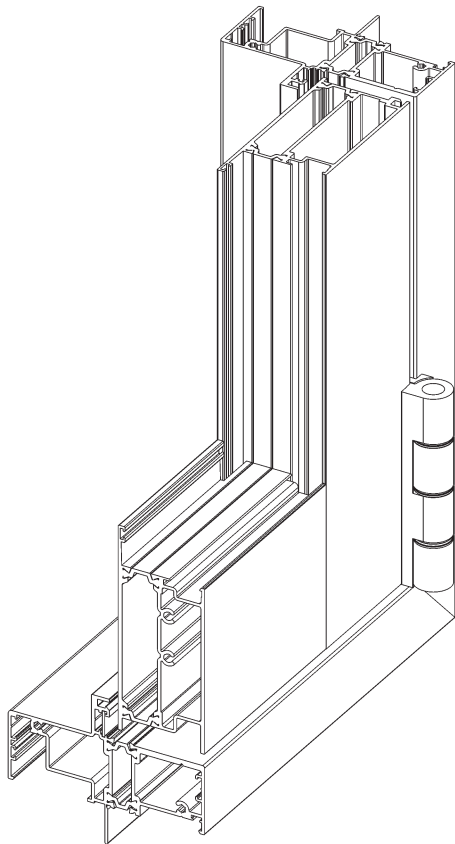
The extra strong door stiles allow over size door panels to be fabricated, refer Pascal rating tables earlier in these notes.

We recommend that the sill is completely recessed into the floor finish as shown left.



Architectural Information
Series 729 Thermal Heart™ Hinged Door
 External Swing - Horizontal Section





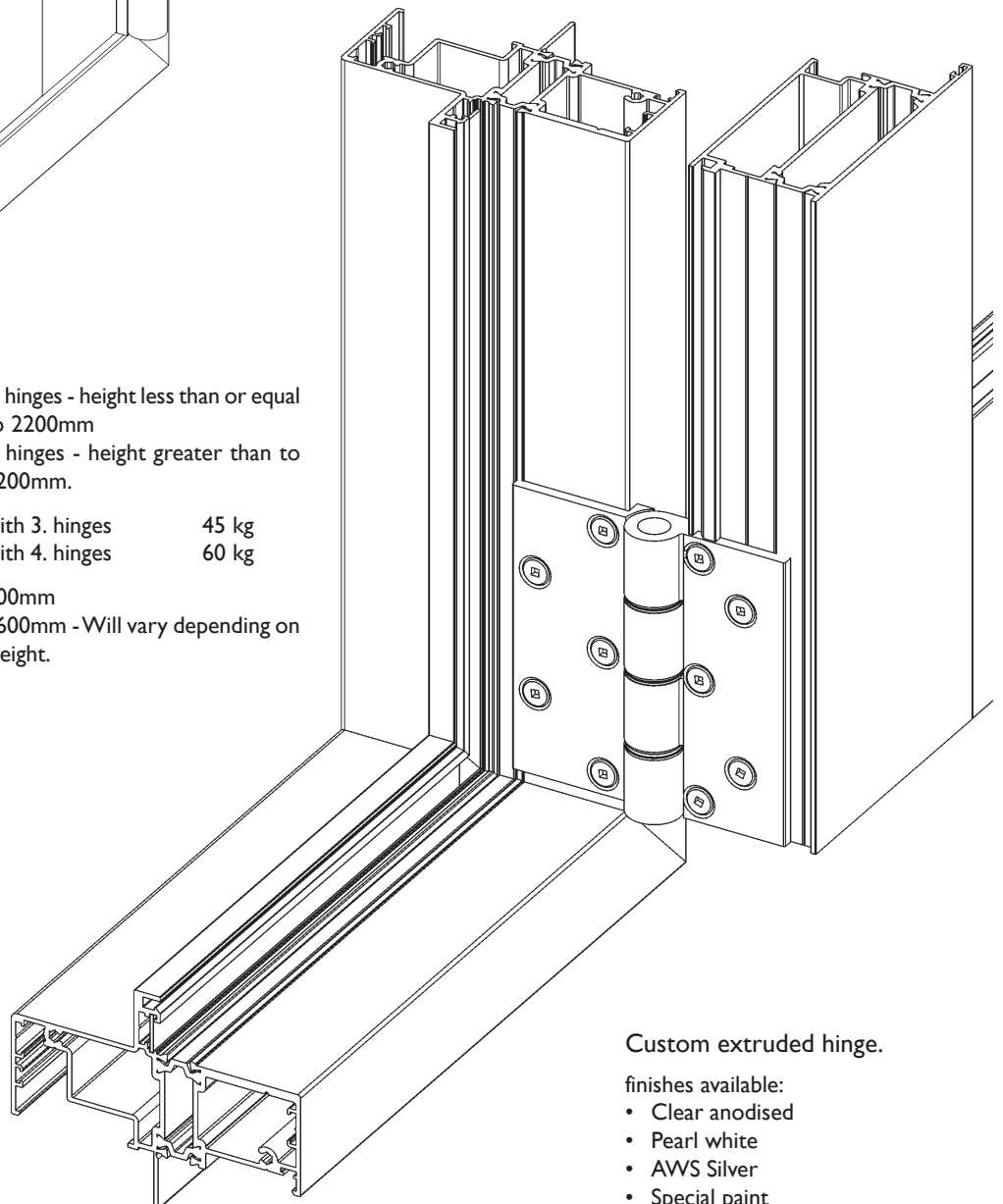
Standard Hinge

Designed to allow door panels to open 90°.

The hinge leaves nest into the frame and stile removing the need for unsightly shims, maximise strength and to ensure that the gap between frame and stile is maintained.

