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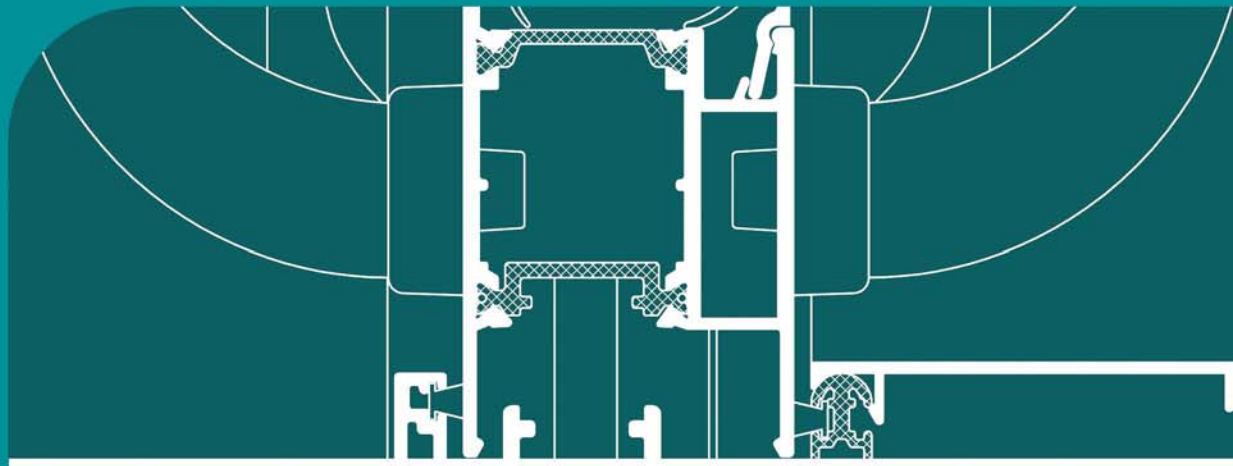

Crown 98mm Sliding Patio Door

CROWN

INDEX

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Specification

Scope

This specification details materials, construction, finish and size limitations for the Crown 98mm Patio Door. This range is designed to meet high performance requirements in a variety of applications.

Materials

Aluminium profiles are extruded from aluminium alloy 6063 or 6060 T6 complying with the recommendations of BS EN 755-9:2001. Polyester powder coat finishes are available to BS EN 12206-1:2004 in a wide range of colours. Anodised finish is to BS 3987 Grade AA25 etch silver.

Weatherstripping is a woven pile internally and externally, set in undercut grooves in the frame.

The thermal barrier is achieved using two polyamide extrusions separating the internal and external faces.

Construction

Frame members are square cut and shouldered (where necessary). Joints are secured using stainless self tapping screws into screw ports extruded into the profile. All joints shall be sealed during fabrication against water entry.

The thermal barrier section is achieved using two separate aluminium extrusions and polyamide extrusions mechanically jointed to form a single compound profile.

Assembly and Installation

Detailed instructions are provided in this publication, which must be strictly conformed to. Only parts supplied by Sapa should be used in the manufacture of Crown 98mm Patio Doors.

Hardware

Panels slide on adjustable stainless steel tandem rollers. Panels are locked using a multipoint lock with 6 hooks into a full length keep. Both lock and keep are mild steel zinc plated to give corrosion resistance of Grade 4 in accordance with BS EN 1670. Handles and panel stops are zinc die castings.

Glazing

Drainage in accordance with details listed in this manual meets the requirements of “Ventilated and Drained Glazing System”, as specified in BS6262. Glass must conform to BS6262 for thickness and type. Insulating glass units of 28mm can be accommodated.

Glass is set against extruded nitrile rubber gaskets retained in undercut grooves in the aluminium sash profile for security. Final retention of the glass is achieved by the application of a co-extruded PVCu / nitrile wedge gasket between the inner face of the glass and the bead or frame.

Weather Performance

When tested in accordance with BS6375:Part 1:2009 The products listed in this manual, when manufactured installed and glazed strictly to the enclosed details, will meet UK exposure category 800.

Water Tightness	Class 7A (300 Pascals)
Air Permeability	Class 2 (300 Pascals)
Wind Resistance	Class A2 (800 Pascals)**

** Exposure category varies with Width/Height of door. An accurate figure can be obtained using BS6399:Part 2 calculations and inertia values given on page 2-11.

Thermal Performance

Crown 98mm Patio Doors can meet and surpass the area weighted average U values stipulated in Part L of the Building Regulations. Lower U-values can be achieved using double glazed units with enhanced thermal insulation, such as ‘soft coat’ low emissivity glass, argon gas filling and thermally enhanced spacer bar.

Size Limitations

Note

All sizes given are in millimetres, and relate to the overall size of the outerframe of doors with equal split panes.

Maximum height = 2500

Minimum height = 1830

2 Pane

Maximum width = 3205

Minimum width = 1505

3 Pane (OXO)

Maximum width = 4761

Minimum width = 2208

3 Pane (XOX)

Maximum width = 4823

Minimum width = 2272

4 Pane

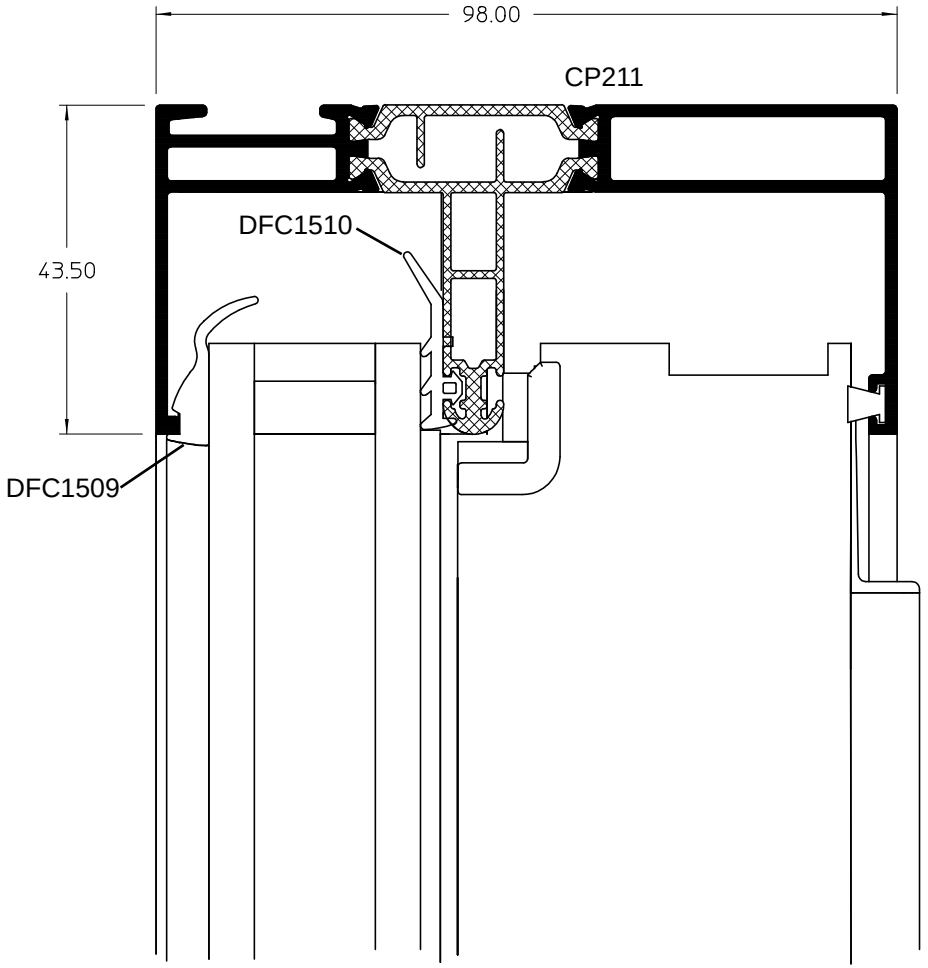
Maximum width = 6353

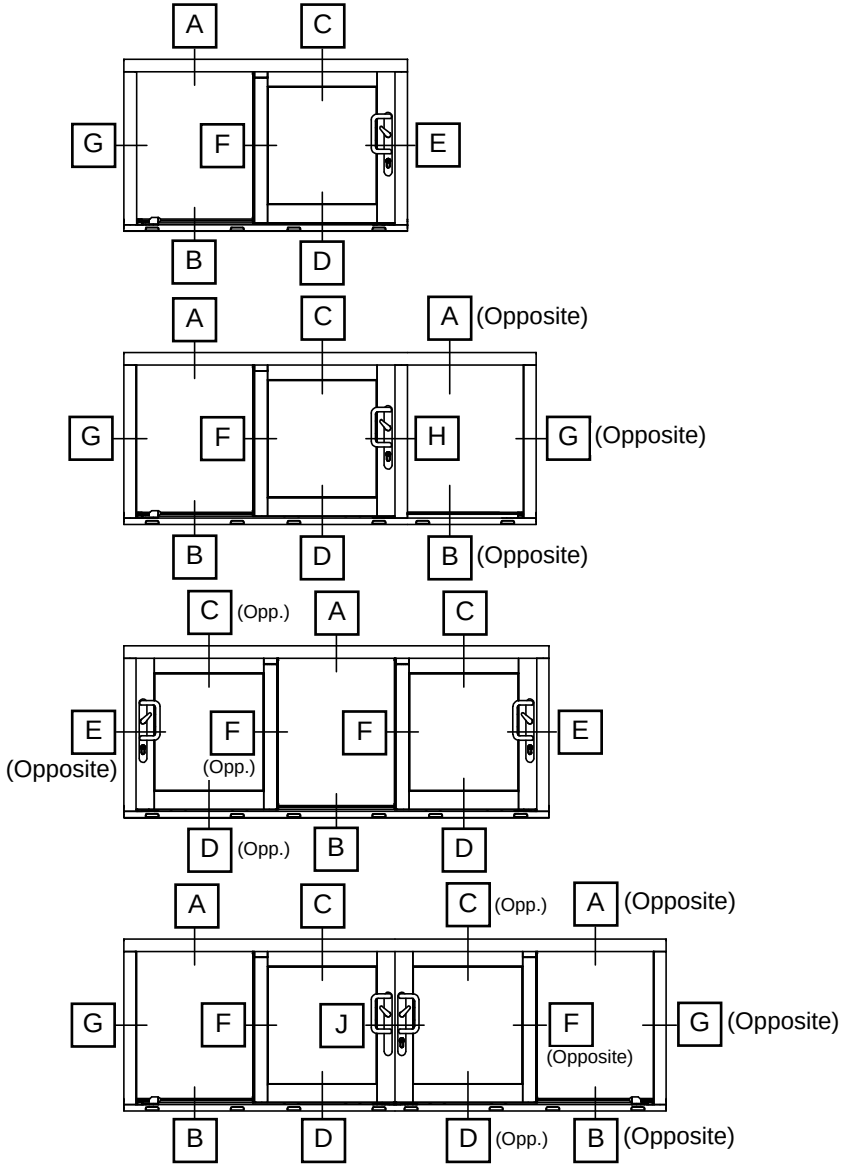
Minimum width = 2949

Max weight per sliding panel = 120Kg.

