imagine PATIO

MANUFACTURE

PATIO DOOR

Issue Date: July 2015

Guidelines Advice & General Information.

Patio doors are a specialist product, thought needs to be given in regards to manufacture and installation. Tolerances are critical therefore VEKA recommends this product is manufactured on its own line or a specials line and therefore not treated as a main line product.

Although it is possible to manufacture a five metre four pane patio door it is recommended when dark coloured foiled profiles are installed in south facing locations or where there is a possibility of heat build-up, where internal or external heat build-up could be a factor it is recommended to limit the number of sashes to two, In all cases sufficient expansion allowance and adequate ventilation should be included. Please refer to the Variations document for list of dark colours.

All frames and sashes must be reinforced as per the guide lines in this manual irrespective of size or colour.

Due to the nature of patio doors and their assembly, they should be classed as domestic products only and the location in which they are installed should be clarified in advance. VEKA therefore recommend that they are not installed above 3 floors or in exposed locations. **INSTALLERS IGNORE THIS ADVICE AT THEIR OWN RISK.** Where the design wind pressure category is known to be 1200 Pascals or greater it is recommended that the advice of the technical department should be sought prior to manufacture and installation.

A lintel or structural reinforcement may be required over large spans. Suitable strength must be available to ensure a solid fixing at the correct centers along the head of the frame, a structural engineer may need to be consulted to ensure this. It is recommended to use a portal frame in conservatories, please consult the roof supplier for advice on this.

No colour stability guarantee is offered on white gasket products.

The profiles and system used within this manual are designed to be internally beaded only.

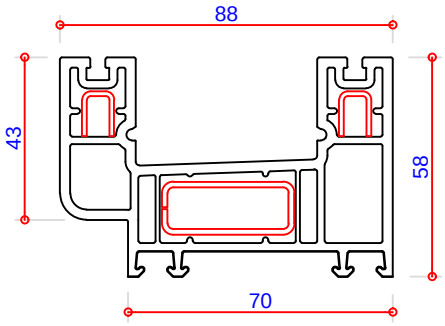
The information provided in this manual should be treated as guidance only. VEKA PLC cannot control how the information is interpreted and therefore cannot be held responsible for any failure. Regulations regarding health and safety of operatives along with relevant building regulations should be strictly adhered to VEKA PLC therefore cannot be held responsible for any failure to comply with them. This statement does not affect the fabricators statutory rights.

Do not scale drawings in this manual. The drawings shown are visual representations only. VEKA PLC has the right to alter the designs, specification & descriptions without prior notice as part of our policy of continuous development and improvement.

CONTENTS

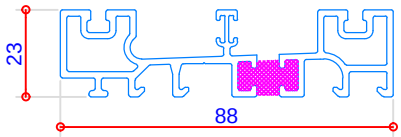
COMPONENTS

1

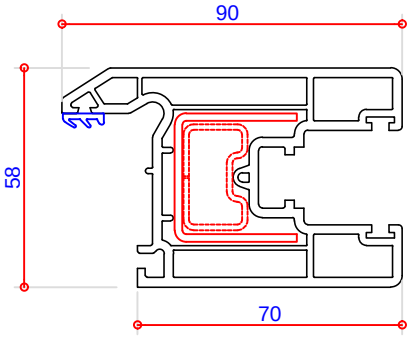


58mm outer frame	105178
Steel U Channel	113018
Steel Box	713104 (S51104)

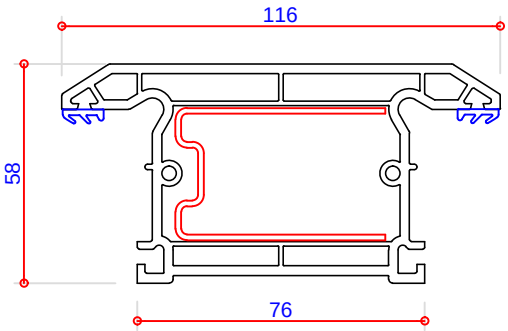
Threshold Cover 704361
(Silver or Gold) (A00361)



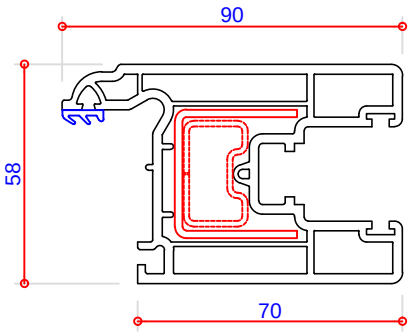
Patio Low Threshold 104324
(Silver or Gold)



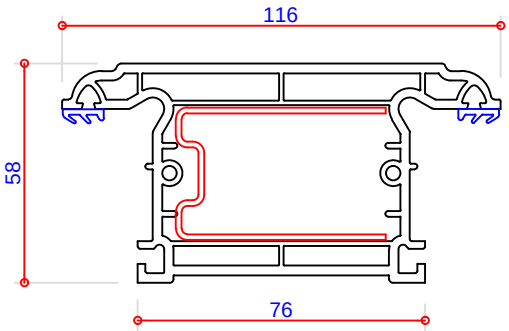
Patio Sash	705151 (P58151)
Steel Channel	713029 (S00029)
*Steel Channel (Prep'd)	713804 (S00127)
**Steel Box (400mm)	713119 (S00119)
Steel Box (4000mm)	713124 (S00124)



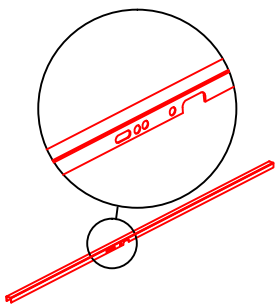
Patio Midrail	702152 (P58152)
Steel Channel	713166 (S00166)



Patio Sash	703251 (P58251)
Steel Channel	713029 (S00029)
*Steel Channel (Prep'd)	713804 (S00127)
**Steel Box (400mm)	713119 (S00119)
Steel Box (4000mm)	713124 (S00124)



Patio Midrail	705252 (P58252)
Steel Channel	713166 (S00166)



*Steel Channel (Prep'd) 713804 (S00127)

Patio Track 713070
(S00070)

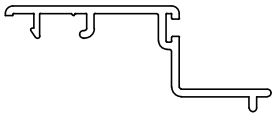
112380 Bead Groove Infill
(Black/White)

**Steel Box 713119 (S00119) 400mm pieces Required for lock jamb and bottom rail of sliding sash. 713124 (S00124) is a 4000mm variant of 713119 steel box.

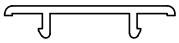
PROFILE CHARTS AVAILABLE IN A1 - PLEASE REQUEST DOCUMENT - PATIO DOOR_MAIN COMPONENTS_WALLCHART A 1

1

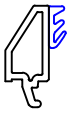
Draught Strip 109064



Outer Frame Cover 705152 (P10152)



Sash Cover 709112 (P10112)



28mm Bead 707427 (P10427)

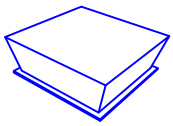
28mm Bead 707432 (P10432)

32mm Bead 707426 (P10426)

Gasket 712044 (For Repair) (G00044)

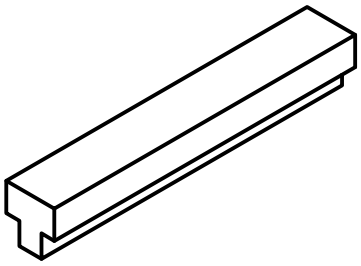
6.7-750-WE Woolpile 744961 (H00961)

11-800-P Woolpile 744226 (H00226)

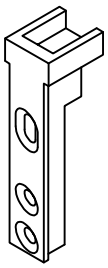


20-800-P 55mm Woolpile 744778 (H01778)

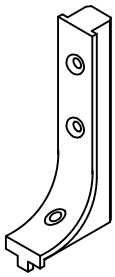
Insert 709047 (Black) (P01047)



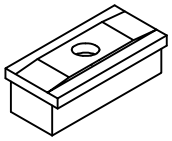
SBD Interlock Retainer 109065



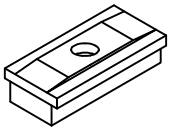
Anti Lift Device 709818 (M00119)



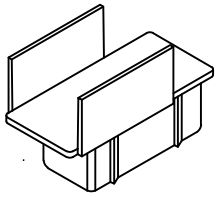
Fixed Pane Bracket 709819 (M00123)



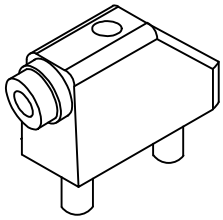
Base Packer 709081 (Black) (M00081)



Jamb Packer 709082 (White) (M00082)



Multi Pane End Cap 709801 (White or Black) (M00115)



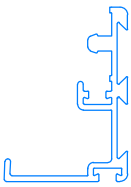
Patio Door Stop 709128 (M00128) (White/Brown/Caramel/Black)

PROFILE CHARTS AVAILABLE IN A1 - PLEASE REQUEST DOCUMENT - PATIO DOOR_MAIN COMPONENTS_WALLCHART A 1

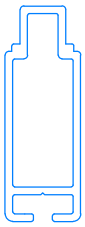
1

Interlock 704181
(White, Black or
Foiled) (A00181)

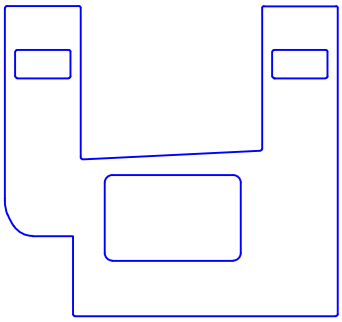
Interlock 704208
(White or Black) (A00208)



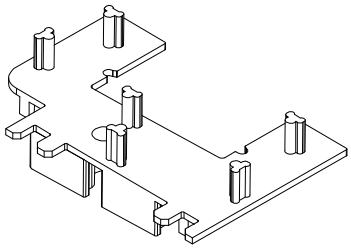
Threshold 704180
(White or Black) (A00180)



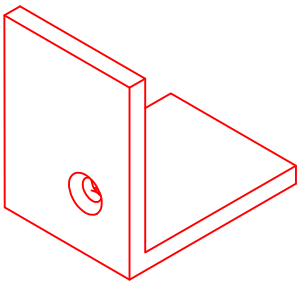
Multi Pane Adaptor 715134
(White or Black) (A00134)



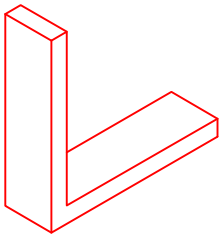
Mechanical Joint Gasket 106411
(White or Black)



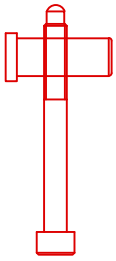
Mechanical Joint Moulding 109058
(White or Black)



Mechanical Joint Bracket
141405

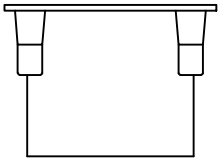


Mechanical Joint
Internal Bracket 141406



Mechanical Joint Pin 744786 (H01786)
M6 x 60 Cap Screw 744673 (H00673)

Mechanical Joint
Reinforcement 115112



709194 (M00194) Letter Plate Cover Moulding (Black)
(For use with a Yale 10" Wellseal Letter Plate)

PROFILE CHARTS AVAILABLE IN A1 - PLEASE REQUEST DOCUMENT - PATIO DOOR_MAIN COMPONENTS_WALLCHART A 1

DESIGNS & STATISTICS

Minimum And Maximum Sizes.

Sizes are for Veka patio doors manufactured in accordance with this manual. Optional midrail does not alter these sizes. Sizes are assuming equal splits.

X = Opening sash O = Fixed sash

2

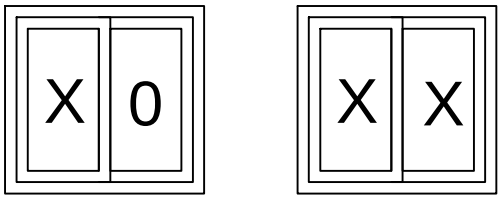
Height Range (All styles):

	Minimum	Maximum	
	1900mm	2300mm	(Recommended sash)
105178	2000mm	2400mm	
104324	1965mm	2365mm	

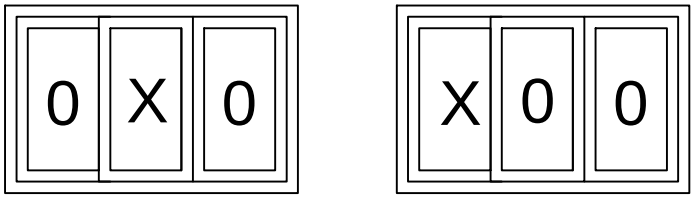
Width Range:

Minimum	Maximum	
750mm	1500mm	(Recommended sash)

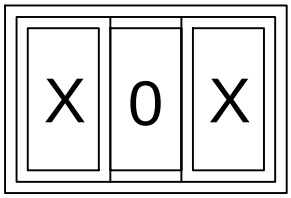
1600mm 3000mm



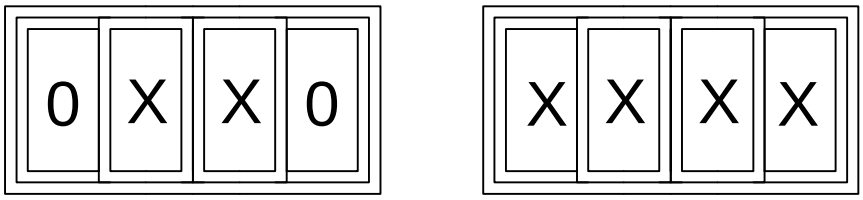
2400mm 4000mm



2400mm 4000mm



3000mm 5000mm



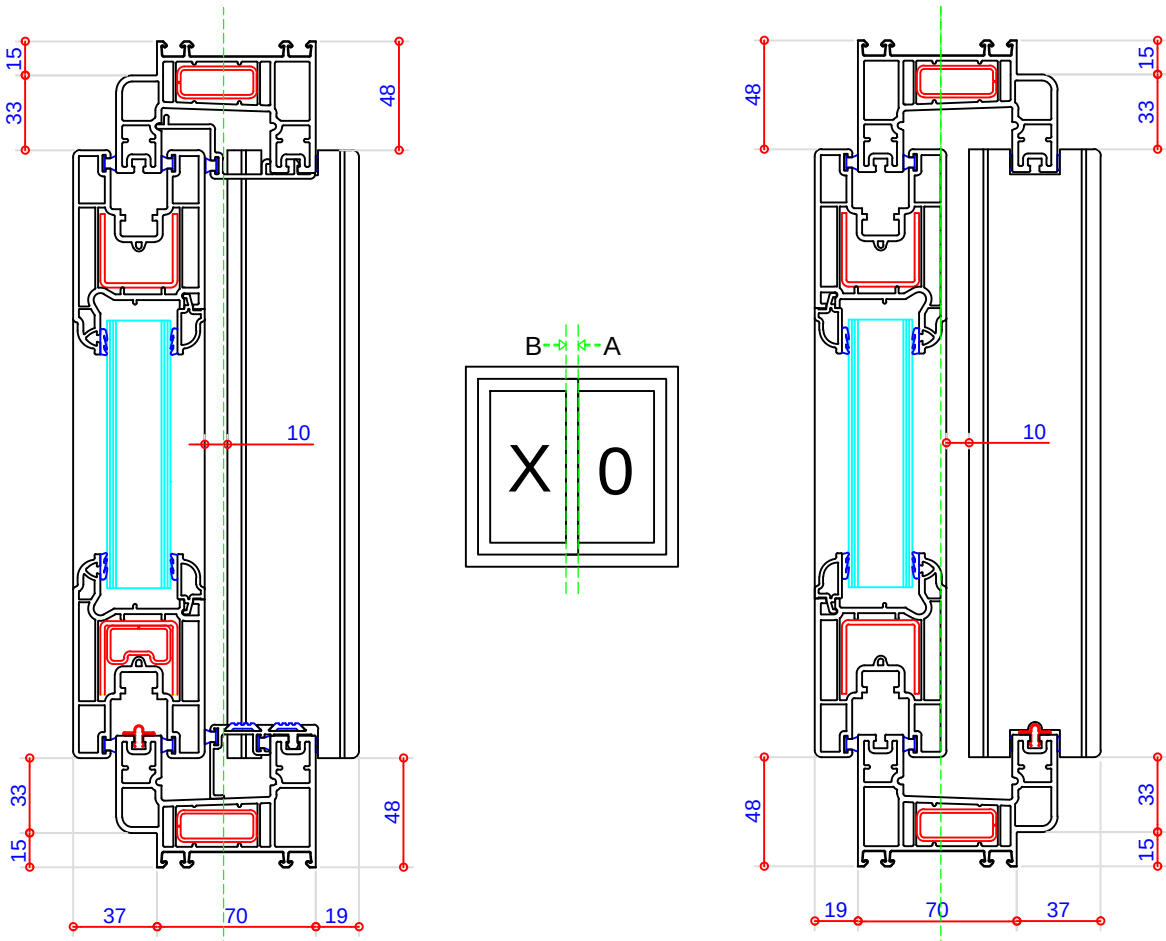
These sizes are based on in house testing for PAS 24 sizes please see page 5.02.1

Profile Combinations 1.

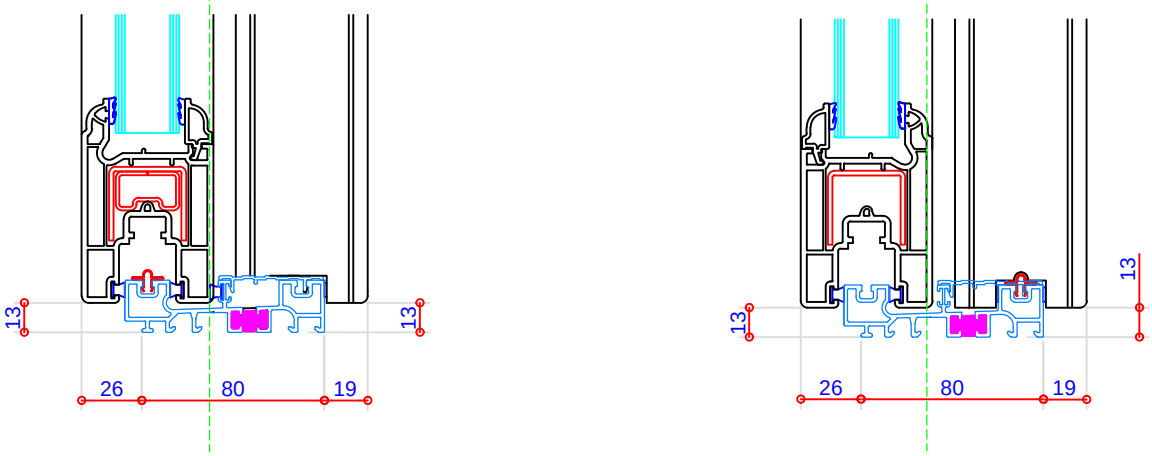
2

A

B



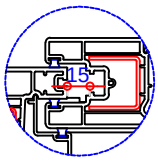
Alternative Aluminum Threshold 104324

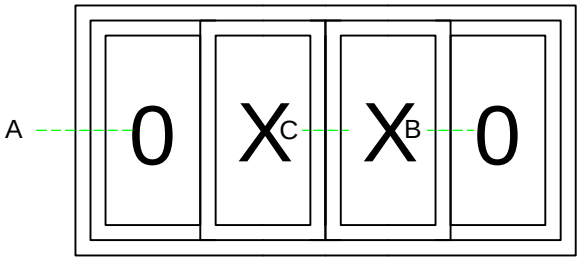


DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

Profile Combinations 2.

Sash cover is based on 15mm clearance for door locks. If alternative hardware is used other than detailed in this manual you must seek advice from your hardware supplier.





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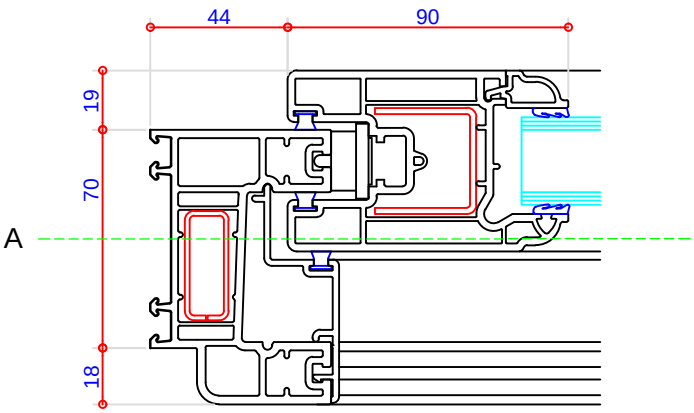
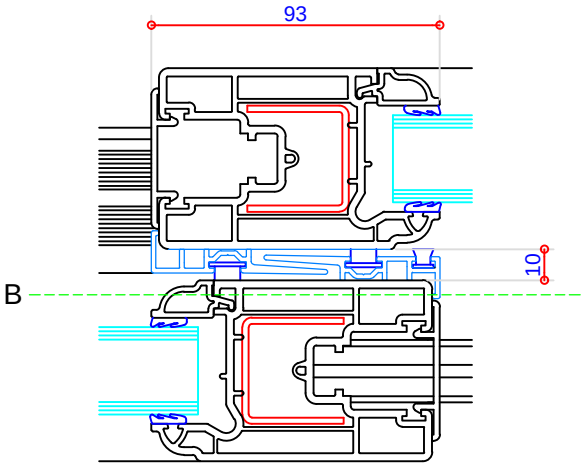
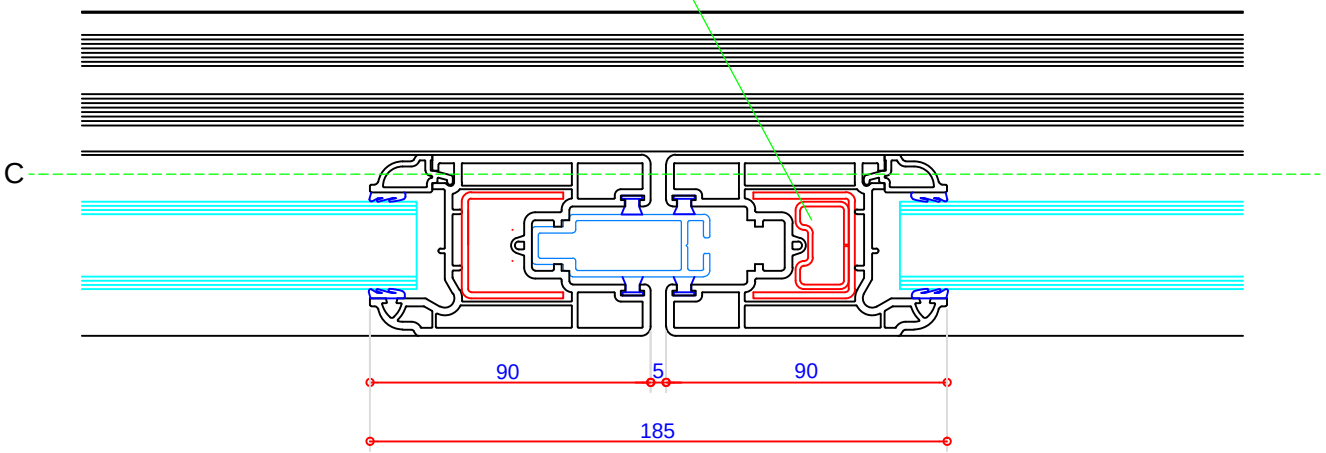


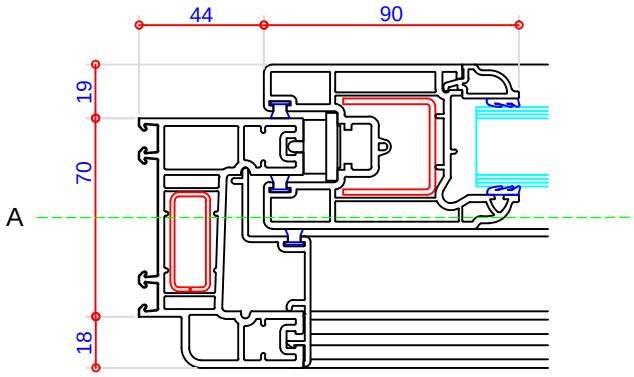


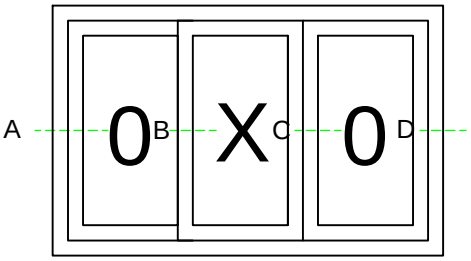
713119 (S00119)
Above & Below
Gear Case on
lock side only



DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

Profile Combinations 3.