Hinge frame leaf fixed through reinforced portions of frame and stile with 10# countersunk stainless steel self tapping screws.

Hinge quantity	3. hinges - height less than or equal to 2200mm 4. hinges - height greater than to 2200mm.	
Maximum weight	with 3. hinges	45 kg
	with 4. hinges	60 kg
Maximum panel width	900mm	
Maximum panel height	2600mm - Will vary depending on weight.	



Custom extruded hinge.

- finishes available:
- Clear anodised
 - Pearl white
 - AWS Silver
 - Special paint

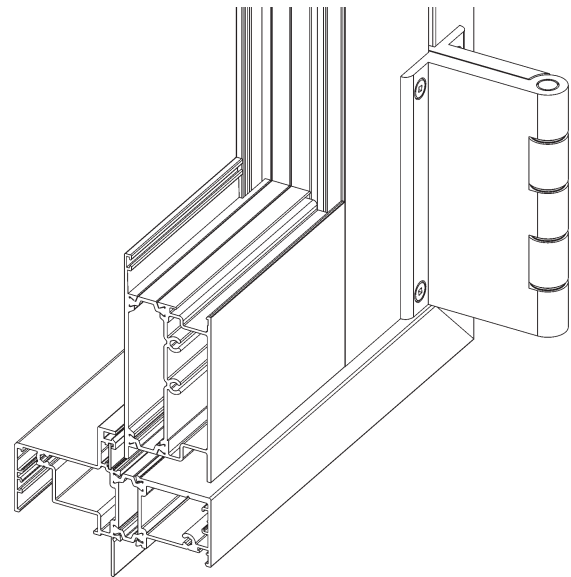


Parliament Hinge

Designed to allow door panels to open 180° and lay back against the wall as detailed.

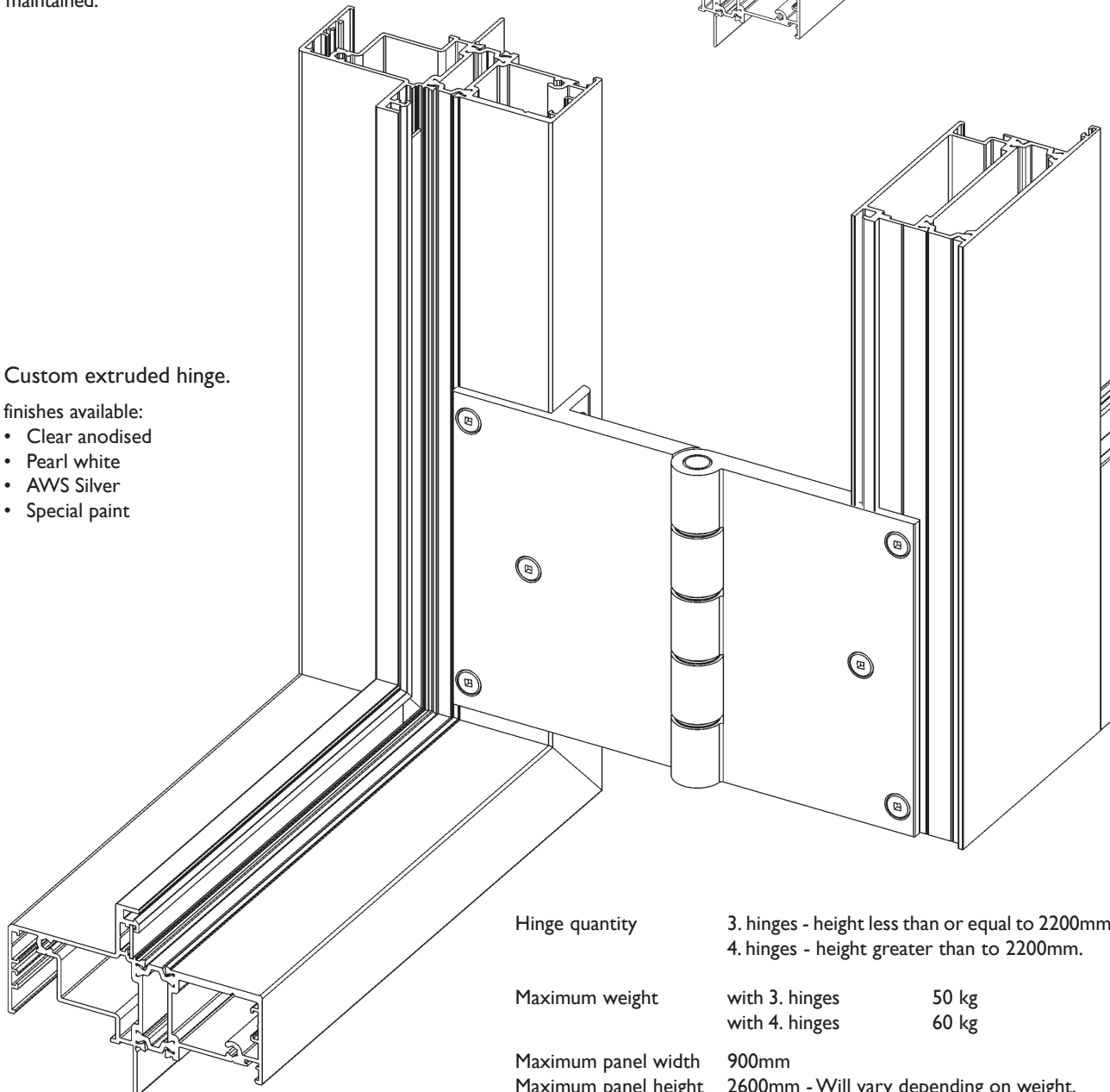
Hinge fixed on two planes to both frame and stile with 10# countersunk stainless steel self tapping screws.