General Arrangements

A Fixed Head

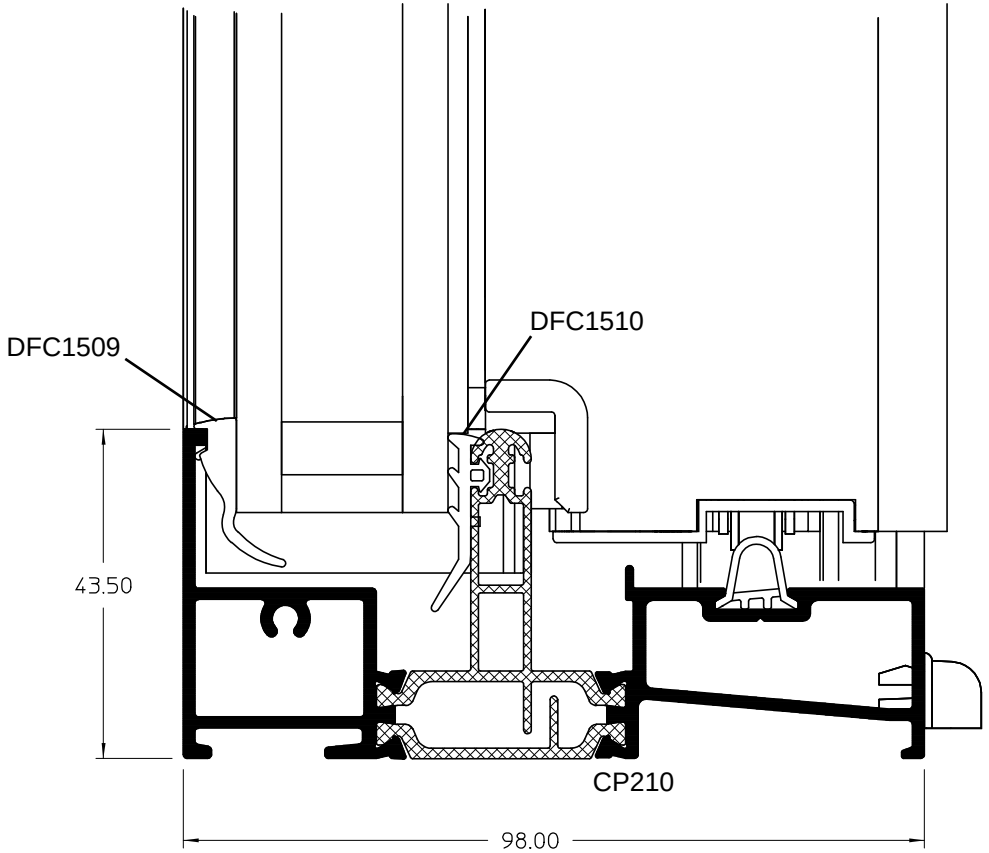


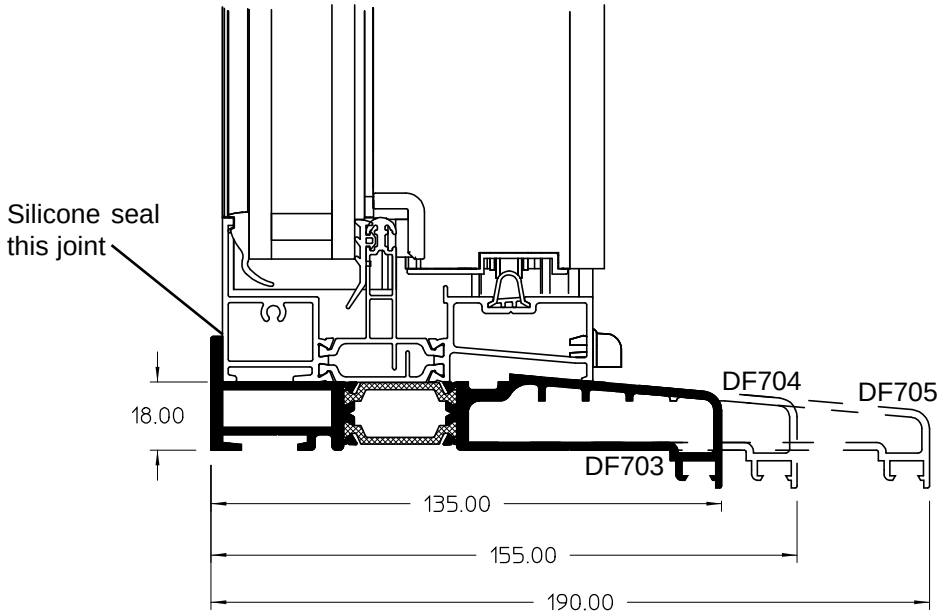


General Arrangements

B Fixed Cill

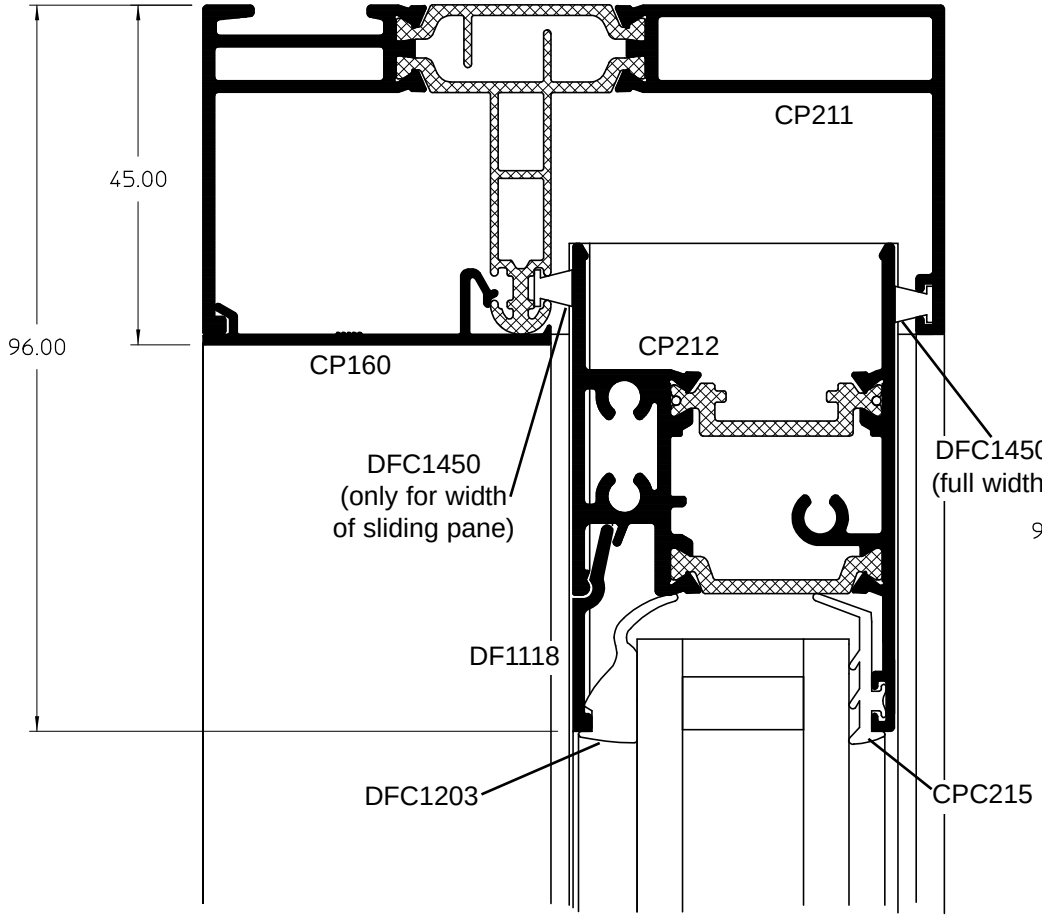
Add-on Sub-Cills



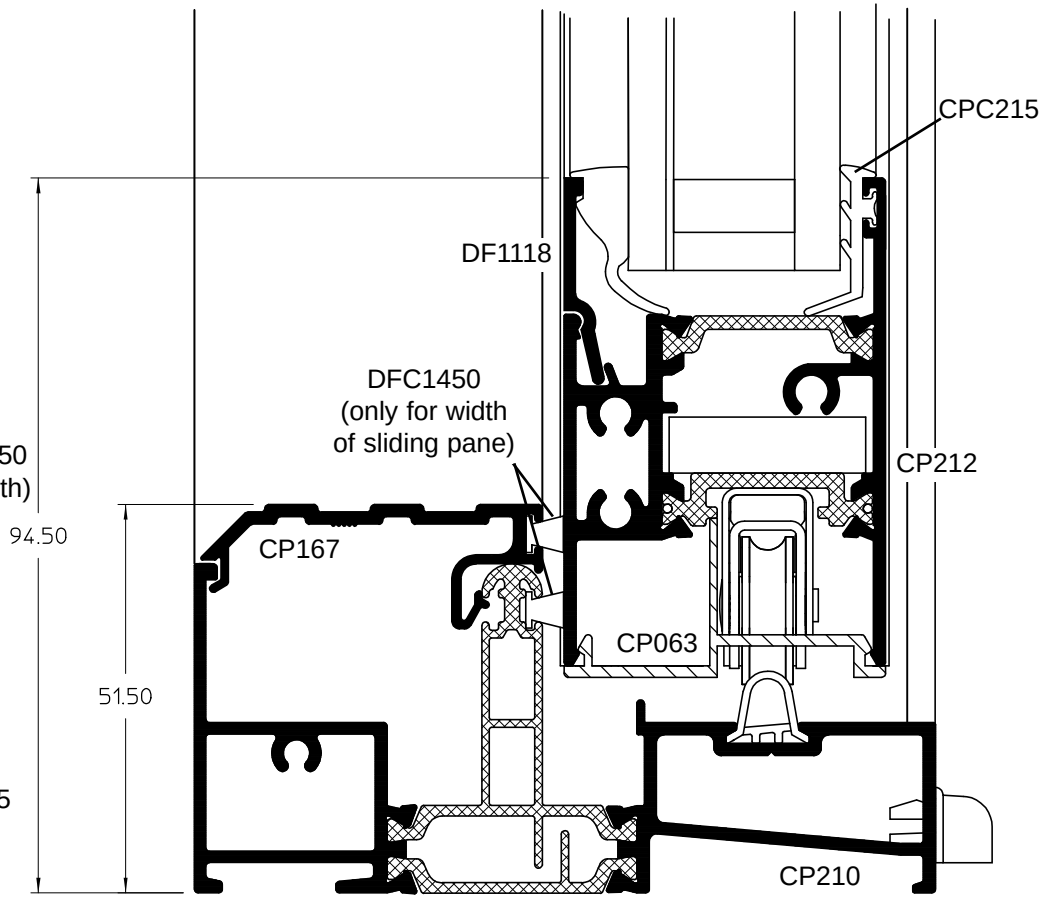


General Arrangements

C Sliding Head

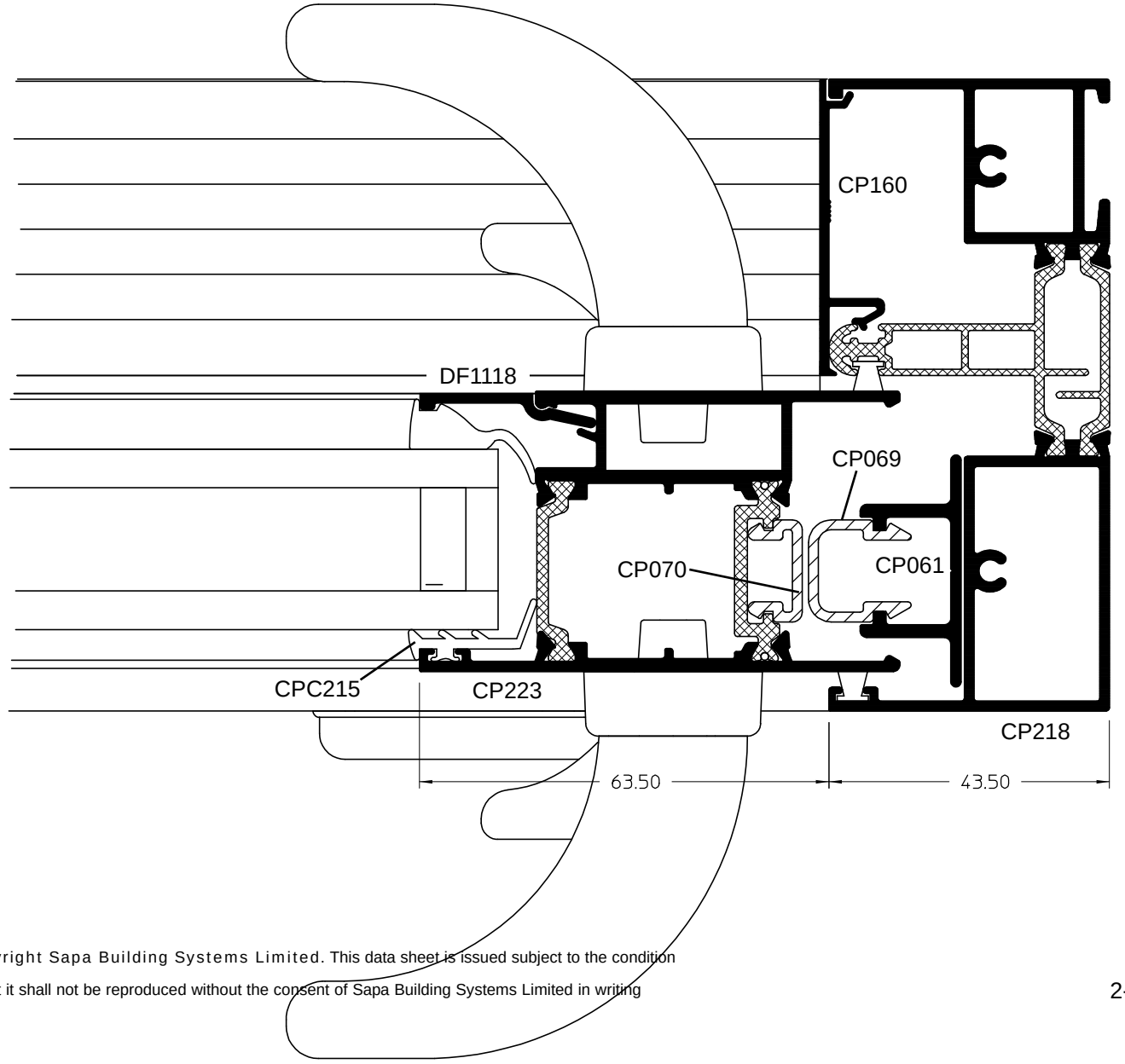


D Sliding Cill



General Arrangements

E Locking Jamb



General Arrangements

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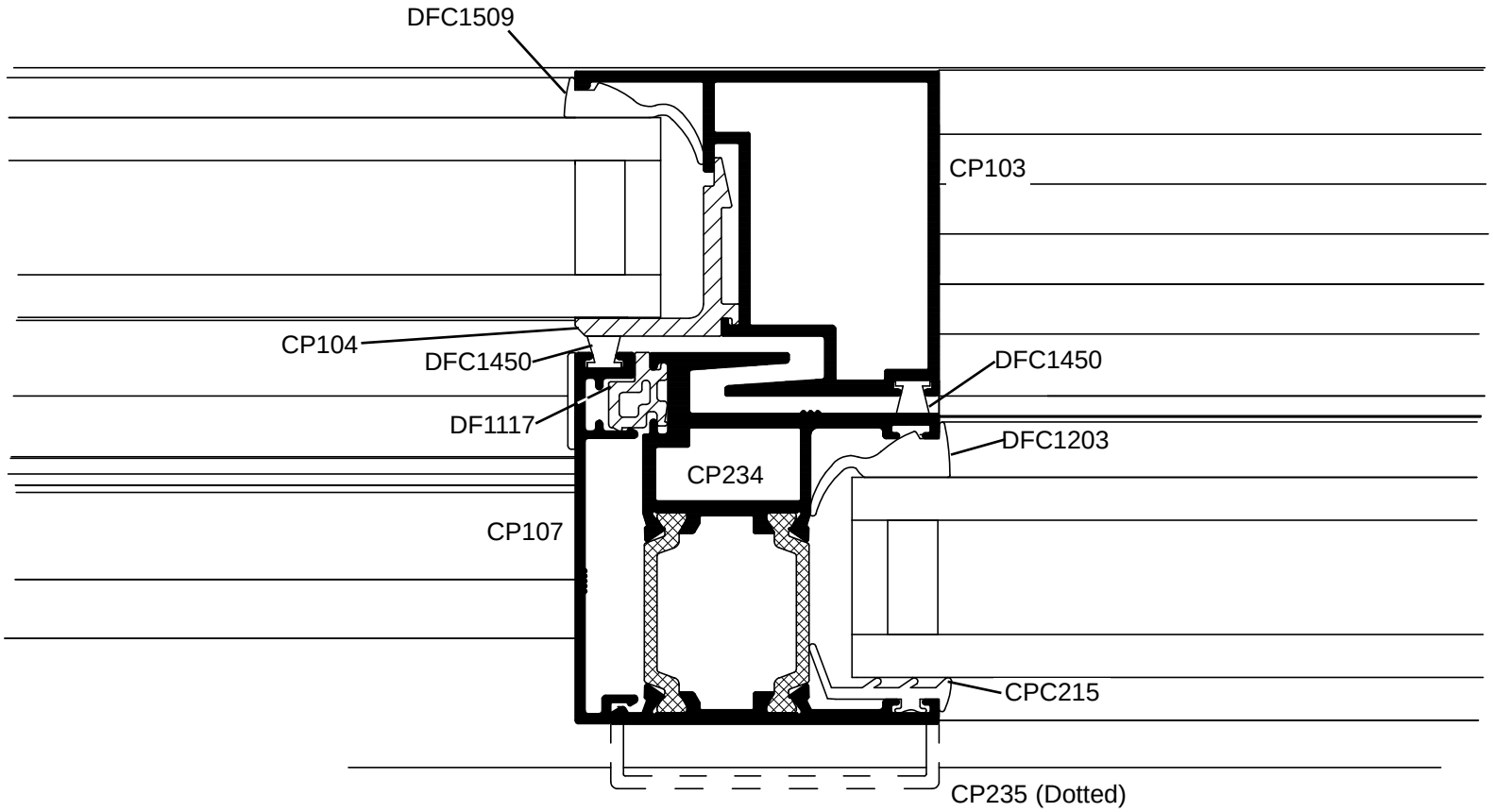
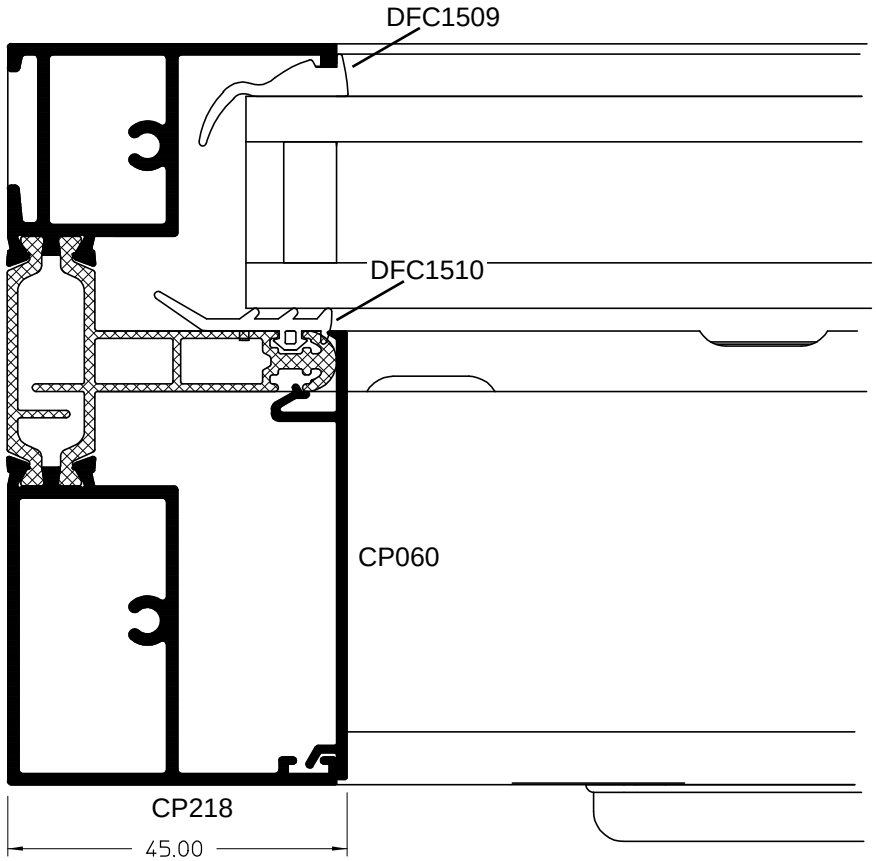
F Interlocks

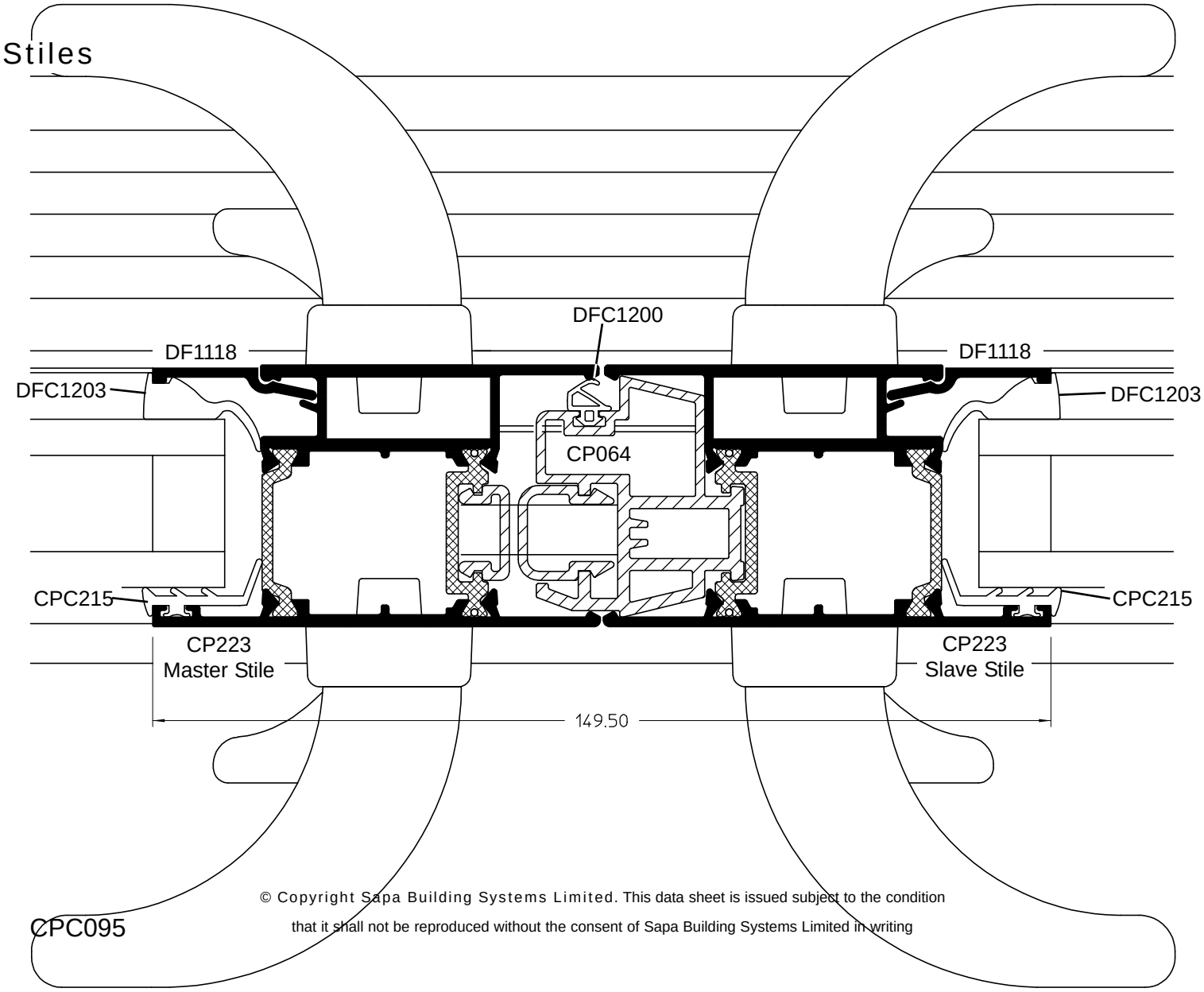


G Fixed Jamb

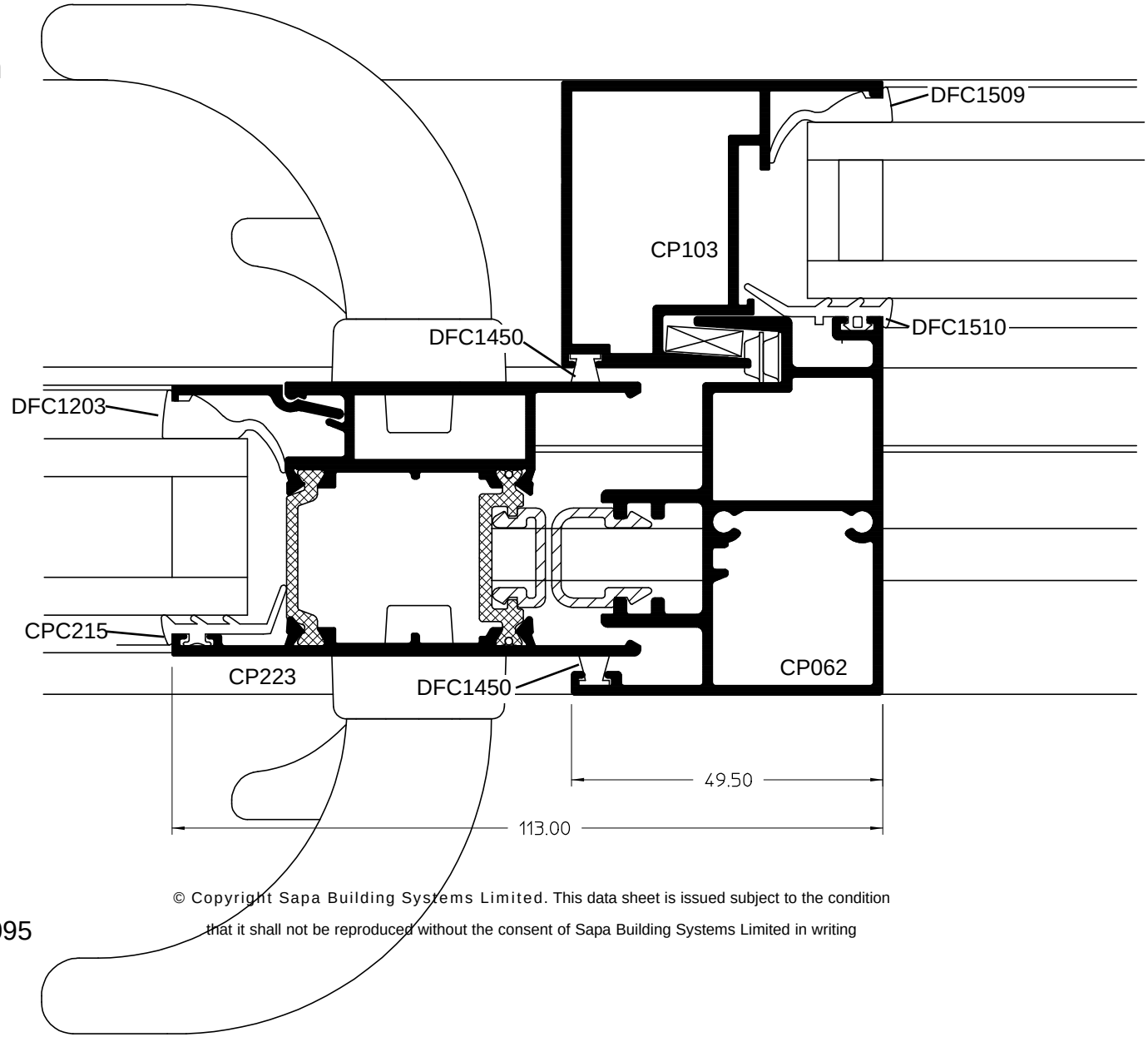


General Arrangements

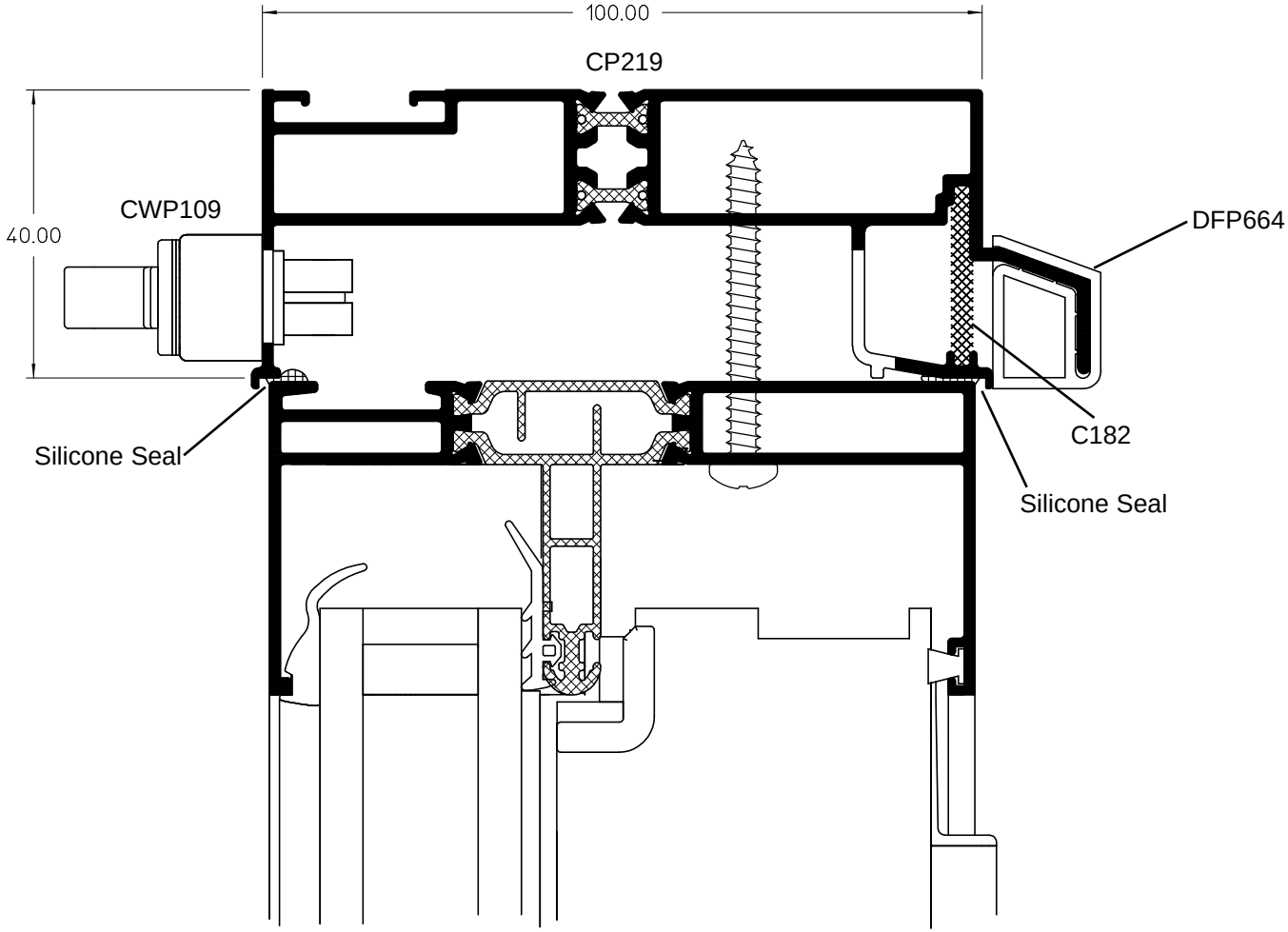
J Meeting Stiles



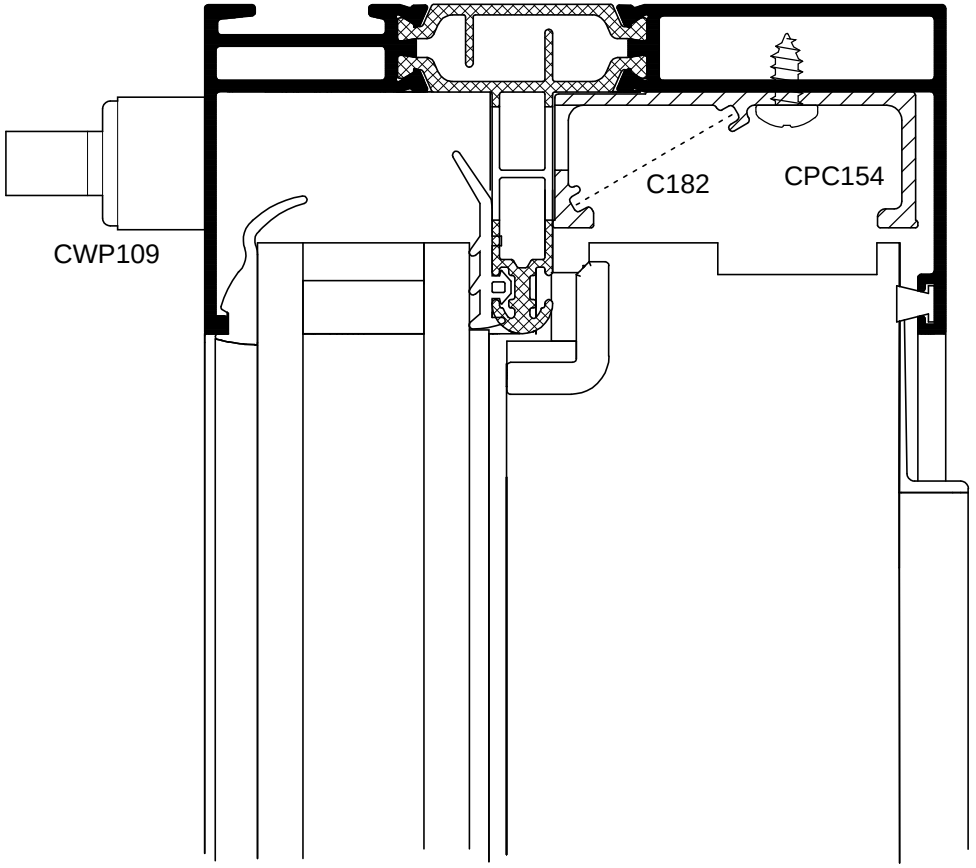
H 3-Pane Mullion



Trickle Vent



Concealed Trickle Vent



Profile Inertia Values

This page gives information on the inertia values of the framing profiles calculated in accordance with :- BS EN 14024 : 2004.

BS6399 Part 2 must be used to calculate the inertia value required.

The table gives inertia values for varying spans of profile.

Select the nearest span BELOW the actual span and use the value shown to compare against the inertia required.

Profile	CP062	CP103	CP223	CP234	CP235
Values shown are mm^4					
	Inertia Ixx	Inertia Ixx	Inertia Ixx	Inertia Ixx	Inertia Ixx
Span 1850mm	180 182	90 111	94 075	99 124	158 930
Span 1900mm			95 379	100 270	161 481
Span 1950mm			96 629	101 318	163 861
Span 2000mm			97 913	102 324	166 050
Span 2050mm			99 040	103 286	168 299
Span 2100mm			100 194	104 200	170 335
Span 2150mm			101 176	105 064	172 420
Span 2200mm			102 177	105 874	174 269
Span 2250mm			103 199	106 627	176 158
Span 2300mm			104 031	107 391	177 789
Span 2350mm			104 984	108 096	179 450
Span 2400mm			105 736	108 737	181 143
Span 2450mm			106 610	109 387	182 709
Span 2500mm			107 387	110 044	184 143
Inertia Iyy	99 054	55 611	127 100	45 700	74 800

Parts List - Profiles

NOTE - 'A' ref after some profiles relates to reference for SP/SP finish only

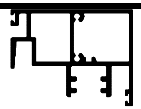
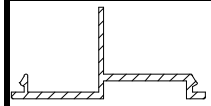
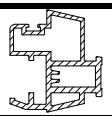
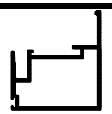
Illustration	Part No.	Description
	CP060	Outerframe Closer (on fixed jamb)
	CP061	Lock Jamb Adaptor
	CP062	3-Pane Mullion
	CP063	Bottom Rail Liner (PVC)
	CP064	4-Pane Meeting Stile Adaptor (PVC)
	CP069	Jamb Trim
	CP070	Stile Trim
	CP103	Fixed Interlock
	CP104	Fixed Interlock Bead (PVCu)

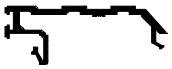
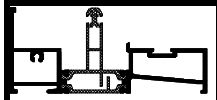
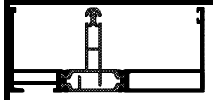
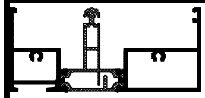
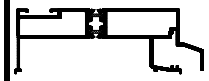
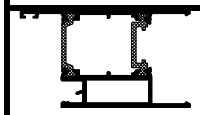
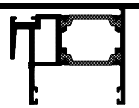
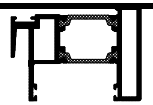
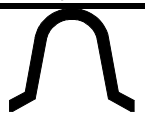
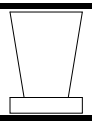
Illustration	Part No.	Description
	CP107	Interlock Capping
	CP160	Outerframe Closer (on lock jamb & head)
	CP167	Threshold Closer
	CP210	Cill
	CP211	Head
	CP212	Rail
	CP218	Jamb
	CP219	Trickle Vent Body
	CP223	Lock Stile

Illustration	Part No.	Description
	CP234	Standard Outer Interlock
	CP235	Heavy Duty Outer Interlock
	DF1117	Outer Interlock Insulator
	DF1118	Bead
	C1193	Stainless Steel Track

Parts List - Gaskets & Weather Seals

Illustration	Part No.	Description
	DFC1200	Bulb Seal - 10m (Black)
	DFC1450	4.8 x 7 Woolpile with Fin - 12m (Grey)
	DFC1509	4-5mm Wedge Gasket With Leg - 8.5m (Red ID)
	DFC1510	3mm Retained Gasket - 8.5m
	DFC1203	6-7mm Wedge Gasket With Leg - 8m (Black ID)
	CPC215	3mm T Slot Retained Gasket - 8m (Grey ID)

Parts List - Hardware & Accessories

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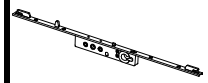
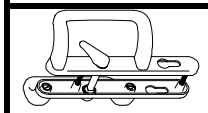
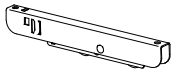
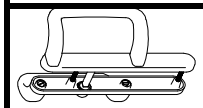
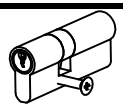
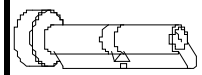
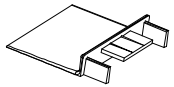
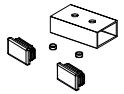
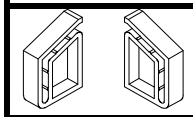
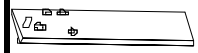
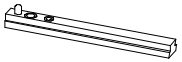
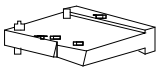
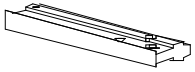
Illustration	Part No.	Description
	CPC154	Concealed Trickle Vent
	CPP100	Patio Multipoint Lock (Pack 10) (6 Hooks)
	CPP101	Patio Multipoint Lock Keep (Pack 10) (6 Hooks)
	CPP102	Handle Pack (Pack 1 or 10) (W / E / ES / G / PG / PS)
	CPP103	Patio Tandem Roller (Pack 50)
	CPP111	3 Pane Track Infill (Pack 10) (BK)
	CPP112	Slave Handle Pack (Pack 1 or 10) (W / E / ES / G / PG / PS)
	CPP113	Standard Cylinder (Pack 15) (C / G)
	CPP114	Thumbturn Cylinder (Pack 15) (C / G)

Illustration	Part No.	Description
	CPP123	Heavy Duty Interlock End Cap (Pack 40) (W / BK)
	CPP151	Bump Stop (Pack 1) (W / E)
	C182	Trickle Vent Mesh
	CWP109	Trickle Vent Operator (Pack 10) (W / E / ES / SP)
	DFP664	Trickle Vent End Caps(Pack 25 Pairs) (BK)

Parts List - Tooling

Illustration	Part No.	Description
	CPC201	Drill Jig - Rail drainage & roller fixing holes.
	CPC202	Drill Jig - Stile to rail fixing holes.
	CPC203	Drill Jig - 4 Pane adaptor fixing holes.
	CPC205	Drill Jig - 98mm Fixed Interlock Top & Bottom Prep
	CPC210	Drill Jig - 98mm Jambs & 3 pane mullion to head & cill fixing holes.
	CPC214	Drill Jig - 98mm Bump stop fixing holes & Track Drainage