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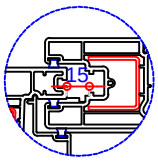
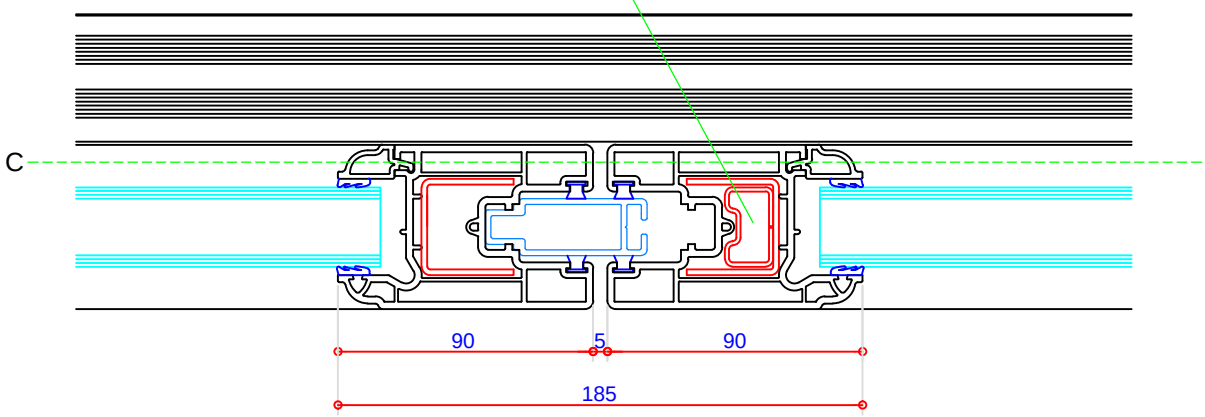
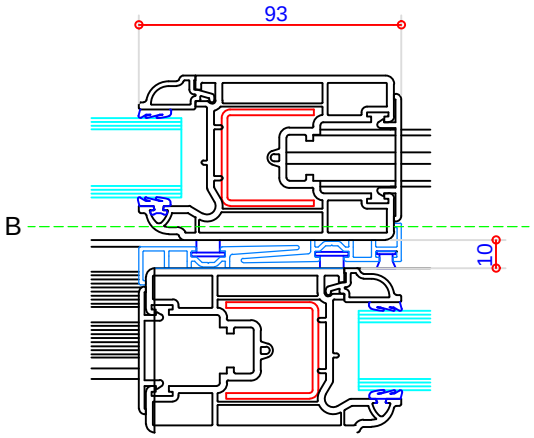
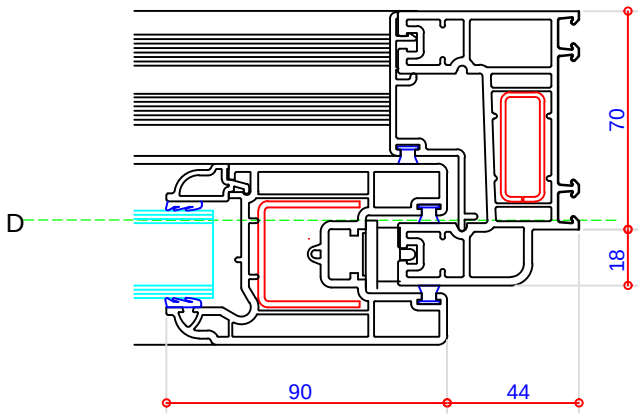
Sash cover is based on 15mm clearance for door locks. If alternative hardware is used other than detailed in this manual you must seek advice from your hardware supplier.



713119 (S00119)
Above & Below
Gear Case on
lock side only



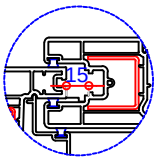


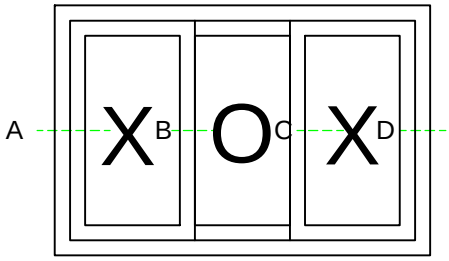


DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

Profile Combinations 4.

Sash cover is based on 15mm clearance for door locks. If alternative hardware is used other than detailed in this manual you must seek advice from your hardware supplier.





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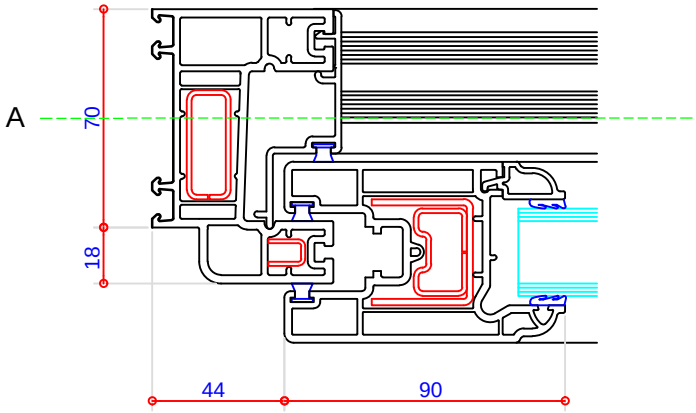
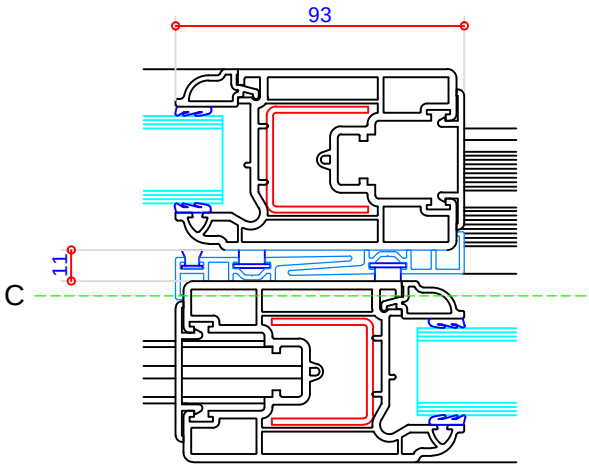
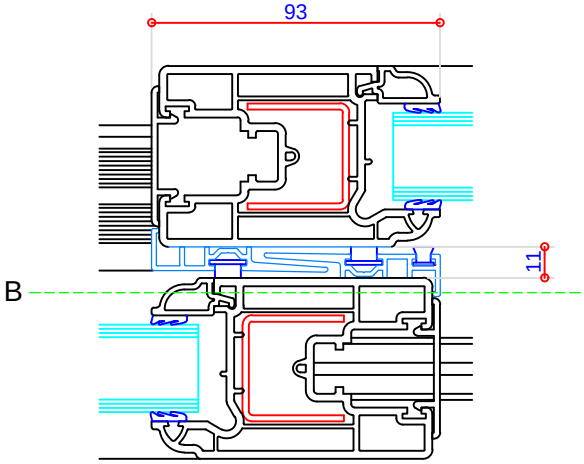
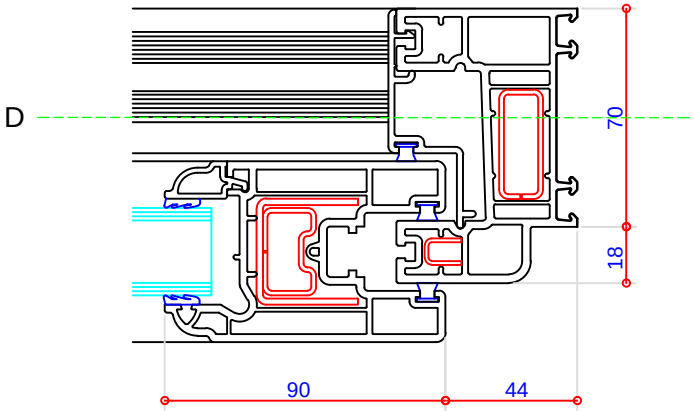


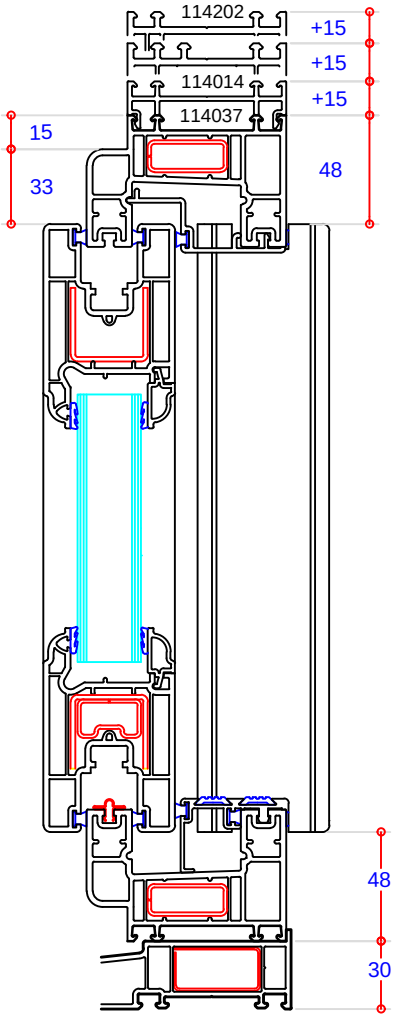




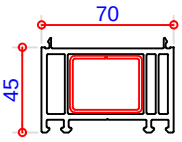


DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

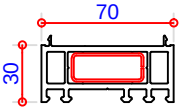
Profile Combinations 5.



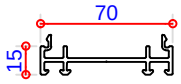
Optional 15mm, 30mm & 45mm Extensions
are available for increasing clearance.



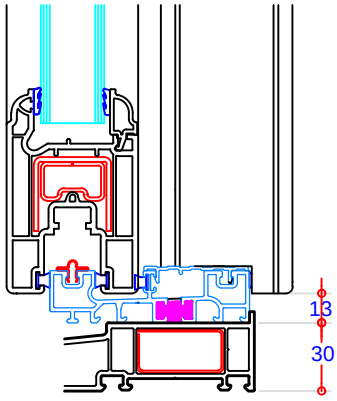
45mm Frame Extension 114202
Steel Box 38 x 30mm 113271



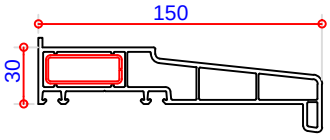
30mm Frame Extension 114014
Steel Box 38 x 15mm 113073



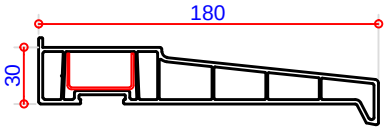
15mm Frame Extension 114037



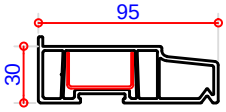
Optional Cills are available were required



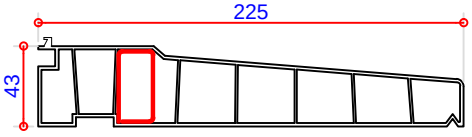
150mm Cill 110103
Steel Box (S00016)713016
End Caps 109006
Straight Coupler 109010



180mm Cill 110076
Steel U Channel 113377
End Cap 109090



95mm Cill 110074
Steel U Channel 113377
End Cap 109074



225mm Cill 110106
Steel Box 113245
Steel U 113317
End Cap 109647

DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

Profile Combinations 6.

Coupling Options

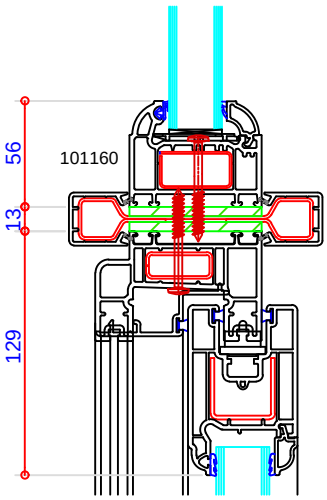
113112 Dogbone Coupler
116012 Covering Profile

Suitable for VEKA or Halo systems

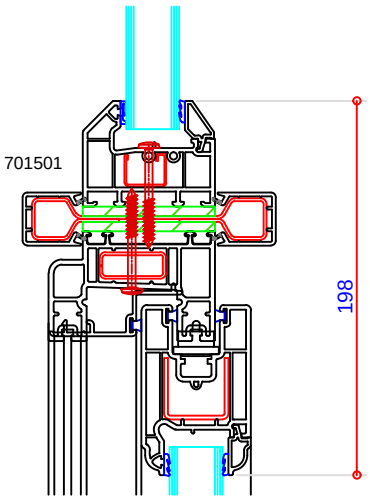
2

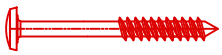
101160 Fully Sculptured
56mm Outer used for
illustration purpose only

701501 System 10
56mm Outer used for
illustration purpose only



5mm packers recommended
to allow for expansion.

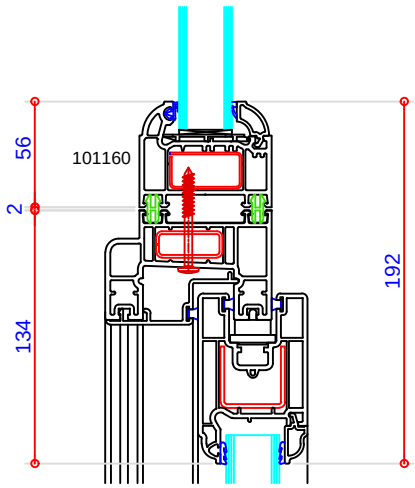


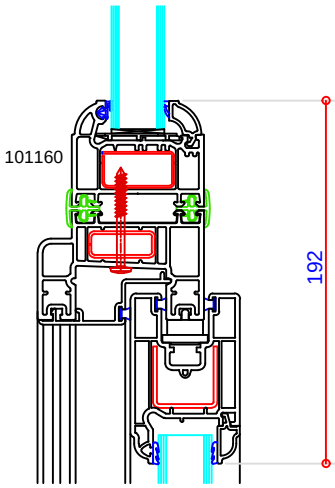


4.8 x 55mm Self Tapping Screw (Non VEKA part).

116030 Concealed Coupler (VEKA only)

116217 2mm Coupler (VEKA only)



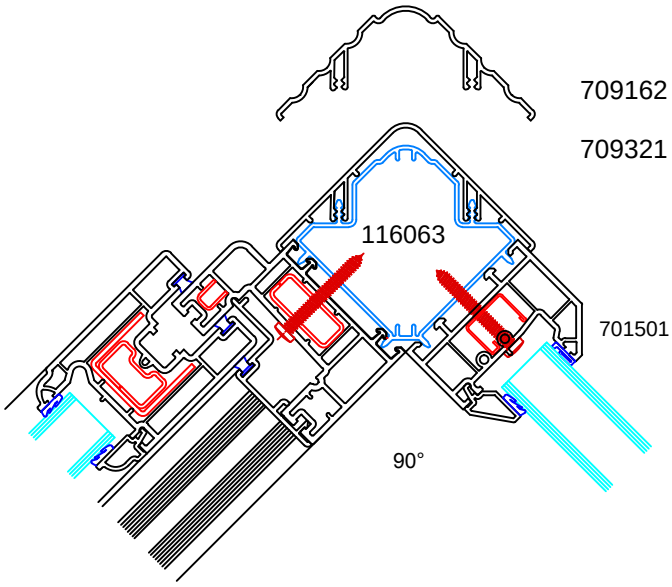


DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

Profile Combinations 7.

Coupling Options (Halo profiles)

2

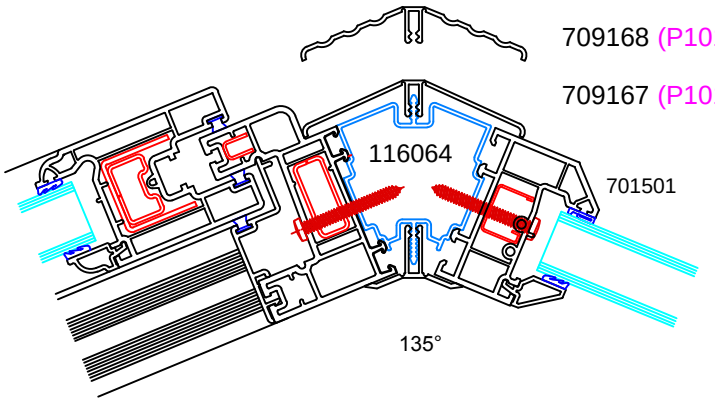


709162 (P10162) Featured Cover

709321 (P10321) Plain Cover

Halo Deductions

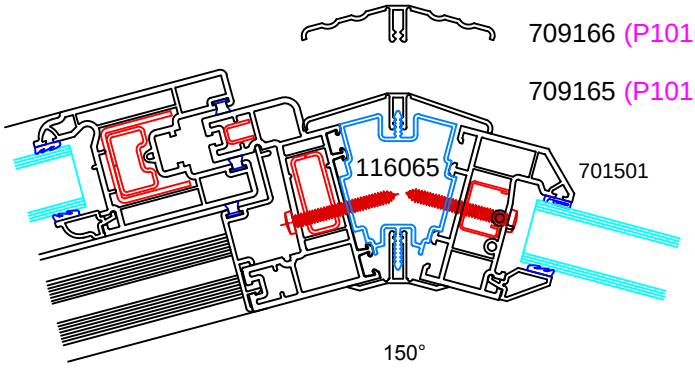
116063	90°	0mm
116064	135°	10mm
116065	150°	10mm



709168 (P10168) Featured Cover

709167 (P10167) Plain Cover

5.5 x 50mm Pan Head Self Tapping Screw (Non VEKA part).



709166 (P10166) Featured Cover

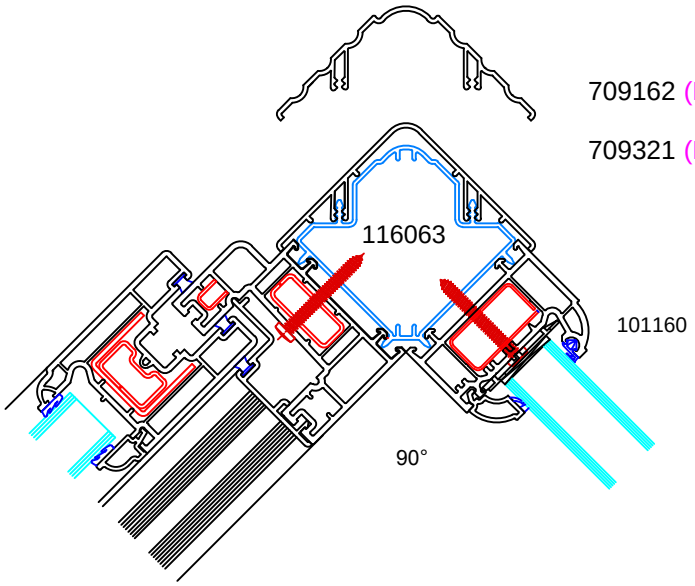
709165 (P10165) Plain Cover

DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

Profile Combinations 8.

Coupling Options (VEKA Profiles)

2

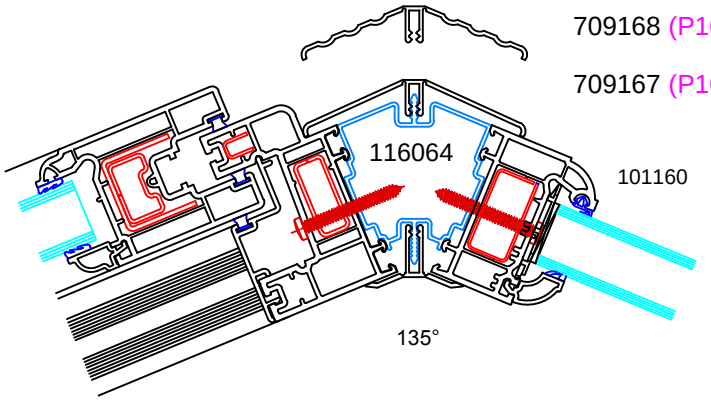


709162 (P10162) Featured Cover

709321 (P10321) Plain Cover

VEKA Deductions

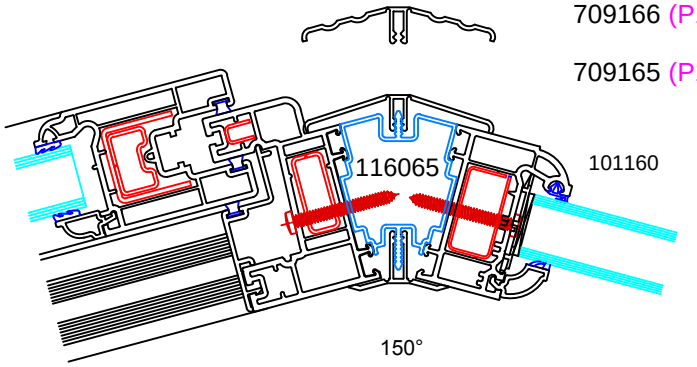
116063	90°	0mm
116064	135°	8mm
116065	150°	8mm



709168 (P10168) Featured Cover

709167 (P10167) Plain Cover

5.5 x 50mm Pan Head Self Tapping Screw (Non VEKA part).



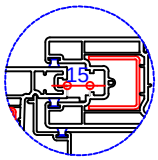
709166 (P10166) Featured Cover

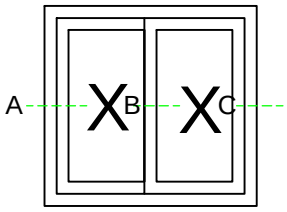
709165 (P10165) Plain Cover

DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

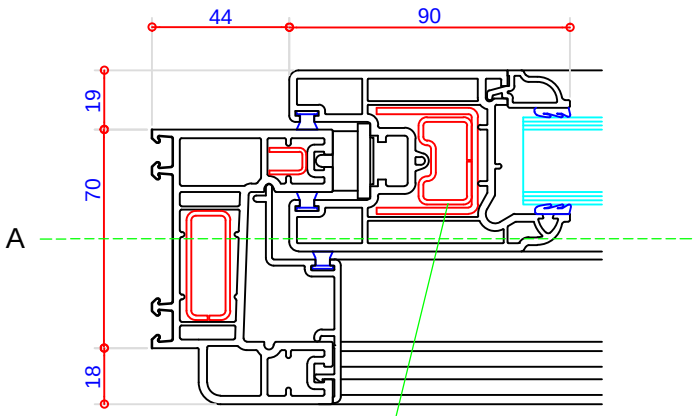
Profile Combinations 9.