The hinge leaves nest into the frame and stile removing the need for unsightly shims, maximise strength and to ensure that the gap between frame and stile is maintained.



Custom extruded hinge.

- finishes available:
- Clear anodised
 - Pearl white
 - AWS Silver
 - Special paint



Hinge quantity	3. hinges - height less than or equal to 2200mm 4. hinges - height greater than to 2200mm.	
Maximum weight	with 3. hinges	50 kg
	with 4. hinges	60 kg
Maximum panel width	900mm	
Maximum panel height	2600mm - Will vary depending on weight.	



Architectural Information

Series 729 Thermal Heart™ Hinged Door

Check List

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If you have chosen to install an aluminium hinged door you have already decided to fit a better quality door, but there are differences that should be considered.

Features	Series 729	Opposition
True thermal break ? <ul style="list-style-type: none"> The Vantage Series 729 hinged door frame and panels are thermally broken. 	Yes	
Thick Insulating Glass Units (IGU's) ? <ul style="list-style-type: none"> The Vantage Series 729 hinged 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 hinged door keep the water out - has it been tested ? <ul style="list-style-type: none"> The Vantage Series 729 hinged door has been successfully tested to keep water out. Open out door will resist up to 380Pa of water. Open in door will resist up to 150Pa of water. 	Yes	
Is the product suitable for air-conditioned apartments ? <ul style="list-style-type: none"> We came in at a fraction of the requirements of the standard making the product ideal for air-conditioned buildings. 	Yes	
Are the door stiles strong enough to support the glass ? <ul style="list-style-type: none"> The Vantage Series 729 doors are hinged off a heavy duty double tubular jamb with thickened webs where hinges are attached. If the jamb is not strong enough nothing you can do in the future will make the door perform. Many of our competitors hang doors off sections not much stronger than our window sections, this usually results in the doors dropping and/or the hinge fixing failure. 	Yes	
Rebated door meeting stiles ? <ul style="list-style-type: none"> Rebated door stiles give a flush appearance when the two doors meet and provide superior weather protection. These rebated stiles are one of the main reasons why these doors keep the water out. 	Yes	
Are the door panel sections strong enough ? <ul style="list-style-type: none"> We have deliberately designed the door sections to suit high quality hardware and be capable of supporting the double glazing without sagging. There is no value hanging a flimsy door panel in the opening if it won't stand the test of time as hinged doors are subjected to far more abuse than sliding doors. Many of our competitors hinged doors are about the same size as our sliding door stiles. 	Yes	
Are parliament type hinges available ? <ul style="list-style-type: none"> Parliament hinges allow external swing doors to be opened up 180° back against the wall. 	Yes	
On pairs of doors is the lock keeper concealed ? <ul style="list-style-type: none"> Concealed lock keeper specially designed to fit in the cavity on the leading edge of the "lazy side" door and eliminates unsightly holes milled in the aluminium for latch and lock bolt. This recessed keeper plus the rebated stile makes it extremely difficult for intruders to access the latch and bolt for forced entry. 	Yes	
High quality hardware ? <ul style="list-style-type: none"> Heavy duty custom hinges that are designed to suit the door and frame without having to fit shims etc. Custom injection moulded lock keepers remove the need for ugly shims and cutouts in the stiles and / or frame. Specially designed compression blocks at the four corner joints of the door. These take the "sloppiness" out of corner joints and make sure that the door stays rigid and square. Compare our door with others available and you will see what we mean about strength and rigidity. Co-extruded Santoprene door stop seal. Custom colour matched or 316 marine grade stainless steel lever lock hardware available. High security Lever Compression Locking (4.point locking) standard on Series 729. 	Yes	

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

Standard **ICON**

Lever Compression Lock

finishes available:

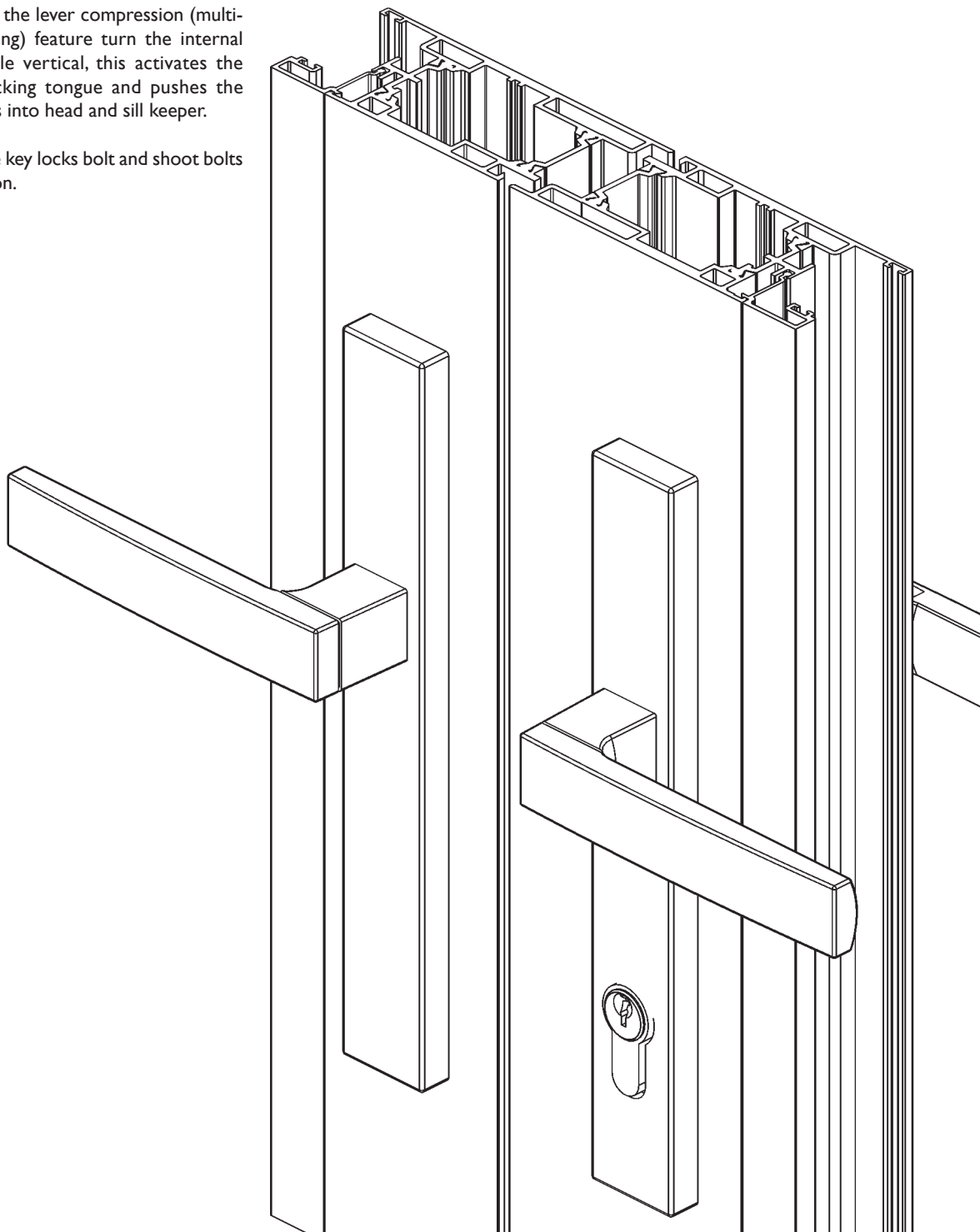
- 316 Stainless steel

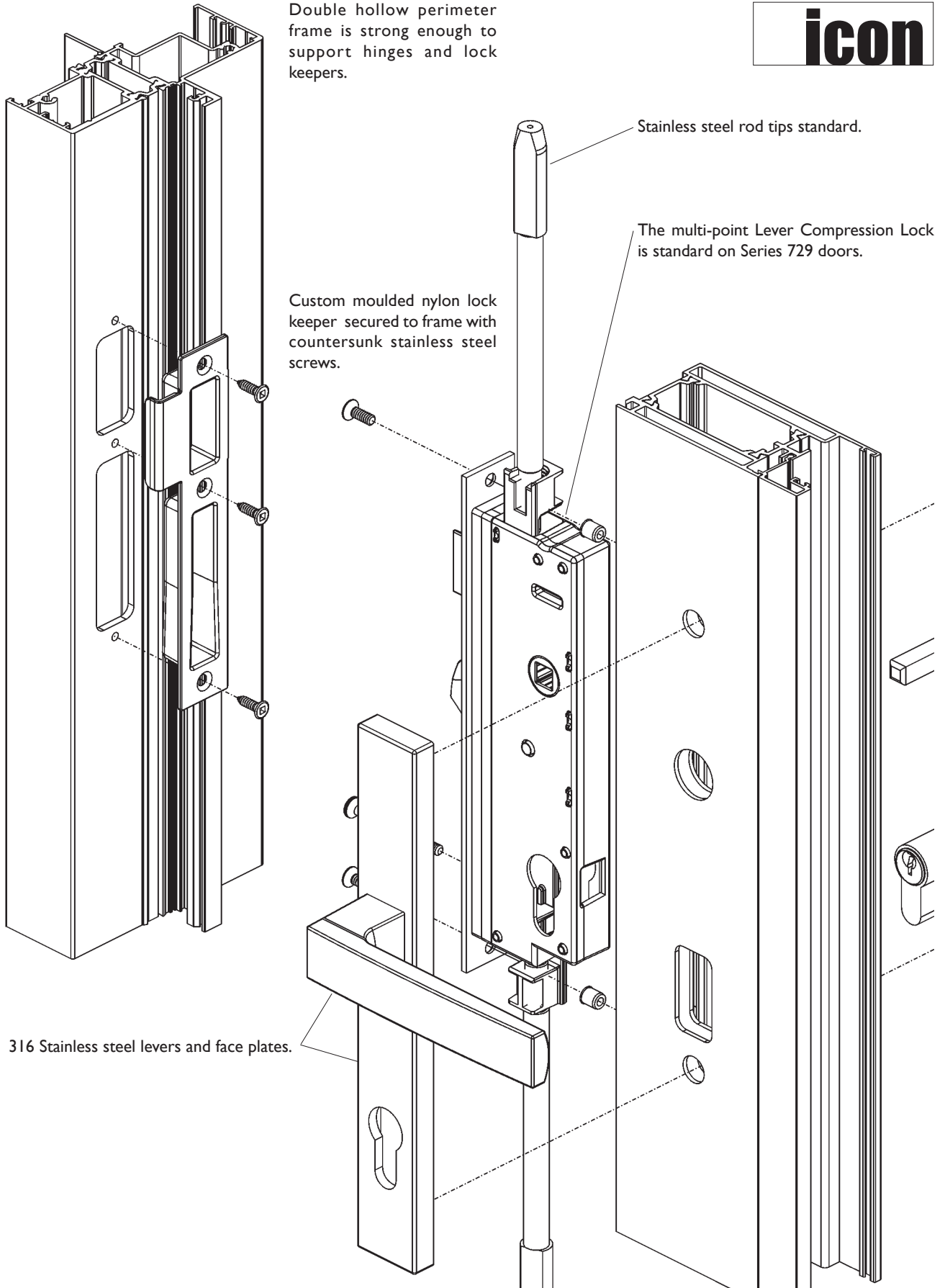
Notes:

Four point locking has the centre latch tongue and throw bolt plus shoot bolts top and bottom.