Parts List - Accessory Pack Contents

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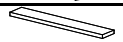
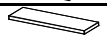
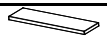
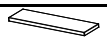
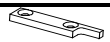
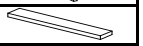
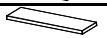
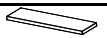
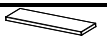
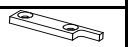
CPP135 - 2 Pane Accessroy Pack

Part Number	Description	Quantity	Illustration / Where Used
325/2/WE 325/2/BK	Drain Hole Cover - White Drain Hole Cover - Black	4 4	
C1244	Anti-Lift Shim	6	
C3101	Patio Cill Infill - 65mm	2	
CPC105	Stile to Rail Clamp Plate	4	
CPC106	Lock / Roller Fixing Tap Plate	2	
CPC108	Cill End Plug	5	
CPC109/W CPC109/BK	9.5mm Hole Plug - White 9.5mm Hole Plug - Black	2 2	
CPC122	5mm Hole Plug	2	
CPC126	Cill End Plug	2	
DFC1400/W DFC1400/BK	Interlock End Moulding (RH) - White Interlock End Moulding (RH) - Black	1 1	
DFC1401/W DFC1401/BK	Interlock End Moulding (LH) - White Interlock End Moulding (LH) - Black	1 1	
DFP1402	Cill End Plug (In Polyamide)	4	
DFC1415	6mm Glazing Packer	4	
DFC1425	8mm Glazing Packer (used as interlock capping packer)	4	
DFC1699	4.3 x 25mm Csk Pozi PA Self Drill Self Tapper	14	Lock Fixing
ST81PPSS	No. 8 x 1" Pan Pozi Self Tapper	12	Outerframe Corner Jointing & Roller Fixing
ST10112XPSS	No 10 x 11/2" Pan Torx Self Tapper	6	Outer Interlock ro Rail Fixing
ST812PPSS	No. 8 x 1/2" Pan Self Tapper	1	DFC1425 Fixing
ST10134PPSS	No. 10 x 1 3/4" Pan Pozi Self Tapper	6	Lock Stile to Rail Fixing
ST8112CPSS	No. 8 x 1 1/2" Csk Pozi Self Tapper	2	Keep Fixing
ST10114CPSS	No. 10 x 1 1/4" Csk Pozi Self Tapper	10	Anti Lift Block & Bump Stop & Anti-Jemi Plate Fixing
ST1034PPSS	No. 10 x 3/4" Pan Pozi Self Tapper	6	Fixed Interlock Retaining Brkt Fixing
ST8112CPSS	No. 8 x 1 1/2" Csk Pozi Self Tapper	12	Keep Fixing
CPC125	Fixed Interlock Retaining Bracket	2	
CPC127	32 x 5 x 100 Glazing Packer	4	
CPC129	Anti-Jemi Plate	2	
CWC115	Anti-Lift Block	8	

CPP136 - 3 Pane OXO Accessory Pack

Part Number	Description	Quantity	Illustration / Where Used
325/2/WE 325/2/BK	Drain Hole Cover - White Drain Hole Cover - Black	6 6	
C1244	Anti-Lift Shim	6	
C3101	Patio Cill Infill - 65mm	1	
CPC105	Stile to Rail Clamp Plate	4	
CPC106	Lock / Roller Fixing Tap Plate	2	
CPC108	Cill End Plug	6	
CPC109/W CPC109/BK	9.5mm Hole Plug - White 9.5mm Hole Plug - Black	6 6	
CPC122	5mm Hole Plug	2	
CPC126	Cill End Plug	2	
DFC1400/W DFC1400/BK	Interlock End Moulding (RH) - White Interlock End Moulding (RH) - Black	1 1	
DFC1401/W DFC1401/BK	Interlock End Moulding (LH) - White Interlock End Moulding (LH) - Black	1 1	
DFP1402	Cill End Plug (In Polyamide)	4	
DFC1415	6mm Glazing Packer	4	
DFC1425	8mm Glazing Packer (used as interlock capping packer)	4	
DFC1699	4.3 x 25mm Csk Pozi PA Self Drill Self Tapper	14	Lock Fixing
ST81PPSS	No. 8 x 1" Pan Pozi Self Tapper	16	Outerframe Corner Jointing & 3-Pane Mullion Fixing & Roller Fixing
ST10112XPSS	No 10 x 11/2" Pan Torx Self Tapper	6	Outer Interlock ro Rail Fixing
ST812PPSS	No. 8 x 1/2" Pan Self Tapper	1	DFC1425 Fixing
CPC124	4 Pane Over-run Buffer (used as 3 pane mullion packer)	4	
ST10134PPSS	No. 10 x 1 3/4" Pan Pozi Self Tapper	6	Lock Stile to Rail Fixing
ST8112CPSS	No. 8 x 1 1/2" Csk Pozi Self Tapper	2	Keep Fixing
ST10114CPSS	No. 10 x 1 1/4" Csk Pozi Self Tapper	10	Anti Lift Block & Bump Stop & Anti-Jemi Plate Fixing
ST1034PPSS	No. 10 x 3/4" Pan Pozi Self Tapper	12	Fixed Pane Retaining Brkt Fixing
ST8112CPSS	No. 8 x 1 1/2" Csk Pozi Self Tapper	12	Keep Fixing
CPC125	Fixed Interlock Retaining Bracket	4	
CPC127	32 x 5 x 100 Glazing Packer	8	
CPC129	Anti-Jemi Plate	2	
CWC115	Anti-Lift Block	8	

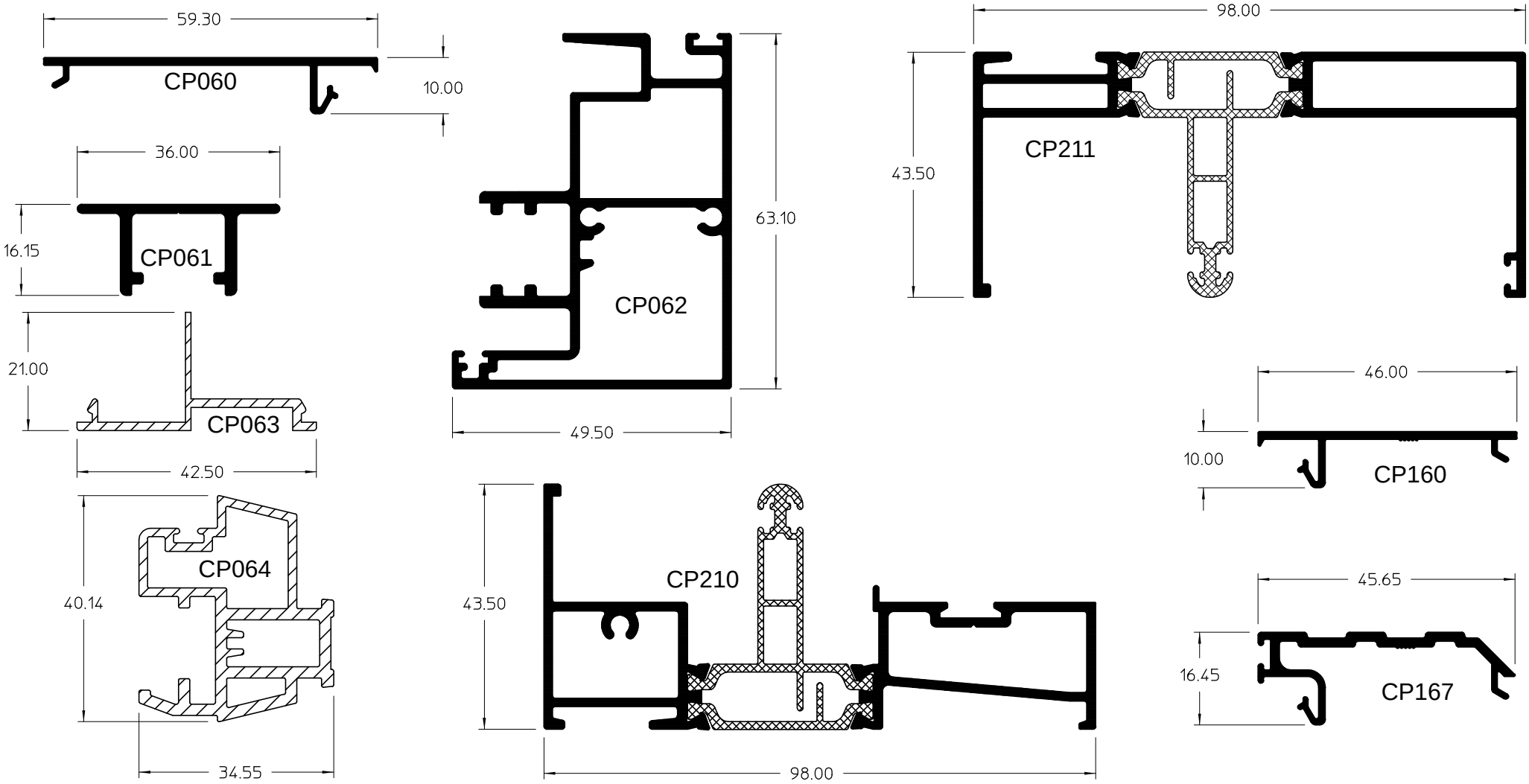
CPP137 - 4 Pane Accessory Pack

Part Number	Description	Quantity	Illustration / Where Used
325/2/WE 325/2/BK	Drain Hole Cover - White Drain Hole Cover - Black	8 8	
C1244	Anti-Lift Shim	6	
C3101	Patio Cill Infill - 65mm	2	
CPC105	Stile to Rail Clamp Plate	8	
CPC106	Lock / Roller Fixing Tap Plate	4	
CPC108	Cill End Plug	6	
CPC109/W CPC109/BK	9.5mm Hole Plug - White 9.5mm Hole Plug - Black	4 4	
CPC126	Cill End Plug	2	
DFC1400/W DFC1400/BK	Interlock End Moulding (RH) - White Interlock End Moulding (RH) - Black	2 2	
DFC1401/W DFC1401/BK	Interlock End Moulding (LH) - White Interlock End Moulding (LH) - Black	2 2	
DFP1402	Cill End Plug (In Polyamide)	4	
DFC1415	6mm Glazing Packer	8	
DFC1425	8mm Glazing Packer (used as interlock capping packer)	4	
DFC1699	4.3 x 25mm Csk Pozi PA Self Drill Self Tapper	14	Lock Fixing
ST81PPSS	No. 8 x 1" Pan Pozi Self Tapper	22	Outerframe Corner Jointing & Roller Fixing
ST10112XPSS	No 10 x 11/2" Pan Torx Self Tapper	12	Outer Interlock ro Rail Fixing
ST812PPSS	No. 8 x 1/2" Pan Self Tapper	1	DFC1425 Fixing
CPC124	4 Pane Over-run Buffer	4	
ST8112CPSS	No. 8 x 1 1/2" Csk Pozi Self Tapper	2	Keep Fixing
ST10134PPSS	No. 10 x 1 3/4" Pan Pozi Self Tapper	12	Lock Stile to Rail Fixing
ST10114CPSS	No. 10 x 1 1/4" Csk Pozi Self Tapper	18	Anti Lift Block & Bump Stop & Anti-Jemi Plate Fixing
ST1034PPSS	No. 10 x 3/4" Pan Pozi Self Tapper	12	Fixed Interlock Retaining Brkt Fixing
ST8112CPSS	No. 8 x 1 1/2" Csk Pozi Self Tapper	12	Keep Fixing
CPC125	Fixed Interlock Retaining Bracket	4	
CPC127	32 x 5 x 100 Glazing Packer	8	
CPC129	Anti-Jemi Plate	4	
CWC115	Anti-Lift Block	12	

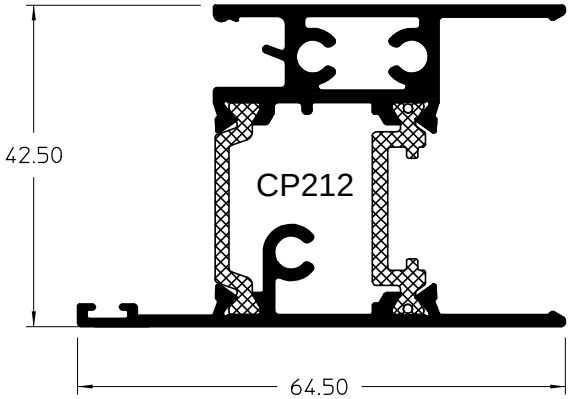
CPP146 - 3 Pane XOX Accessory Pack

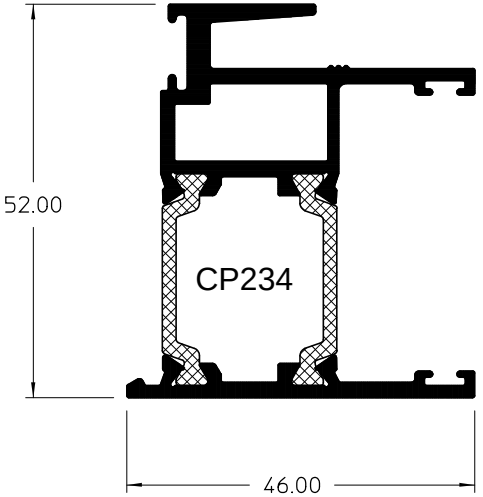
Part Number	Description	Quantity	Illustration / Where Used
325/2/WE 325/2/BK	Drain Hole Cover - White Drain Hole Cover - Black	6 6	
C1244	Anti-Lift Shim	6	
C3101	Patio Cill Infill - 65mm	2	
CPC105	Stile to Rail Clamp Plate	8	
CPC106	Lock / Roller Fixing Tap Plate	4	
CPC108	Cill End Plug	6	
CPC109/W CPC109/BK	9.5mm Hole Plug - White 9.5mm Hole Plug - Black	4 4	
CPC126	Cill End Plug	2	
DFC1400/W DFC1400/BK	Interlock End Moulding (RH) - White Interlock End Moulding (RH) - Black	2 2	
DFC1401/W DFC1401/BK	Interlock End Moulding (LH) - White Interlock End Moulding (LH) - Black	2 2	
DFP1402	Cill End Plug (In Polyamide)	4	
DFC1415	6mm Glazing Packer	8	
DFC1425	8mm Glazing Packer (used as interlock capping packer)	4	
DFC1699	4.3 x 25mm Csk Pozi PA Self Drill Self Tapper	28	Lock Fixing
ST81PPSS	No. 8 x 1" Pan Pozi Self Tapper	8	Outerframe Corner Jointing & Roller Fixing
ST10112XPSS	No 10 x 11/2" Pan Torx Self Tapper	12	Outer Interlock ro Rail Fixing
ST812PPSS	No. 8 x 1/2" Pan Self Tapper	1	DFC1425 Fixing
ST10134PPSS	No. 10 x 1 3/4" Pan Pozi Self Tapper	12	Lock Stile to Rail Fixing
ST8112CPSS	No. 8 x 1 1/2" Csk Pozi Self Tapper	4	Keep Fixing
ST10114CPSS	No. 10 x 1 1/4" Csk Pozi Self Tapper	20	Anti Lift Block & Bump Stop & Anti-Jemi Plate Fixing
ST1034PPSS	No. 10 x 3/4" Pan Pozi Self Tapper	16	Fixed Interlock Retaining Brkt Fixing
ST8112CPSS	No. 8 x 1 1/2" Csk Pozi Self Tapper	24	Keep Fixing
CPC125	Fixed Interlock Retaining Bracket	4	
CPC127	32 x 5 x 100 Glazing Packer	4	
CPC129	Anti-Jemi Plate	4	
CWC115	Anti-Lift Block	16	

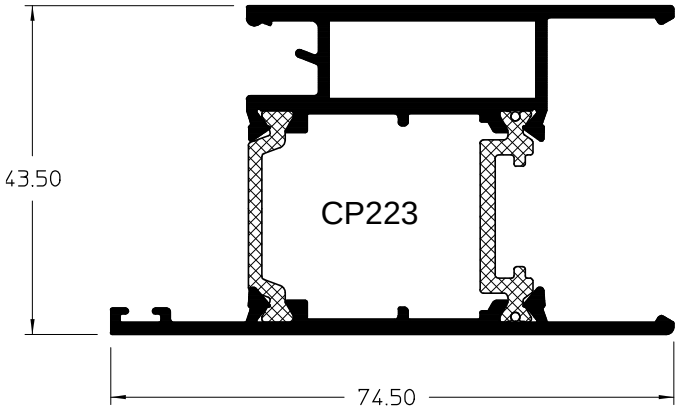
Profile Identification

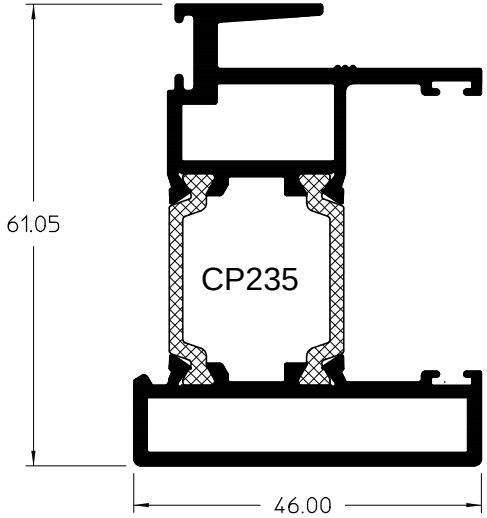


Profile Identification

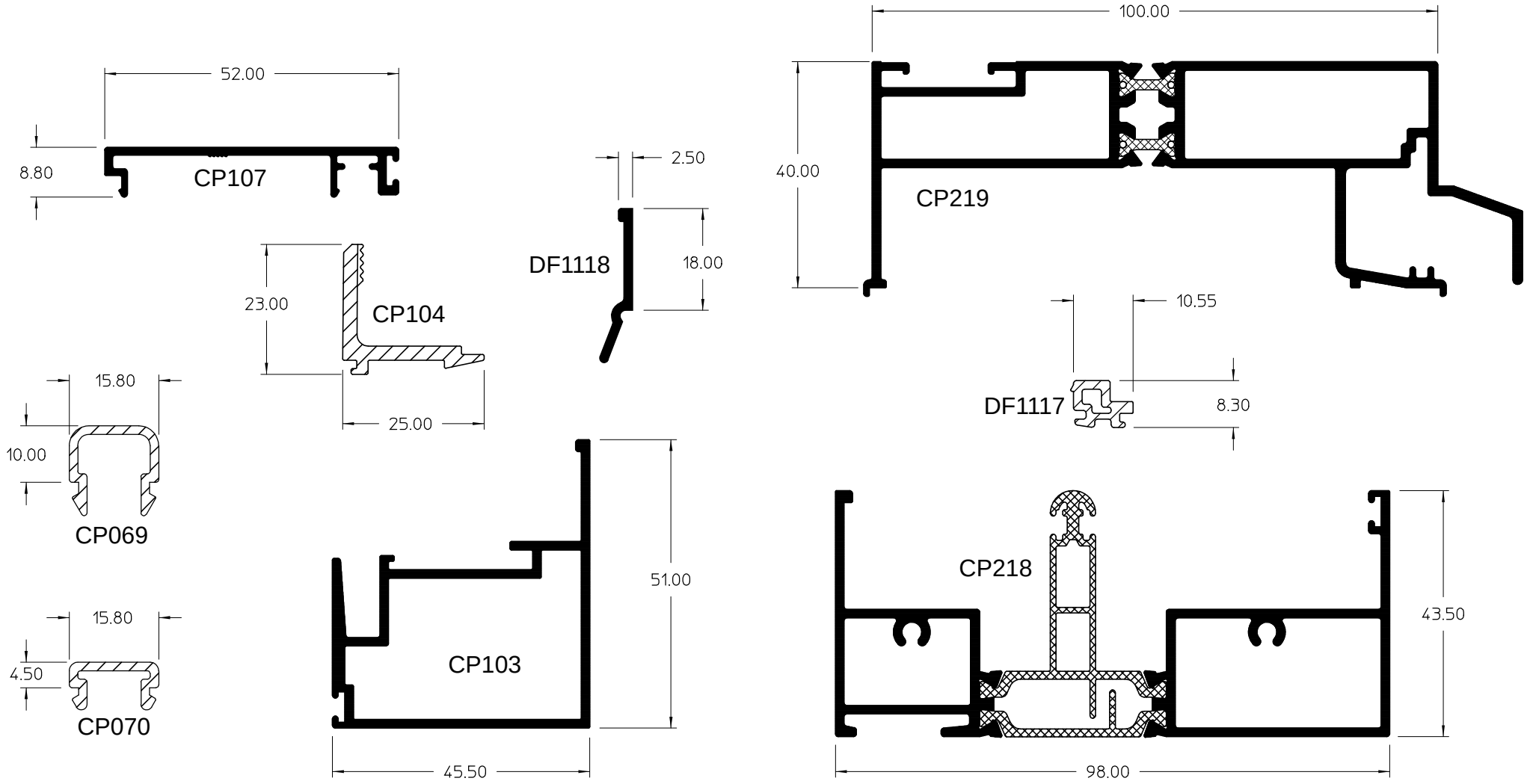








Profile Identification



Preparation for Fabrication

Establishing Dimensions

It is essential that work sizes are based on correct site dimensions and with adequate clearances around the door to allow for correct positioning/fixing.

Preliminaries

Ensure that the door design is within the parameters given in the specification. Ascertain the vertical and horizontal work sizes for each individual door unit. Ascertain the basic window design i.e. number and positions of panes. The correct interlock profile required can be calculated using BS6399:Part 2 and inertia value calculation sheet on page 2-11.

Metal and Glass Cutting

Refer to the data and diagrams on the subsequent pages to determine all bar lengths and glass sizes.

All patio doors are supplied in either cut to size kits or standard size kits for cutting down to suit actual door required. When cutting down kit, any end preparations on bars must be completely removed and re-prepared on the cut end.

Details of actual end preparation required are fully detailed for individual profiles on the following pages. Also detailed are the position and size of any holes and the appropriate tooling.

Cutting Calculations

Formulae are given below for 2 pane (OX or XO), 3 pane (OXO & XOX) & 4 pane (OXXO) doors. (W refers to overall frame width, H refers to overall frame height).

Metal tolerance of plus or minus 0.5mm - Glass tolerance of plus 0mm, minus 3.0mm.