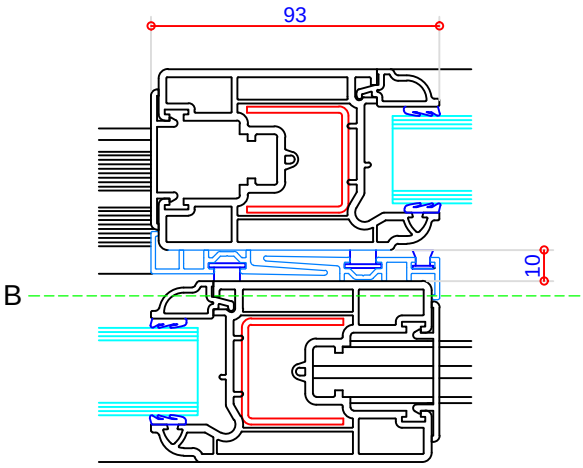
Sash cover is based on 15mm clearance for door locks. If alternative hardware is used other than detailed in this manual you must seek advice from your hardware supplier.



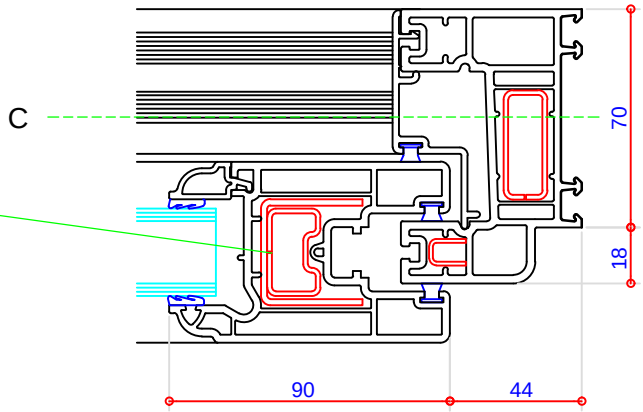


2





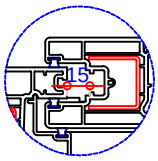
713119 (S00119)
Above & Below
Gear Case on
lock side only

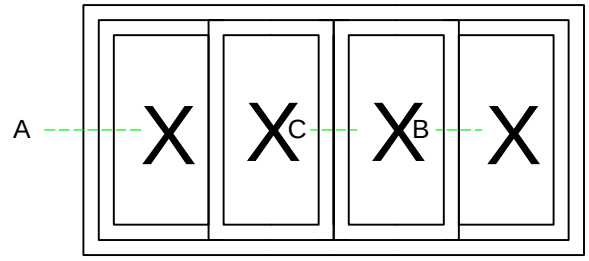


DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

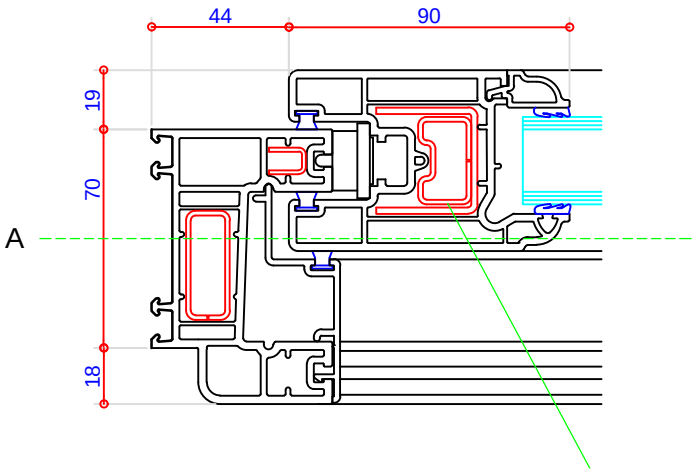
Profile Combinations 10.

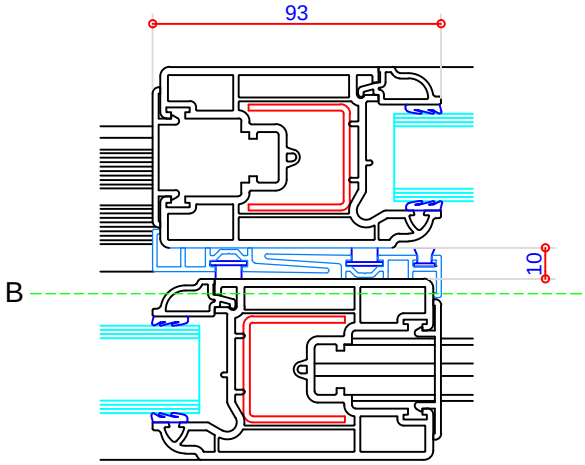
Sash cover is based on 15mm clearance for door locks. If alternative hardware is used other than detailed in this manual you must seek advice from your hardware supplier.



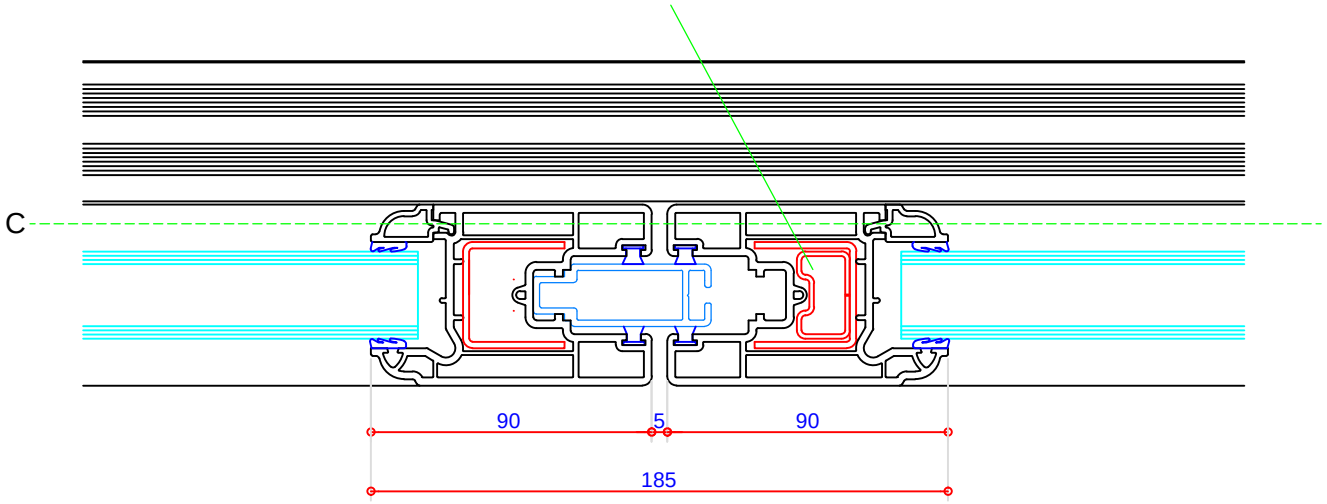


2



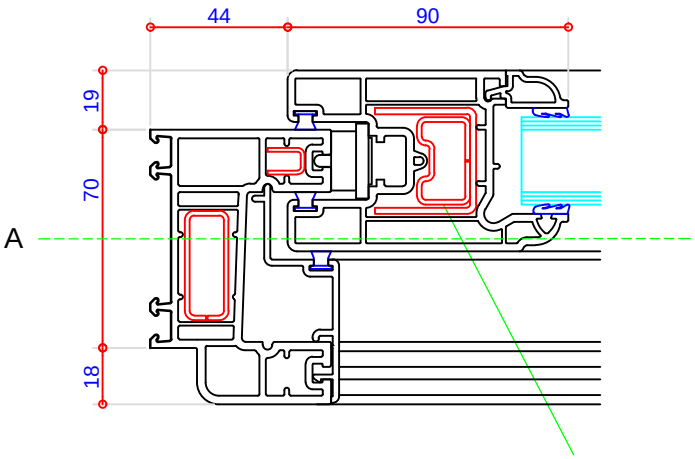


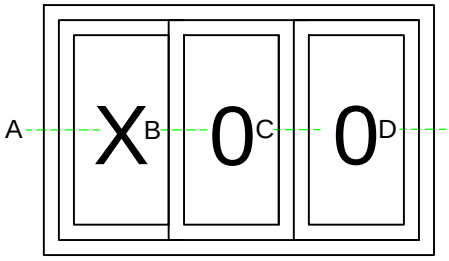
713119 (S00119)
Above & Below
Gear Case on
lock side only



DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

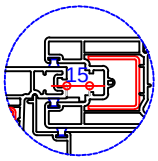
Profile Combinations 11.



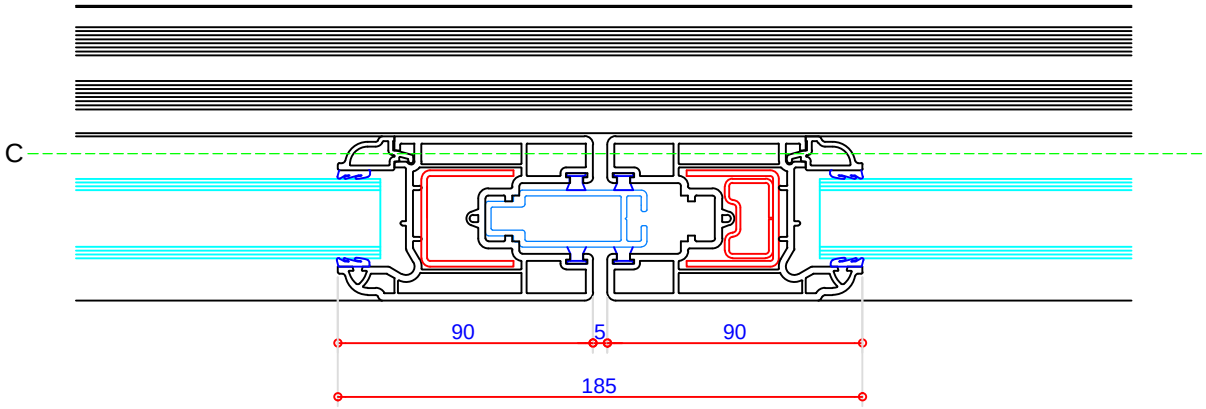


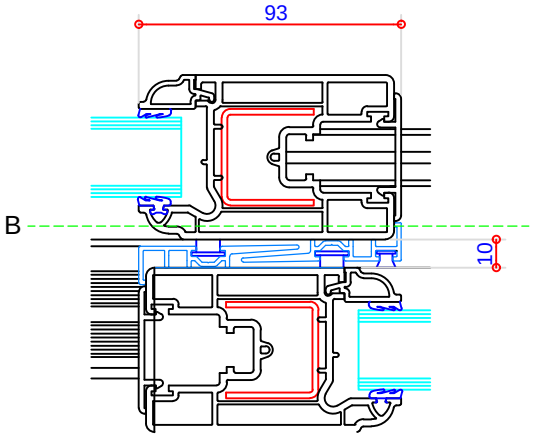
2

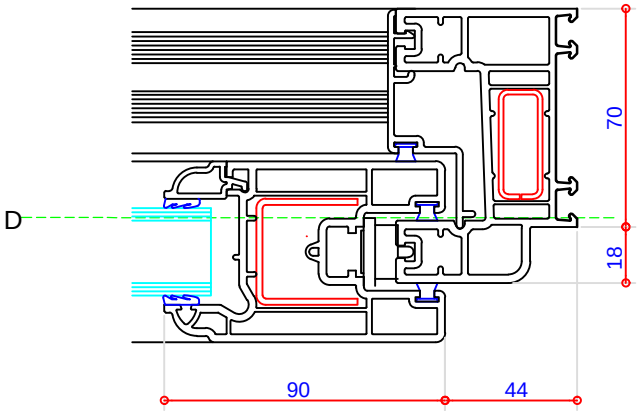
Sash cover is based on 15mm clearance for door locks. If alternative hardware is used other than detailed in this manual you must seek advice from your hardware supplier.



713119 (S00119)
Above & Below
Gear Case on
lock side only







DIMENSIONS APPLY TO CHAMFERED SECTIONS ALSO

714181 (A00181) Interlock Foiled Option.

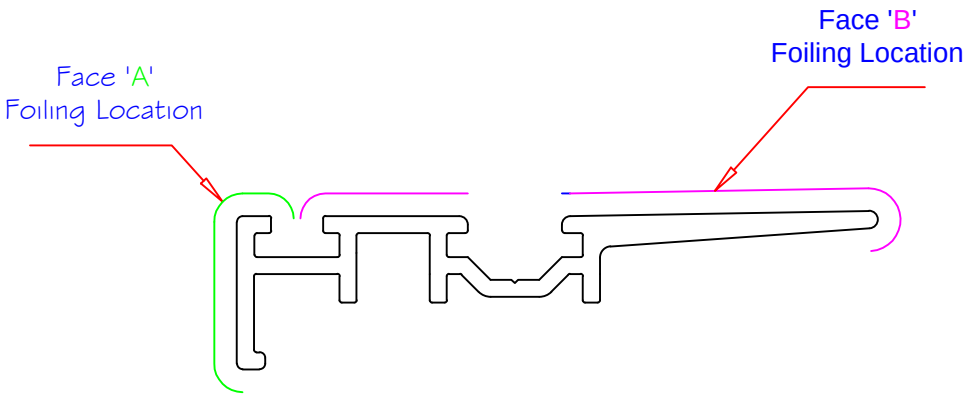
This interlock is available in a black or white powder coat finish but can also be supplied with foil finish if required.

When Interlock method 1 is used (see page 4.14.1) Face A is visible externally and Face B is visible internally

When Interlock Method 2 is used (see page 4.15.1) The interlock fixed to the external sash; face A is visible externally and Face B is visible internally. The interlock fixed to the internal sash; face A and face B are visible externally.

Method 1	Face A	Face B
1 x 714181 Per Opener	As External Colour	As Internal Colour
1 x 704208 Per Opener	Available Black or White Powder Coated	

Method 2	Face A	Face B
1 x 714181 Per Opener	As External Colour	As Internal Colour
1 x 714181 Per Opener	As External Colour	As External Colour



MANUFACTURE

Manufacturing Sizes

Key:

OA = Overall width or overall height were applicable WA = Single weld alowance
*SS = Split size, calculations are based on equal split sizes and allow for equal glass sizes. Dimensions are in millimeters

Part No.	Description	Note	W/H	Calculation	Qty
105178	58mm Outer Frame	Std Threshold	Width	OA + (2 x WA)	2
		Low Threshold	Width	OA + (2 x WA)	1
		Std Threshold	Height	OA + (2 x WA)	2
		Low Threshold	Height	OA - 25 + (1 x WA)	2

3

Sash widths are calculated based on 15mm clearance for door locks. If alternative hardware is used other than detailed in this manual you must seek advice from your hardware supplier and adjust sash widths to suit.

705151 / 703251	Sash	OX & XX	Width	(OA / 2) + (2 x WA)	4
		OXO & XOO	Width (1)	(SS +1) + (2 x WA)	2
		OXO & XOO	Width (2)	(SS + 41) + (2 x WA)	2
		OXO & XOO	Width (3)	(SS - 46) + (2 x WA)	2
		XOX	Width (1)	(SS + 88) + (2 x WA)	2
		XOX	Width (2)	SS + (2 x WA)	4
		OXXO & XXXX	Width (1)	SS + (2 x WA)	4
		OXXO & XXXX	Width (2)	(SS + 41) + (2 x WA)	4
		Std Threshold	Height	(OA - 96) + (2 x WA)	2 Per sash
		Low Threshold	Height	(OA - 61) + (2 x WA)	2 Per sash
702152 / 705252	Midrail	Mech Joint only	Width	Sash width - 132	1 Per sash
Mitred Beads			W/H	Finished sash size - 140	(W/H x 2) Per sash

Trims

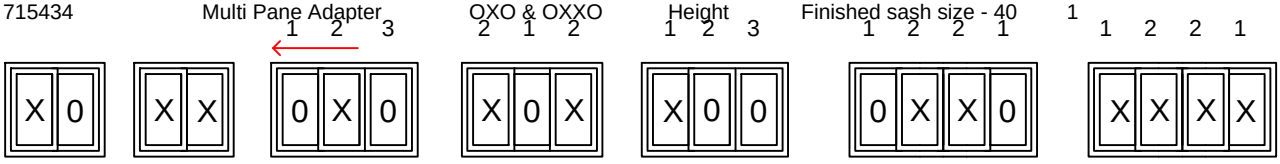
705152	Outer Frame Cover	OX & XOO	Width	SS -66.5	1
		OXO	Width	(2 x SS) - 66.5	1
		OXXO	Width	(2 x SS) - 52	1
		XOX	Width	SS - 66.5	2
		Std Threshold	Height	OA - 62	2
		Low Threshold	Height	OA -42	2
109064	Draft Strip		Width	Sash size - 88	1 Per Fixed pane
709112	Sash Cover	XX & XOO	Height	Finished sash size	2
		XXXX	Height	Finished sash size	4
709047	Threshold Insert	With 704180	Width	704180 cut size - 10	2

Thresholds

713070	Track		Width	OA - 121	1
104324	Low Threshold	Mech joint	Width	OA	1
704361	Threshold Cover	OX	Width	SS - 107	1
		OXO	Width	(2 x SS) - 107	1
		OXXO	Width	(2 x SS) - 93	1
		XOX	Width	SS - 107	1
704180	Threshold	OX & XOO	Width	SS - 87	1
		OXO	Width	(2 x SS) - 87	1
		OXXO	Width	(SS x 2) - 53	1
		XOX	Width	SS - 87	2
704181 / 704208	Interlock	XO, XX, XOO	Height	Finished sash size	2
		X0X, 0XX0, XXXX	Height	Finished sash size	4
704181 / 704208	Interlocks	If Low Threshold is used a further 10mm deduction is required			
715434	Multi Pane Adapter	OXO & OXXO	Height	Finished sash size - 40	1

Key Continued:

X = Opening sash
O = Fixed pane



Manufacturing Sizes Continued

Reinforcing is calculated based on the cut size of the profile it is used with

Part No.	Description	Used with	Note	Calculation	Qty
713029	Steel Channel	705151/703251	All sashes	Sash height - 155	2 Per
		All sliding Sashes, Dark Foil or Sashes over 750		Sash width - 155	2
713119	Steel Box	705151/703251	Sliding Sashes	400	2
			Locking jamb	400	2
113018	Steel Channel	105178	Optional/PAS 24	Frame width - 126	1
			Locking jamb	Frame height - 126	1
			Optional/Pas 24	Frame Height - 126	2
713104	Steel Box	105178	Standard Threshold	Width - 70	2
			Low Threshold	Width - 70	1
			Standard Threshold	Height - 70	2
			Low Threshold	Height - 65	2
115112	Mech Joint Rein	105178	Standard Thresh	Width - 70	2
			Low Threshold	Width - 70	1
			Std Threshold	Height - 70	2
			Low Threshold	Height - 65	2
713166	Steel Channel	702152 / 705252	Dark foil or over 750	Midrail - 150	1 Per
713804	Steel Channel (Prep)	705151 / 703251	Locking jamb of sash	1 per opening sash	1

3

Ancillary Items

709818	Anti Lift device	2 x Per opening sash (Pas 24 1 x Per opening sash)
709819	Fixed Pane Bracket	2 x Per fixed sash
709801	Multi pane end cap	2 x OXO, OXXO, XOO & XXXX only
709081	Base Packer	4 x Per fixed sash
709082	Jamb packer	3 x Per fixed sash (Not required on XX, XOX & XXXX)
109058	Mech joint moulding	1 x pair when low threshold used
709128	Door Stop	1 x per opening sash (Not suitable for XOX)
141405	Mechanical Joint	1 x per mechanical joint
141406	Mech Joint Internal	2 x per mechanical joint
744786	Mech joint pin	1 x per mechanical joint
744673	M6 x 60 Cap Screw	1 x per mechanical joint
106411	Mech joint Gasket	1 x per mechanical joint

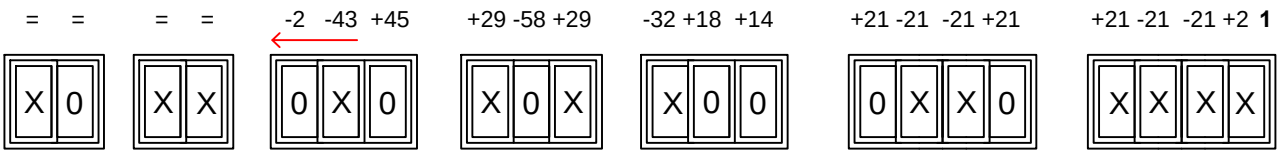
Brush Seals

	744961 6.7-750-WE	744226 11-800-P	744778 55mm Pad
OX	(OA Height x 8) + (OA Width x 6)	OA Height x 2	Qty 2
OXO	(OA Height x 12) + (OA Width x 6)	OA Height x 2	Qty 2
XOX	(OA Height x 10) + (OA Width x 6)	OA Height x 4	Qty 4
OXXO	(OA Height x 14) + (OA Width x 6)	OA Height x 4	Qty 4
XX	(OA Height x 8) + (OA Width x 5)	OA Height x 2	Qty 2
OOX	(OA Height x 12) + (OA Width x 6)	OA Height x 2	Qty 2
XXXX	(OA Height x 14) + (OA Width x 5)	OA Height x 4	Qty 4

Glass Sizes

Finished sash width - 148 Finished sash height - 148

For Equal Glass Sizes, alter split sizes as below

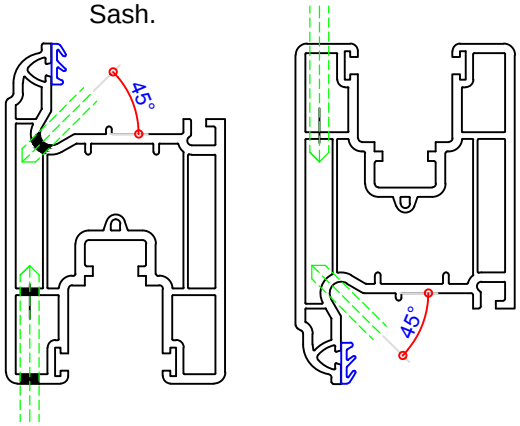


Drainage & Pressure Equalization

Drainage slots must be offset by 100mm and must not break into reinforcement chambers, slots must also be cleaned out removing all swarf to prevent water build up. The standard size for drainage slots is 5mm x 30±5mm. All frames must have a minimum of four drainage slots incorporated. Face drainage slots must be drilled at their lowest possible point. Care should be taken to ensure any gearing does not block or restrict the drainage, if this is the case the drain slot position may need to be moved or additional drainage provided.