To activate the lever compression (multi-point locking) feature turn the internal lever handle vertical, this activates the central locking tongue and pushes the shoot bolts into head and sill keeper.

Turning the key locks bolt and shoot bolts into position.





Alternative Miro Lever Compression Lock



finishes available:

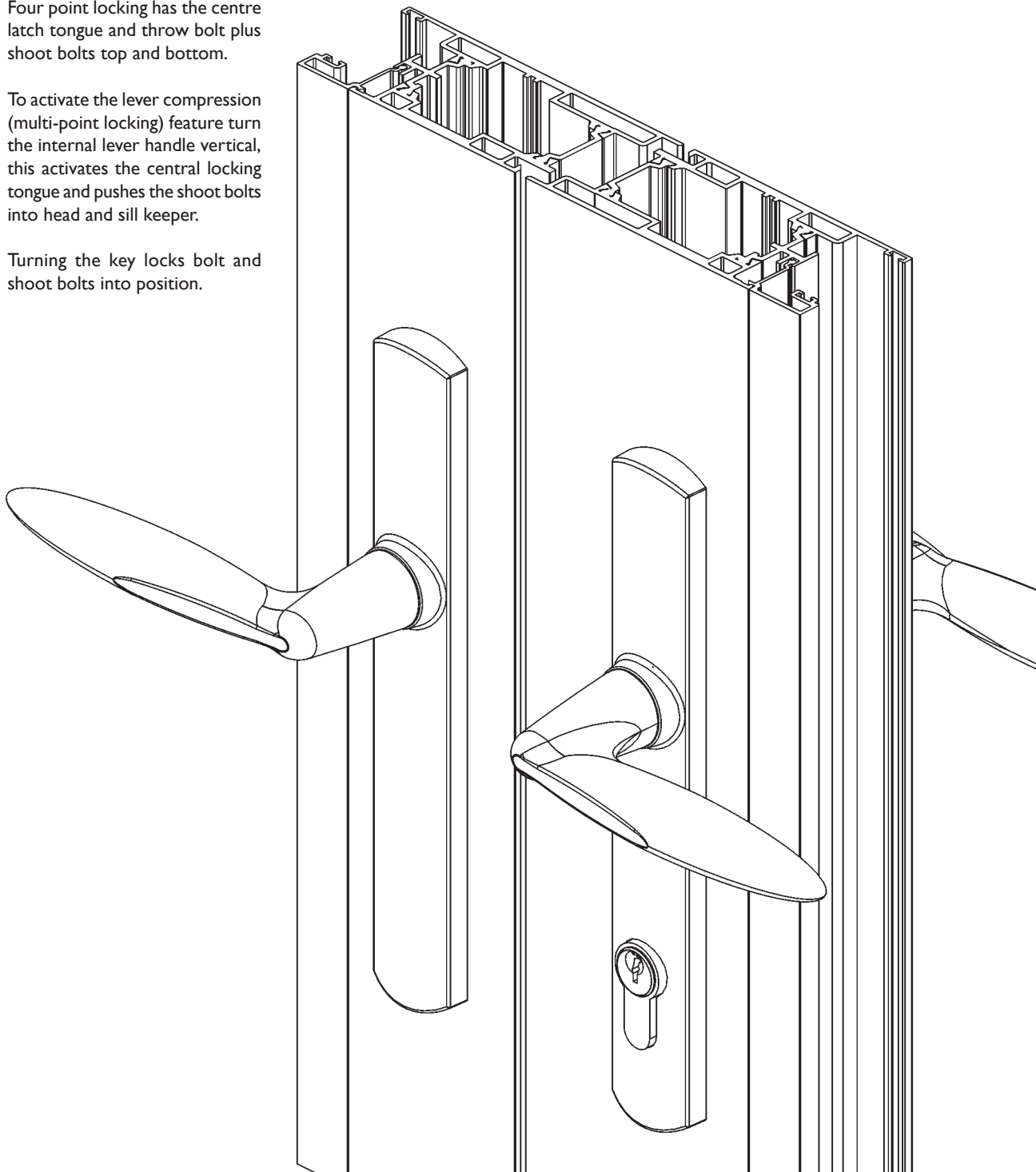
- Black
- Pearl white
- Primrose
- AWS Silver
- Special paint