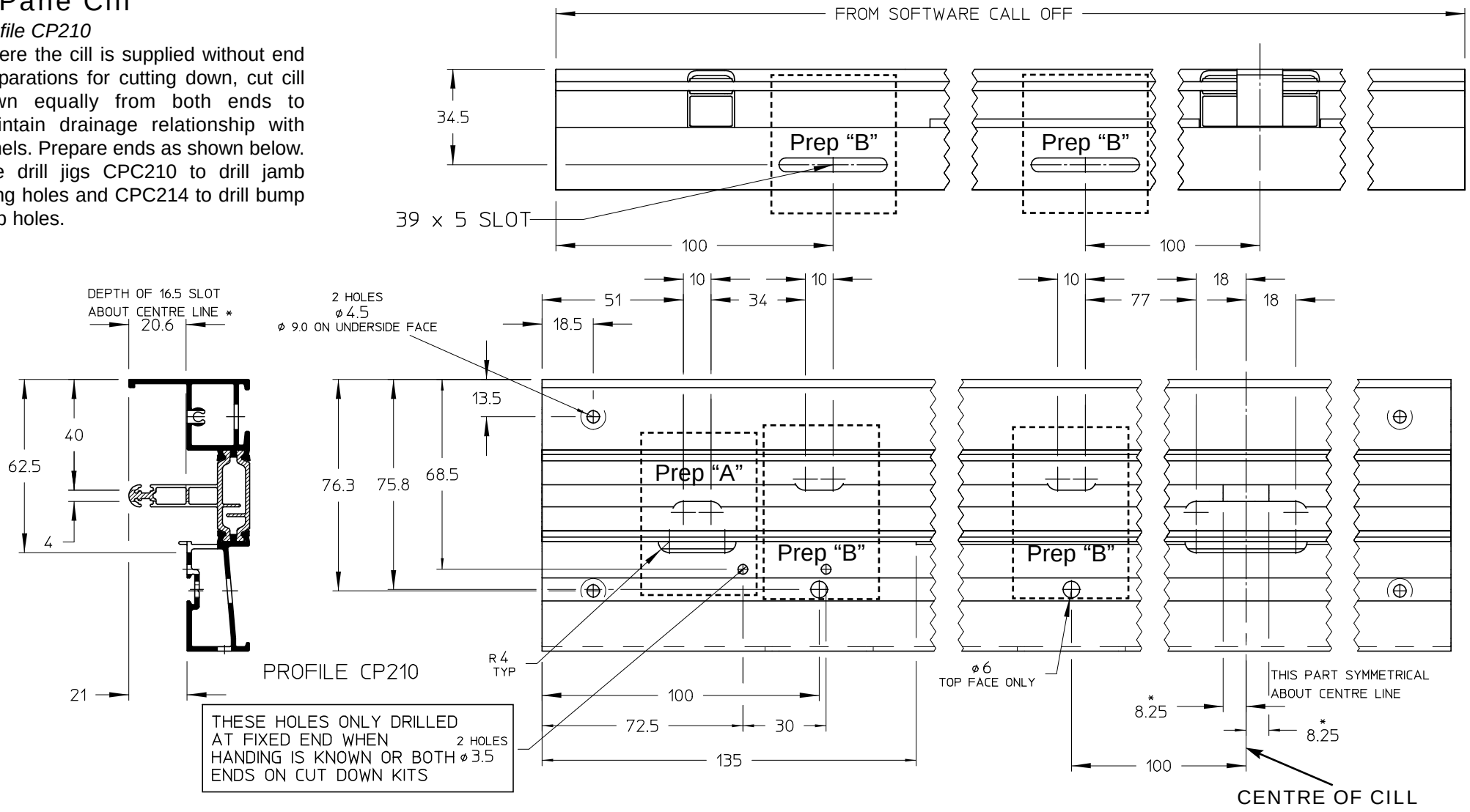
Component	2 Pane	3 Pane OXO	3 Pane XOX	4 Pane
Head & Cill	W	W	W	W
Head & Threshold Closer	(W-78)/2	(W-62)/3	(W-130)/3	(W-40)/2
All Rails	(W-129)/2	(W-145)/3	(W-208)/3	(W-195)/4
Bottom Rail Liner	(W+16)/2	(W+73)/3	(W+9.5)/3	(W+96)/4
SS Track	W-270	(W-251)/1.5	W-270	W-270
Horizontal Beads	(W-153)/2	(W-180)/3	(W-243)/3	(W-242)/4
Jamb	H-34	H-34	H-34	H-34
Lock Jamb Adaptor	H-36		H-36	
Lock Jamb Closer	H-87		H-87	
Fixed Jamb Closer	H-34	H-34		H-34
All Stiles & Interlocks	H-61.5	H-61.5	H-61.5	H-61.5
Fixed Interlock	H-49	H-49	H-49	H-49
Fixed Interlock Bead	H-86	H-86	H-86	H-86
Outer Interlock Cover	H-61.5	H-61.5	H-61.5	H-61.5
Outer Interlock Insulator	H-119.5	H-119.5	H-119.5	H-119.5
Vertical Beads	H-185.5	H-185.5	H-185.5	H-185.5
3 Pane Mullion		H-34		
4 Pane Adaptor				H-66
Glass Width	(W-153)/2)	(W-180)/3)	(W-243)/3	(W-242)/4)
Sliding Pane Glass Height	H-166	H-166	H-166	H-166
Fixed Pane Glass Height	H-64	H-64	H-64	H-64

Machining Details - Outerframe

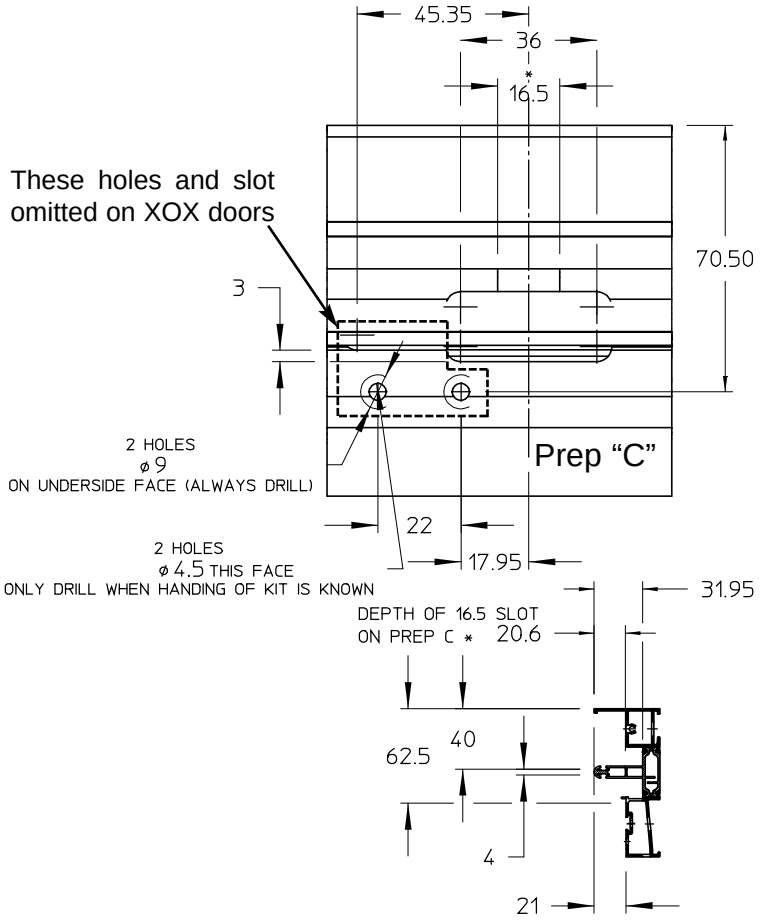
2 Pane Cill

Profile CP210

Where the cill is supplied without end preparations for cutting down, cut cill down equally from both ends to maintain drainage relationship with panels. Prepare ends as shown below. Use drill jigs CPC210 to drill jamb fixing holes and CPC214 to drill bump stop holes.

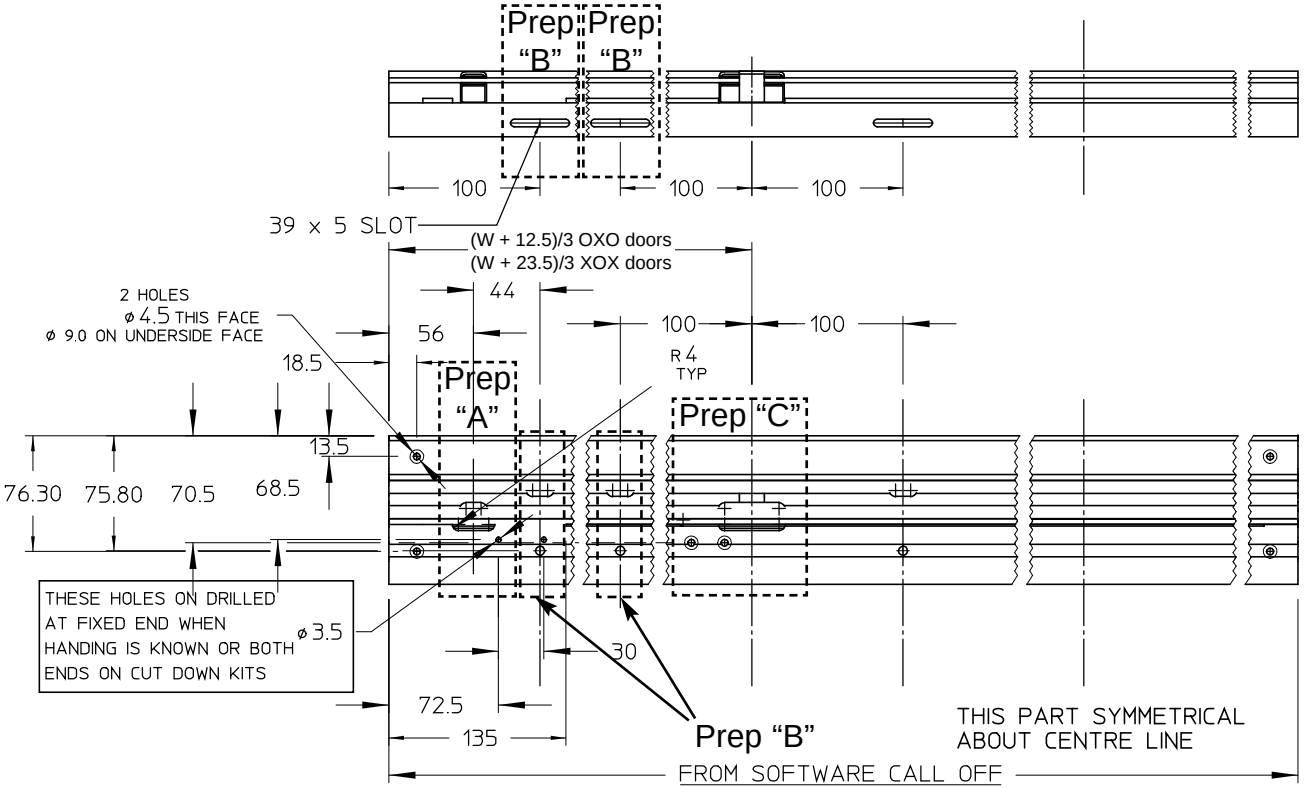


Machining Details - Outerframe



3 Pane OXO & XOX Cill *Profile CP210*

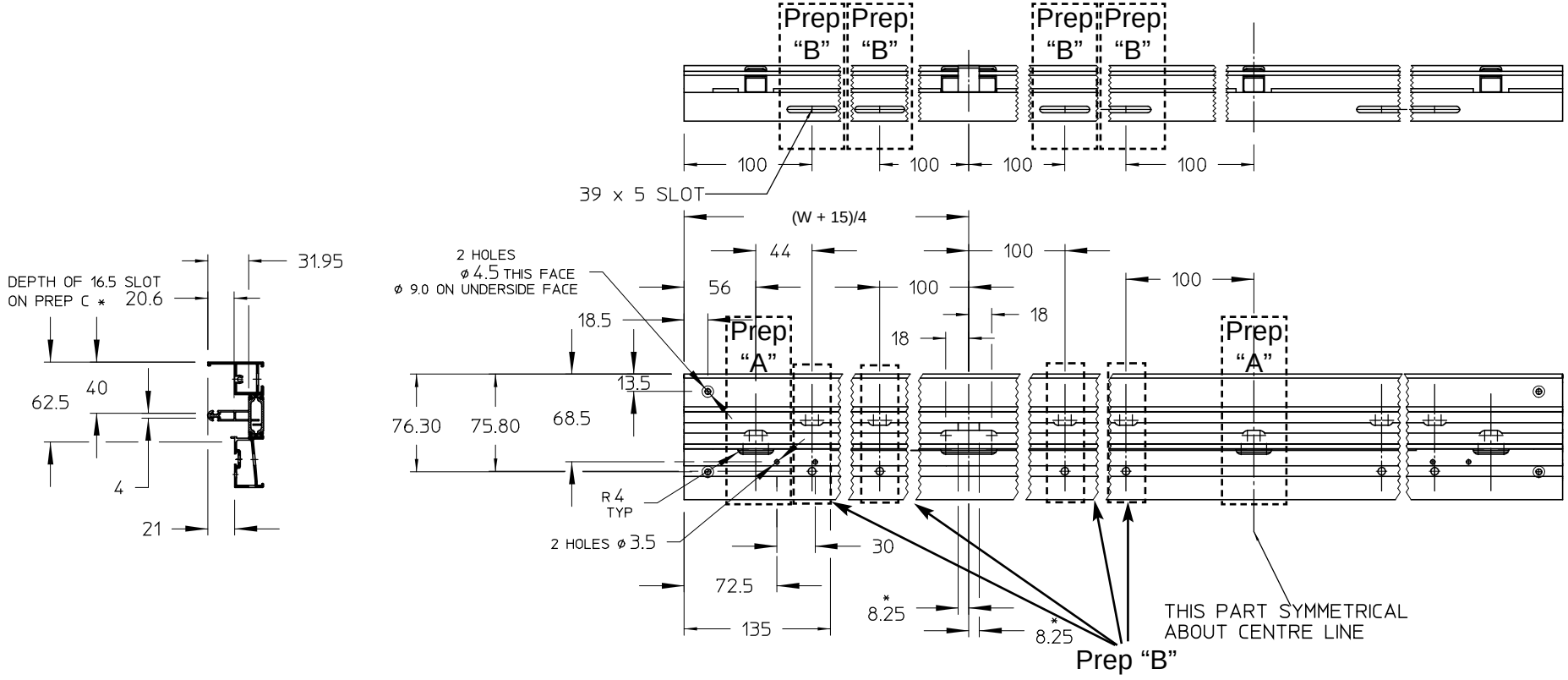
Where the cill is supplied without end preparations for cutting down, decide which handing of door is required. Drill 4.5dia holes through for mullion fixing. On 3 pane OXO doors, cut cill down by 1/3rd from end nearest mullion and 2/3rds from opposite end to maintain drainage relationship with panels. Prepare ends as shown below.
For preps "A" and "B" see 2-pane cill detail on previous page.
Use drill jigs CPC210 to drill jamb & 3 pane mullion fixing holes and CPC214 to drill bump stop holes.



Machining Details - Outerframe

4 Pane Cill *Profile CP210*

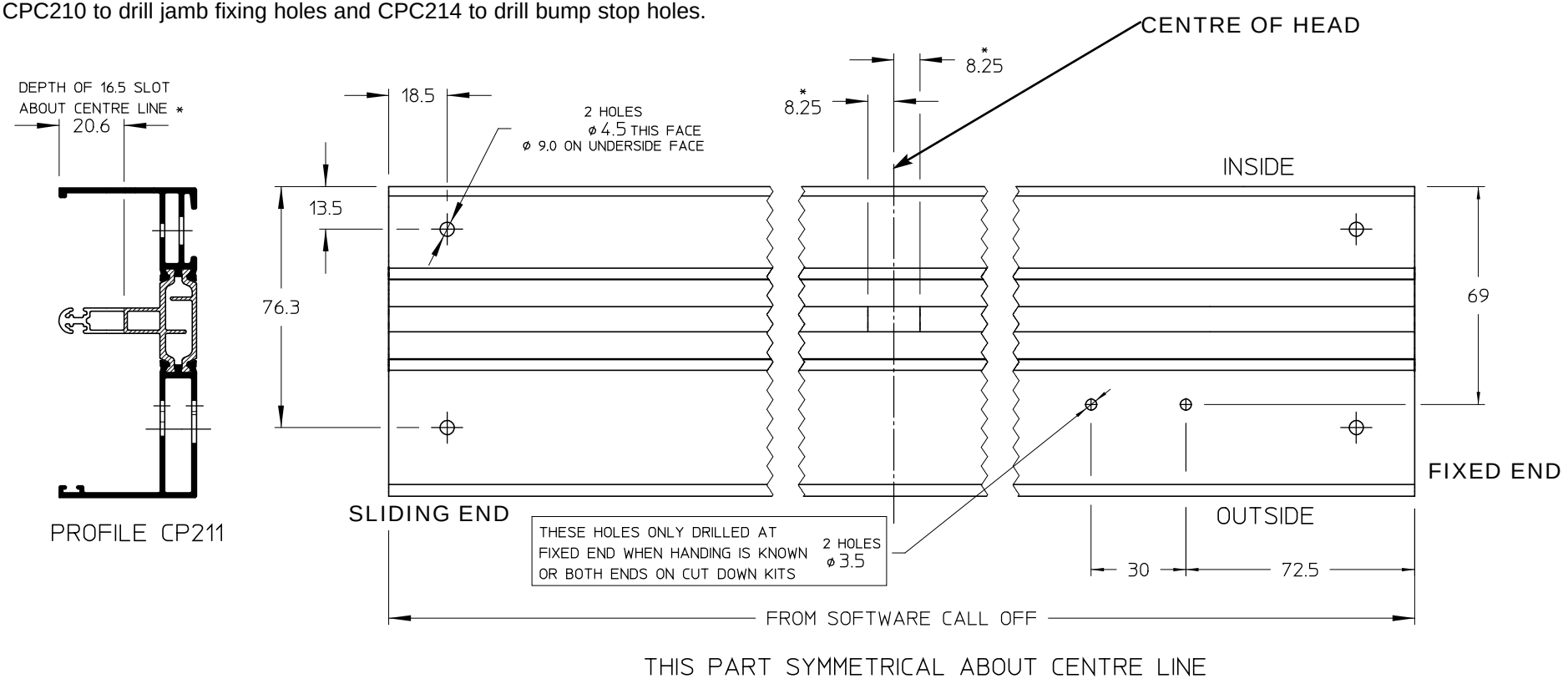
Where the cill is supplied without end preparations for cutting down, cut cill down equally from both ends to maintain drainage relationship with panels.
Prepare ends as shown above.
For preps “A” and “B” see 2-pane cill detail on page 4-2.
Use drill jigs CPC210 to drill jamb fixing holes and CPC214 to drill bump stop holes.



Machining Details - Outerframe

2 Pane Head *Profile CP211*

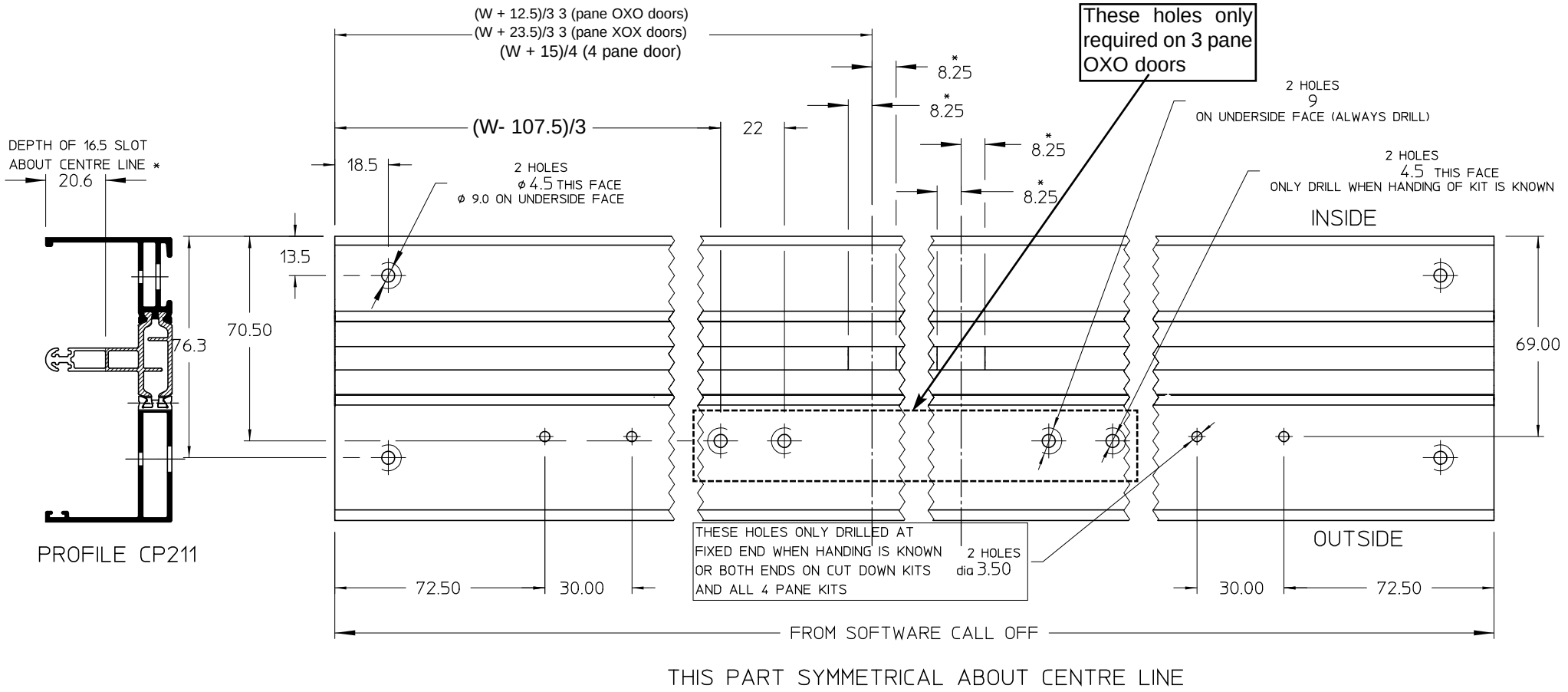
Where the head is supplied without end preparations for cutting down, cut head down equally from both ends. Prepare ends as shown below.
Use drill jigs CPC210 to drill jamb fixing holes and CPC214 to drill bump stop holes.



Machining Details - Outerframe

3 & 4 Pane Head *Profile CP211*

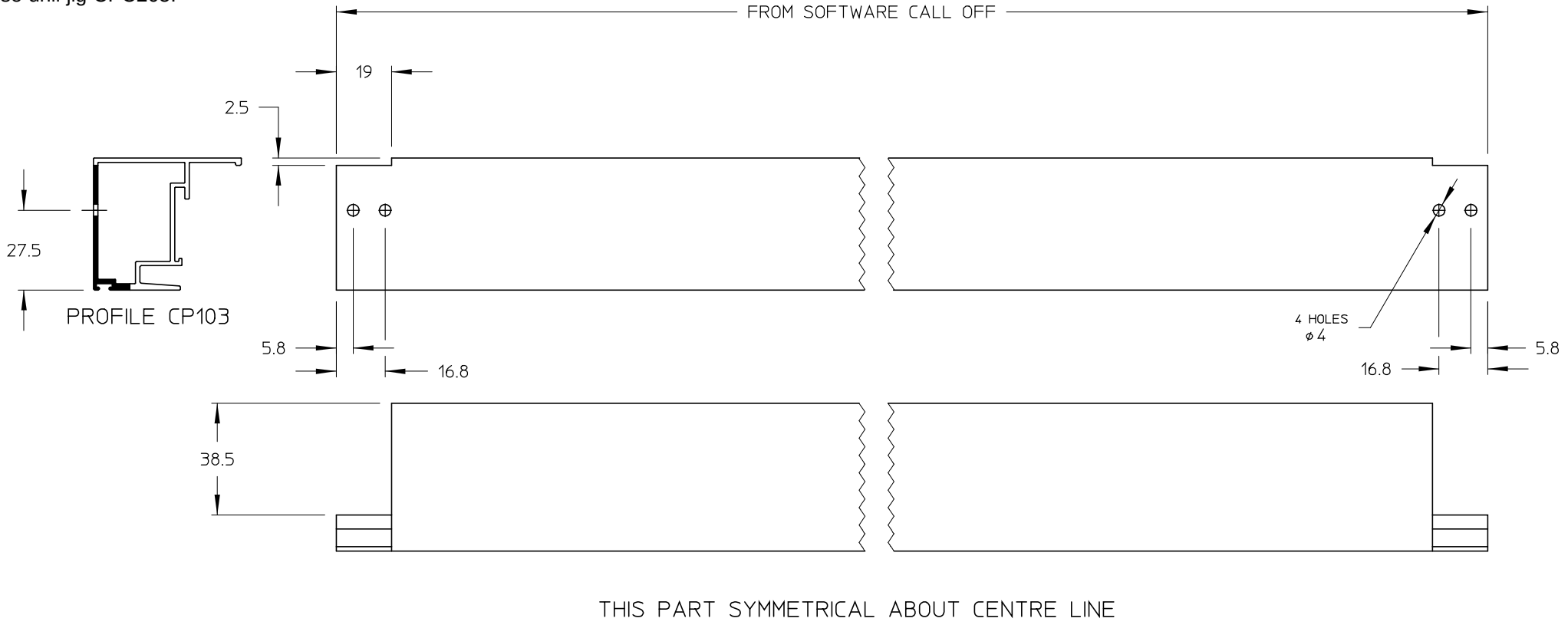
Where the head is supplied without end preparations for cutting down, decide which handing of door is required. Drill 4.5dia holes through for mullion fixing. On 3 pane OXO doors cut head down by 1/3rd from end nearest mullion and 2/3rds from opposite end to maintain drainage relationship with panels. On 4 pane doors, cut head down equally from both ends. Prepare ends as shown below.
Use drill jigs CPC210 to drill jamb and mullion fixing holes and CPC214 to drill bump stop holes.



Machining Details - Outerframe

Fixed Interlock *Profile CP103*

Where the interlock is supplied without preparations at one end for cutting down, cut interlock down from plain end then prepare end as shown below.
Use drill jig CPC205.

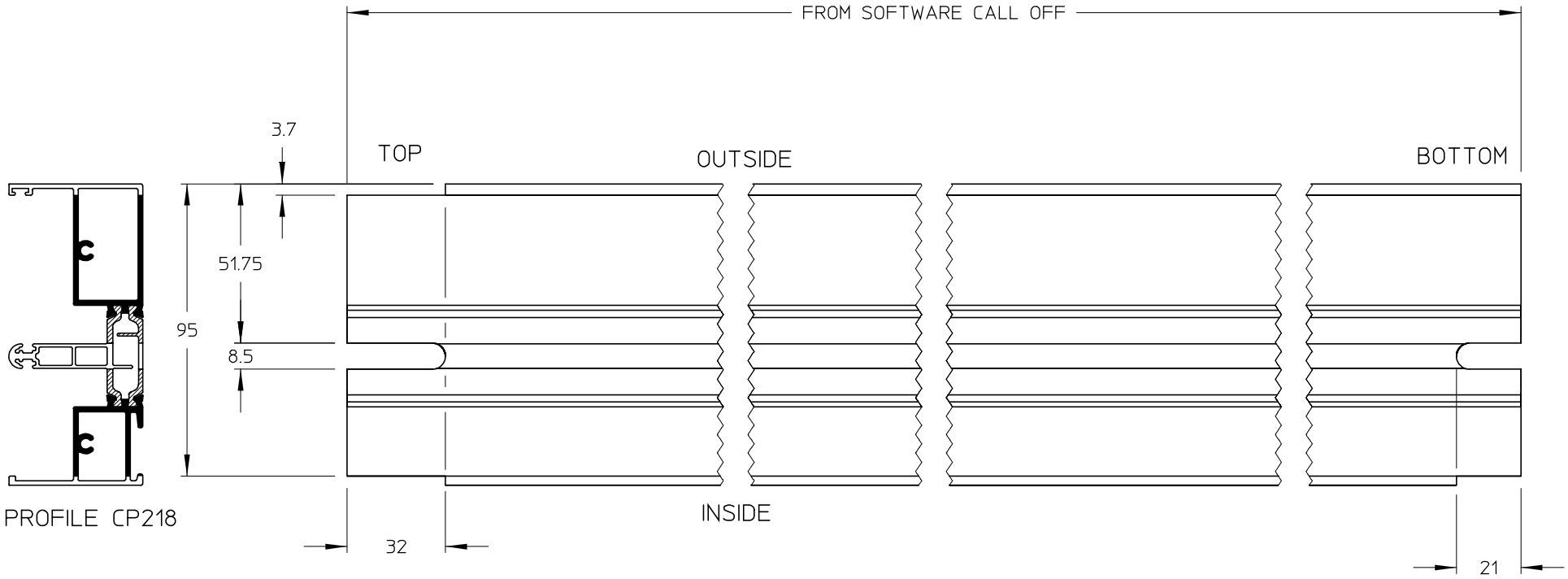


THIS PART SYMMETRICAL ABOUT CENTRE LINE

Machining Details - Outerframe

Jamb *Profile CP218*

Where jambs are supplied without end preparations for cutting down, prepare ends as shown below.