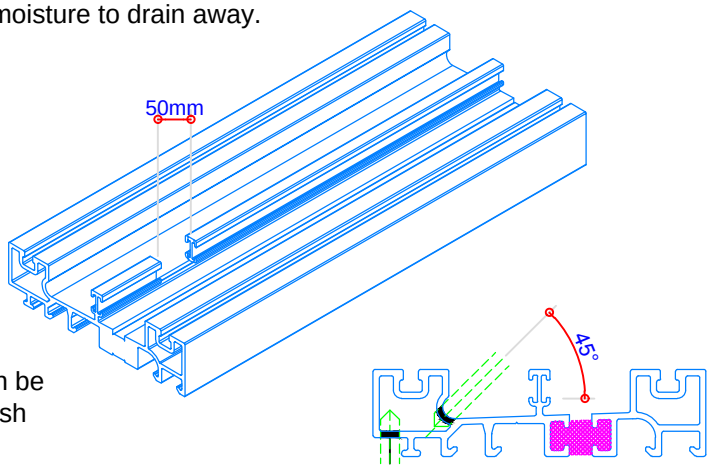
Drainage Routes

Sash.



Low Threshold.

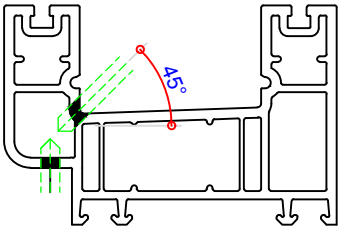
Drill/slot required through the central wall of the low threshold at either end to allow trapped moisture to drain away.



Pressure Equalization

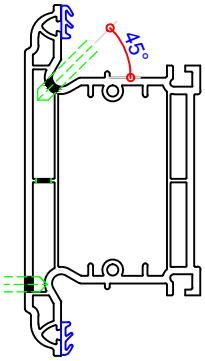
Pressure equalization of the sashes is advised and can be achieved by drilling a 5mm hole in both sides of the sash within 150±50mm of the head.

Outer frame.

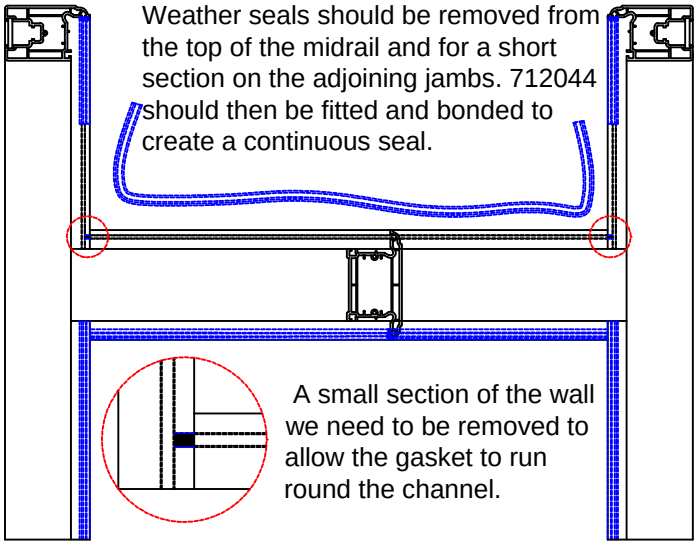


Mid Rail.

Slot the centre web of the midrail with a 5mm drill prior to coupling.



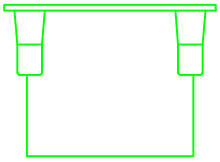
The mid rail can only be mechanically jointed and therefore requires face drainage. Joining faces must be suitably sealed at either end of the mid rail. Weather seals should be removed from the top of the midrail and for a short section on the adjoining jambs. 712044 should then be fitted and bonded to create a continuous seal.



A small section of the wall we need to be removed to allow the gasket to run round the channel.

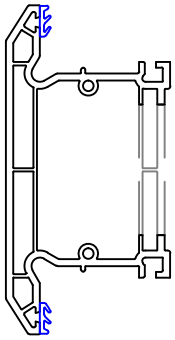
Routing & Fitting A Yale Wellseal 10" Letter Plate

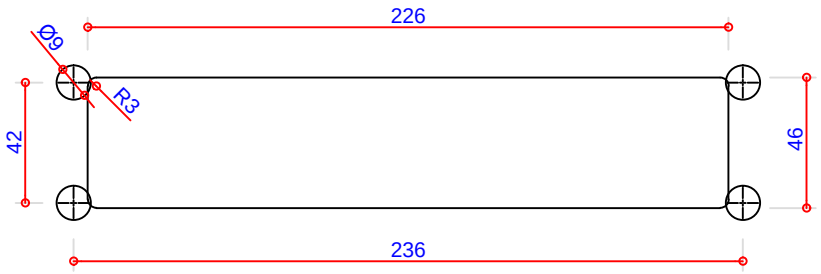
709194 (M00194) Letter Plate Cover Moulding



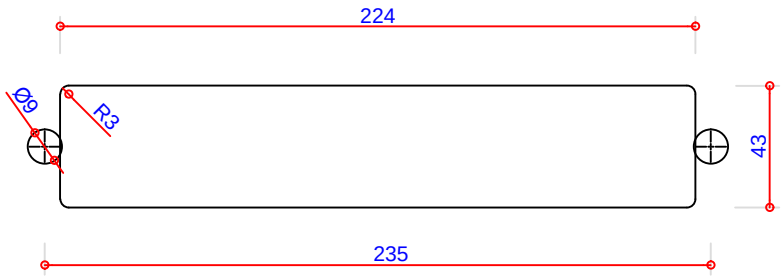
3

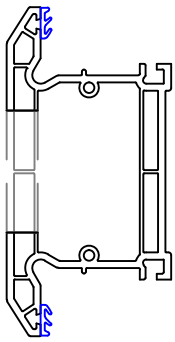
Inside



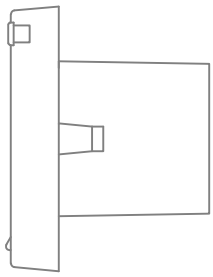


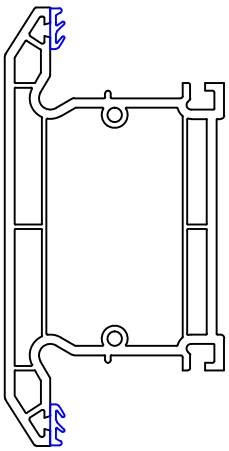
Outside



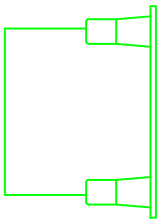


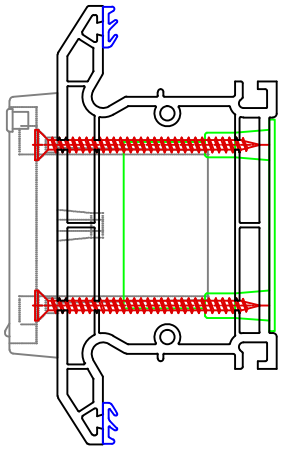
10" Wellseal Letter Plate
available from Yale





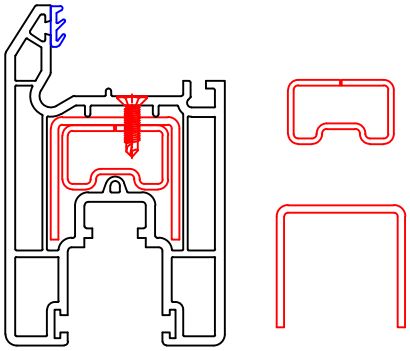
Secure using 4 x 60mm
C/SK Gimlet Point Screws





Reinforcement Recommendations

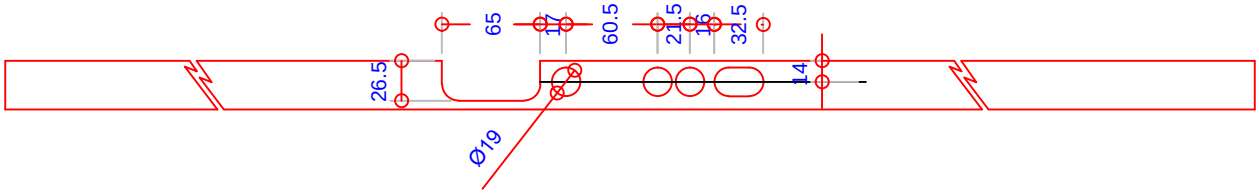
Outerframes - Fully reinforced
Sliding Sash - Fully reinforced
Other Sash Members - Reinforce sash members exceeding 900mm
Dark Foiled Profiles - Always fully reinforce
Secure using M4 x 13mm Faceted C/SK Drill Point Screws



713119 (S00119) 400mm Pieced sections above & below gear Case only on locks jambs.

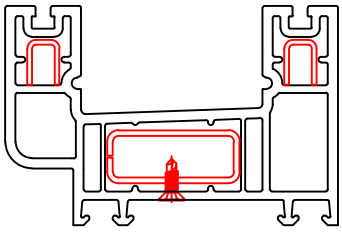
713029 (S00029) Steel Channel

713804 (S00127) Pre routed steel available for the main locking jambs of the sash.

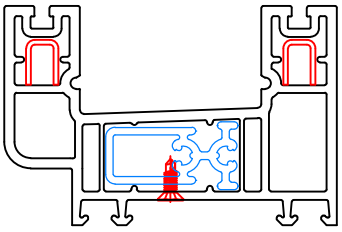


113018 Required for keep jamb only except were PAS 24 accreditation is specified, in this case 113018 must be inserted in all four sides of the outerframe both internally and externally.

Outer frame reinforcing positions



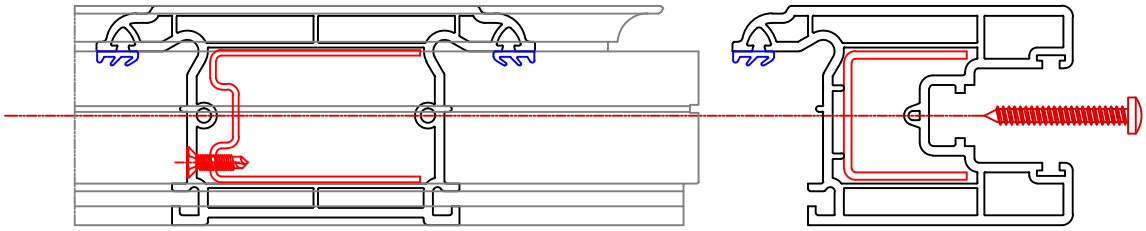
Mechanically jointed outer frame reinforcing



Transom Mechanical Jointing Details

Transom size = Sash width - 132mm

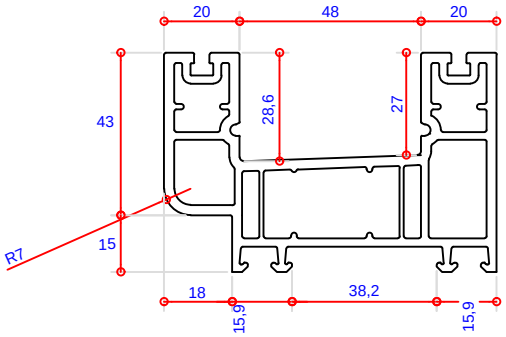
Qty 2 - 4.8 x 38mm Pan Head Gimlet point fixing screw.



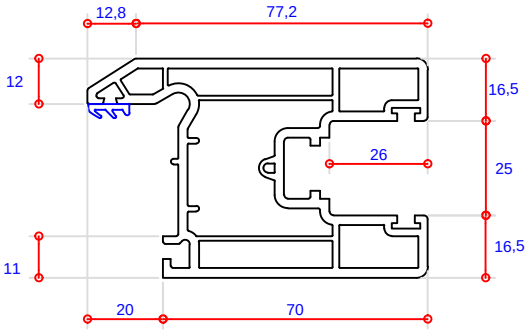
A 5mm diameter hole is to be drilled through the sash & reinforcing. This hole is then opened to 10mm diameter in the Eurogroove only. Seal mating faces using a good quality sealant.

Corner Cleaning & Mechanical Joint Preparation

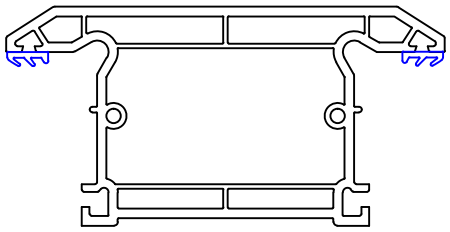
The weld sprue must be cleaned off thoroughly to ensure glazing beads, gaskets & seals fit correctly.



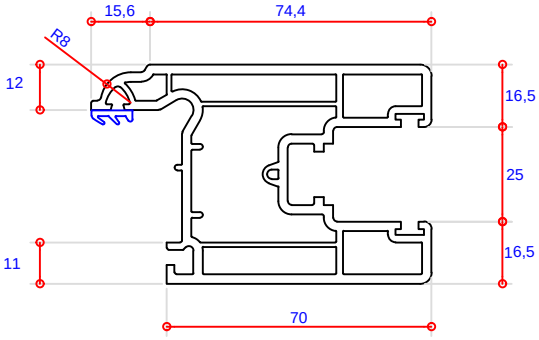
65mm Outer Frame 105178



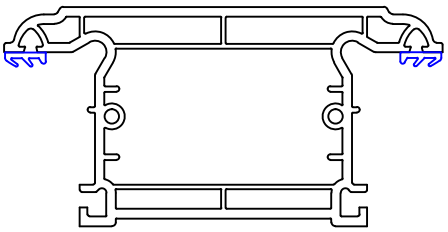
Patio Sash 705151 (P58151)



Patio Midrail 702152 (P58152)



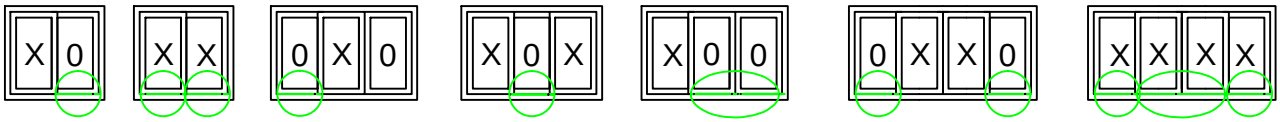
Patio Sash 703251 (P58251)



Patio Midrail 705252 (P58252)

ASSEMBLY

Draught Strip Tray Cover

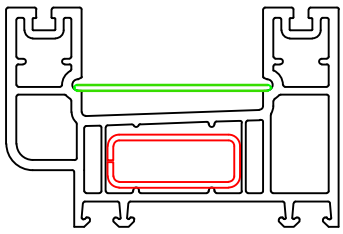


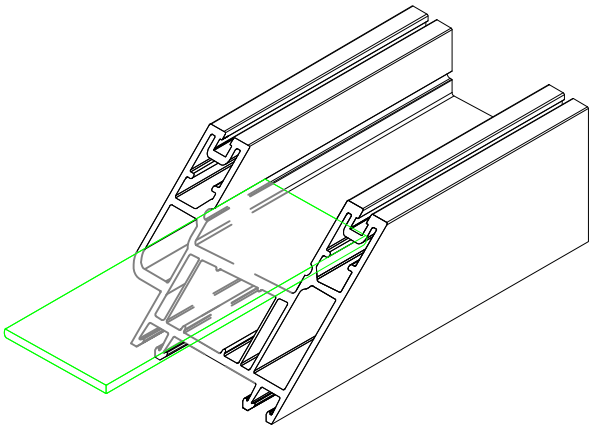
Draught Strip 109064

Cut size = Sash size = finished sash width

4

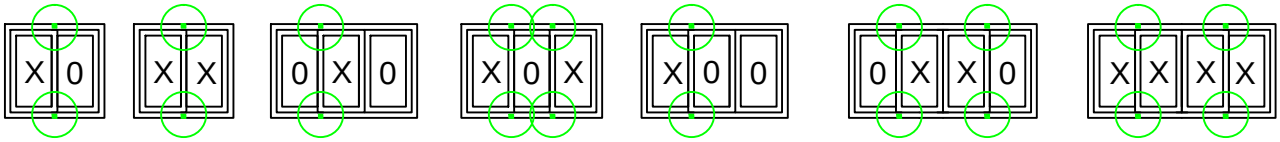
The optional Draught Strip tray is designed to conceal the drainage and re-direct any air which is forced through the drainage slots when a PVC threshold is used. It should always be fitted internally for internal sliders but can also be fitted externally for external sliders, in this instance suitable drainage routes should be created. The draught tray may also be fitted at the top of the frame internally or externally if desired.



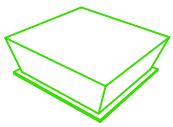


The Draught Strip must be inserted into the outer frame prior to welding or connecting mechanically fixed bottom corners. The strip can easily be slid into position once the frame has been joined and the corners cleaned where required.

Wool Pile Pad



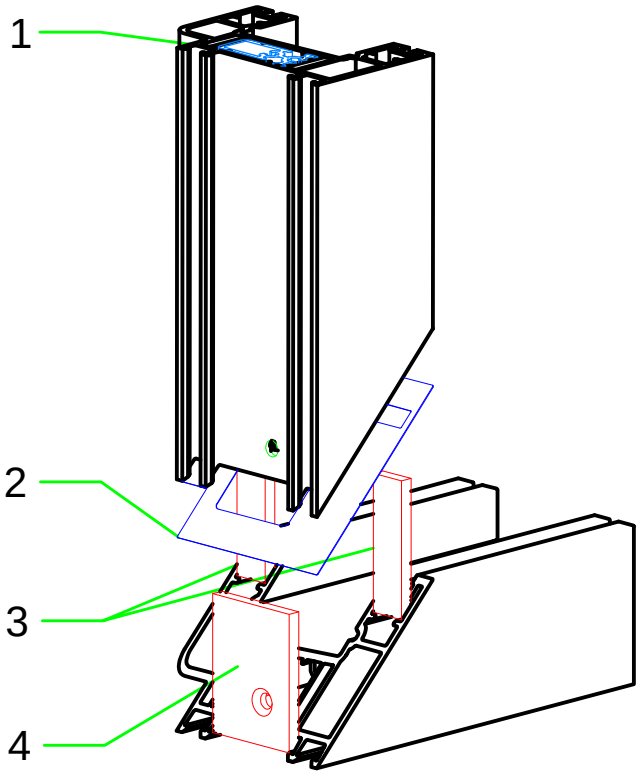
20-800-P 55mm Woolpile 744778 (H01778)



Once the frame has been welded & corner cleaned or mechanicaly jointed, the draft strip can be slid into position and the self adhesive 55mm woolpile pads can be fitted central to the meeting styles.

Mechanically Jointing Frames (Optional)

1. Reinforcement 115112
2. Gasket 106411
3. Internal Brackets 141406
4. Bracket 141405



Ensure 115112 reinforcement has been inserted into the outer frame profile.

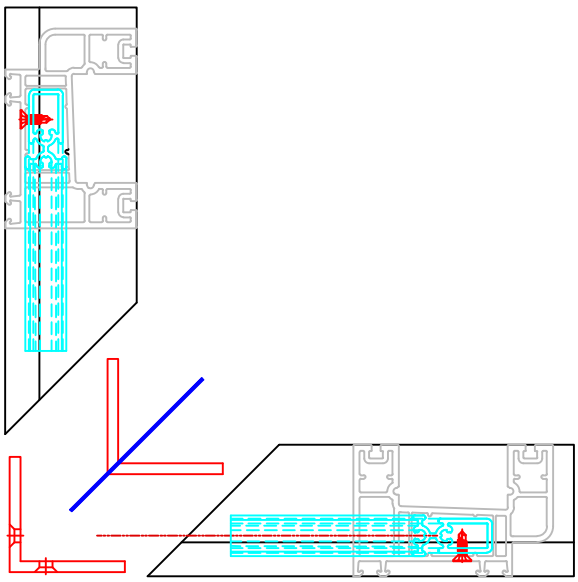
Insert 2 x 141406 internal brackets into one piece of the outer frame profile.

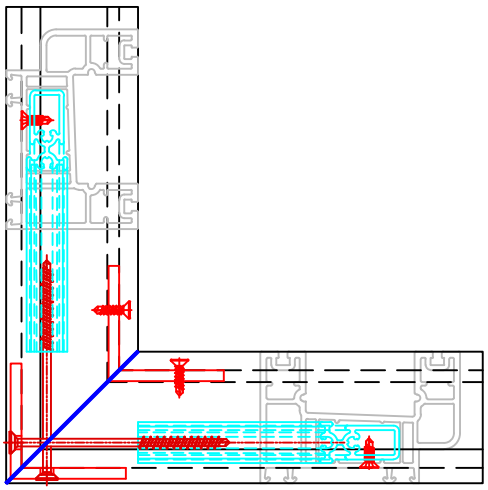
Locate the 106411 gasket onto the internal brackets.

Feed the second piece of outer frame profile onto the internal brackets.

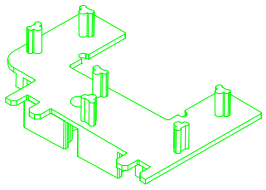
Secure using 2 x 5mm x 80mm screws though the holes on the 141405 Bracket into the reinforcement screw ports.

4

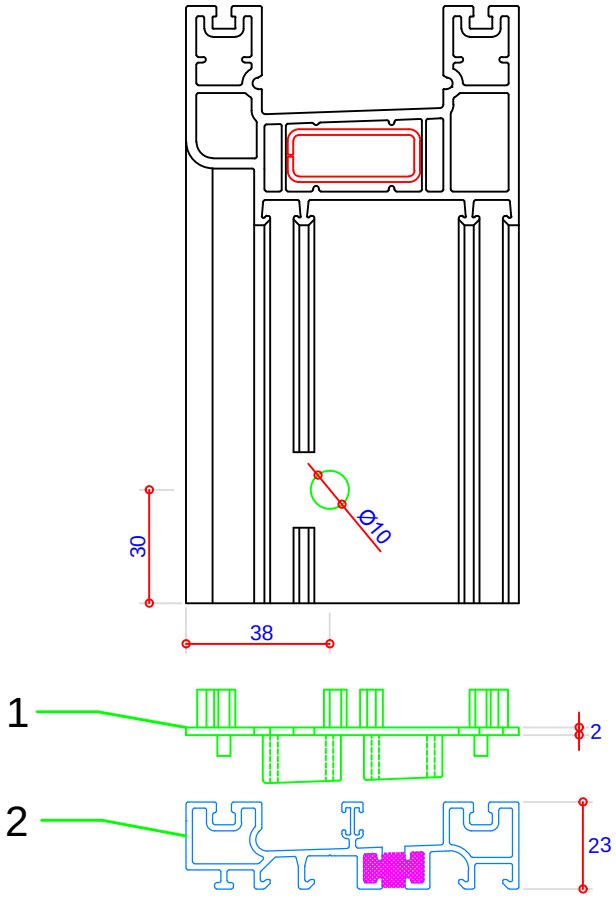


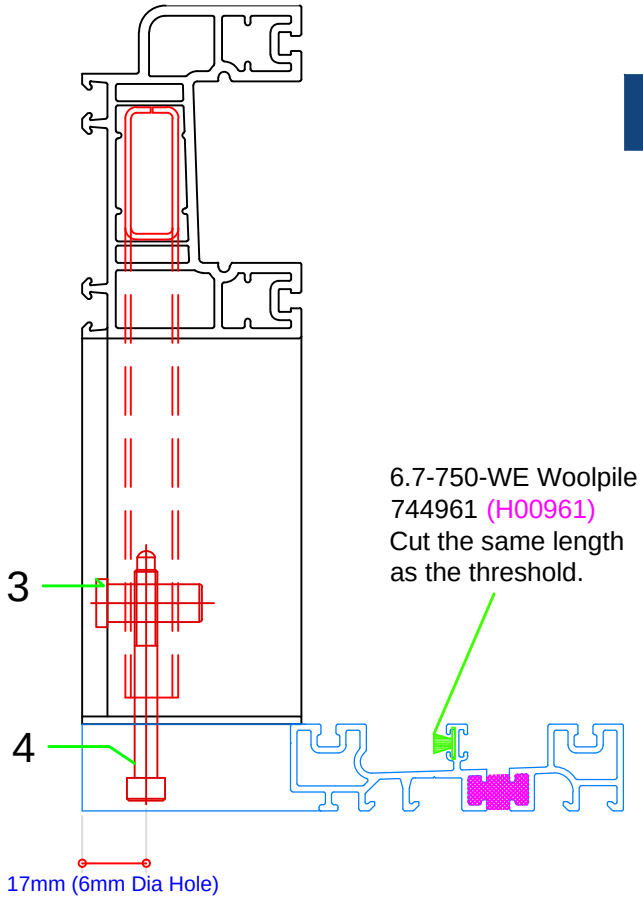


Fitting The Low Threshold



1. Mechanical Joint Molding 109058
2. Low Threshold 104324
3. Mechanical Joint Pin 744786 (H01786)
4. M6 x 60 Cap Screw 744673 (H00673)





4

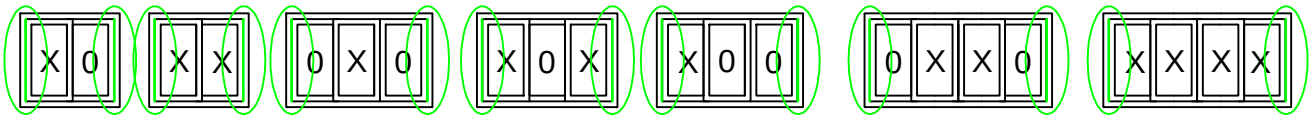
The Mechanical joint molding is designed to house the aluminium threshold on the jamb of the frame, cut at 90°.