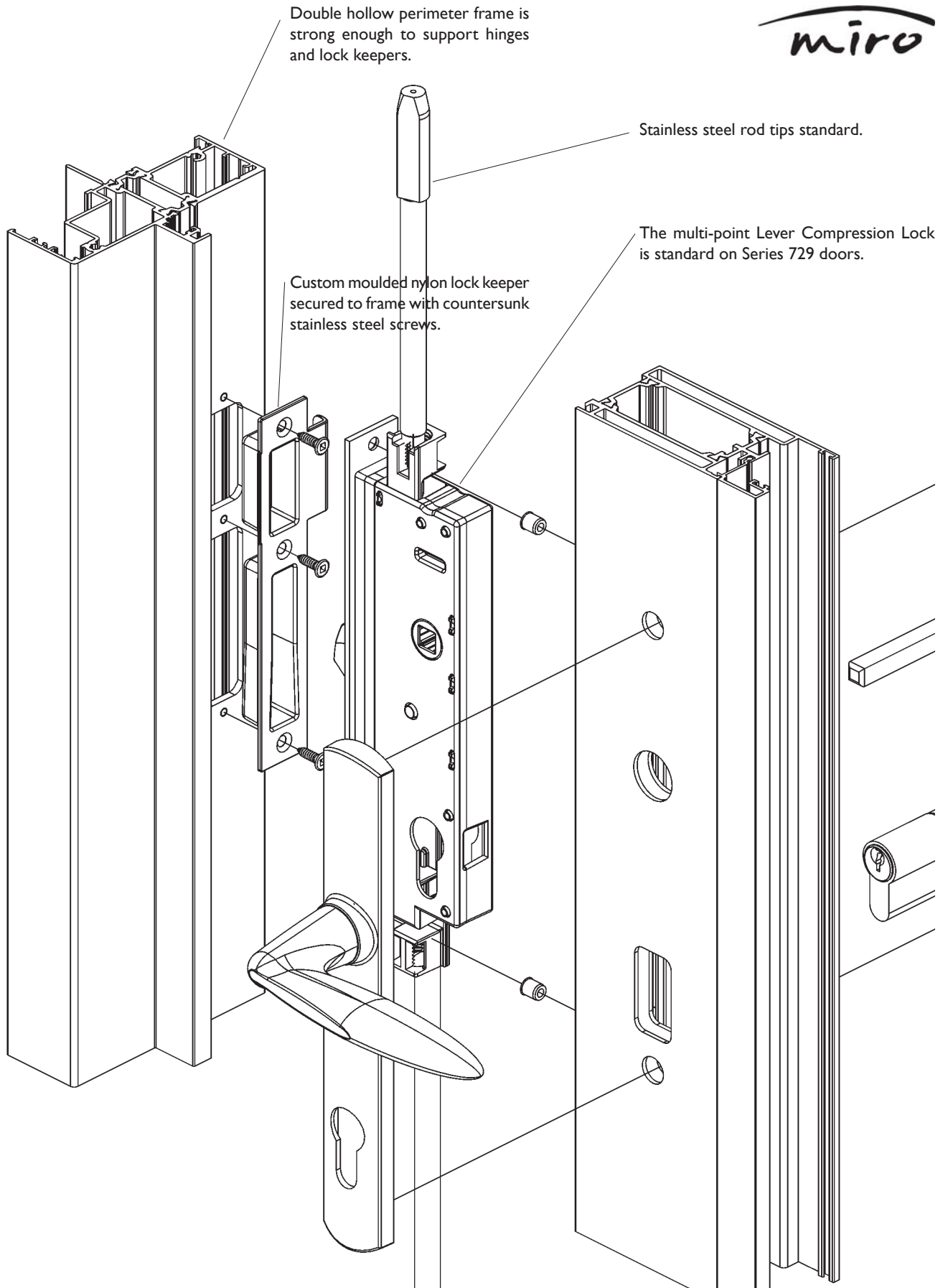
Notes:

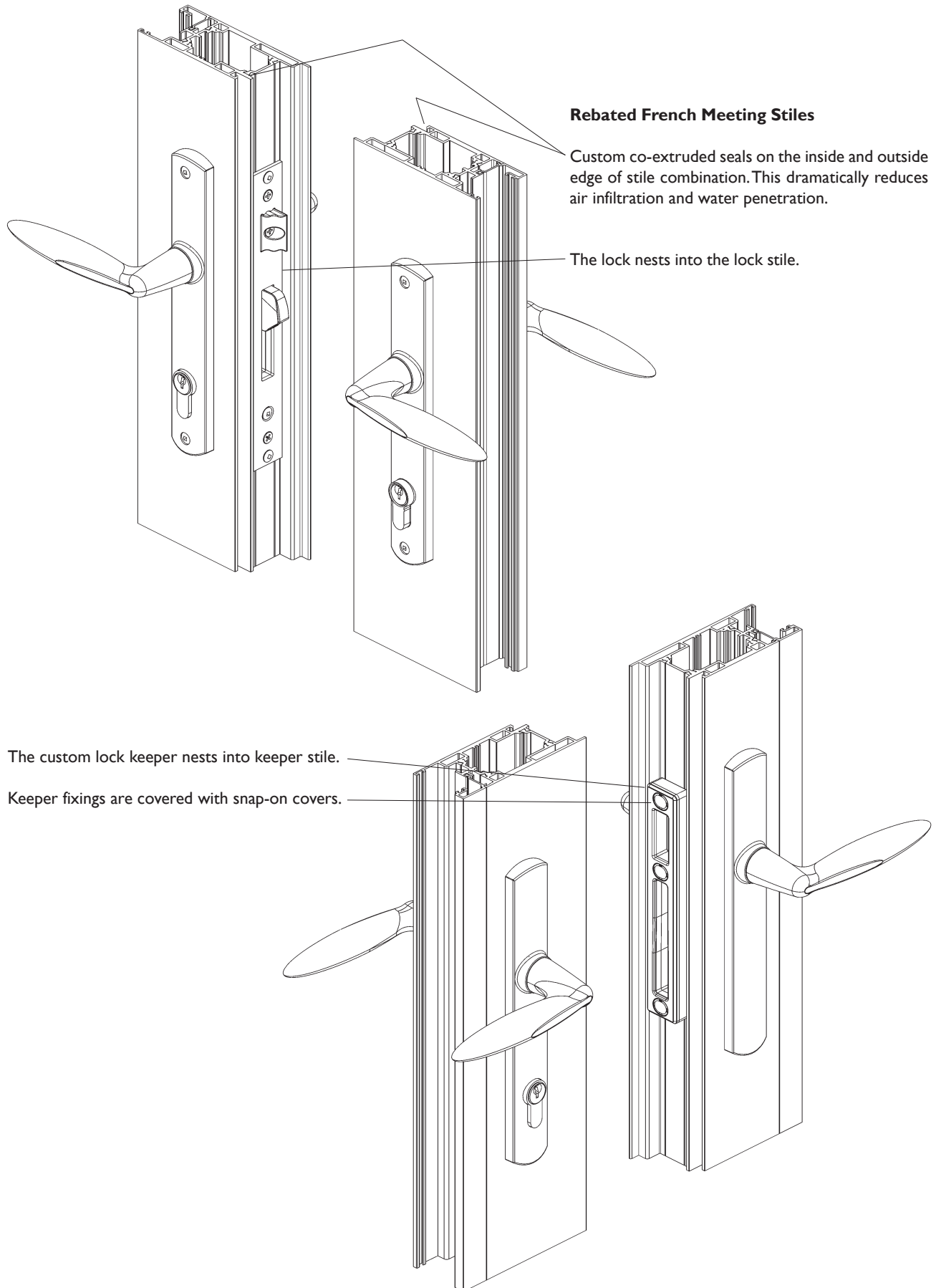
Four point locking has the centre latch tongue and throw bolt plus shoot bolts top and bottom.