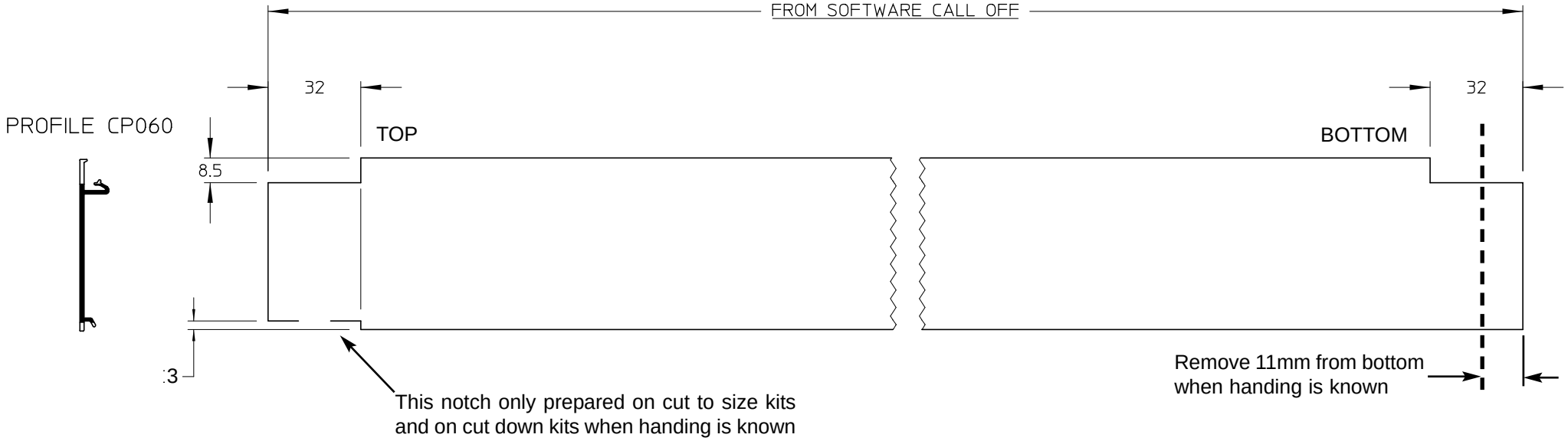


ONE OFF REQUIRED AS DRAWN, ONE OFF OPPOSITE HAND

Machining Details - Outerframe

Fixed Jamb Closer *Profile CP060*

Fixed jamb closers are always supplied 11mm over length and once handing is decided must be cut down by 11mm from the bottom. The 3 x 32 notch shown dotted is only prepared on cut to size kits. On cut down kits, it must be prepared once the handing is known.



Machining Details - Panel

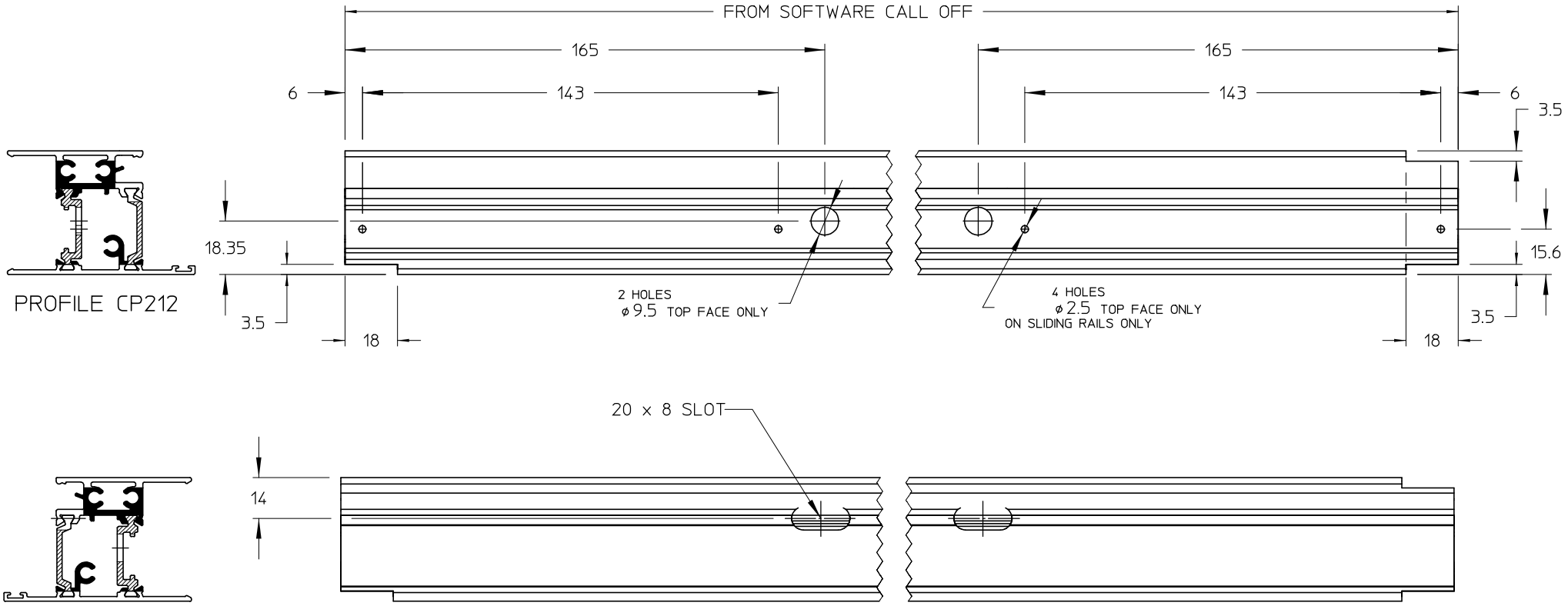
Rails *Profile CP212*

Where rails are supplied without end preparations for cutting down, prepare ends as shown below.
Use drill jig CPC201 to drill drainage & roller fixing holes.

2 PANE DOORS -
1 OFF AS DRAWN, 1 OFF OPPOSITE HAND

3 PANE (OXO) DOORS -
1 OFF AS DRAWN, 1 OFF OPPOSITE HAND

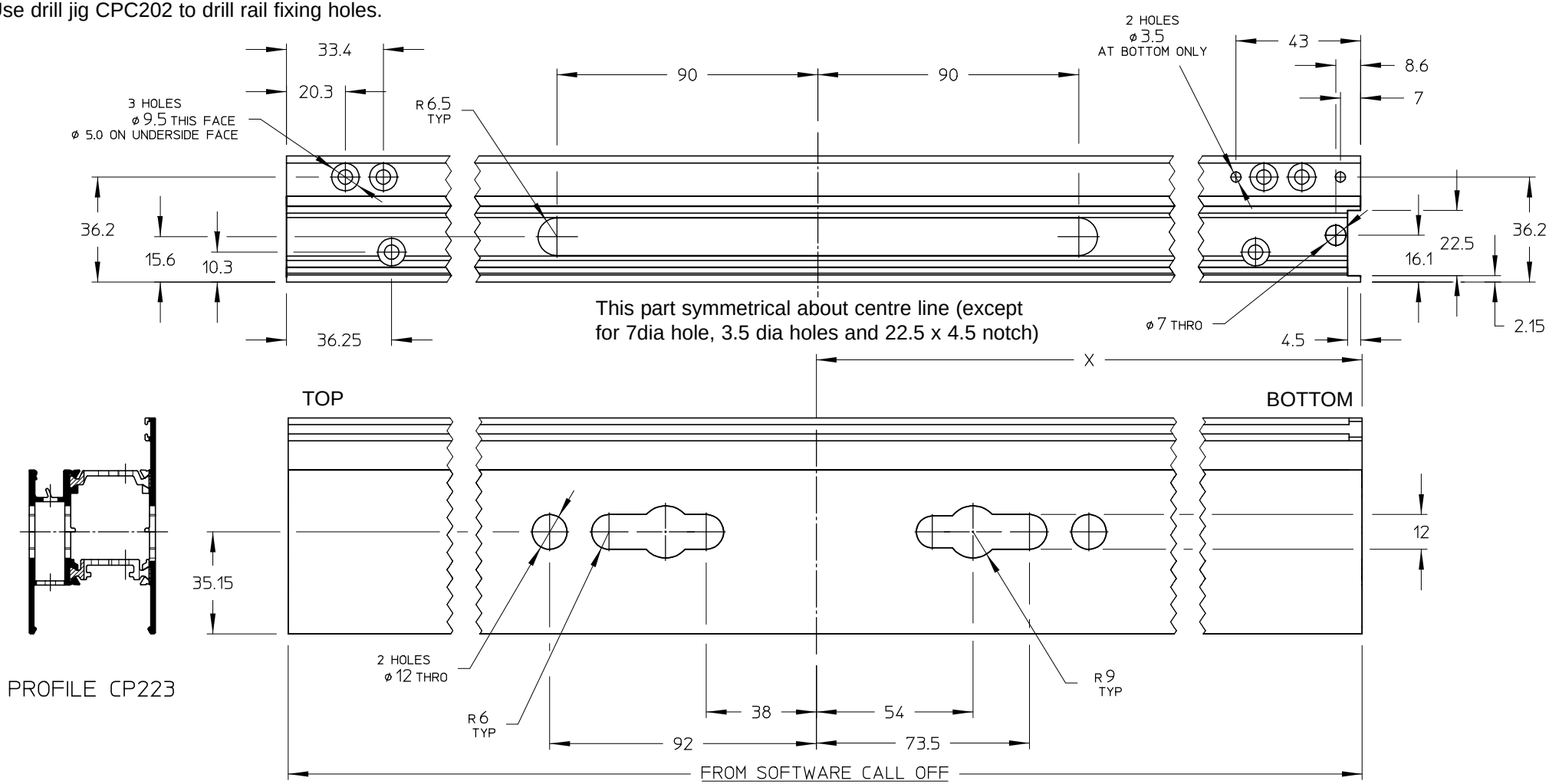
4 PANE DOORS -
2 OFF AS DRAWN, 2 OFF OPPOSITE HAND



Machining Details - Panel

Lock Stile *Profiles CP223*

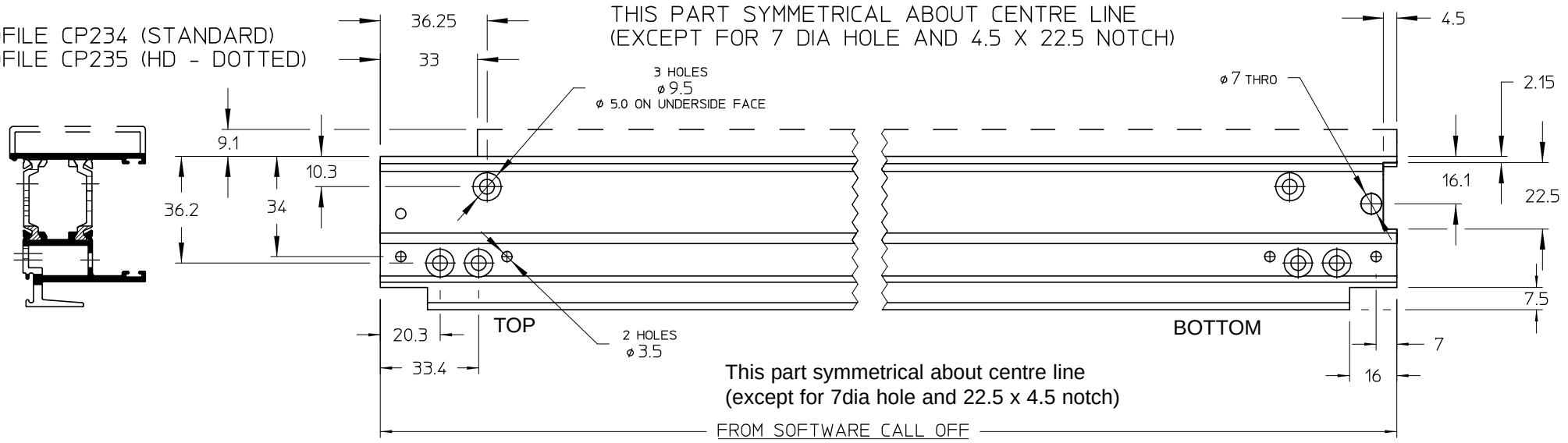
Where the lock stile is supplied without end preparations for cutting down, prepare ends as shown below. On cut down kits, the lock preparation is always at the centre of the stile. On cut to size kits, the lock height from the underside of the cill is always 1031.5mm. In this case Dim “X” = 1001.5mm.
Use drill jig CPC202 to drill rail fixing holes.



Machining Details - Panel

Outer (Sliding) Interlock *Profile CP234 or CP235*

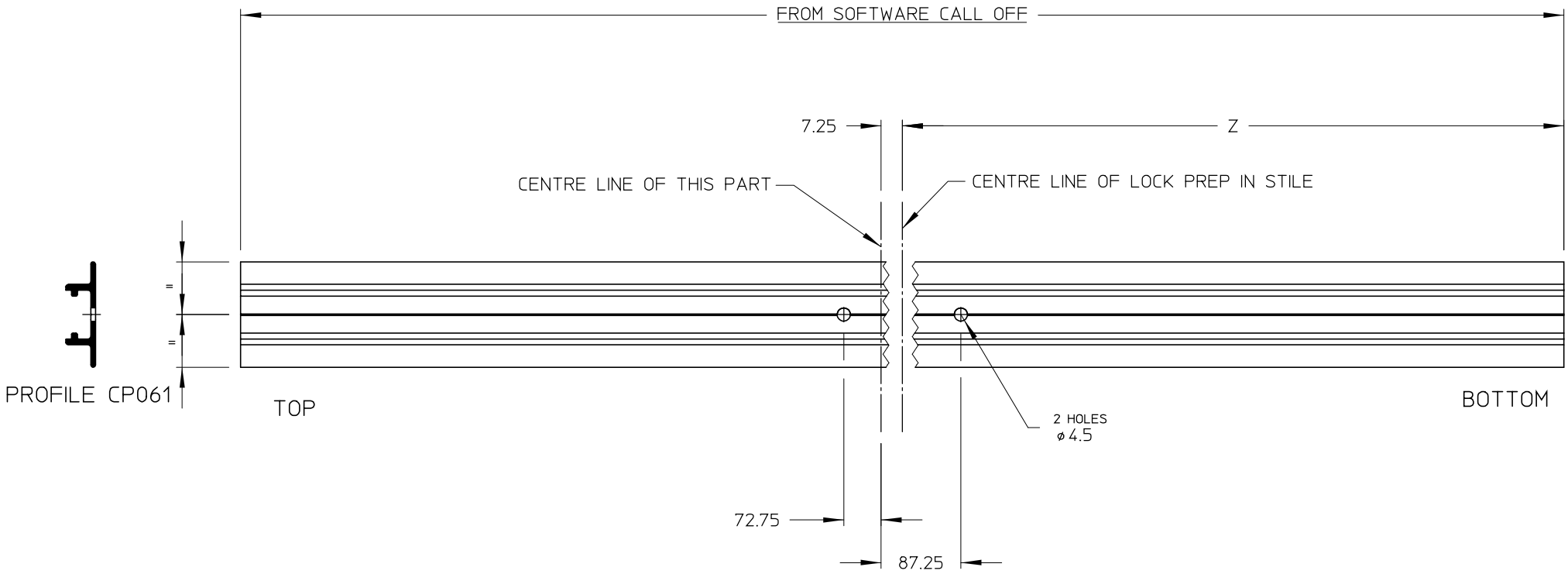
Where the outer Interlock is supplied without end preparations for cutting down, prepare ends as shown below.
Use drill jig CPC202 to drill rail fixing holes.



Machining Details - Panel

Lock Jamb Adaptor *Profile CP061*

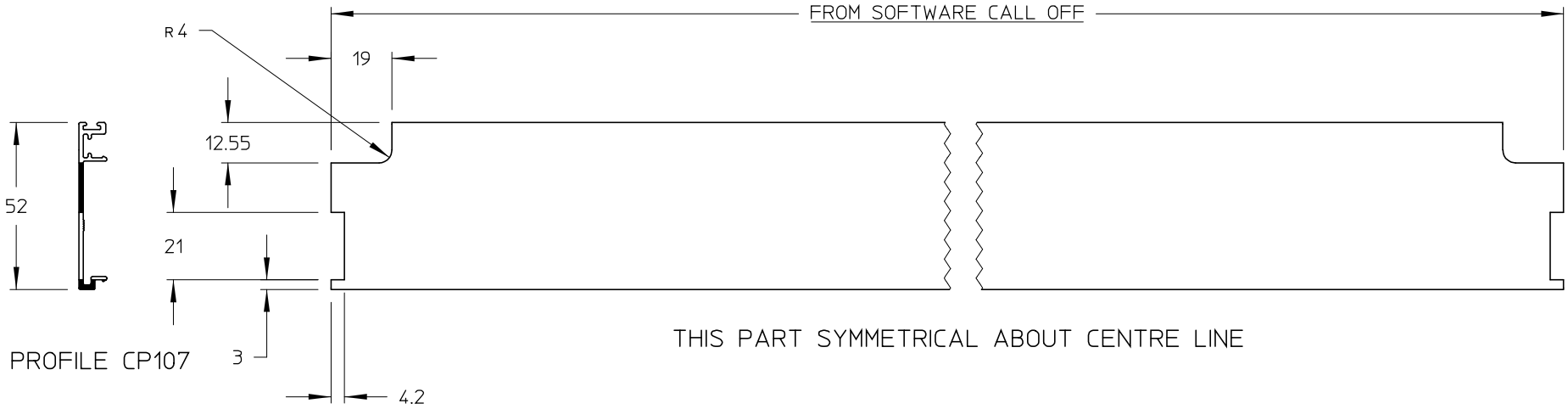
On non-handed kits, the keep preparation is always 7.25mm below the centre of the adaptor (as shown below). On cut to size kits, the lock height from the underside of the cill is always 1036mm.
In this case Dim “Z” = 1010mm.



Machining Details - Panel

Outer Interlock Cover *Profile CP107*

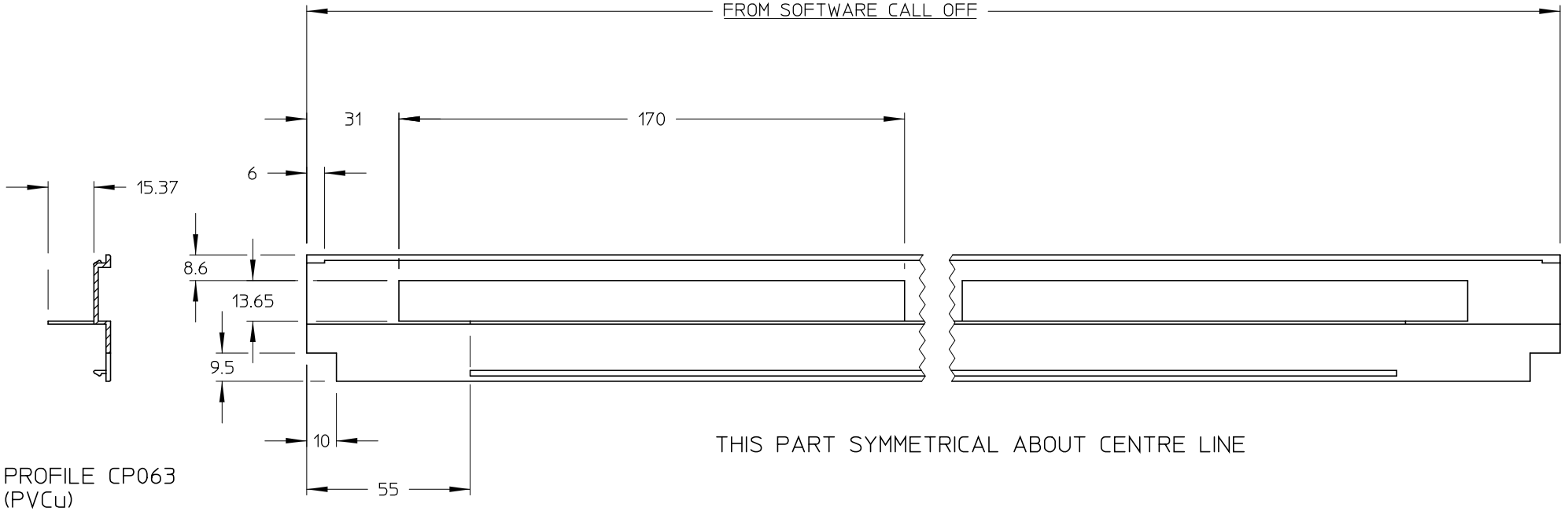
Where the interlock cover is supplied without end preparations for cutting down, prepare ends as shown below.



Machining Details - Panel

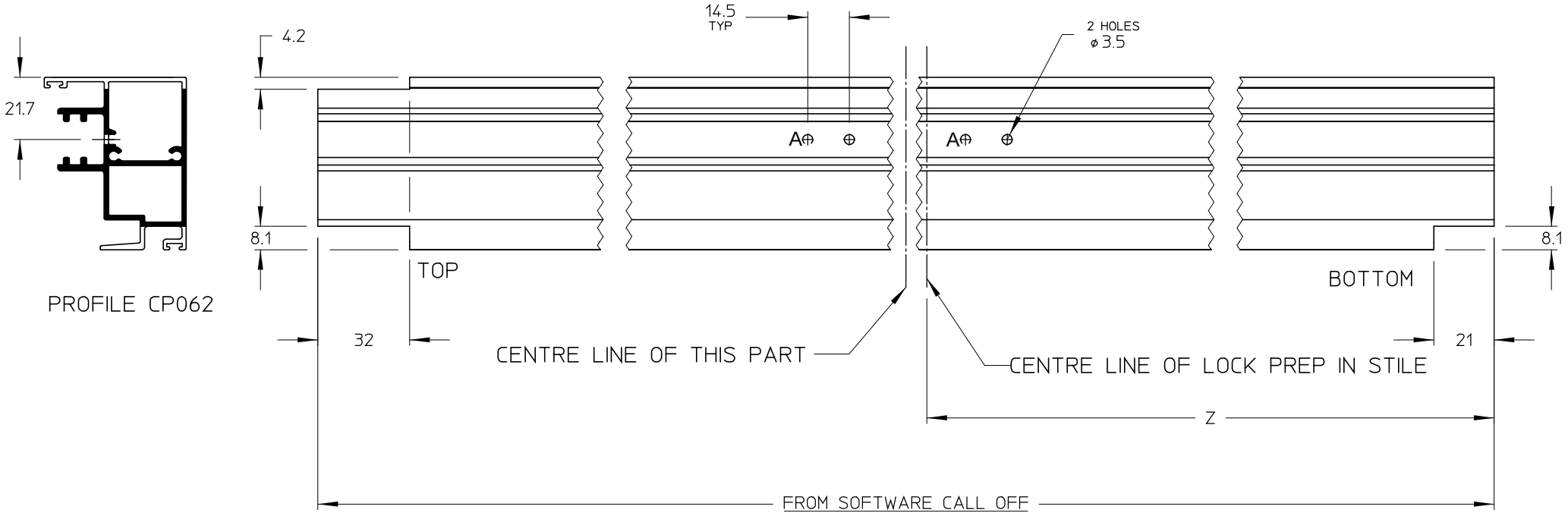
Bottom Rail Liner *Profile CP063*

The bottom rail liner is always supplied fully prepared. Where it is required to be cut down, remove the correct amount from the centre of the bar and butt joint it at the centre.



3 Pane Mullion *Profile CP062*

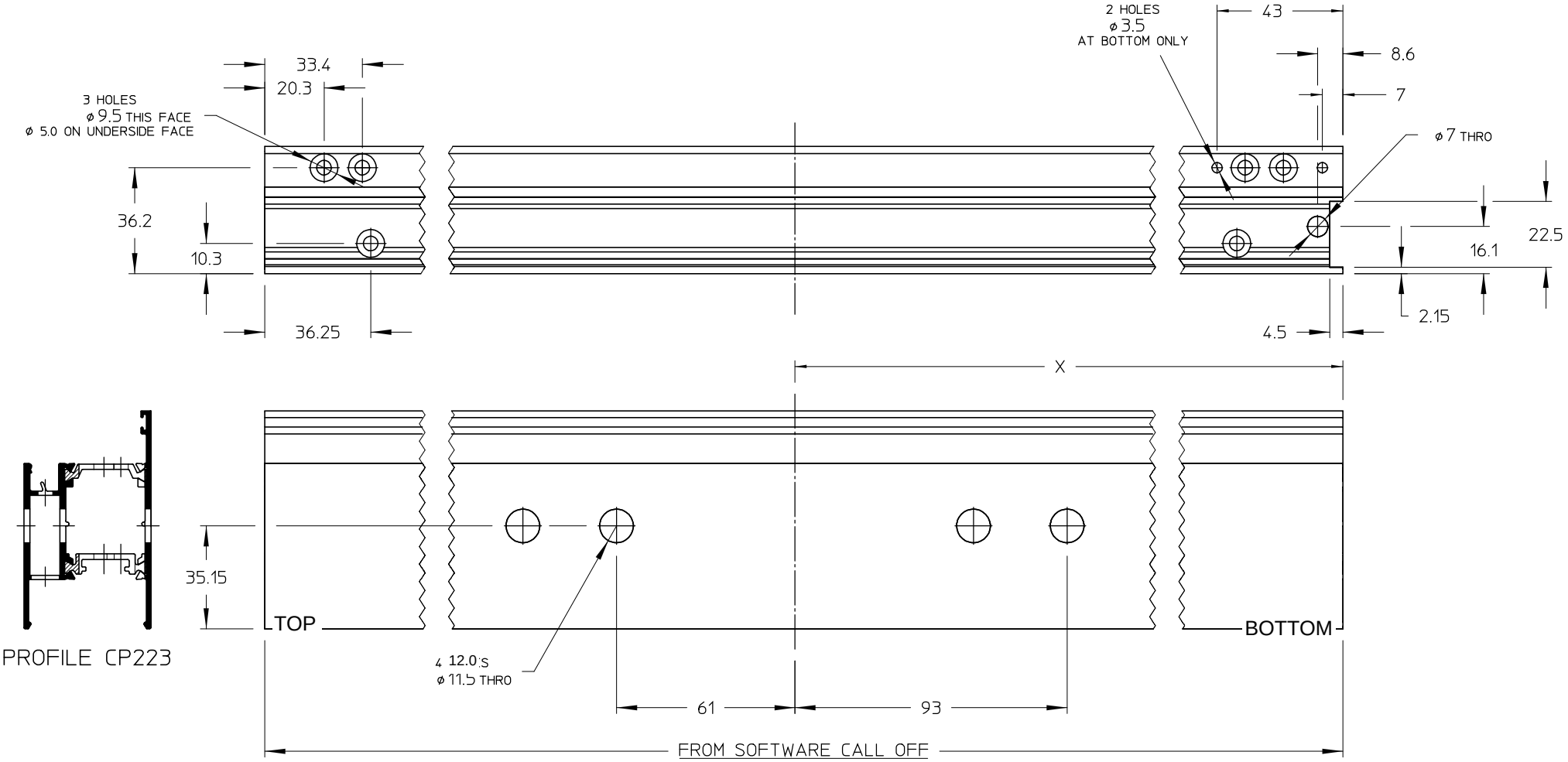
Where the 3 pane mullion is supplied without end preparations for cutting down, prepare ends as shown below. On non-handed kits, the keep preparation is always 7.25mm below the centre of the mullion and in addition, holes “A” are drilled 7.25 above the centre line (as shown below). On cut to size kits, the lock height from the underside of the cill is always 1036mm and in this case holes “A” are omitted.
In this case Dim “Z” = 1010mm.