A 10mm hole is required as illustrated along with a small section of the adjacent leg on the outer frame profile will need removing for the mechanical joint pin to locate.

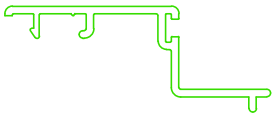
A 6mm hole will be required as illustrated to allow the mechanical joint screw to secure the threshold to the jamb.

Silicone seal all joints to prevent water ingress into the brickwork.

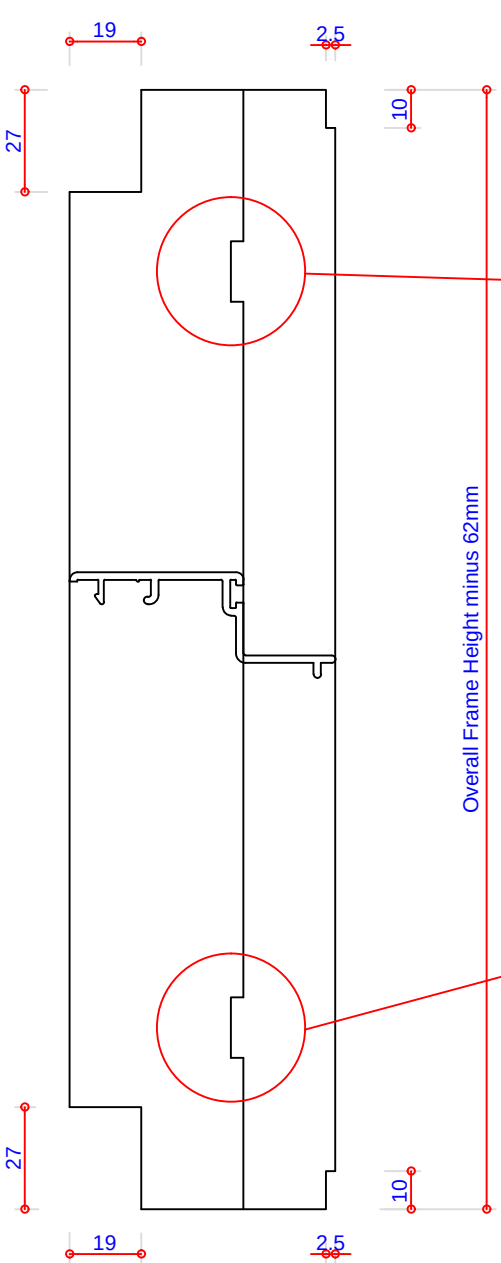
Outer Frame Vertical Cover Preparation

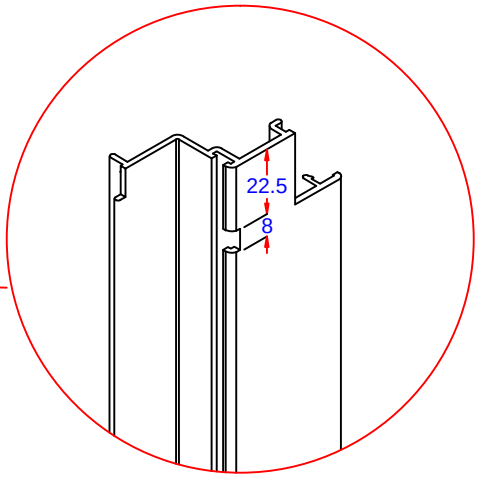


705152 (P10152) Channel Cover

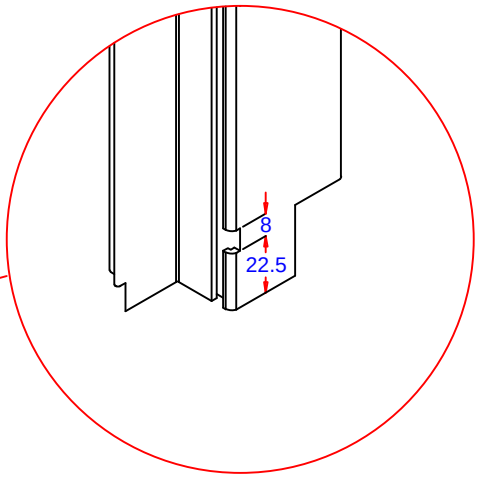


4



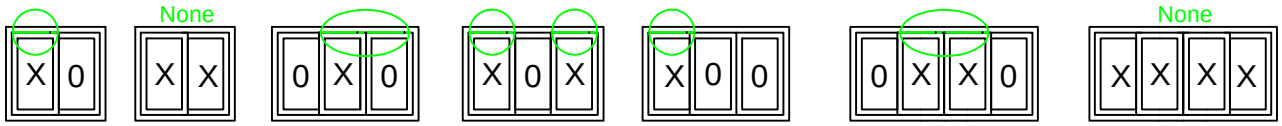


Notch the 705152 (P10152) Vertical Channel Covers to allow the brush pile to butt together.

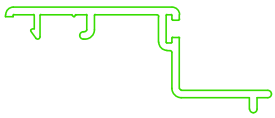


Vertical - Cut the 744961 Woolpile to the same length as the 705152 Cover.

Outer Frame Horizontal Cover Preparation (Head Opening Side)

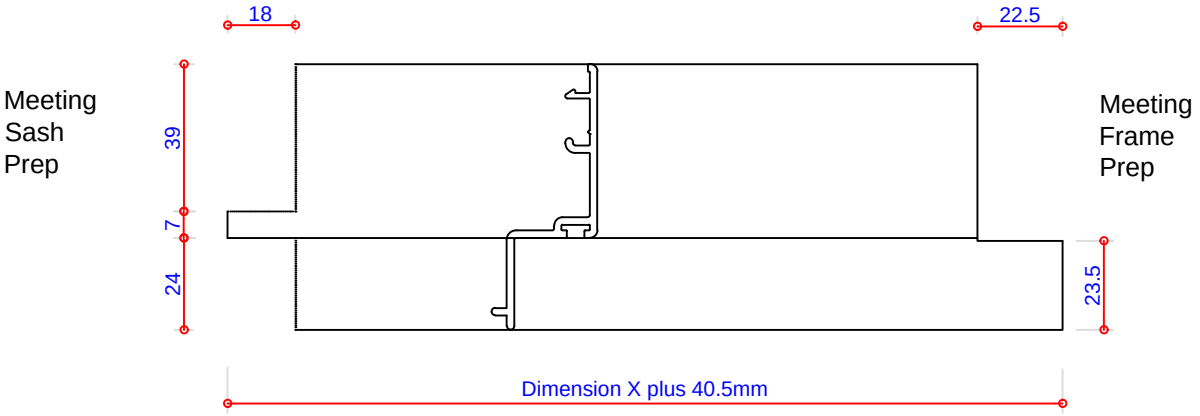


705152 (P10152) Channel Cover

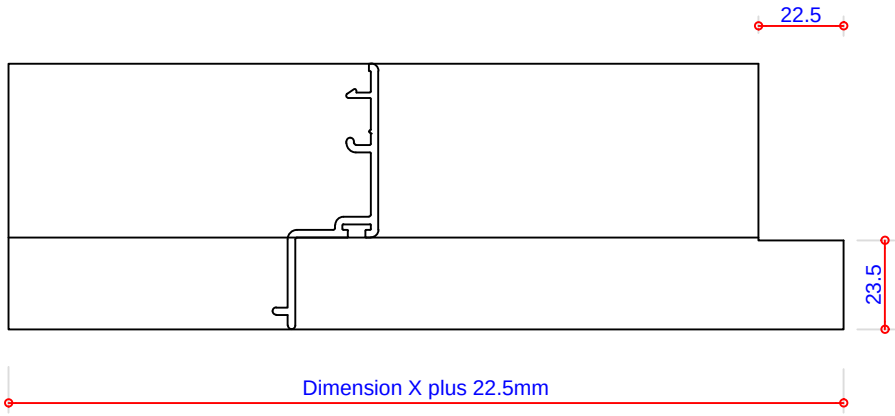


Method 1 when 704181 (A00181) & 704208 (A00208) Interlocks are used together.

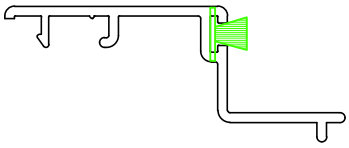
4

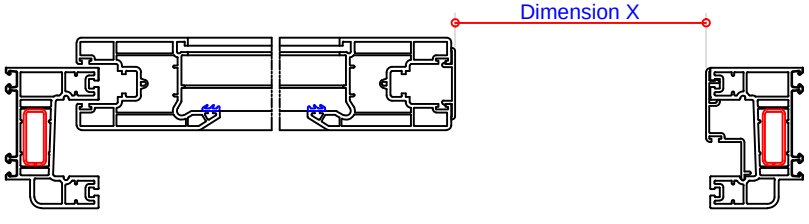


Method 2 when 2 x 704181 (A00181) Interlocks are used together.



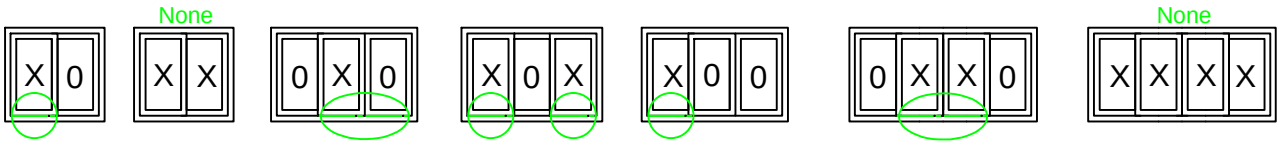
6.7-750-WE Woolpile 744961 (H00961) Cut the same length as the Channel Cover Plus 7mm.



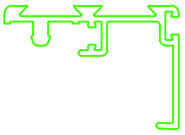


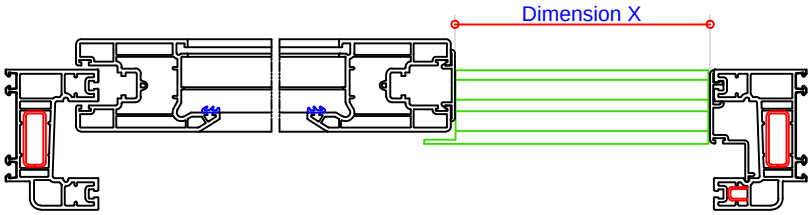
Outer Frame Horizontal Cover Preparation (Bottom/Opening Side)

Method 1 when 704181 (A00181) & 704208 (A00208) are used together (See page 4.14.1)

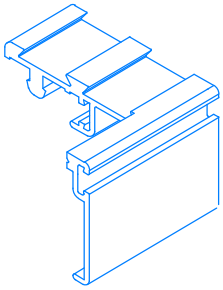


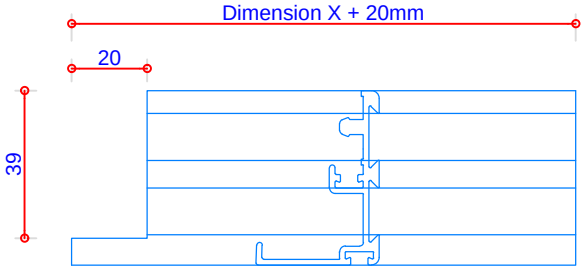
704180 (A00180) Threshold Cover



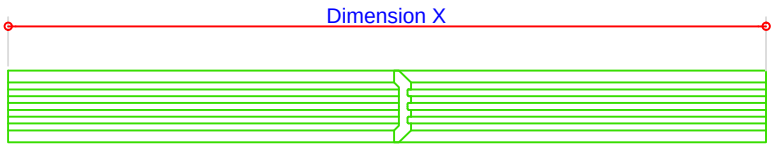


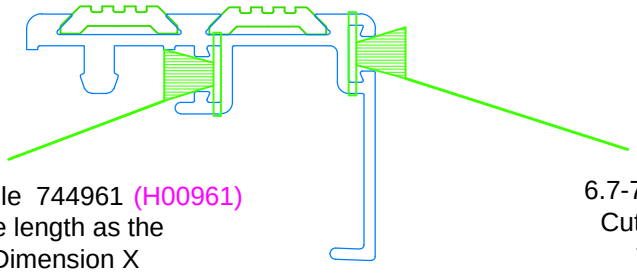
Threshold Cover Prep (when pvc threshold is used)





709047 (P01047) Threshold Insert when 704180 (A00180) Threshold Cover is used



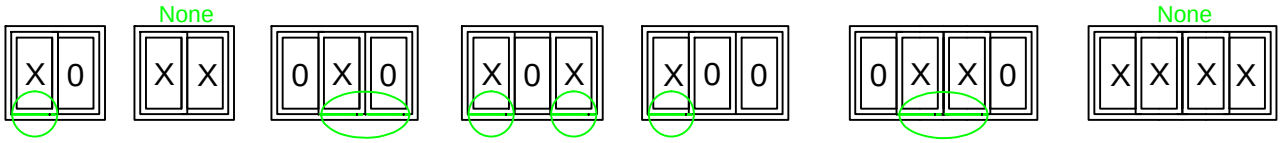


6.7-750-WE Woolpile 744961 (H00961)
Cut the same length as the threshold/Dimension X

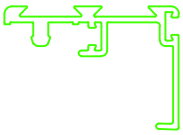
6.7-750-WE Woolpile 744961
Cut the same length as the threshold plus 24mm

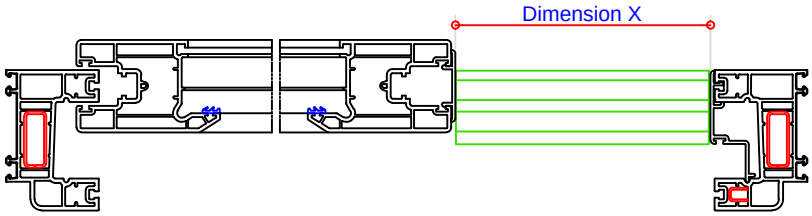
Outer Frame Horizontal Cover Preparation (Bottom/Opening Side)

Method 2 when 2x 704181 (A00181) are used together (See page 4.15.1).



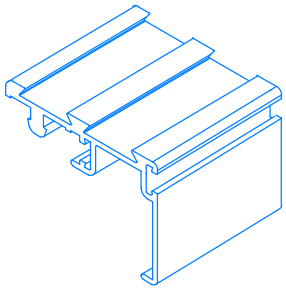
704180 (A00180) Threshold Cover

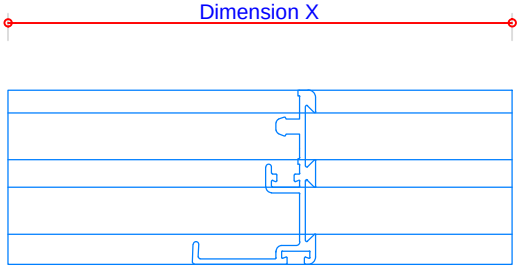




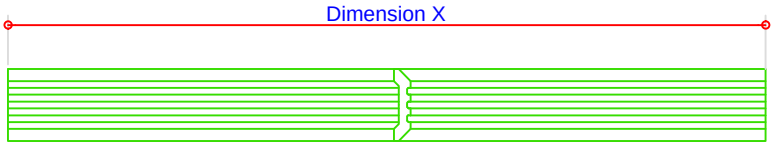
4

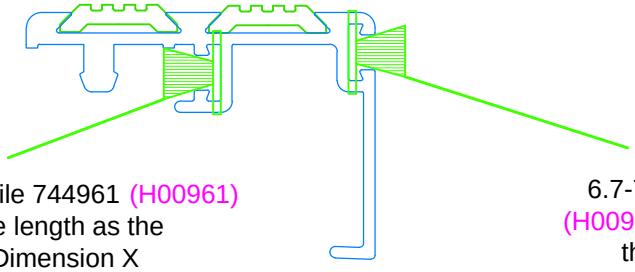
Threshold Cover Prep (when pvc threshold is used)





709047 (P01047) Threshold Insert when 704180 (A00180) Threshold Cover is used

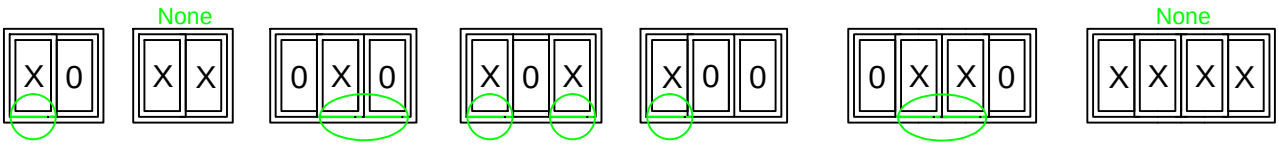




6.7-750-WE Woolpile 744961 (H00961) Cut the same length as the threshold/Dimension X

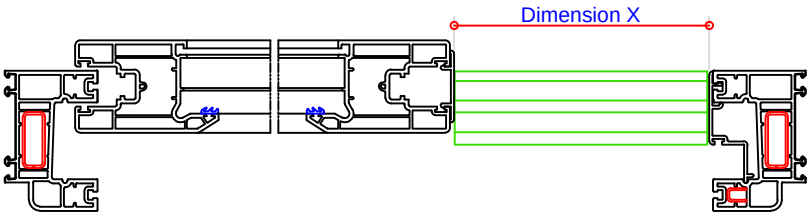
6.7-750-WE Woolpile 744961 (H00961) Cut the same length as the threshold plus 7mm

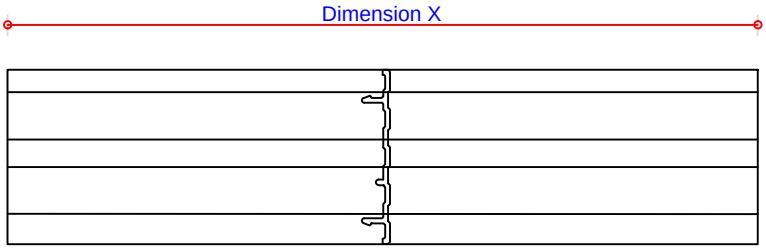
Threhold Cover Preparation (when 704360 Aluminium Threshold is used)



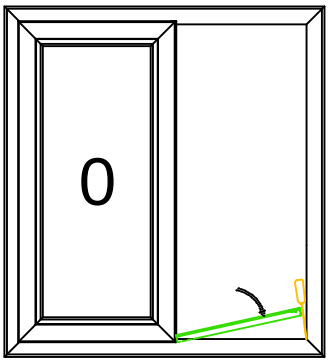
704361 (A00361) Threshold Cover

4





Fitting The 704180/704361 Threshold covers



1. Locate the threshold cover into the outerframe up against the 709112 (P10112) sash channel cover.

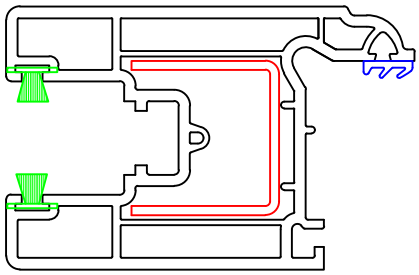
2. Hold a putty knife/paint scraper (no more than 1mm thick) into the corner of the outerframe and ease the threshold down. This will prevent scratching the outerframe cover.

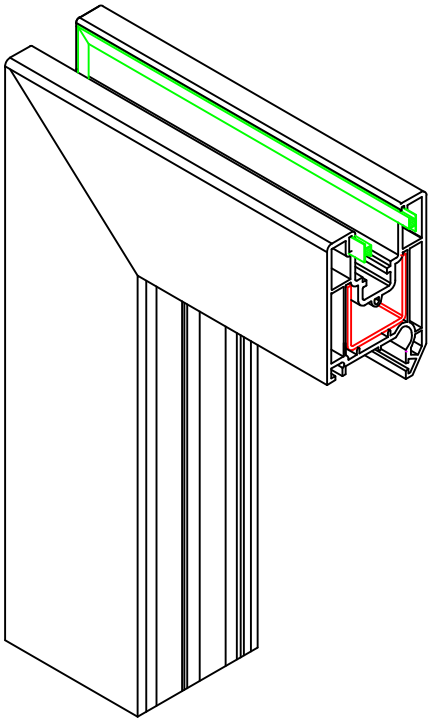
Woolpile - Sashes

For fixed & sliding sashes
744961 (H00961) 6.7-750-WE Woolpile

Fitted round sashes except where 709112 Sash Cover is required.

It is recommended that the Woolpile is inserted prior to welding the sash.

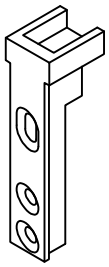


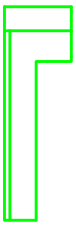


4

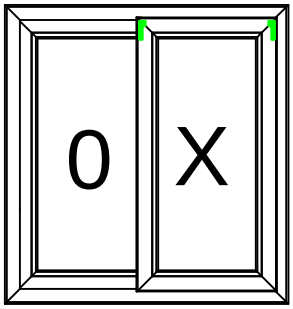
Attaching The Anti Lift Device

Anti Lift Device 709818 (M00119)

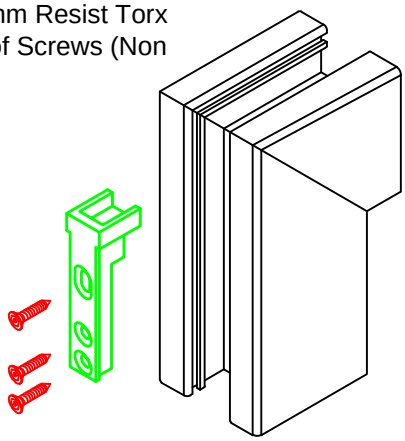


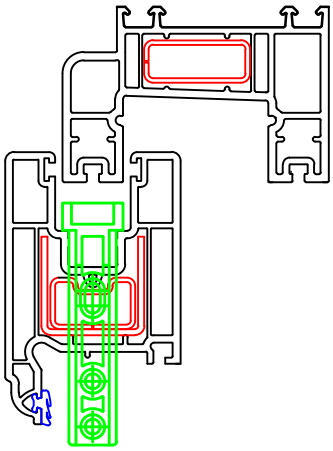


The corner must be cleaned completely to allow the Anti Lift Device to be fitted securely. The Anti Lift Device is only fitted at the head of the sliding sash on both jambs except were PAS 24 is required, in this case only one is used on jambs which meet the outer frame.