To activate the lever compression (multi-point locking) feature turn the internal lever handle vertical, this activates the central locking tongue and pushes the shoot bolts into head and sill keeper.

Turning the key locks bolt and shoot bolts into position.





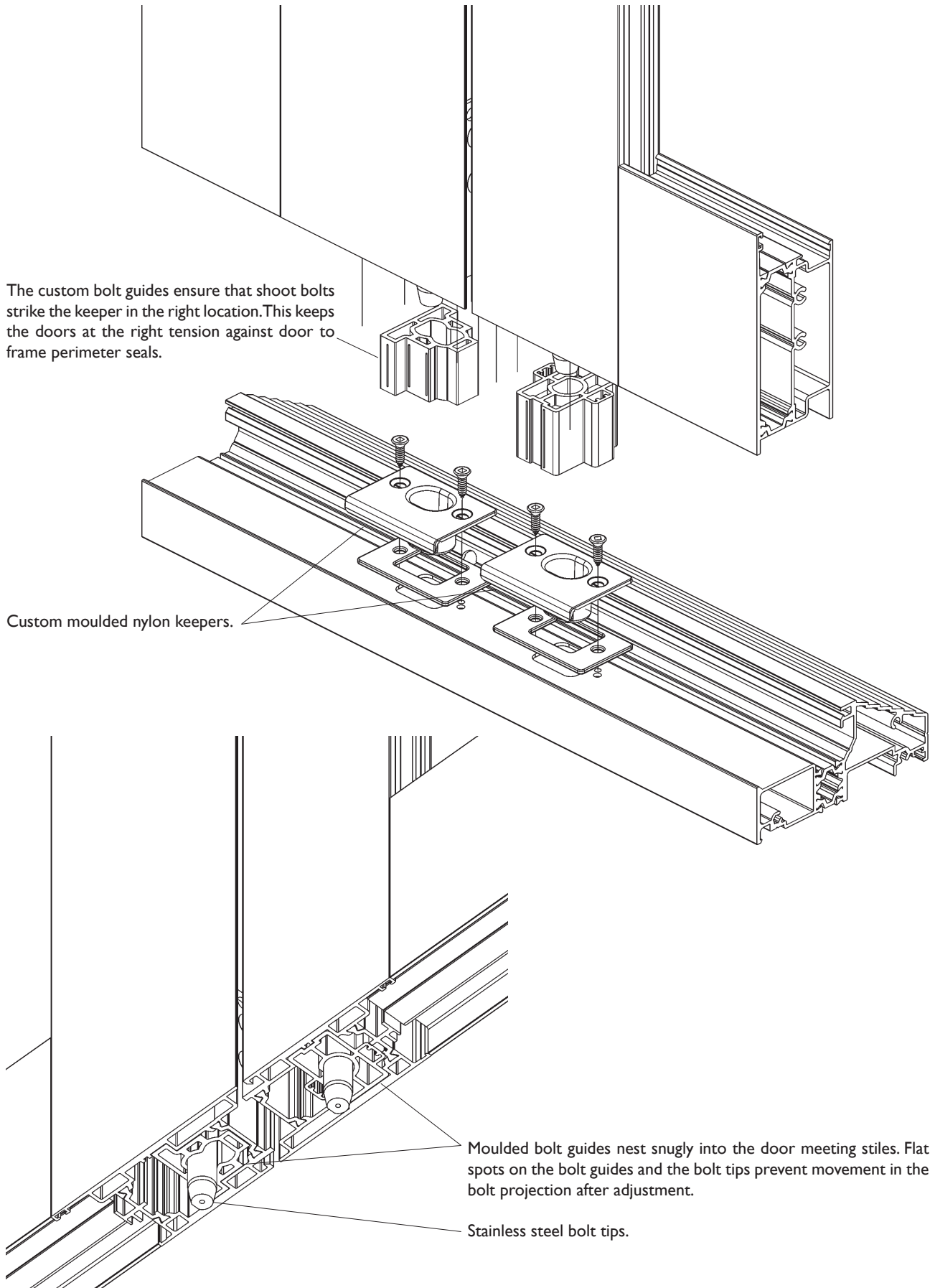


The custom bolt guides ensure that shoot bolts strike the keeper in the right location. This keeps the doors at the right tension against door to frame perimeter seals.