Machining Details - Panel

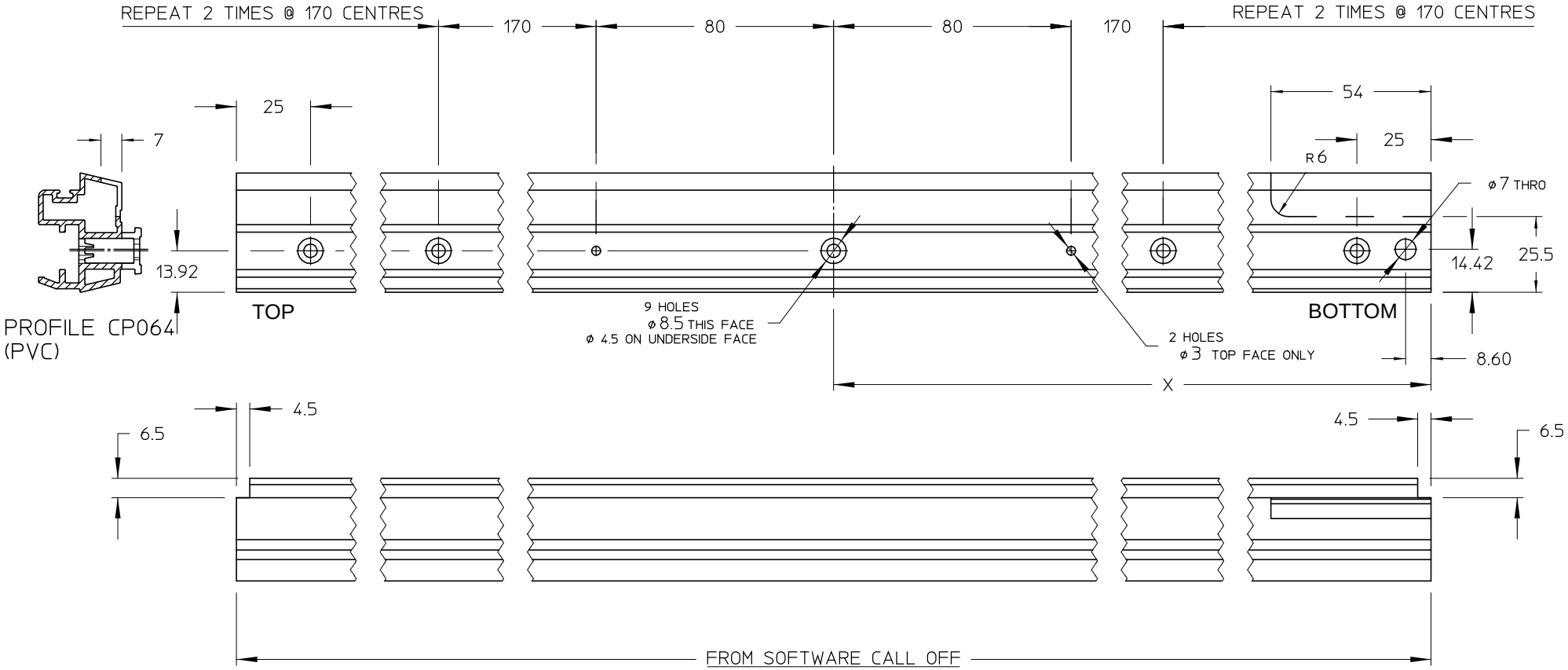
Meeting Stile *Profiles CP223*

Where the slave stile is supplied without end preparations for cutting down, prepare ends as shown below. On cut down kits, the lock preparation is always at the centre of the stile. On cut to size kits, the lock height from the underside of the cill is always 1031.5mm. In this case Dim “X” = 1002.5mm.
Use drill jig CPC202 to drill rail fixing holes.



4 Pane Meeting Stile Adaptor *Profile CP064*

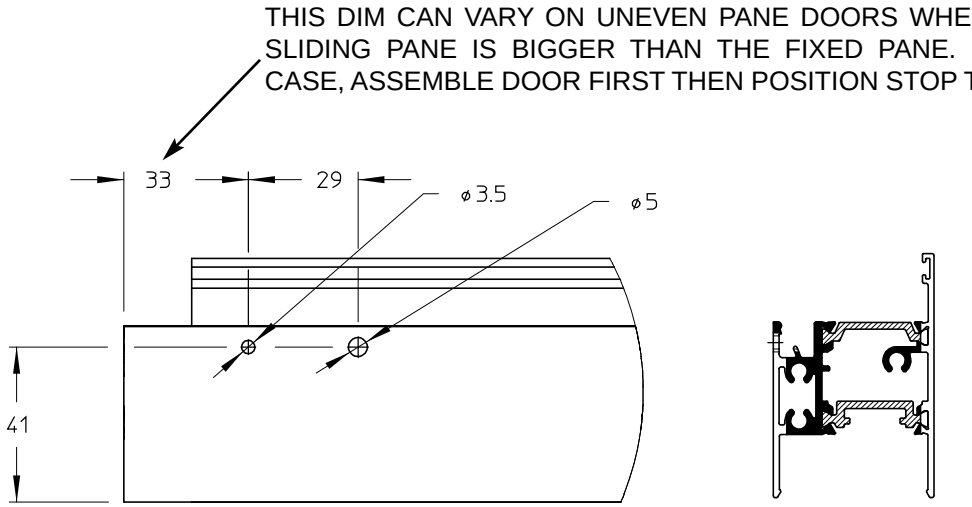
Where the meeting stile adaptor is supplied without end preparations for cutting down, prepare ends as shown below. On non-handed kits, the lock preparation is always at the centre of the stile. On cut to size kits, the lock height from the underside of the cill is always 1036mm. In this case Dim “X” = 1002.5mm.
Use drill jig CPC203 to drill fixing holes.



Machining Details - Panel

3 Pane XOX Bump Stop Prep *Profile CP212*

On 3 pane XOX and uneven pane doors only, the bump stop is fitted to the inside of the top and bottom rails. See preparation below.

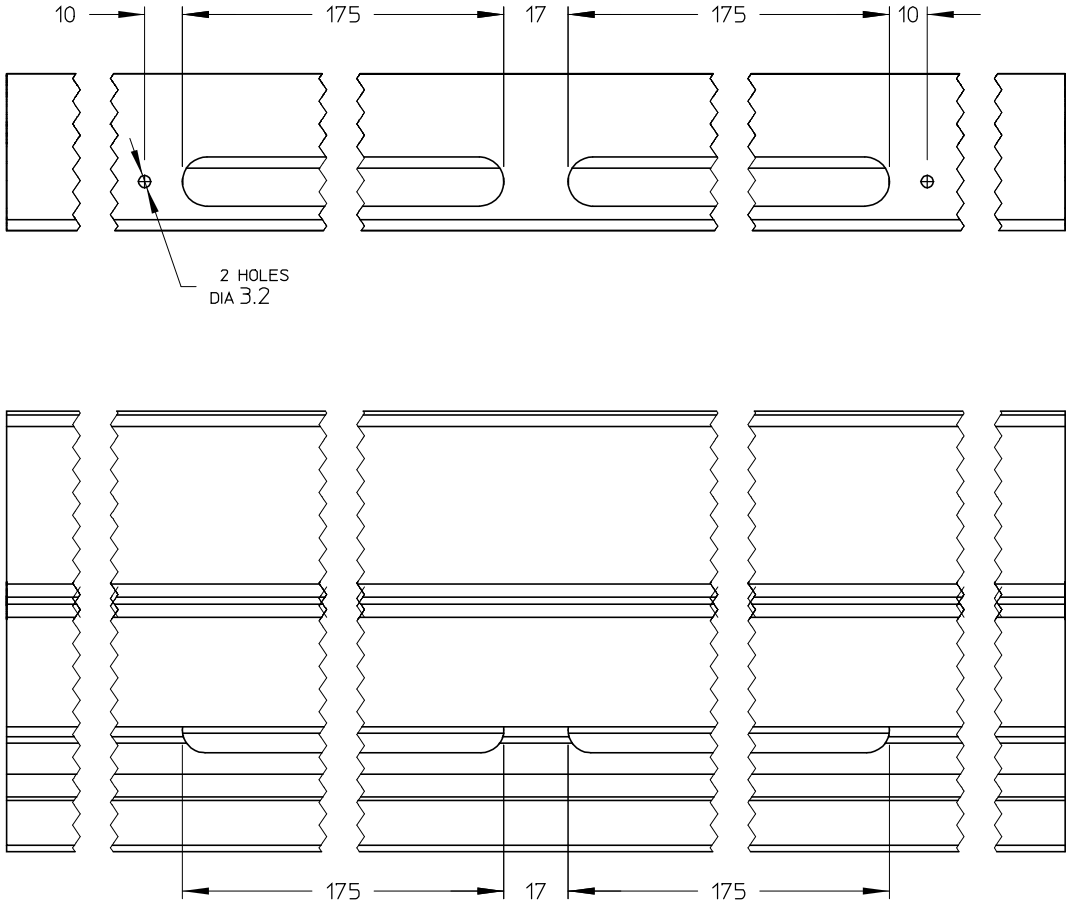


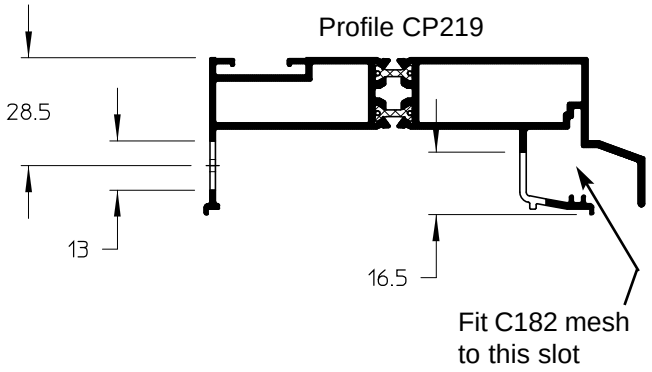
PROFILE CP212

Machining - Trickle Vent

Trickle Vent Preparation *Profile CP219*

Preparations are centred at min. 250mm from the ends and equally spaced at min. 450 centres.

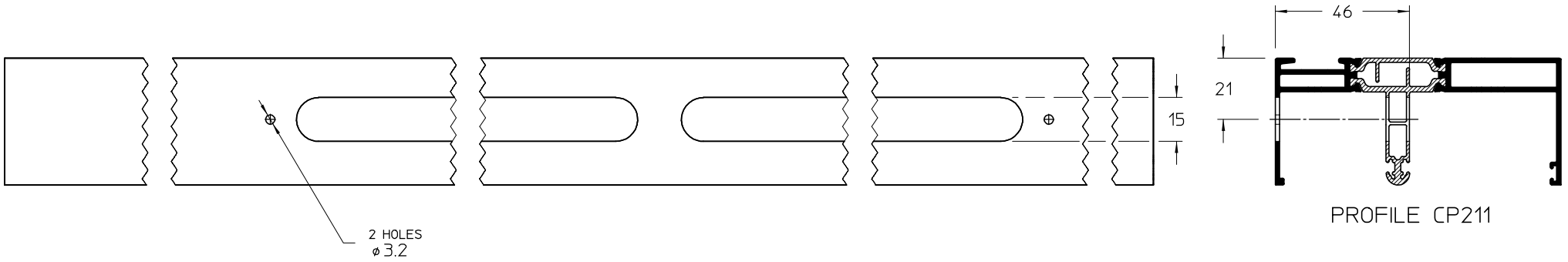




Machining - Concealed Trickle Vent

Concealed Trickle Vent Preparation *Profile CP211*

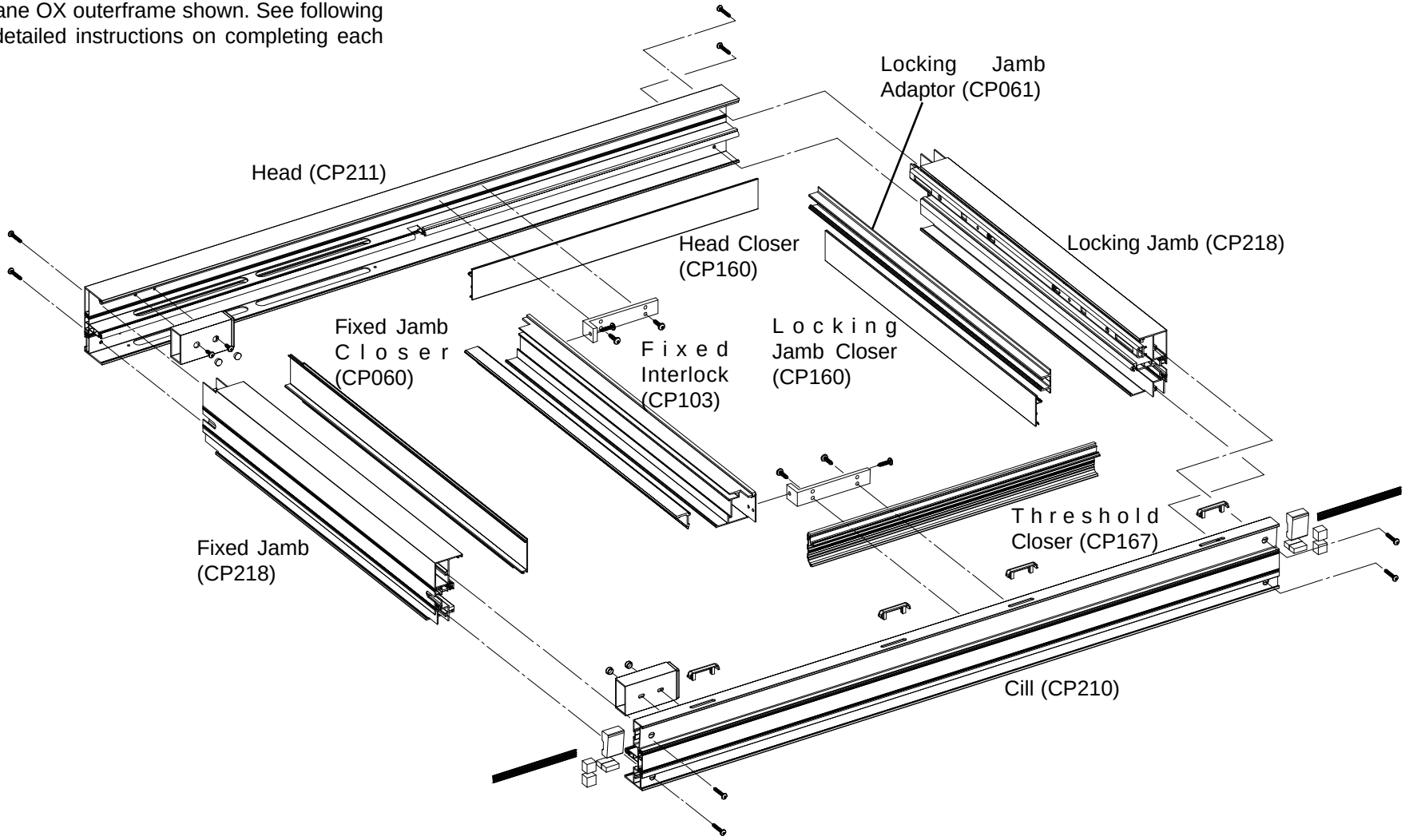
Preparations are centred over the fixed pane.



SLOT THROUGH INSIDE FACE AND CENTRAL POLYAMIDE
CENTRE OVER FIXED PANE (FOR MULTIPLE VENTS
REPEAT PREP EQUAL ABOUT CENTRE OF FIXED PANE)

Assembly - Outerframe

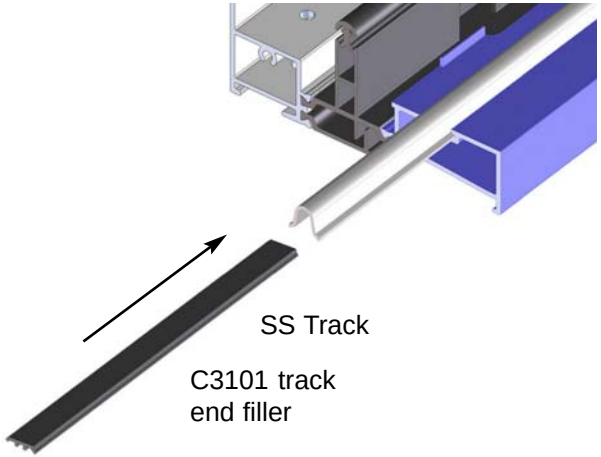
Typical 2 pane OX outerframe shown. See following pages for detailed instructions on completing each joint.



Assembly - Outerframe

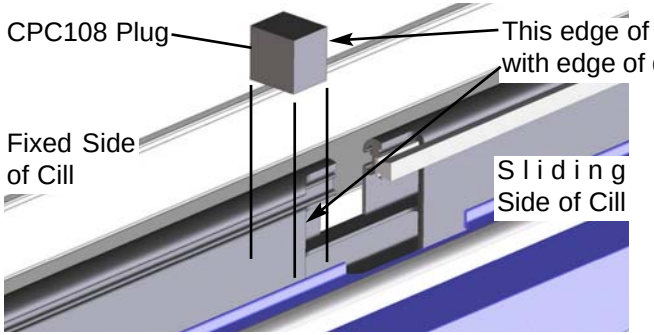
Track Assembly

Slide stainless steel track into groove in cill. Fit track end fillers (C3101) to the gap at either end of the cill as shown below. On 3 pane units, at the non-sliding end, slide track filler CPC111 into track recess. Completely seal end of groove after fitting fillers.



Fitting Cill Plug at Interlock Drainage Point

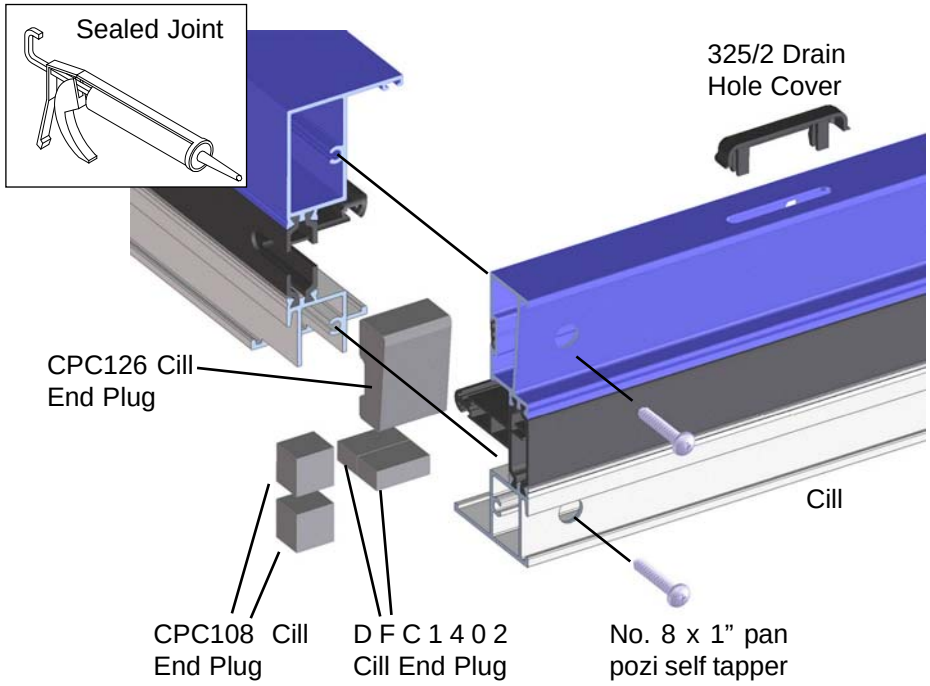
At every interlock drainage point, fit plug CPC108 as shown below - seal into position using Henkel Terostat 934 (clear) or 939 (grey, black or white).



Jamb to Cill Assembly

Slide pile DFC1450 into appropriate grooves in jamb and cill (see general arrangements). Coat entire cut ends of both jambs with Henkel Terostat 934 (clear) or 939 (grey, black or white). Seal plugs DFC1402, CPC108 & CPC126 into recesses in cill as shown below. Apply a generous amount of sealant to cill rebate / jamb inner face joint.

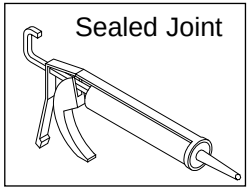
Assemble using 2 off No. 8 x 1” pan pozi self tappers per joint. Check for any weak spots in sealing and rectify. Clean off excess sealant immediately using Teroson FL cleaner.

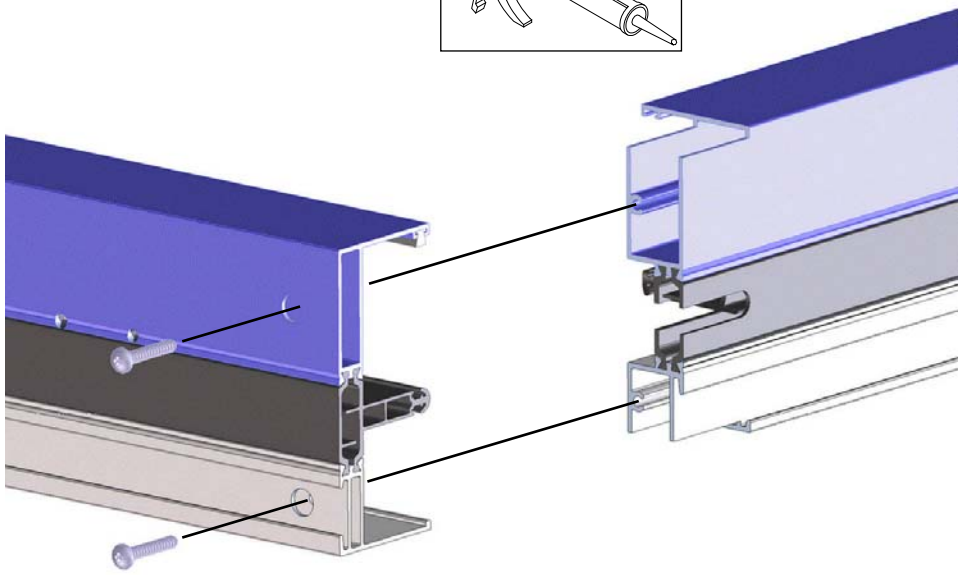


Assembly - Outerframe

Jamb to Head Assembly

Slide pile DFC1450 into appropriate grooves in jamb and head (see general arrangements). Coat entire cut ends of both jambs with Henkel Terostat 934 (clear) or 939 (grey, black or white). Assemble using 2 off No. 8 x 1" pan pozi self tappers per joint. Check for any weak spots in sealing and rectify. Clean off excess sealant immediately using Teroson FL cleaner.