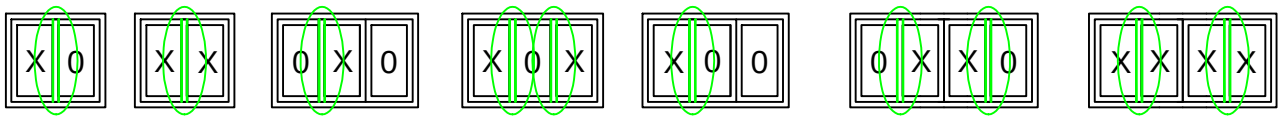
3 x 4.2 x 25mm Resist Torx Tamper Proof Screws (Non VEKA part).





APPLIES TO CHAMFERED SECTIONS ALSO

Sash Channel Vertical Cover Preparation

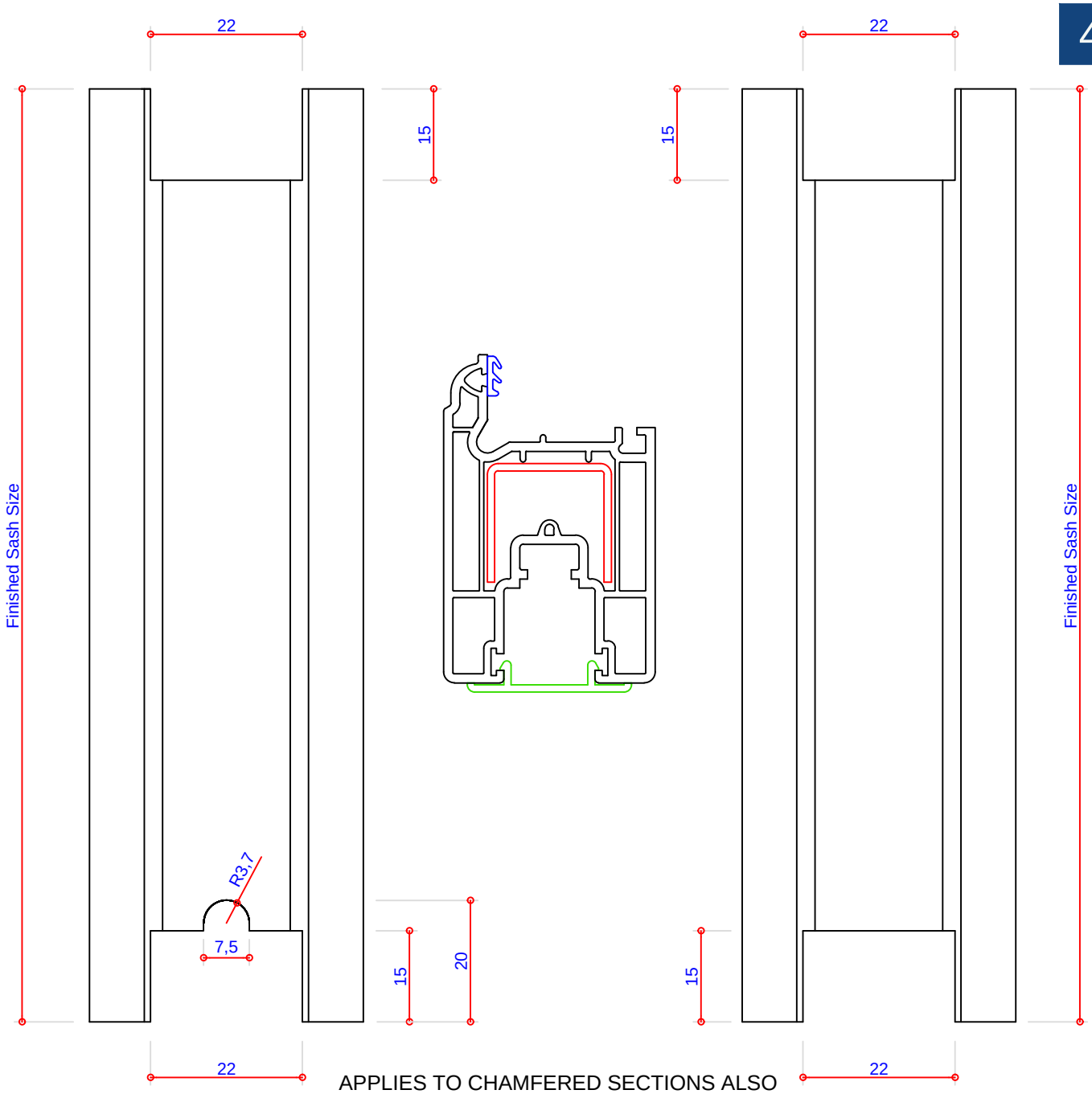


709112 (P10112) Sash Channel Cover

Sliding Sash

Fixed Sash

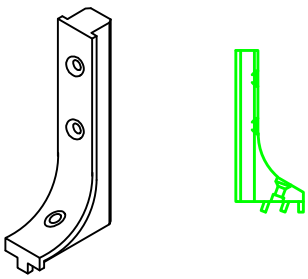
4

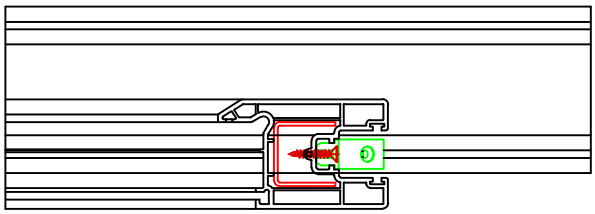


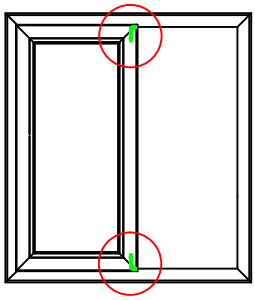
APPLIES TO CHAMFERED SECTIONS ALSO

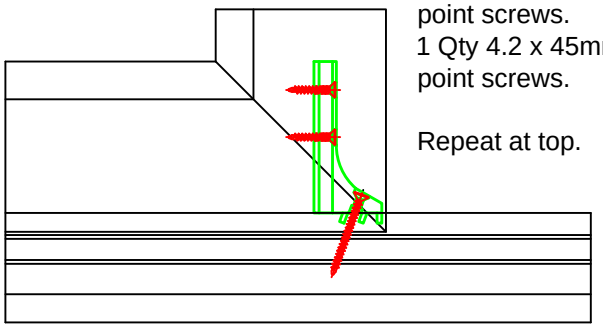
Attaching The Fixed Pane Bracket

Fixed Pane Bracket 709819 (M00123) For fixed sashes only







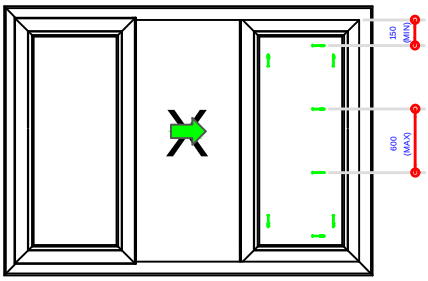


2 Qty 4.2 x 25mm C/SK Gimlet point screws.
1 Qty 4.2 x 45mm C/SK Gimlet point screws.

Repeat at top.

FIXED PANE

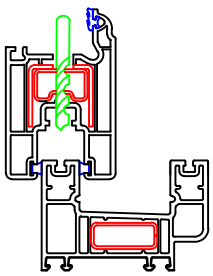
External slider fixings for fixed sashes adjacent to the sliding sash only. For internal slider screw fix ALL fixed panes.

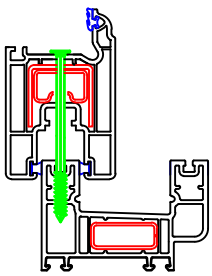


Pre drill the sash rebate and steel using a 4mm drill.

Secure using 5 x 80mm self tapping screws.

Fix a minimum of 150mm from each corner and then evenly spaced - maximum 600mm centers.



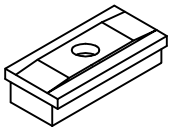


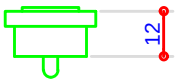
APPLIES TO CHAMFERED SECTIONS ALSO

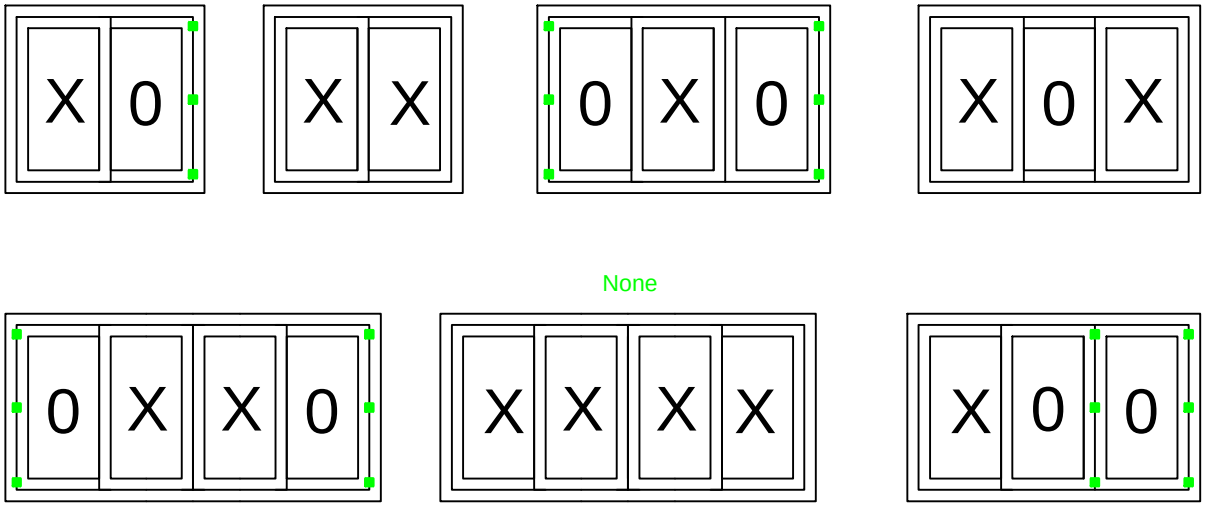
Vertical Sash Packers

For fixed sashes only

Jamb Packer 709082 (M00082)

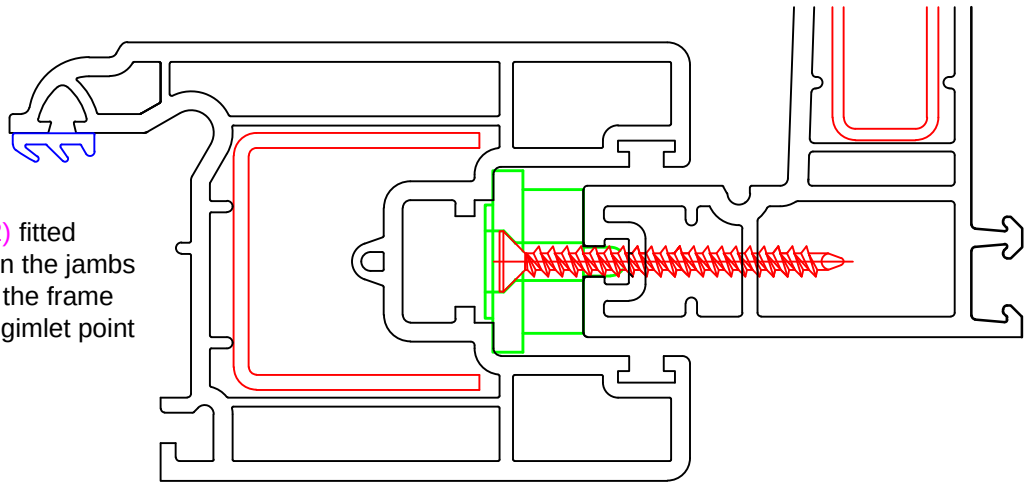






4

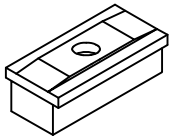
Qty 3 709082 (M00082) fitted equally spaced between the jambs of each fixed sash and the frame using 4.2 x 45mm c/sk gimlet point screw.



APPLIES TO CHAMFERED SECTIONS ALSO

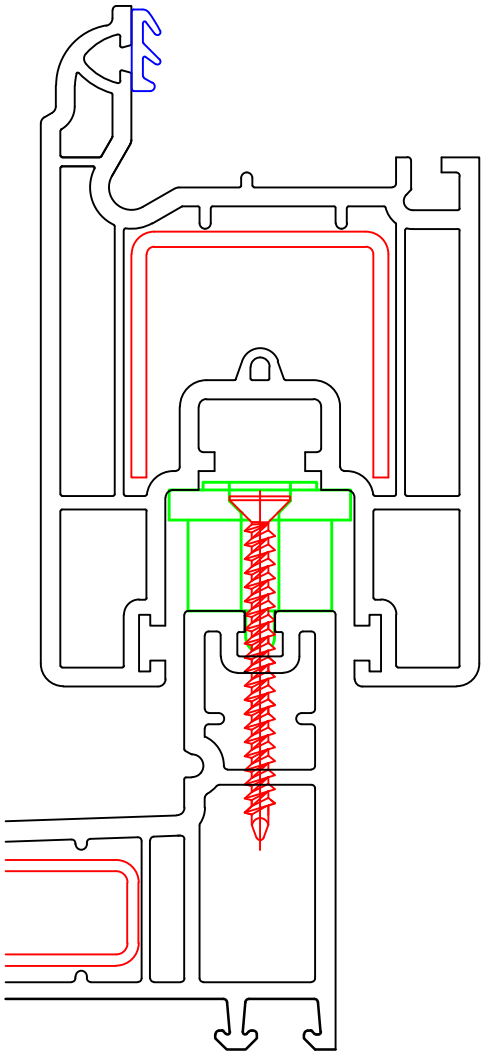
Horizontal Sash Packers

For fixed sashes only
Base Packer 709081 (M00081)

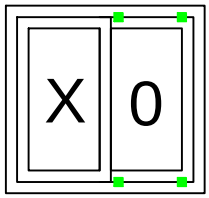


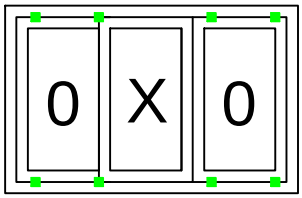
Fixed 200mm from the corner of each fixed sash using 4.2 x 45mm c/sk gimlet point screw

Qty 2 709081 (M00081) fitted at the head & base of each fixed sash to provide the correct spacing.

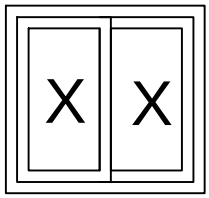


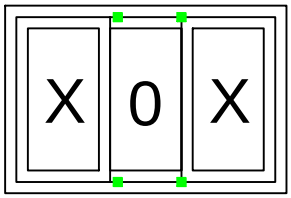
4

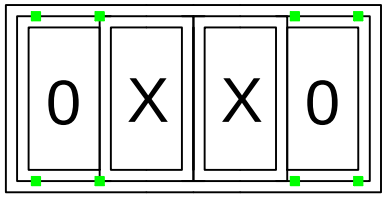




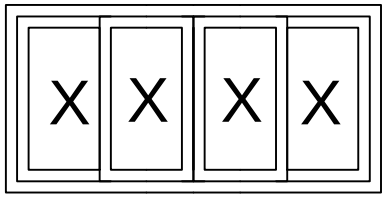
None

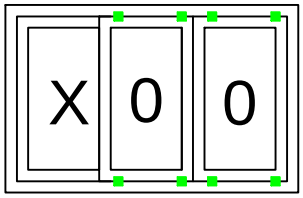






None

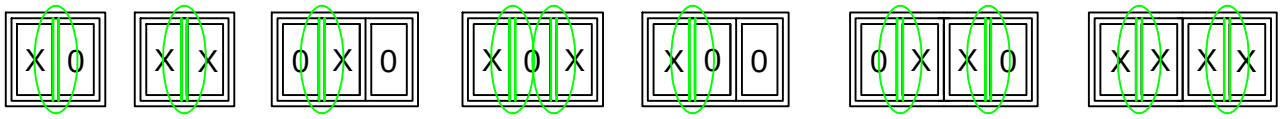




APPLIES TO CHAMFERED SECTIONS ALSO

Interlock

Method 1 (Method to allow brush seals to meet)



704181 (A00181) Interlock

704208 (A00208) Interlock

Cut both 7054181 & 704208 Interlocks to the finished sash height.

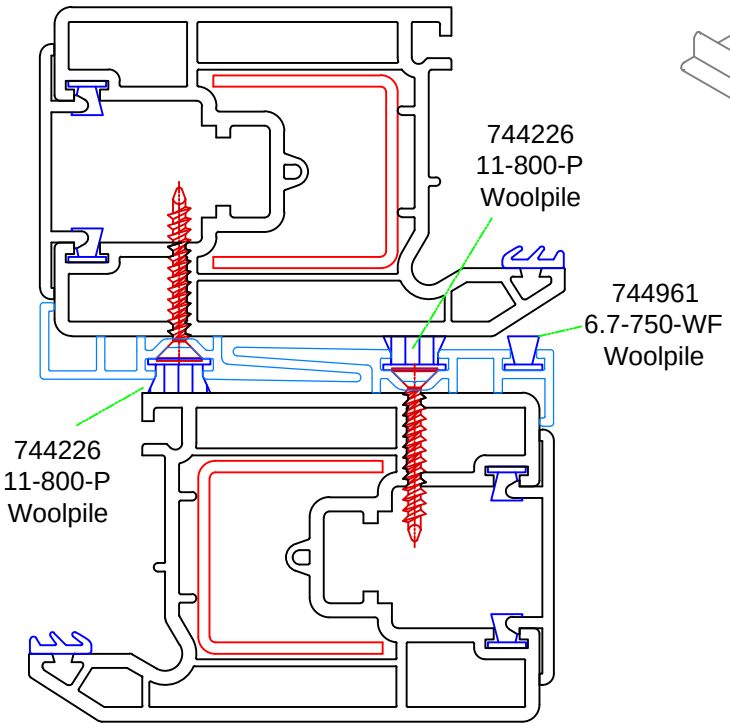
Prep each end as ilustrated to meet the 705152 Chanel Cover - Note different prep top and bottom.

4

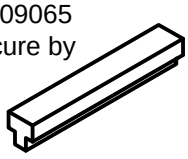
Cut the Woolpile to the same height as the finished sash/Interlock

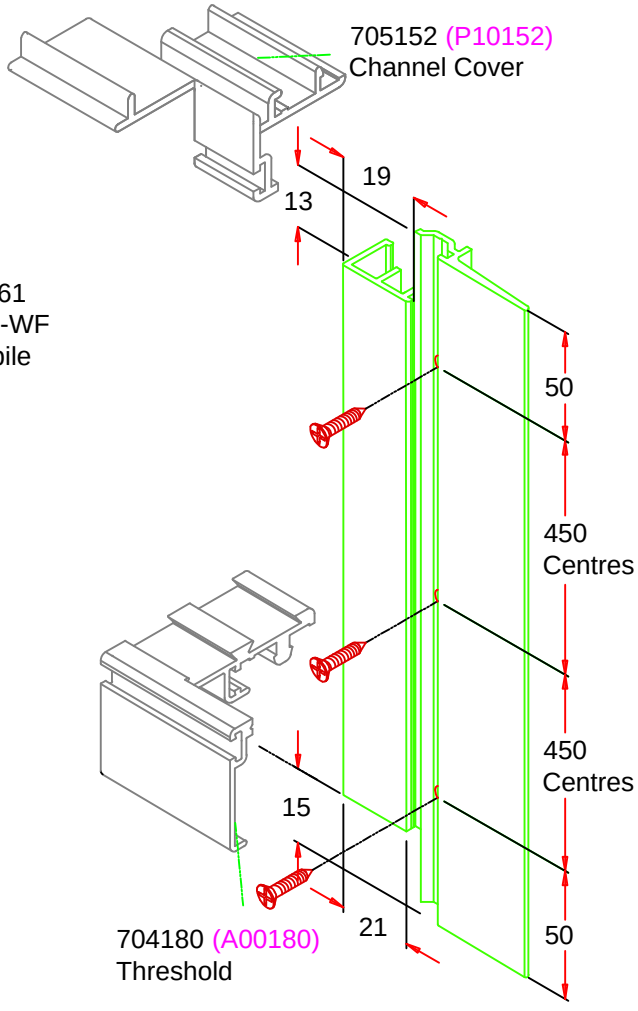
Pre drill 4.5mm holes - 100mm from each end then equally spaced no greater than 300mm centres.

Secure to the jamb of the sash using 4.2 x 30mm C/SK Gimlet Point Screws.



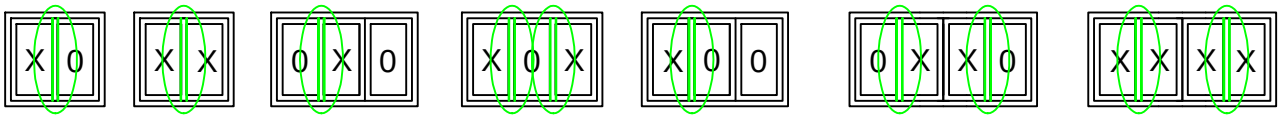
SBD Interlock Retainer 109065
Required for PAS 24/Secure by design accreditation
see page 4.16.1





Interlock

Method 2 (Simple method)



704181 (A00181) Interlock

Cut the 704181 Interlocks to the finished sash height.

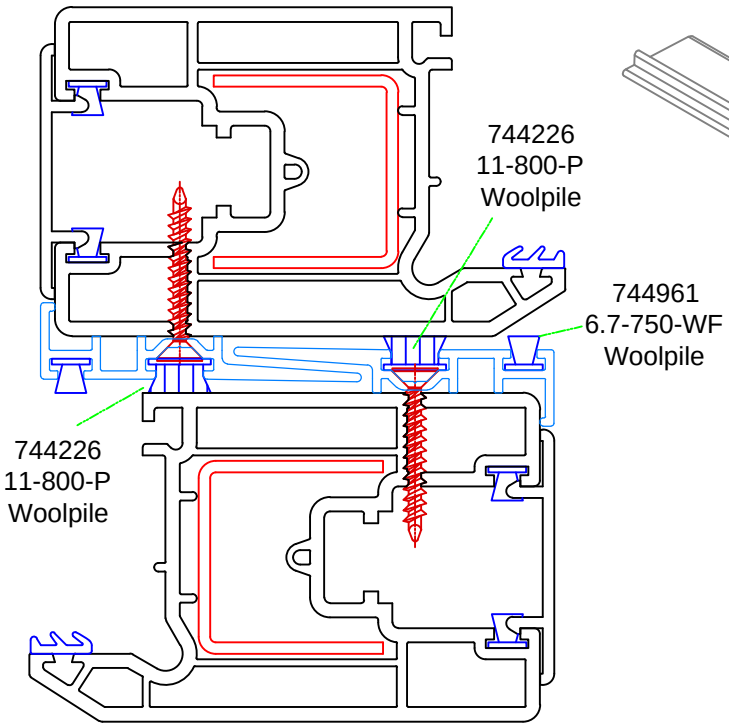
Prep each end as ilustrated to meet the 705152 Chanel Cover - Note different prep top and bottom.