Custom moulded nylon keepers.

Moulded bolt guides nest snugly into the door meeting stiles. Flat spots on the bolt guides and the bolt tips prevent movement in the bolt projection after adjustment.

Stainless steel bolt tips.





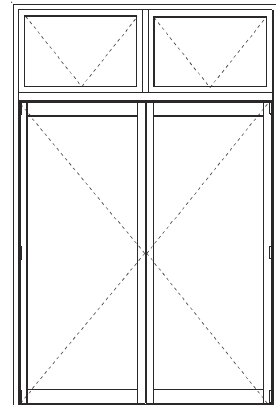
Highlight Couplers

We have thermally broken couplers that will join awning frame to hinged or bi-fold doors as shown below. Couplers can be used vertically or horizontally.

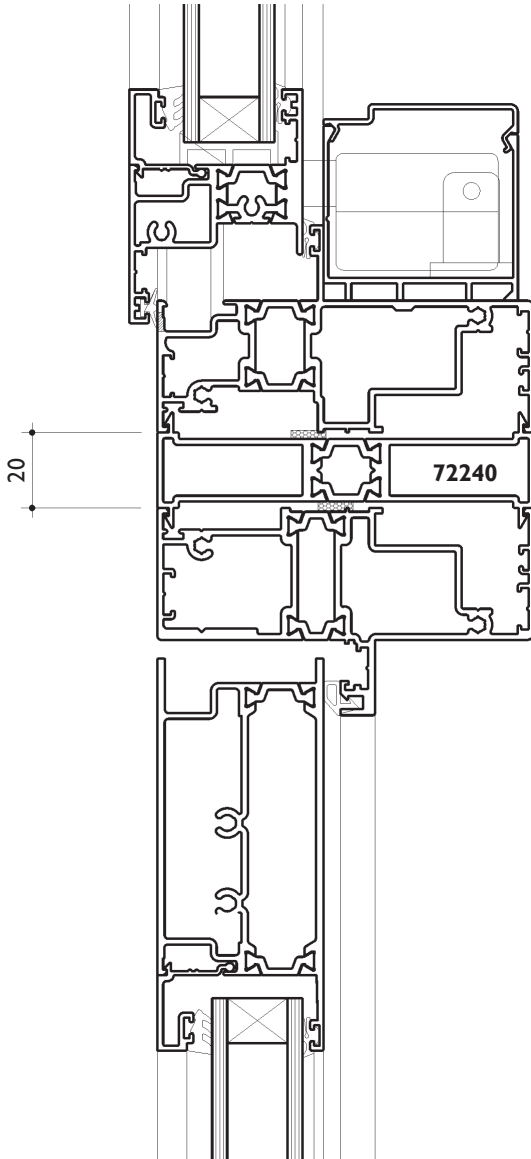
Typical strength examples:

With an awning frame 600mm high over a door 2400mm high by 3600mm wide
Standard coupler 72240 would rate 1756Pa Serviceability (1/150) 2844Pa Ultimate.
Heavy coupler 72241 would rate 2745Pa Serviceability (1/150) 4961Pa Ultimate.

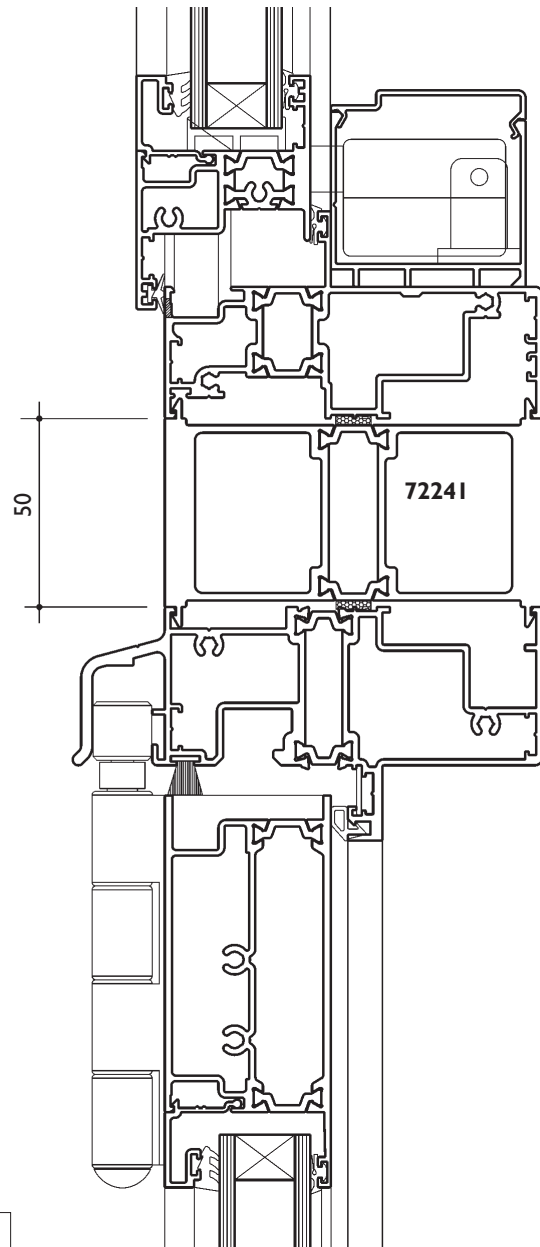
From this you can see that the standard coupler would suit most projects and the heavy coupler would get used on wider bi-fold doors or tall vertical couplers in higher wind load areas.



Awning highlight



Hinged door



Bi-fold door

CAD file: DWG
VAN_729