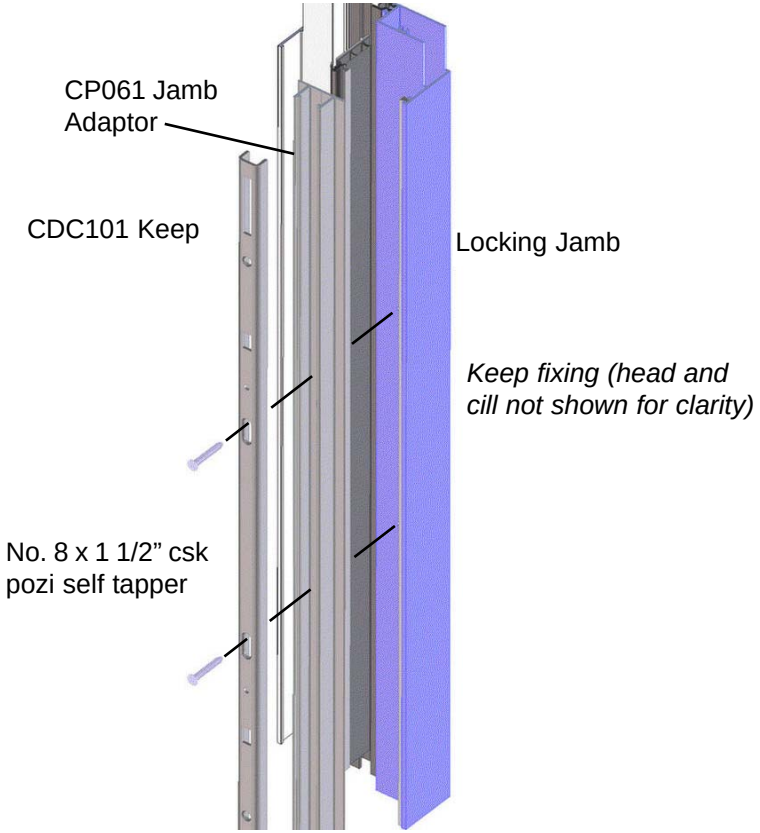




No. 8 x 1" pan pozi self tapper

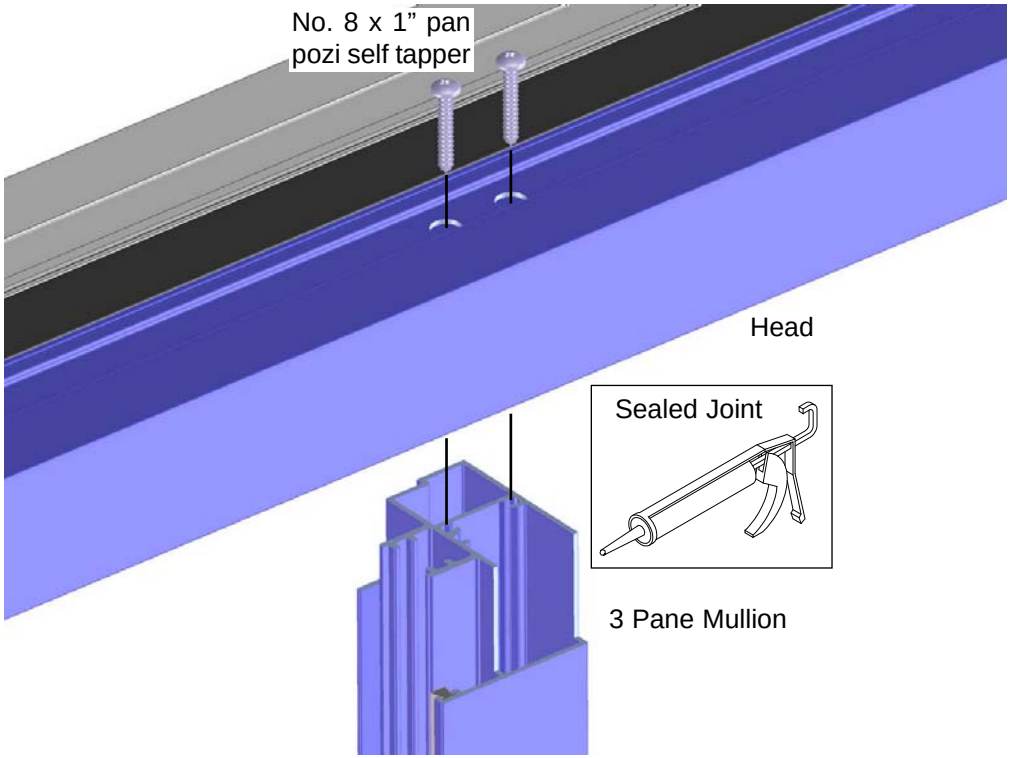
Keep and Jamb Adaptor Fixing

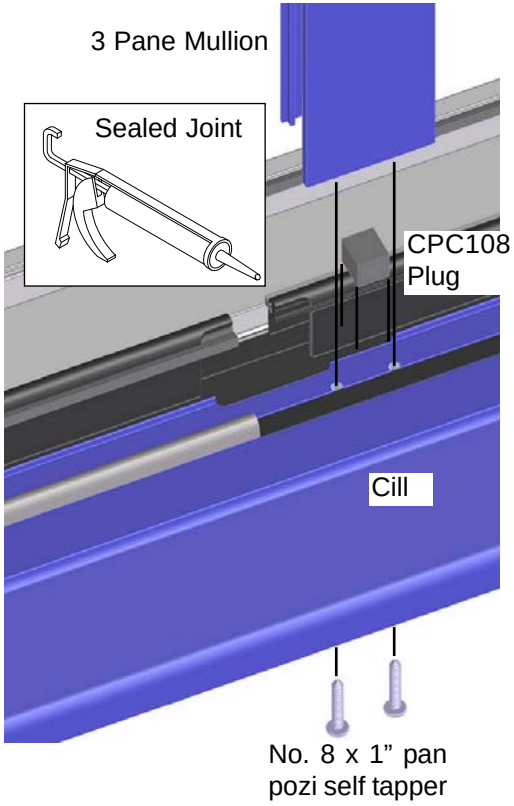
Drill 3.5 dia holes through existing holes in jamb adaptor into jamb. Fix keep (CDC101) using only two No. 8 x 1 1/2" csk self tapper through the two central slotted holes, though the jamb adaptor into the jamb. Final fixing is carried out after installation / adjustment through the remaining holes using the same screws. CP069 trim must be fitted above and below keep AFTER installation and adjustment.



Fitting of 3 Pane Mullions

Slide pile DFC1450 into groove in 3 pane mullion. Coat entire cut ends of mullion with Henkel Terostat 934 (clear) or 939 (grey, black or white). Fit plug CPC108 as shown under mullion at cill - seal into position using Henkel Terostat 934 (clear) or 939 (grey, black or white). Assemble using 2 off No. 8 x 1" pan pozi self tappers per joint. Check for any weak spots in sealing and rectify. Clean off excess sealant immediately using Teroson FL cleaner. Fitting of keep is similar to the 2 pane as shown on previous page but without the adaptor profile.

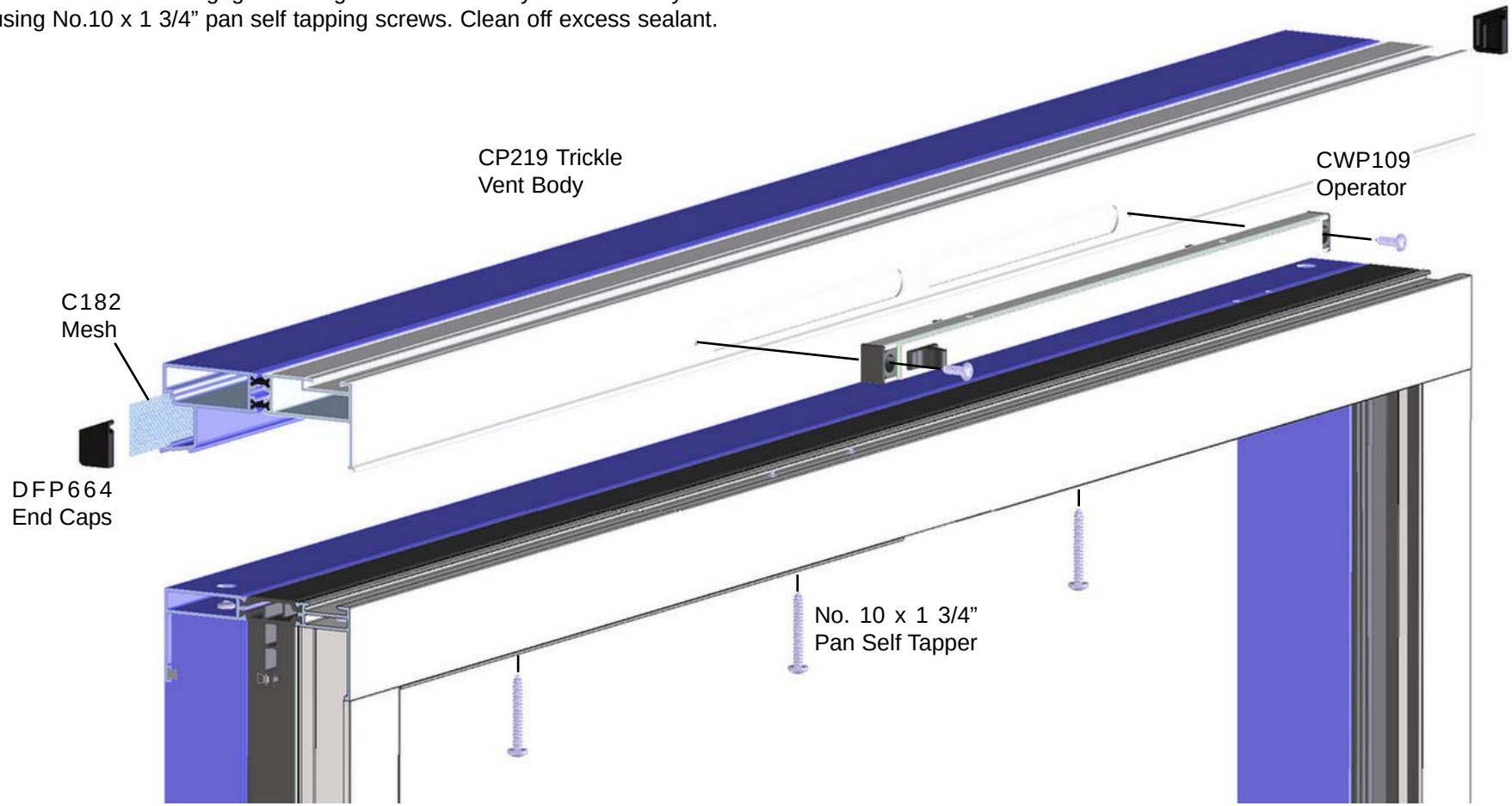




It is ESSENTIAL that the 9.5 dia clearance holes on the under side of the cill for fitting the 3 pane mullion have CPC109 hole plugs SEALED into them, including any un-used holes on non-handed cut down kits.

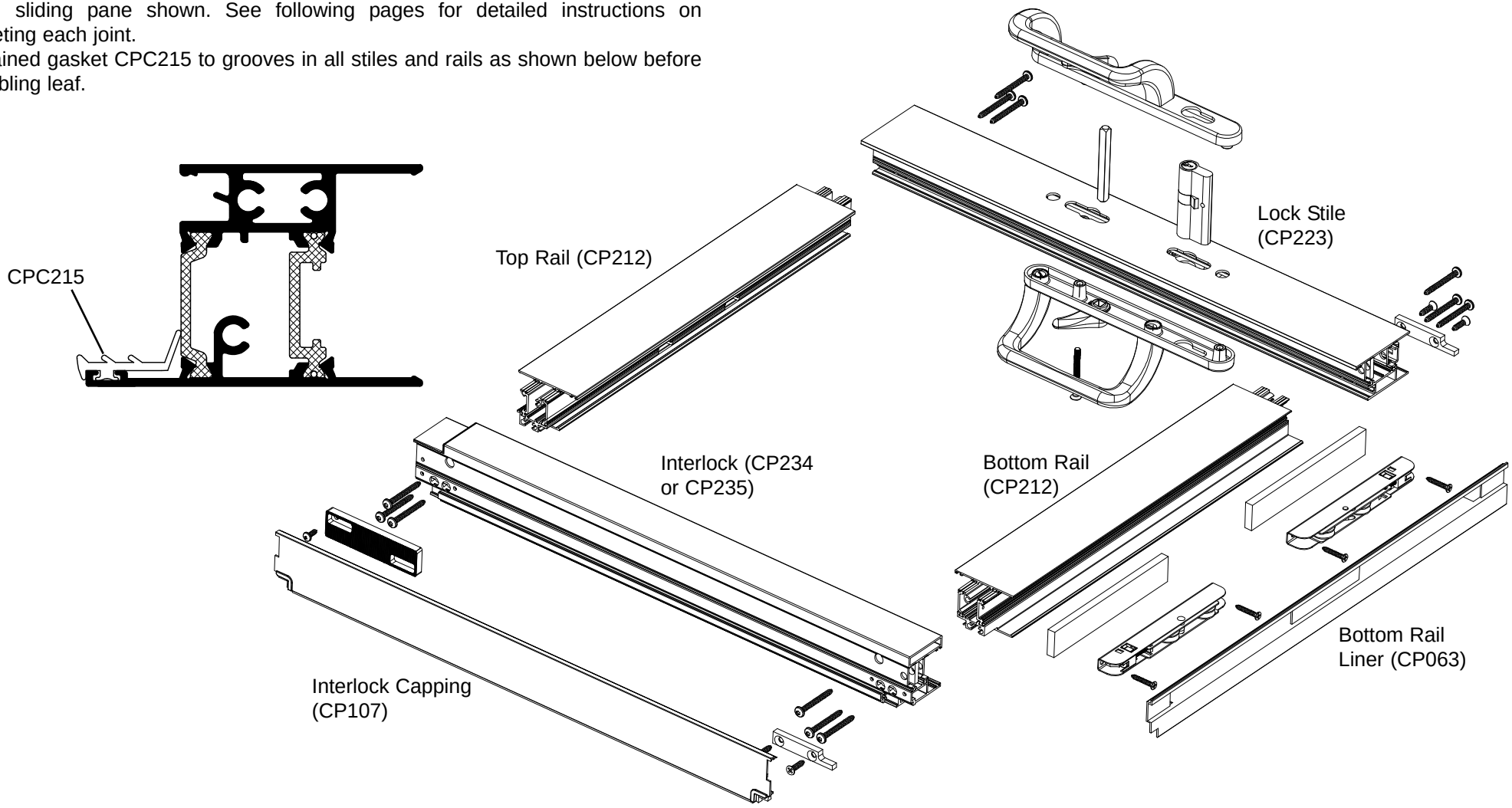
Trickle Vent Assembly

Fit CWP109 operator to vent body using screws supplied. Slide C182 mesh into groove in vent. Fit DFP664 end caps using sealant to retain in place. Apply sealant to both inner and outer engagement legs of the vent body. Fix vent body to head of door using No.10 x 1 3/4” pan self tapping screws. Clean off excess sealant.



Assembly - Sliding Pane

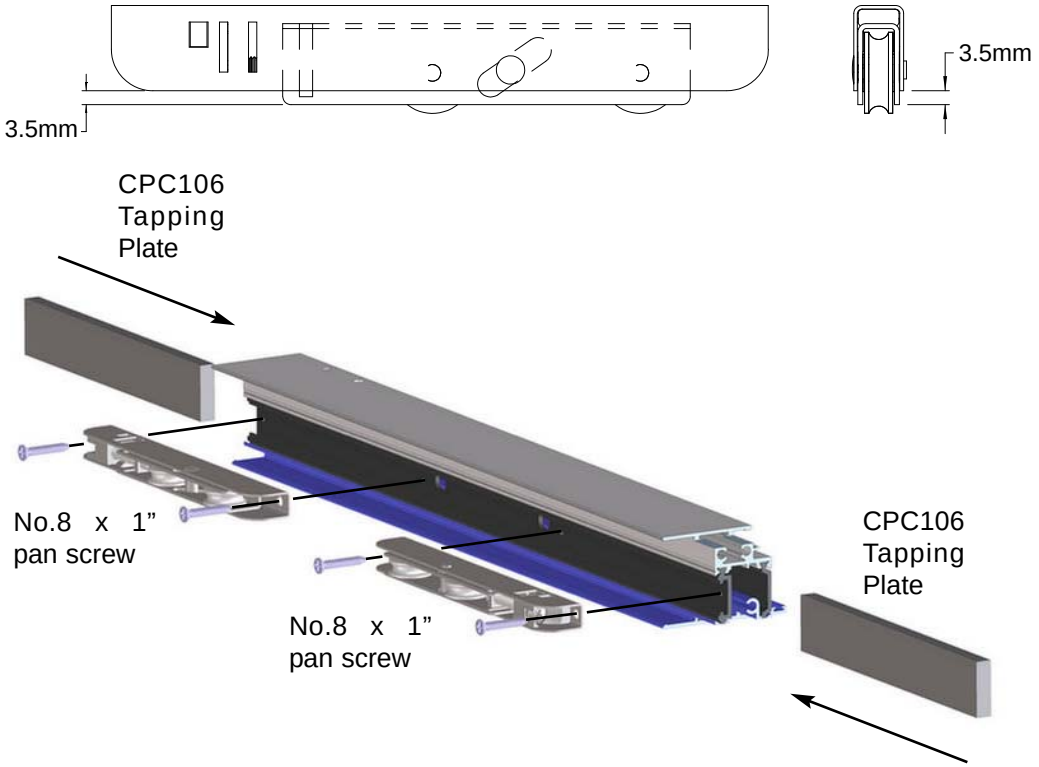
Typical sliding pane shown. See following pages for detailed instructions on completing each joint.
Fit retained gasket CPC215 to grooves in all stiles and rails as shown below before assembling leaf.



Assembly - Sliding Pane

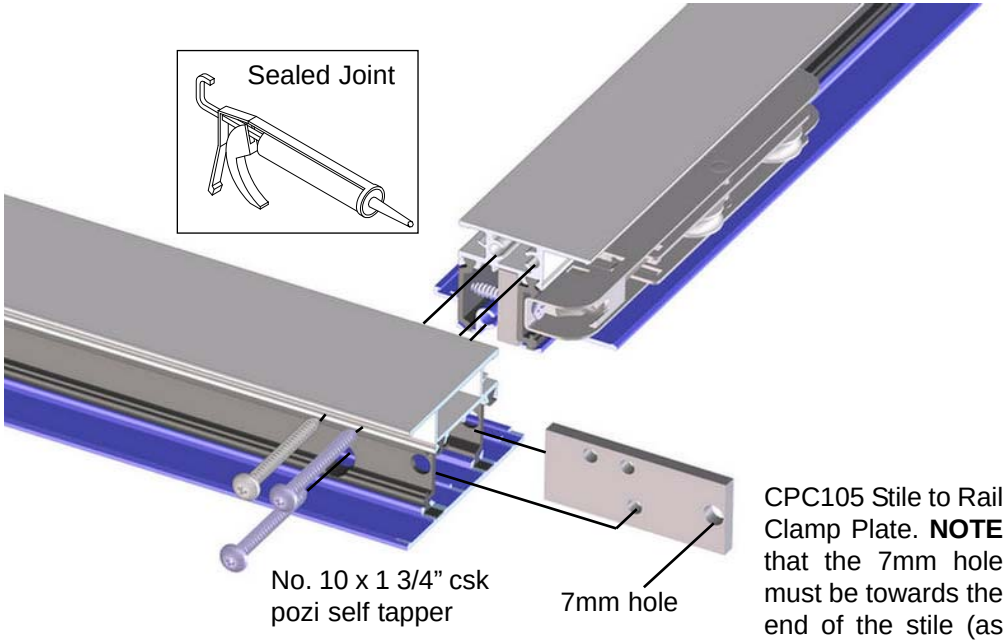
Fitting Rollers (CPC103)

Pre-Adjust rollers to height shown below to minimise on-site adjustment. Use 2 off No.8 x 1” pan screws and 1 off CPC106 Roller fixing tapping plate per roller. Drill 2.0 dia holes through pre-prepared holes in rail into tapping plate. Ensure that all screws penetrate the tapping plate.



Lock Stile to Rail

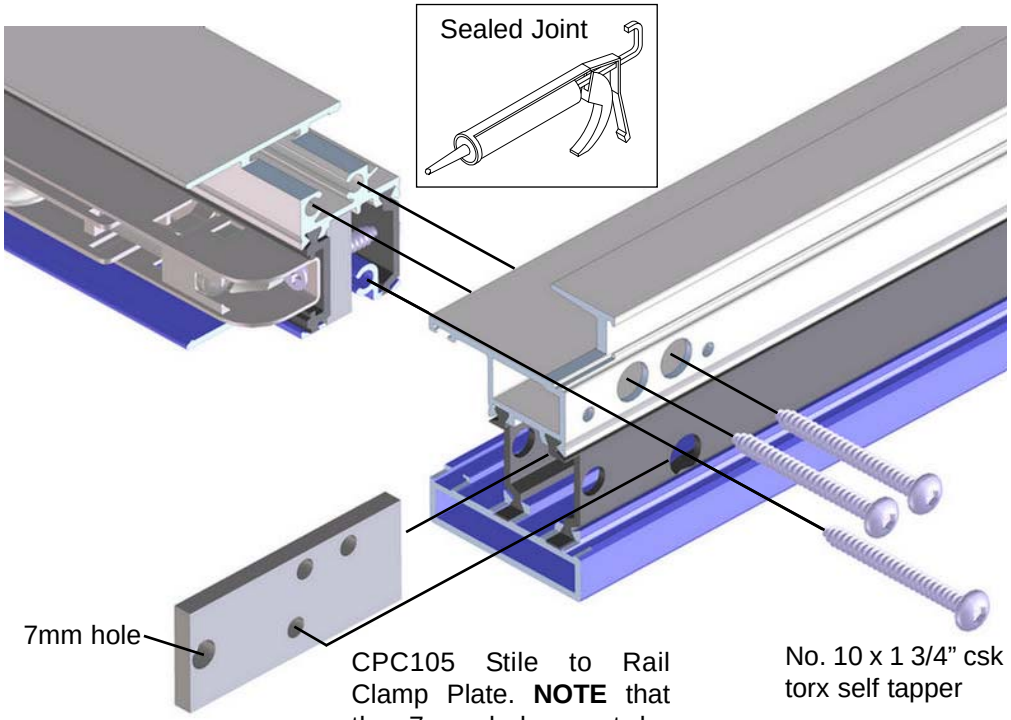
Coat entire cut ends of all rails with Henkel Terostat 934 (clear) or 939 (grey, black or white). Note orientation of clamp plate. Assemble using 3 off No. 10 x 1 3/4” pan pozi self tappers. Clean off excess sealant immediately using Teroson FL cleaner.



CPC105 Stile to Rail Clamp Plate. **NOTE** that the 7mm hole must be towards the end of the stile (as shown) on bottom rails.

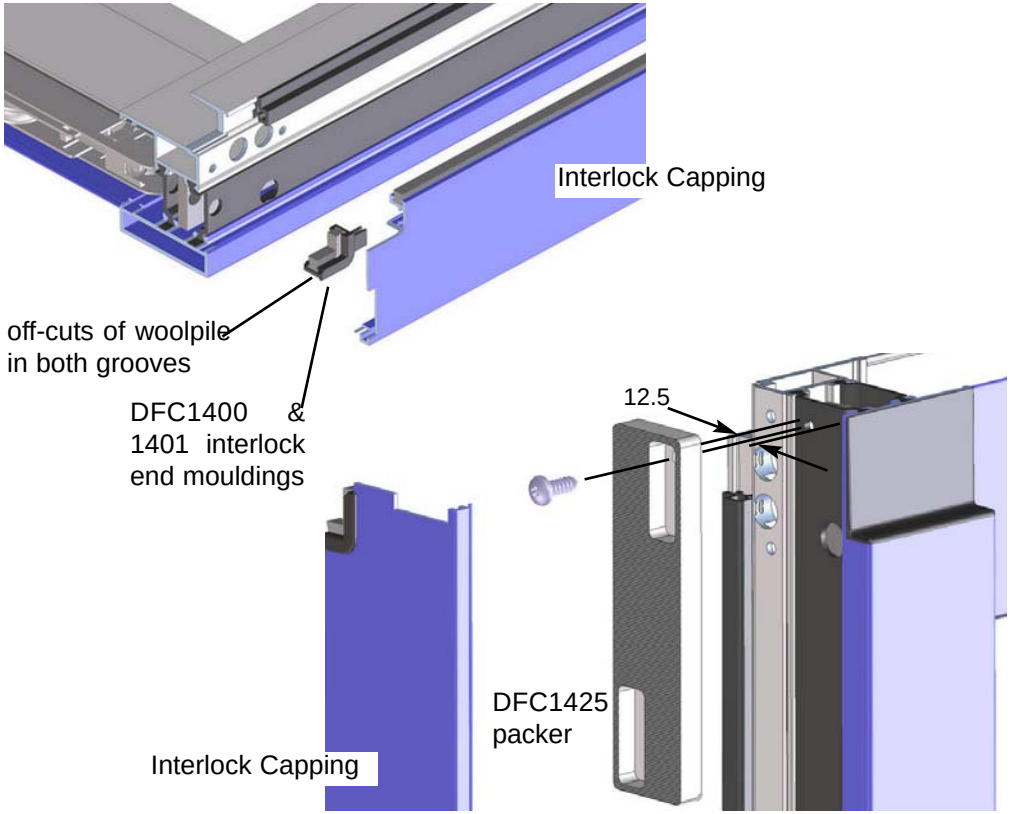
Interlock to Rail

Note use of Torx head screws on all outer interlock to rail fixings. Coat entire cut ends of all rails with Henkel Terostat 934 (clear) or 939 (grey, black or white). Note orientation of clamp plate. Assemble using 3 off No. 10 x 1 3/4" pan torx self tappers. Clean off excess sealant immediately using Teroson FL cleaner. NOTE on 3 pane XOX centre panes, the pane must be assembled around the glass after first fitting retained gasket (see glazing section of the manual for further details)



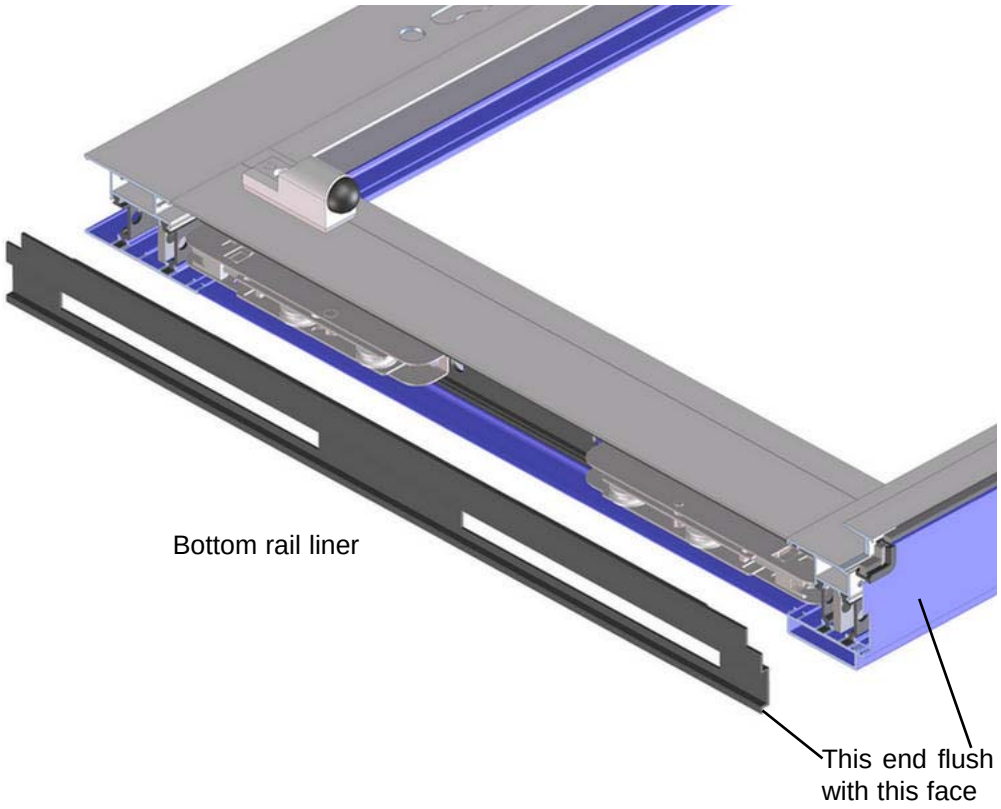
Fitting Interlock Capping

Slide DFC1450 pile into groove in interlock capping. Slide DF1117 interlock insulator into groove in interlock in the orientation shown. Fit off-cuts of woolpile from kit components to both grooves DFC1400 & 1401 interlock end mouldings as shown - hold woolpiles in place using cynoacrylate adhesive. Push end mouldings onto both ends of DF1107 interlock capping. Drill 3.5dia hole through DFC1425 packer into polyamide strip at top of interlock whilst holding the packer flush with the top of the interlock and 12.5mm from outer face as shown. Fix packer using No.8 x 1/2" pan screw.