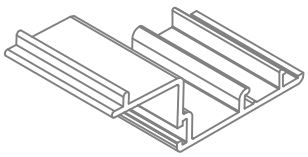
4

Cut the Woolpile to the same height as the finished sash/Interlock

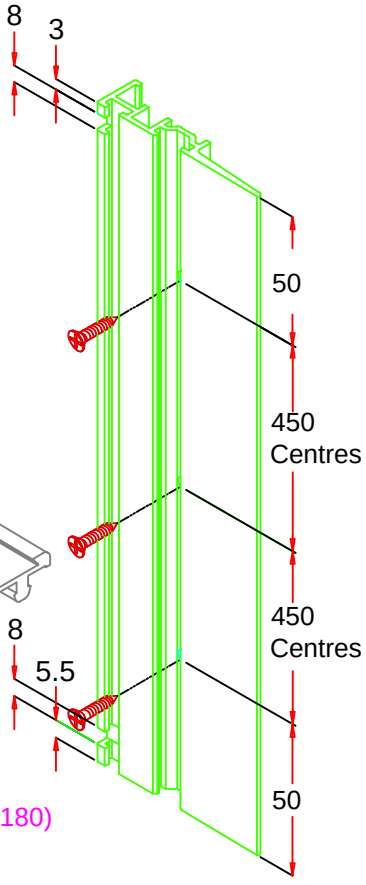
Pre drill 4.5mm holes - 100mm from each end then equally spaced no greater than 300mm centres.

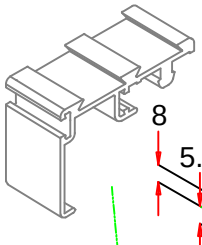
Secure to the jamb of the sash using 4.2 x 30mm C/SK Gimlet Point Screws.





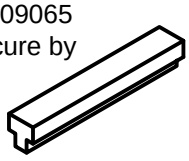
705152 (P10152)
Channel Cover





704180 (A00180)
Threshold

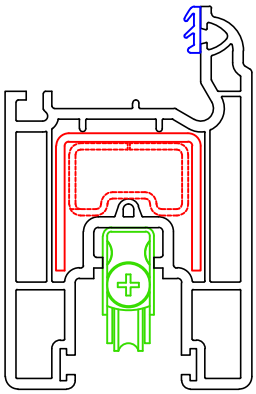
Alternative screw positions and the SBD Interlock Retainer 109065 Required for PAS 24/Secure by design accreditation
see page 4.16.1



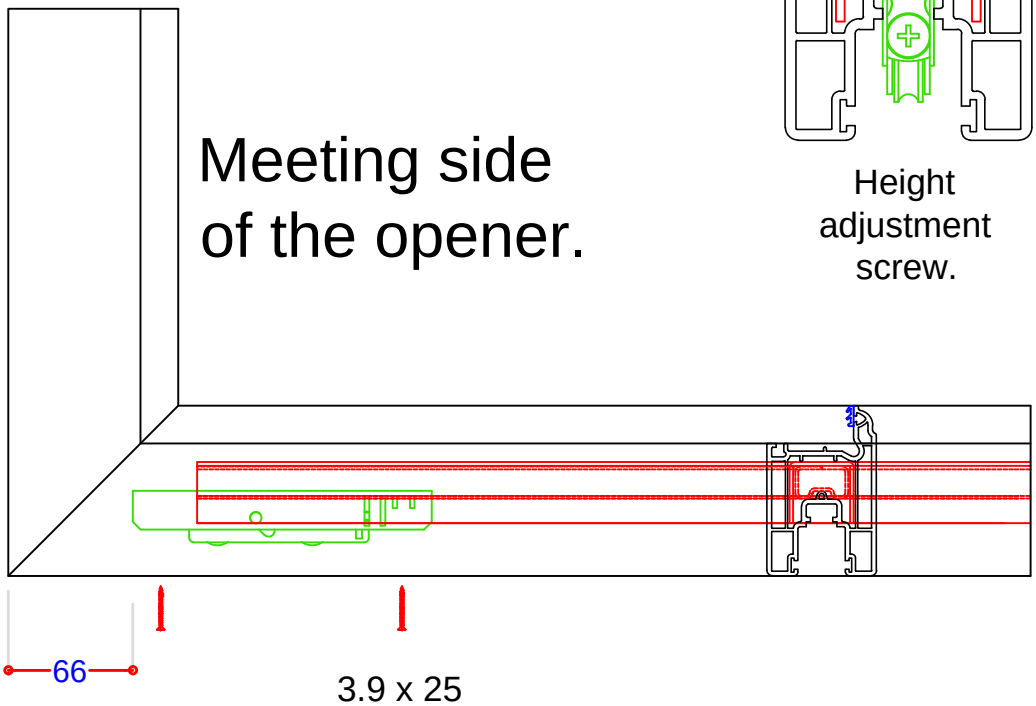
Fitting The Rollers

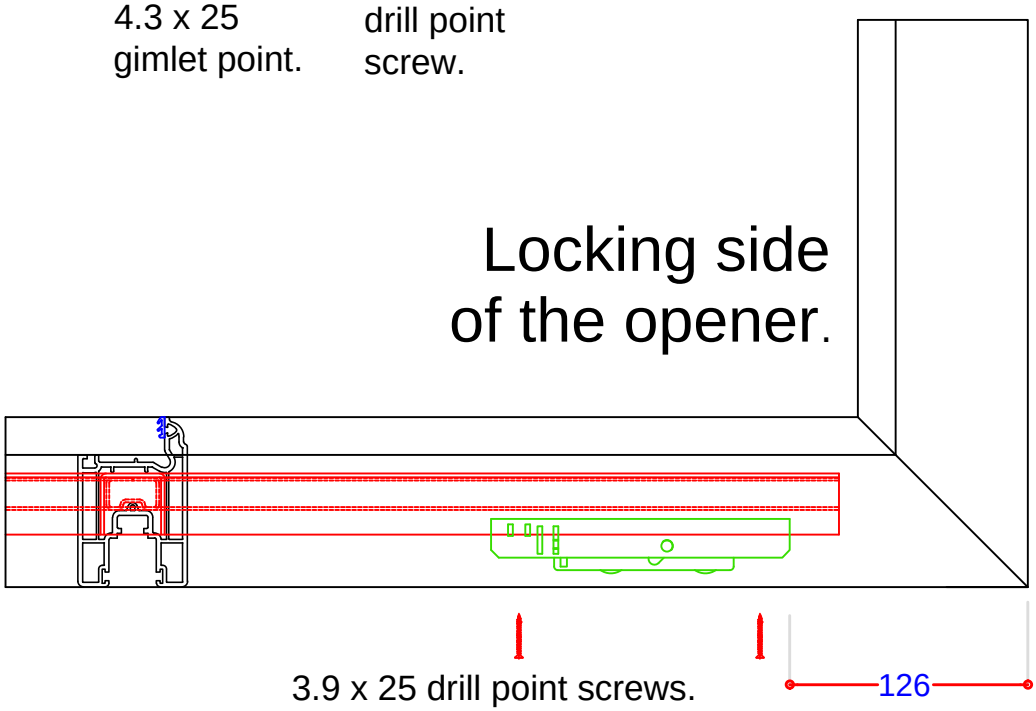
Non VEKA part. For PAS 24 accreditation use **Patio Roller (2.5mm Rad) - 5779-221-2.5** Available from Yale DWS.

For PAS 24 testing please note the rollers are not fitted equidistant from the edge of the sash, see below.



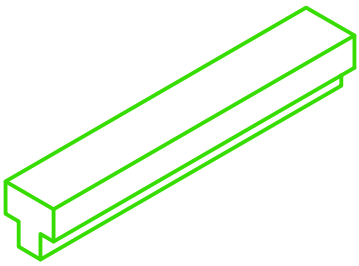
Height adjustment screw.

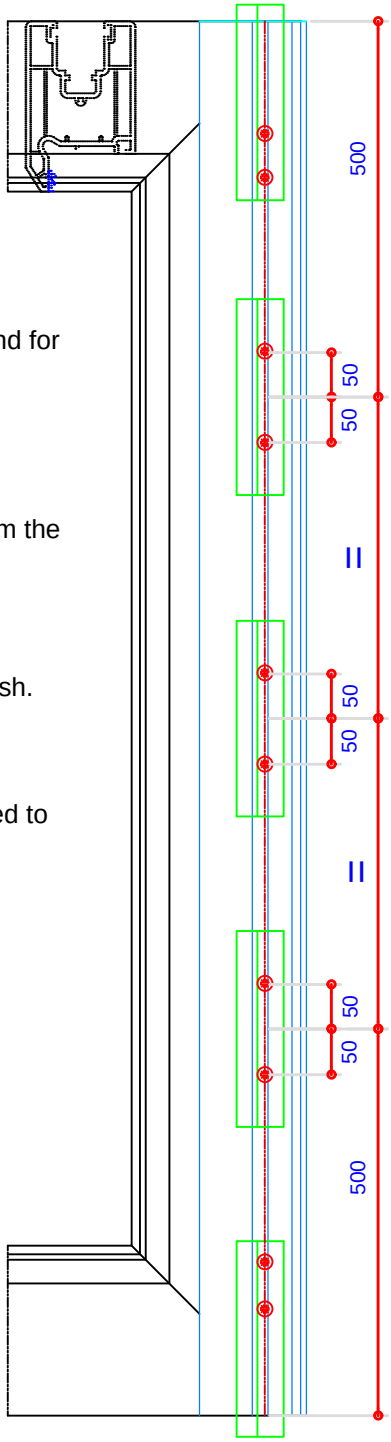




Interlock

109065 SBD Interlock Retainer





4

The Interlock Retainer is required to achieve PAS 24 Accreditation and for Secure By Design specifications.

The brush pile may need to be removed to allow the blocks sit in the Eurogroove.

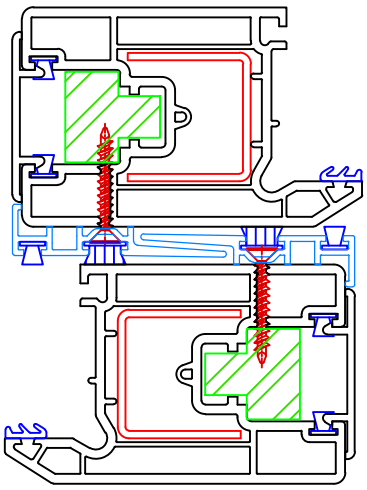
Secure the interlock in place with 2 screws top and bottom 50mm from the end. It is recommended the interlock is pre drilled.

Pre drill and fit one block centrally and fix as shown.

Two more blocks are required 500mm centres from the end of the sash.

The top and bottom block can only be fixed once the sash has been loaded into the frame. Fix as shown - flush with the head/bottom rail. These blocks will also act as a anti lift device. The two fixings will need to be pre drilled and fixed with the sash loaded into the frame.

Use 4.3 x 55 Gimlet Point Screws.



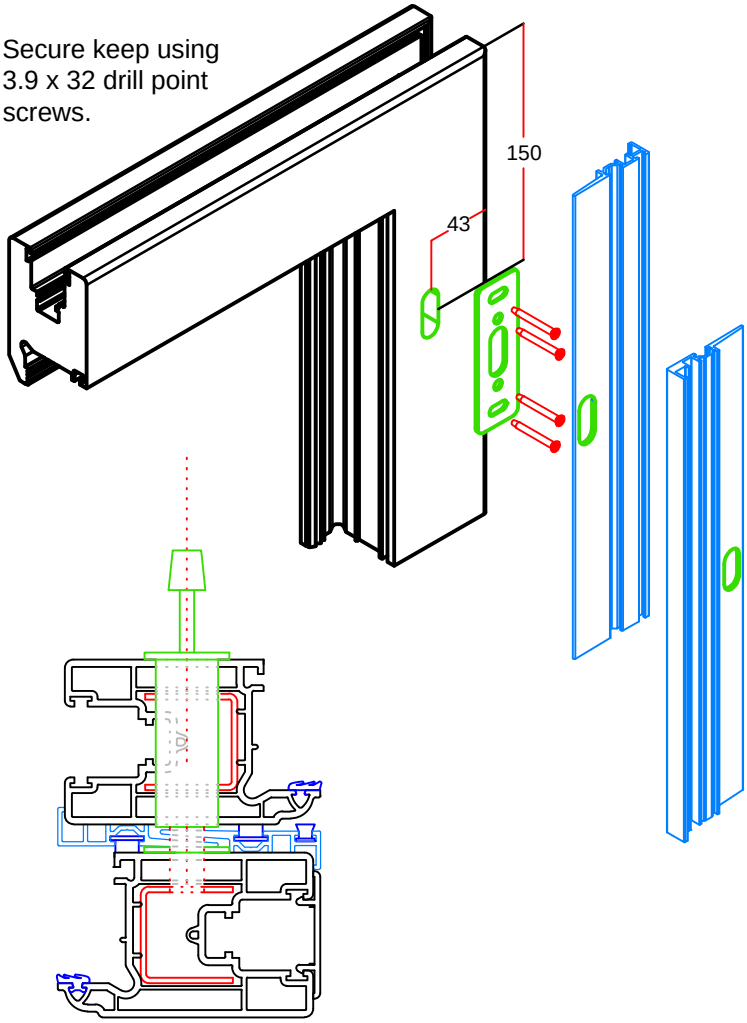
Plunge Bolts

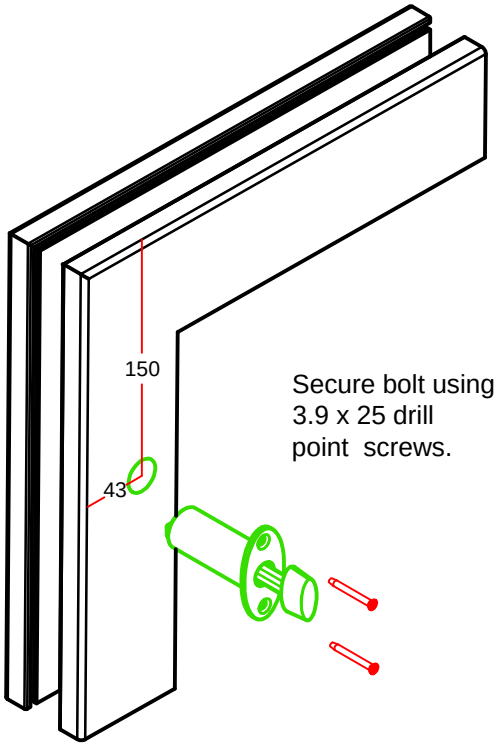
Non VEKA part. For PAS 24 accreditation use:

White - YPB2427-03
Black - YPB2427-06
Brown - PPB1370-48 (Ral 8016)
Chrome - YPB2427-08
Gold - YPB2427-70

Available from Yale DWS

Secure keep using 3.9 x 32 drill point screws.



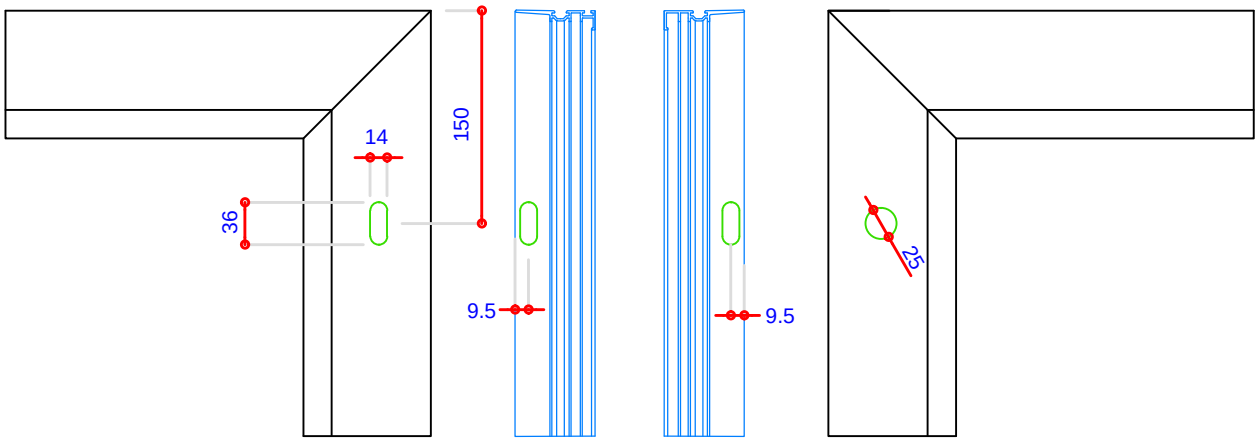


Secure bolt using 3.9 x 25 drill point screws.

4

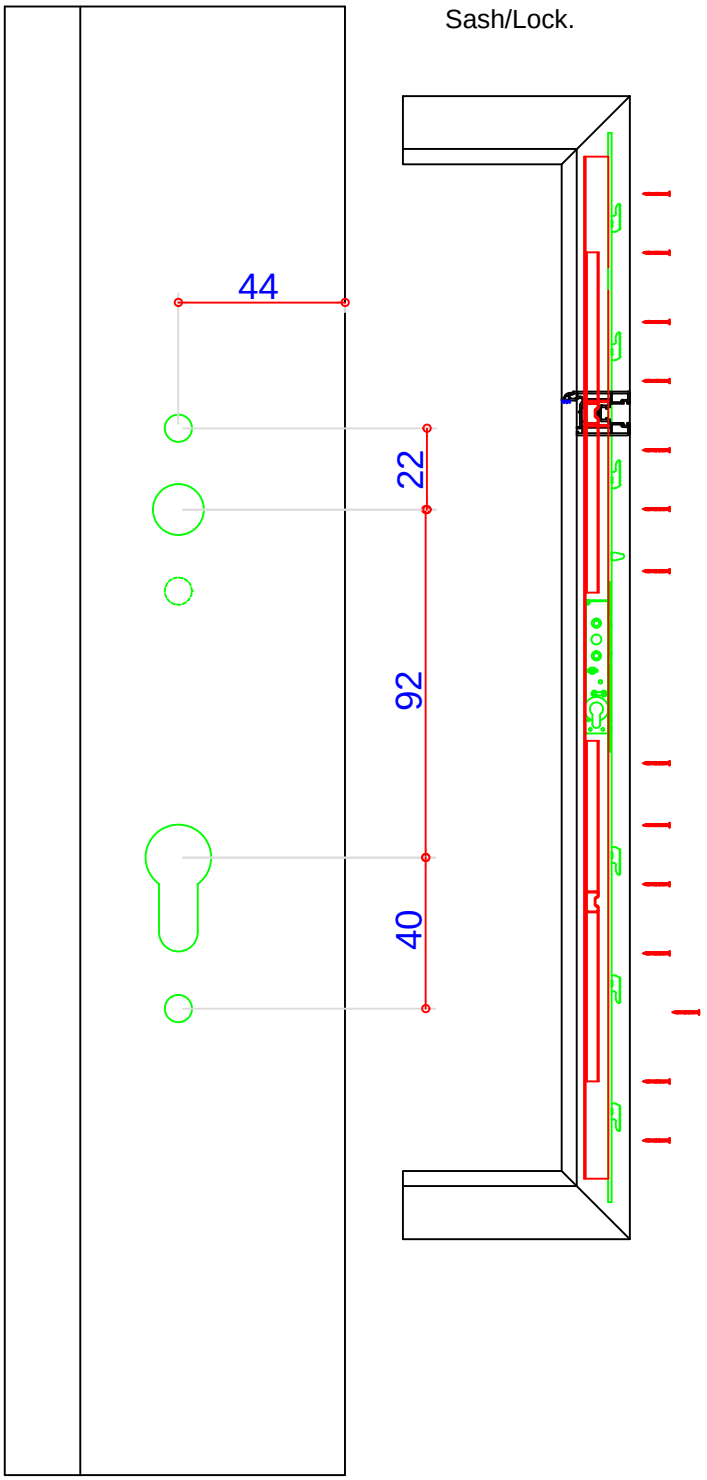
For PAS 24 2 x Plunge Bolts are required at equal distance top and bottom of each opening sash.

Internal face of outside sash. External Interlock Internal Interlock Hole through Internal sash.



Lock & Keep Plate

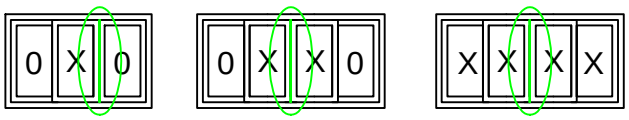
Non VEKA Part. For PAS 24 Accreditation use **6 Hook Patio Lock - PPL06-AL** available from Yale DWS.



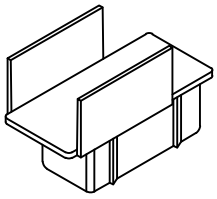
Secure lock & keeps using 3.9 x 25 drill point screws or 4.3 x 25 gimlet point where required.

Multi Pane Adapter

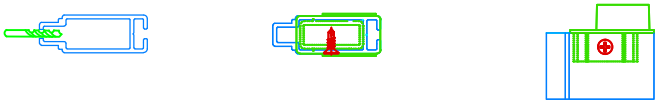
Multi Pane Adaptor 715134 (A00134)
Cut size = sash height - 40mm



Multi Pane End Cap 709801 (M00115)

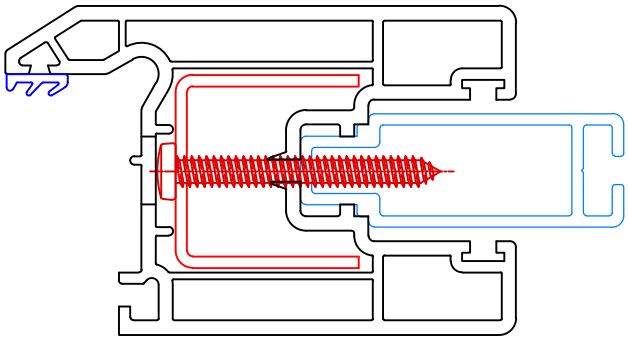


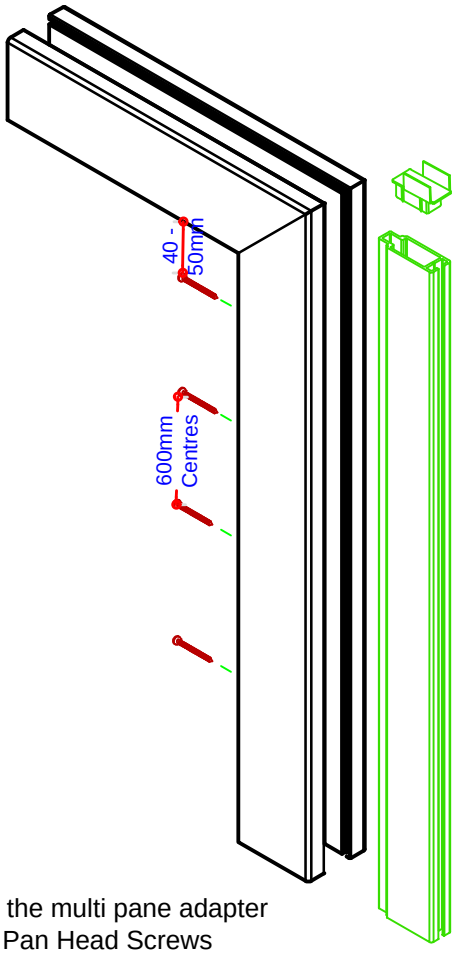
Pre drill the Multi Pane Adaptor 715134 at required centres
Secure the end caps using 3.9 x 13mm C/SK drill point screws

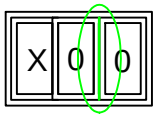


4

Attach the multi pane adapter with end caps using 5.5 x 50mm Pan Head Screws (Screw must sit on the reinforcement).
First screw 40 - 50mm from the corner.
Max centres 600mm

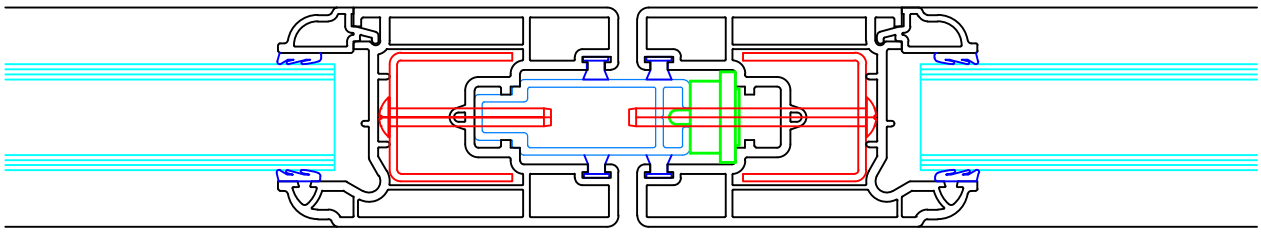






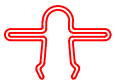
X00 only - Attach the multi pane adapter to the sash with end caps using 5.5 x 50mm Pan Head Screws (Screws must sit on the reinforcement).
First screw 40 - 50mm from the corner.
Max centres 600mm

Attach the sash to the multi pane adapter using 5.5 x 65mm Pan Head Screws

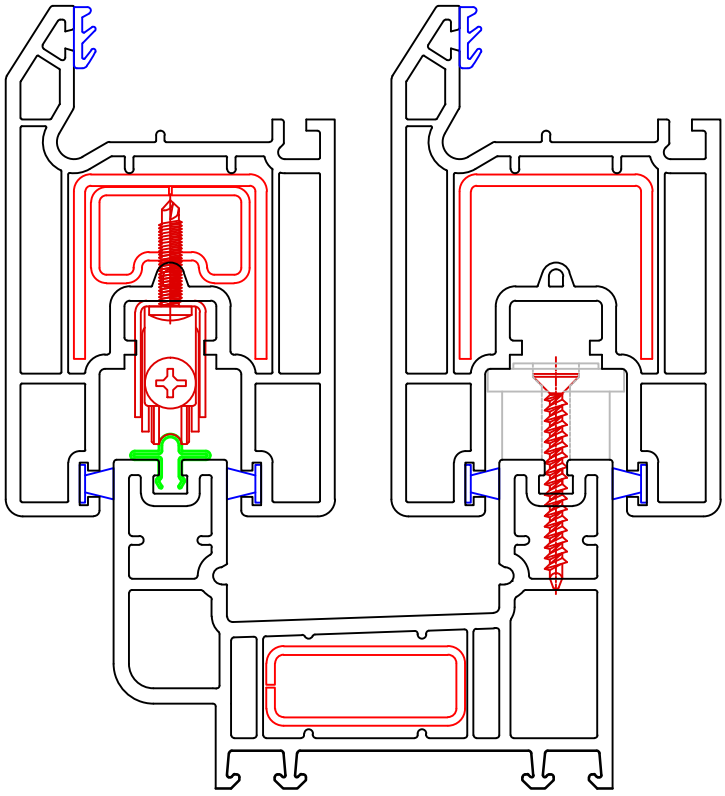


Fitting The Patio Track

Patio Track 713070 (S00070)



The steel patio track is designed to snap into place in the channel top and bottom to allow the rollers to travel along. It can be fitted the full length of the frame to hide the channel.

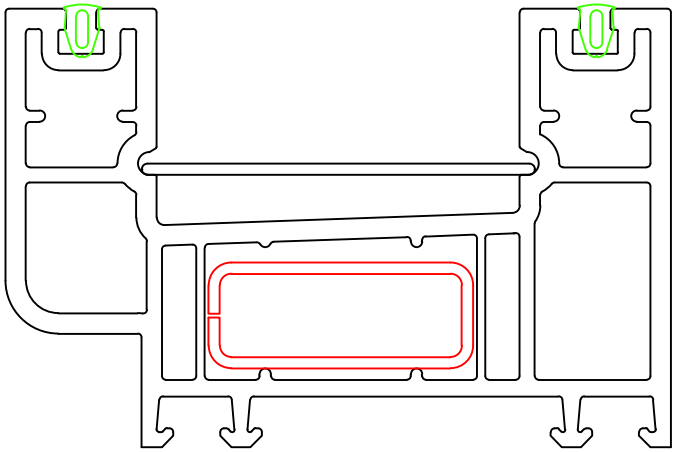


4

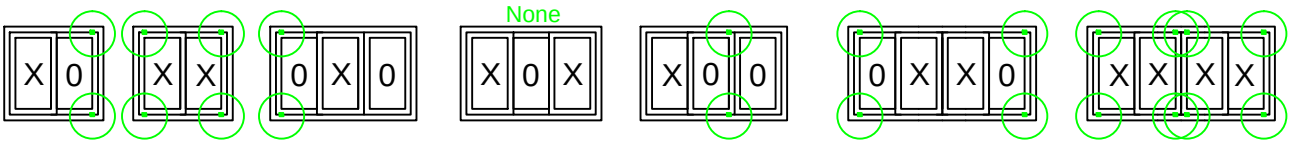
Optional Groove Infill

112380 Bead Groove Infill (Black or White)

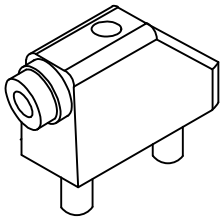
The optional bead groove infill is designed to snap into exposed channels to hide them were required.



Attaching The Door Stop

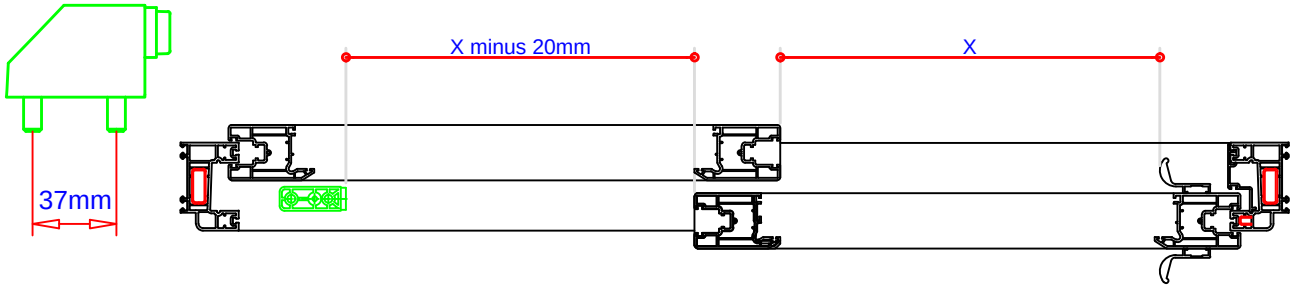


Patio Door Stop 709128 (M00128)



4

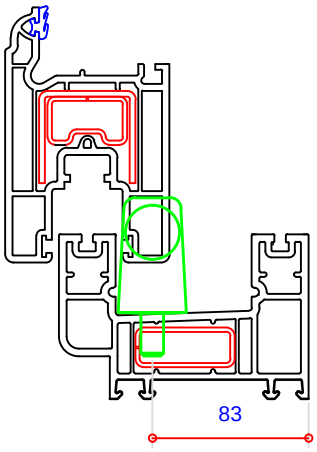
The patio stop is to be fitted behind the sliding sash at the head and base as shown below. Please note X varies according to the type of handle used and dimensions of the patio.



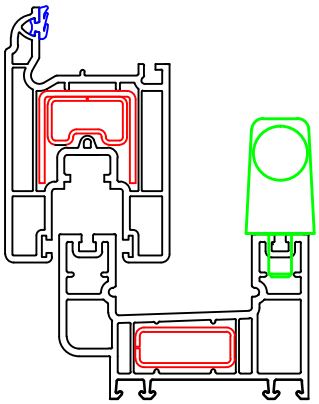
Various positions for the stop are possible. 2 x 8mm holes will be required. Attach using 3.9 x 45mm C/SK Drill Point Screws. images show three positions on an internal sliding patio.

Option 1 & 2 not suitable for XX & XXXX

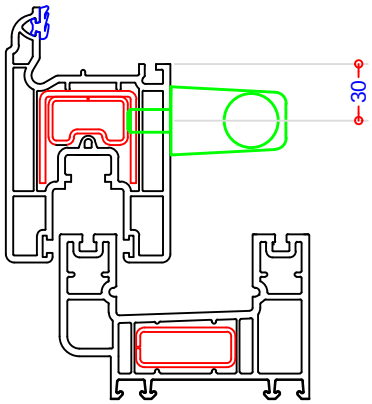
1. In the drainage channel - not suitable when a drip tray is used.



2. In the track channel - the track will need to be cut back to accept this position.



3. On the face of the sash.



APPLIES TO CHAMFERED SECTIONS ALSO

Handle

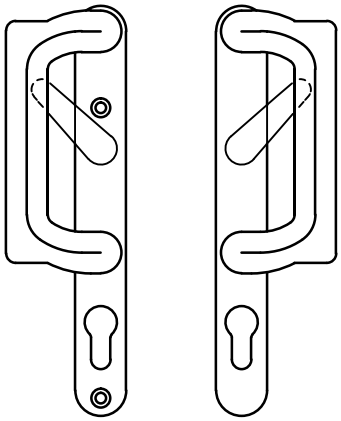
Non VEKA part. For PAS 24 accreditation use:

Handle - 65mm Spindle / 87mm Spindle

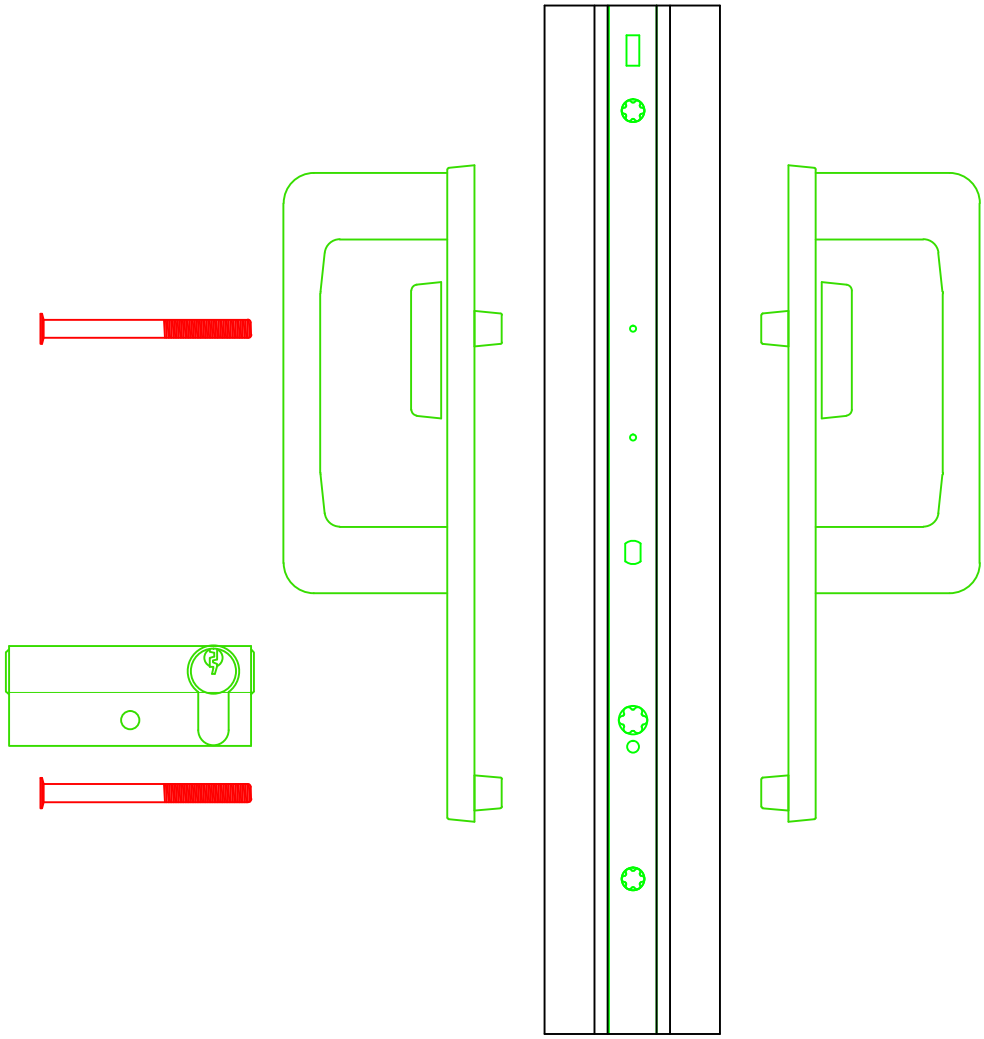
White	PPHD-301-W126
Black	PPHD-338-W126
Chrome	PPHD-375-W126
Gold	PPHD-331-W153

Cylinder - 3 Star Kitemarked (Yale TS007)

Brass	ASP4040PB
Nickel	ASP4040BN



4



APPLIES TO CHAMFERED SECTIONS ALSO

ACCREDITATIONS

CE Marking Scoping Specification - Any patio door no worse than 1.6 W/m2K

This scoping specification has been prepared in accordance with BS EN 10077 - 1 Annex D and BS EN 14351 - 1.
Alternative specifications are possible, these can be established by use of a suitable calculator or provided on request.
Please contact a member of the VEKA Technical Team for further advice if required.

Sliding Patio Door Systems (See technical manual for details)

VEKA UK Group - Imagine Patio Door

Profile Combination

As specified in fabrication manual

Reinforcement Specification

Full steel reinforcement.

Door Design

Internal or External:

Patio door (standard).
Patio door with aluminium low threshold.
Patio door with midrail.
Patio door with aluminium low threshold and midrail.

5

Door Size To EN 14351

2000mm wide x 2180mm high Patio door.

Glazing Unit Construction

4mm outer x 20mm argon x 4mm inner.
6.8mm outer x 18mm argon x 4mm inner.
4mm outer x 18mm argon x 6.8mm inner.
6.8mm outer x 15mm argon x 6.8mm inner.

Glazing Emissivity

Any low E glazing unit with an emissivity of 0.05 or better

Spacer Bar

Edgetech - SuperSpacer.
Ensinger - Thermix TX.N.
Thermoseal - Thermobar.
Rolltech - Chromatech Ultra
Saint-Gobain - SwisSpacer A.
Saint-Gobain - SwisSpacer U.
Profilex - PVC.
Tremco - Duralite.
Technoform - TGI Wave

Secondary Sealant

Butyl hot melt, from 2mm to 6mm thick.
Polysulfide, from 2mm to 6mm thick.
Polyurethane, from 2mm to 6mm thick.

PAS 24 Specification

As report: Wintech MW/R14530

Sample Size: (Tested)	2100mm wide x 2170mm high
Material:	UPVC 105178 Outer Frame 705151/703251 Sash 113018/713104 Outer Frame Reinforcement 713029/713804/713119 Sash Reinforcement
Window System:	Imagine Patio, The VEKA UK Group
Joining Method:	Mitred and welded
Gaskets:	Standard weather seals, PCE Gaskets bead and sash
Glass Unit:	28mm Glazing 4/20/4 toughenend glass Internally beaded 707427/707432
Sealants:	None
Drainage:	Face drained
Hardware:	Yale/Paddock 6 Point Lock Yale/Paddock 2 x Plunge Bolts (T) & Locking Plates Yale/Paddock Handles Yale/Paddock Cylinders Yale/Paddock Rollers Lock Fixing: 4.3 x 35 Gimlet & 3.9 x 35 Drill Point Keep Fixing: 3.9 x 25 Gimlet & 3.9 x 25 Drill Point Fixed Sash: 5.0 x 80 Rapier Star Timber Screw Interlock: 4.3 x 55 Gimlet T Bolt/Base Plate: 3.9 x 25 Drill Point/3.9 x 32 Drill Point

5

Current Accreditation

- Weather performance tested to BS 6375-1:2009 by Wintech, Test Report MS/R14528 (UKAS Reference 2223)
- Operation and strength characteristics tested to BS 6375-2:2009 by Wintech, Test Report No: MW/R14529 (UKAS Reference 2223)
- Enhanced security tested to PAS 24:2012 by Wintech, Test Report No:MW/R14530 (UKAS Reference 2223)
- ACPO Secured by Design Approved, visit www.securedbydesign.com and enter VEKA PLC or Halo in member companies search.
- BSI Kitemark to BS EN 12608 and PAS 24
- Notified U value calculations reports available on request.

Weather Rating

Report: Wintech MS/R14528

	Test Method & Classification Standard	Achieved Max. Test Pressure	Classificattion
Air Permeability	BS EN 1026 : 2000 BS EN 12207 : 2000	600 Pa	3
Water Tightness	BS EN 1027 : 2000 BS EN 12208 : 2000	200 Pa	5A
Wind Resistance	BS EN 12211 : 2000 BS EN 12210 : 2000	1200 Pa	A3

5

Weld Test Data

BS EN 514: 200 - Determination Of The Strength Of Welded Corners Or T-Joints.

Product	Width	'i' Value	'e' Value	Minimum Load (kg)	Average Load (kg)	BS 7412 25kg	BS 7412 50kg	Failure Load Min (kn)	Cut Size
105178	58	33.25	30.53	74	92.50	888	444	2.7/2.2 mm	333
705151	80	63.08	50.73	54.50	105.60	1014	507	2.6/2.5 mm	337
703251	80	64.19	50.62	86.20	107.70	1034	517	2.6/2.5 mm	337

AMENDMENTS

6.00.1	This page
6.01.1	Revisions 1
6.02.1	Revisions 2
6.02.1	Revisions 3
6.04.1	Revisions 4

Amendments				
Page	**Previous Issue**	**New Issue**	**Details**	**Initial**
4.16.1	Feb 15	Mar 15	Rollers assembly drawings added	PG
4.18.1	Feb 15	Mar 15	Security bolt assembly drawings added	PG
4.19.1	Feb 15	Mar 15	Lock & Keeps assembly drawings added	PG
4.23.1	Feb 15	Mar 15	Handle assembly drawings added	PG
3.01.1	Mar 15	Apr 15	XOX Calculation added for 705151/703251 Sash widths	PG
3.01.1	Mar 15	Apr 15	704180 Threshold calc corrected for OXO	PG
3.01.1	Mar 15	Apr 15	715434 Multi Pane Adaptor OXO added to note	PG
3.02.1	Mar 15	Apr 15	744961 & 744226 Brush pile calcs amended	PG
2.06.1	Mar 15	Apr 15	Reinforcing corrected for 110106 Cill	PG
2.01.1	Apr 15	May 15	Min/max sash sizes added. Additional styles added.	PG
3.03.1	Apr 15	May 15	Drainage detail of midrail changed to face drain.	PG
3.05.1	Apr 15	May 15	113018 Paragraph altered.	PG
3.01.1	Apr 15	May 15	XX, X00 & XXXX styles added. Equal glass information added. Wool pile quantities altered.	PG
4.01.1	Apr 15	May 15	All styles illustrated.	PG
4.04.1	Apr 15	May 15	All styles illustrated	PG
4.05.1	Apr 15	May 15	All styles illustrated	PG
4.06.1	Apr 15	May 15	All styles illustrated	PG
4.07.1	Apr 15	May 15	All styles illustrated	PG
4.08.1	Apr 15	May 15	All styles illustrated	PG
4.09.1	Apr 15	May 15	Instruction for position of brush pile changed.	PG
4.10.1	Apr 15	May 15	Brush pile removed from diagram	PG

Amendments				
Page	**Previous Issue**	**New Issue**	**Details**	**Initial**
4.12.1	Apr 15	May 15	All styles illustrated	PG
4.13.1	Apr 15	May 15	All styles illustrated	PG
4.14.1	Apr 15	May 15	All styles illustrated	PG
4.15.1	Apr 15	May 15	All styles illustrated	PG
4.20.1	Apr 15	May 15	All styles illustrated. Instructions for X00 added.	PG
4.22.1	Apr 15	May 15	All styles illustrated	PG
1.01.1	May 15	July 15	713124 (S00124) Steel added	PG
1.02.1	May 15	July 15	709047, 709081, 709082, 709801 Colour options changed	PG
1.03.1	May 15	July 15	704181, 704208, 704180, 715134, 109058 Colour options changed	PG
4.02.1	May 15	July 15	3D Image changed to illustrate internal bracket in correct chamber	PG
4.04.1	May 15	July 15	Dimensions corrected for scale	PG
4.05.1	May 15	July 15	Sash/Frame Prep label added	PG
4.06.1	May 15	July 15	Part number in the title corrected	PG
4.10.1	May 15	July 15	Prep dimension altered from 25mm to 22mm	PG
4.16.1	May 15	July 15	Testing note added to roller fitting position information	PG
4.17.1	May 15	July 15	Pre drilling recommendation added	PG
4.01.1	May 15	July 15	Additional information added for draught tray	PG
2.03.1	May 15	July 15	Sash width dependant on lock supplier note added	PG
2.04.1	May 15	July 15	Sash width dependant on lock supplier note added	PG
2.05.1	May 15	July 15	Sash width dependant on lock supplier note added	PG
2.10.1	May 15	July 15	Sash width dependant on lock supplier note added	PG

Amendments				
2.11.1	May 15	July 15	Sash width dependant on lock supplier note added	PG
2.12.1	May 15	July 15	Sash width dependant on lock supplier note added	PG
3.01.1	May 15	July 15	705152 calculation changed for OX, XOO, OXO, OXXO, XOX	PG
3.01.1	May 15	July 15	705152 calculation changed for low threshold	PG
3.01.1	May 15	July 15	704361 calculation changed for all styles	PG
3.01.1	May 15	July 15	Calculation for deduction required to interlocks when low threshold used	PG
3.02.1	May 15	July 15	713119 calculation/size changed	PG
4.18.1	May 15	July 15	Plunge Bolt part number changed as requested by Yale	PG
4.18.1	May 15	July 15	Diameter of the external routed hole changed from 22mm to 25mm and slots increased for tolerance.	PG

Amendments				

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