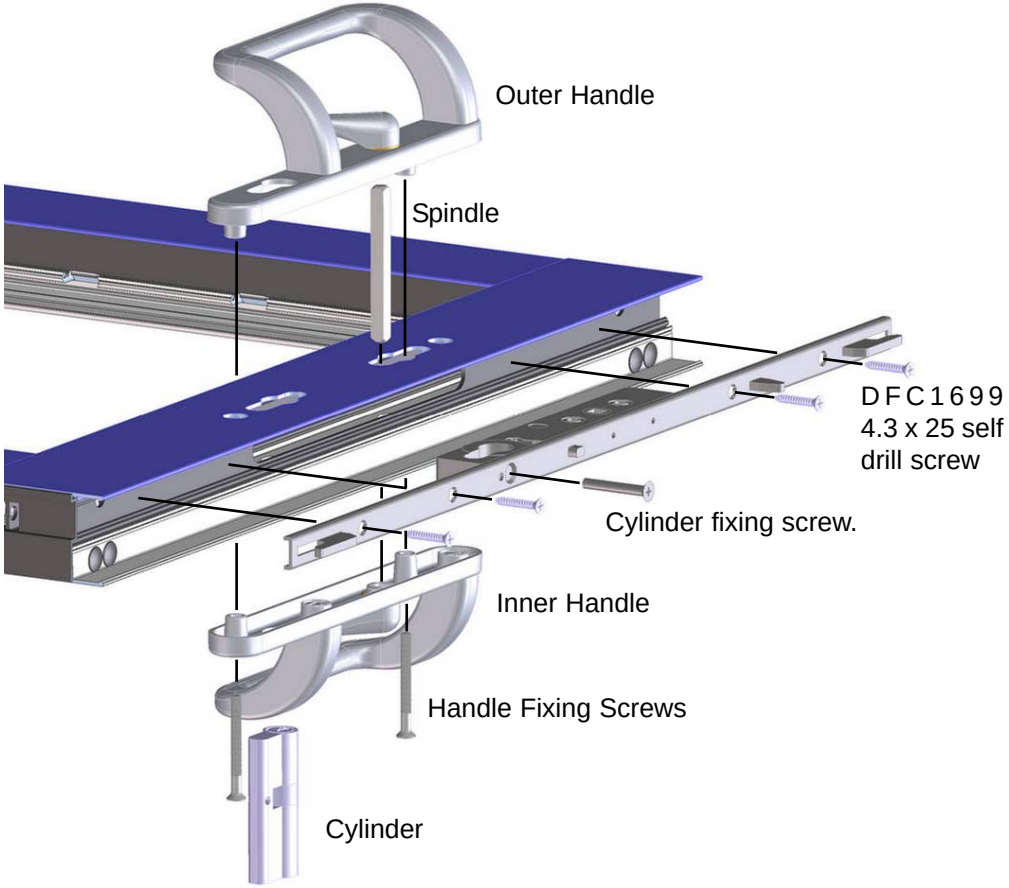
Fitting Bottom Rail Liner

Clip CPC063 bottom rail liner into bottom rail as shown below. Ensure that end is flush with the outside face of the interlock capping. If necessary, use sealant to ensure a good fit is maintained especially near the ends.



Fitting Lock and Handle

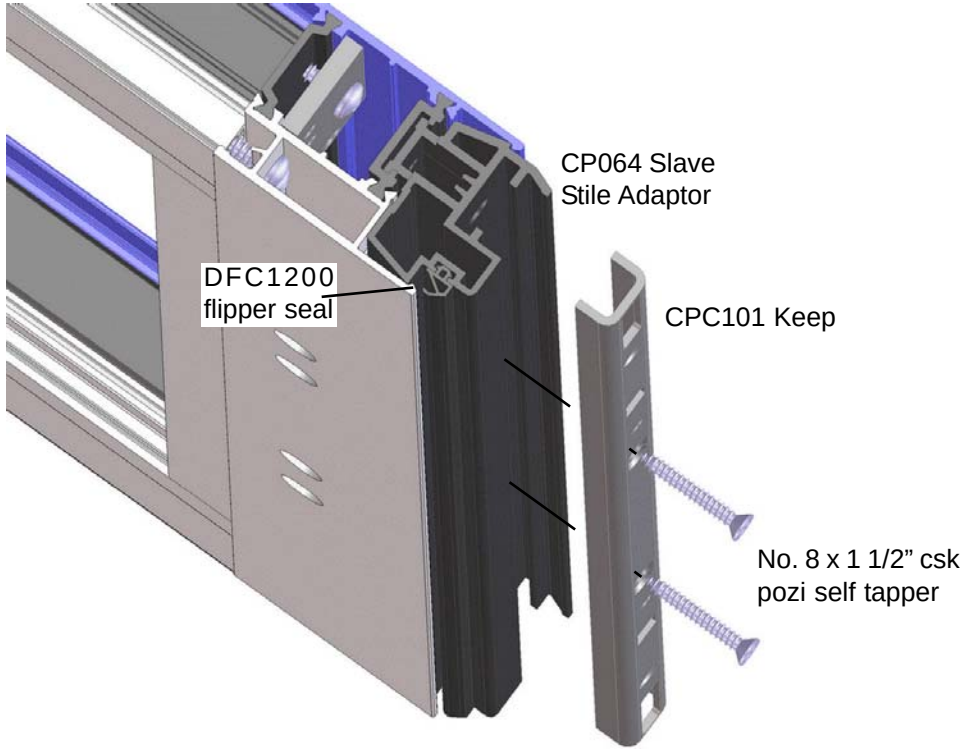
Offer lock into stile (do not fix yet). Fit Cylinder using screw supplied. Fix handles and spindle using screws supplied. Now fix lock using DFC1699 4.3 x 25 csk pozi PA self drill screws. Fitting of 4-pane dummy handles is similar (but without lock, spindle or cylinder). (Illustration of lock has been shortened for clarity - actual lock has 6 hooks). Cut and fit CP070 trim above and below lock faceplate.



Fitting 4 Pane Slave Stile Adaptor and Keep

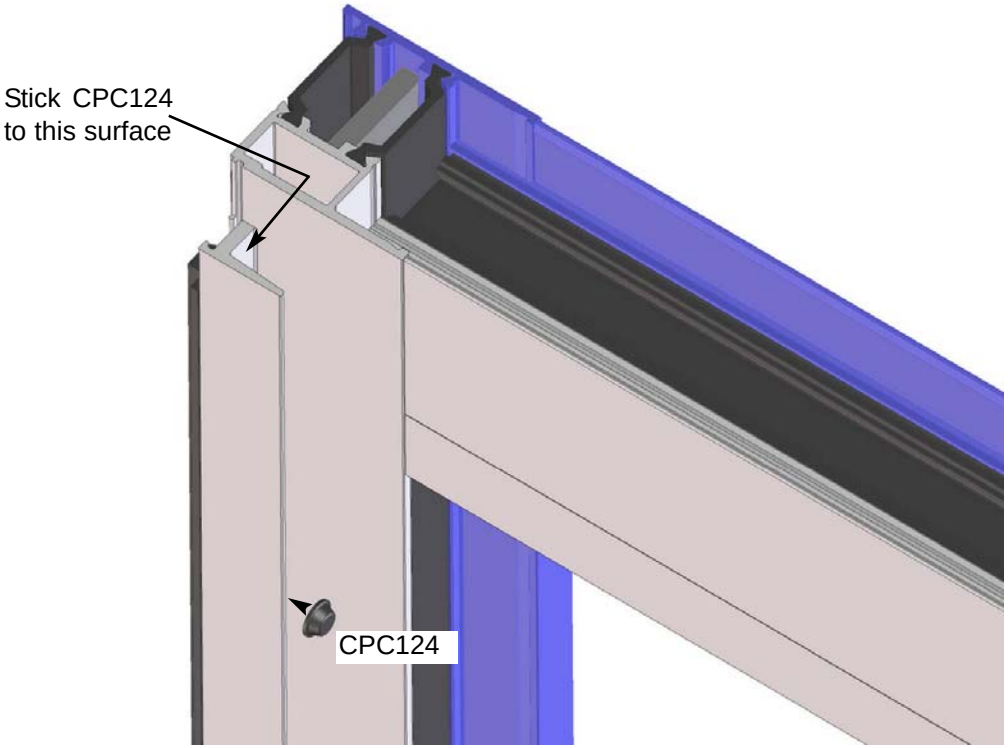
Fit DFC1200 flipper seal to CP064 Adaptor. Slide adaptor into slave stile ensuring seal is towards the inside. Ensure adaptor is flush with ends of stile. Drill 2.0 dia holes through existing counterbored holes in adaptor into stile. Fix adaptor using No. 8 x 1" pan self tappers.

Fix keep (CPC101) using only two No. 8 x 1 1/2" csk self tapper through the two central slotted holes, though the into the slave stile. Final fixing is carried out after installation / adjustment through the remaining holes using the same screws. CP069 trim must be fitted above and below keep AFTER installation and adjustment.



Fitting 4 Pane Over-run Buffer

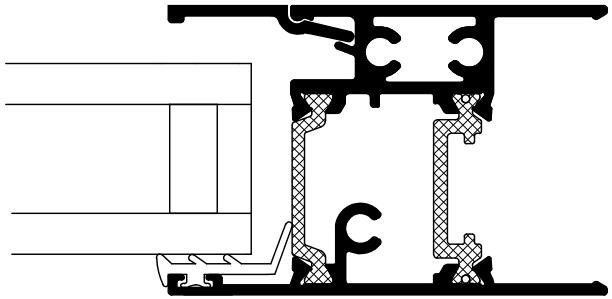
Fit CPC124 over-run buffers to recess behind interlock hook near the top and bottom of both sliding interlocks as shown below.



Glazing - Sliding Panes

Fit DFC1415 (6mm) glazing packers using a little silicone to hold them in place. Take care not to cover any drainage slots. Fit one near each bottom corner of each pane and one near the top of the stile/interlock.

Offer glass into pane by first carefully shuffling it into the glazing channel of the interlock. Centralise the glass then fit the beads as shown below. All joints in beads must be sealed using Henkel Terostat. Note, beads are supplied over length for cutting down.



Fit inner wedge gasket (DFC1203) by either mitre cutting or notching at the corners.

Fitting Frame Into Aperture

It is vitally important that the cill is laid flat and level to achieve good performance. Jambs must be vertical in both planes, and no twist or other distortion allowed in the frame.

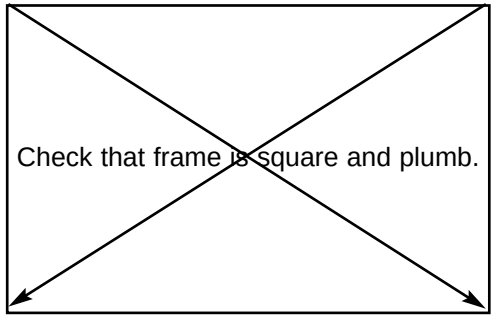
Prior to installing the frame, the opening should be checked to ensure that it is free of debris, and that any projecting brickwork has been trimmed back.

Any damaged damp proof membranes should be replaced or additional membranes incorporated.

When the opening was originally measured a suitable gap should have been allowed around the window, this will allow the window to be packed to ensure that it is plumb and square within the opening.

Ideally the frame should be bedded on mortar.

The frame can then be positioned in the opening and held square by packing at the very corners of the frame, taking care not to damage or deform the frame profiles.

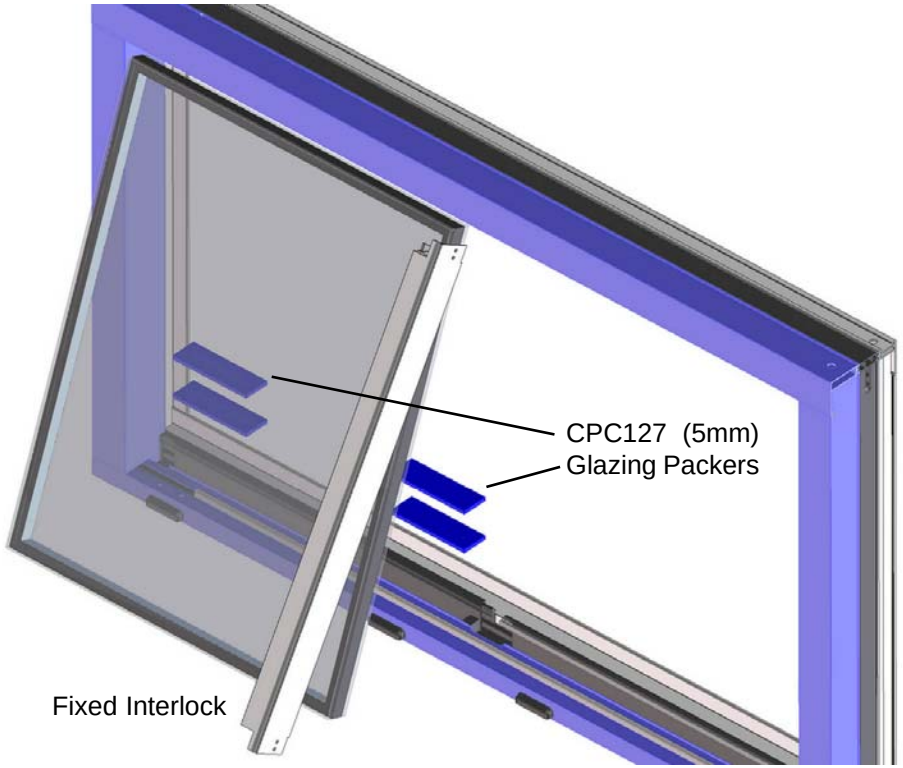


To check for squareness, measure the diagonals from corner to corner, these diagonal dimensions should not differ by more than 1 or 2mm, if they do then adjust the packing until the frame is square within the opening.

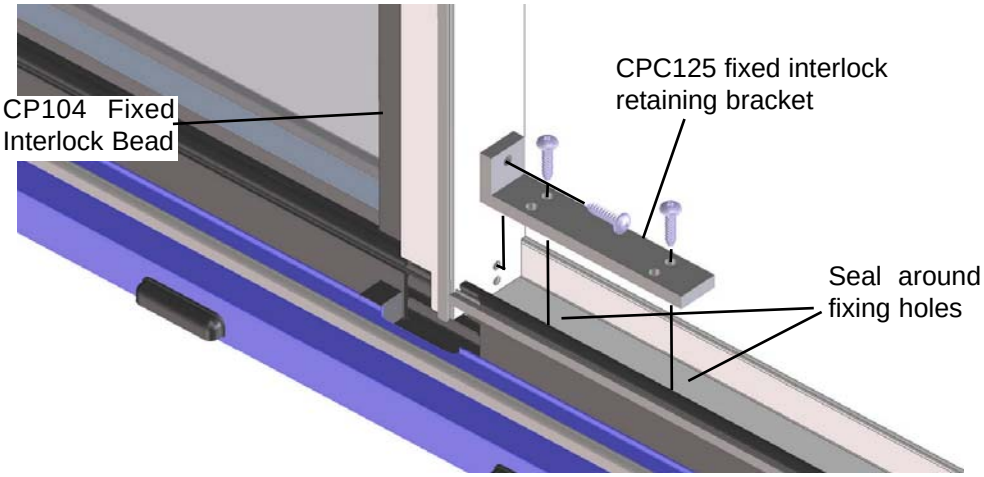
The lay of the frame in to out can be checked by using a spirit level on the jambs. On replacement applications, the correct position of the frame might not align with the original. This will require some remedial work to make good the plaster reveal around the frame on the inside as well as any render that is present on the outside.

Glazing Fixed Pane

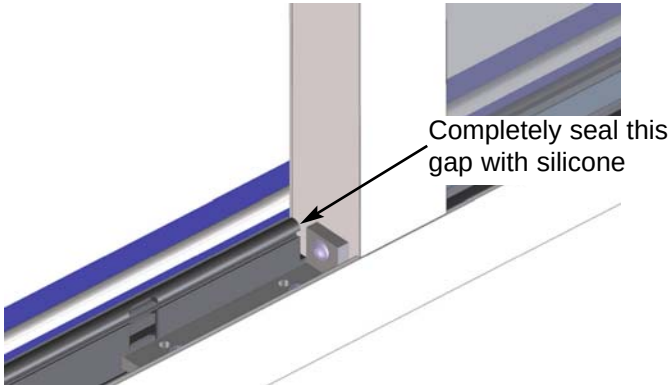
Fit DFC1510 retained gasket into groove in polyamide upstand at head, cill and fixed jamb (see general arrangements). Fit CPC127 (5mm) glazing packers into inner recess of cill near to corners of fixed pane as shown below. Lift fixed glazing into place and slide into fixed jamb. Lift fixed interlock into place and fix at head and cill using angle brackets as shown over page. Seal ends of fixed interlock at top and bottom. Fit DFC1509 wedge gasket on the inside notching or mitre joining the corners Take care not to stretch gasket whilst fitting. Seal joints in gasket using Terostat sealant.



Fixing of Fixed Interlock

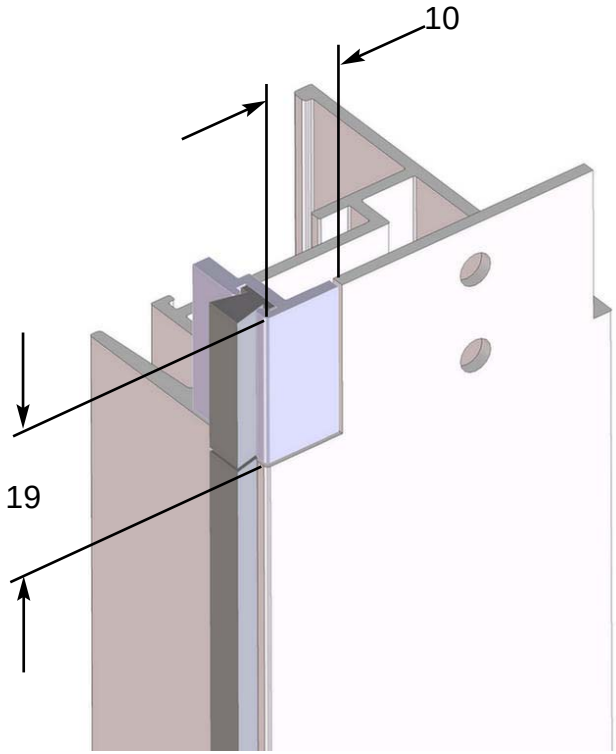


Completely seal around fixing holes in cill. Use CPC125 bracket and 3off No. 10 x 3/4" pan screws to fix the fixed interlock at the cill (as shown above) and similarly at the head. Fit fixed interlock bead (CP103). Seal gap between fixed interlock and polyamide upstand at the cill as shown below.



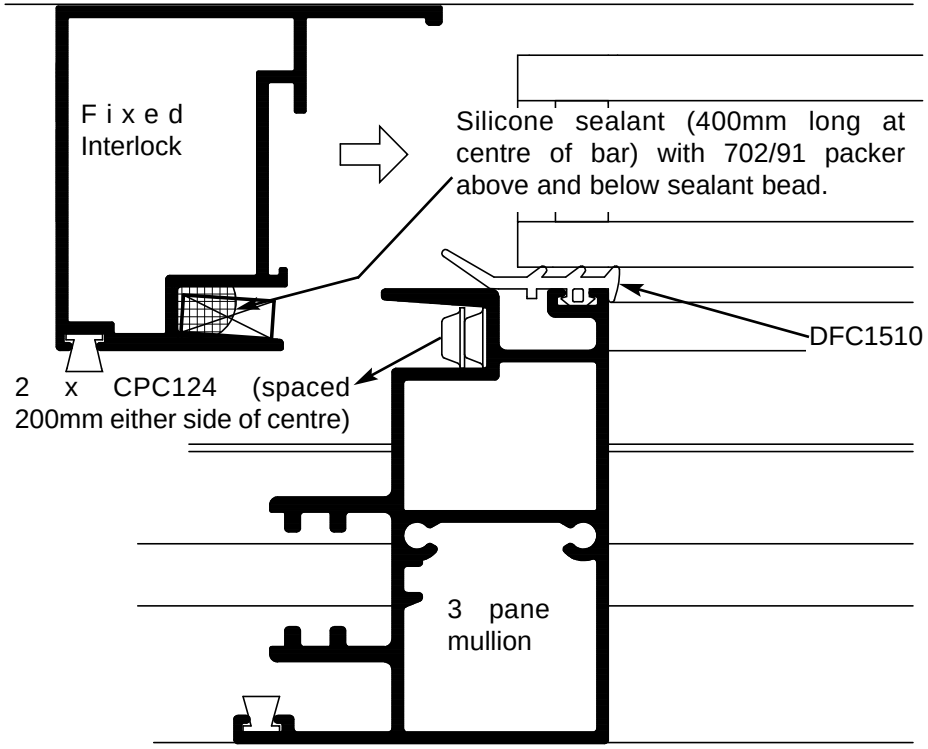
3 Pane OXO Fixed Interlock

At the TOP ONLY of the fixed interlock which occurs at the 3 pane mullion side, an additional notch is required as shown below.



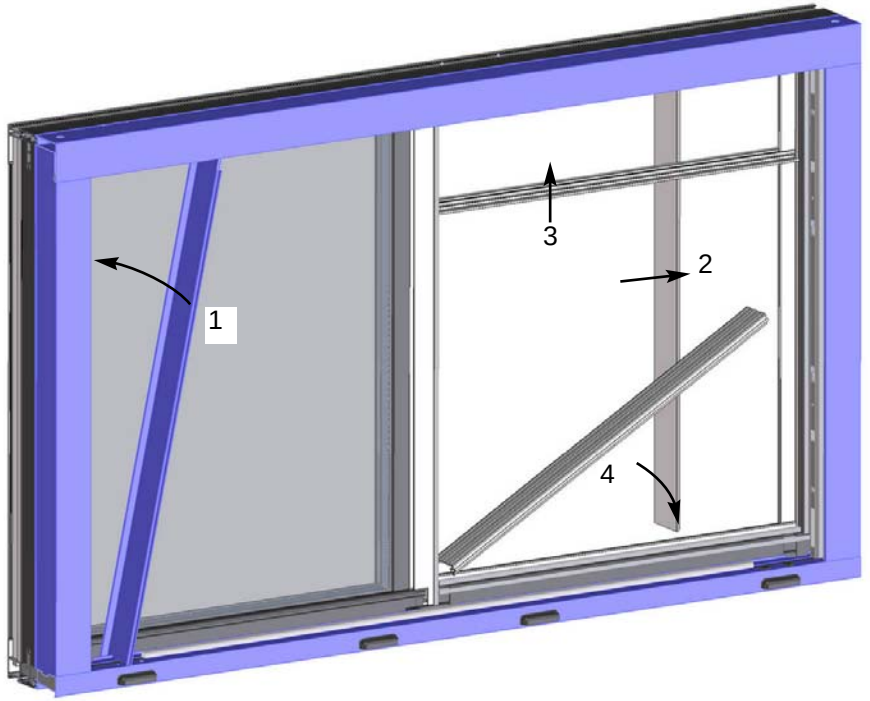
3 Pane OXO Fixed Glazing at Locking Side

Fit DFC1510 retained gasket to 3 pane mullion as shown below. Fit CPC127 glazing packers to cill as shown on previous page. Lift in dgu from inside and slide into jamb recess. Fit a total of 2 x 2 CPC124 buffers spaced at approx 200mm either side of the centre of the mullion as shown below. Apply silicone sealant for approx 400mm at the centre into the recess on the fixed interlock as shown below. Fit 702/91 into sealant beads at either end of bead as shown below. Ensure that there is enough sealant to make contact with the leg of the 3 pane mullion. Fit fixed interlock as previously shown for 2 pane doors.



Fitting Head, Jamb & Threshold Closers

Clip in head, jamb and threshold closers in the sequence shown below. Seal butt joints in all internal closers using Henkel Terostat.

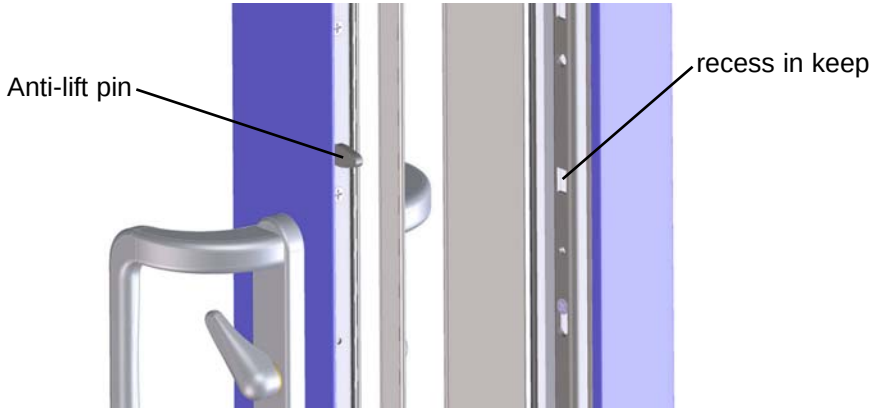


Fitting Sliding Pane

Lift sliding pane into outer head channel then swing bottom of pane inwards and gently lower the rollers onto the track. Slide pane to a near closed position and check that the lock stile is parallel to the jamb. If necessary adjust rollers using a pozi drive screw driver through the hole at the bottom of the stile / interlock (remove interlock capping to gain access to the interlock end roller adjustment). Reduce the load on the roller adjustment screw by lifting the pane slightly whilst adjusting. The ideal nominal gap between the bottom rail liner and the top of cill is 6mm. This will result in 12mm panel edge cover at the head.

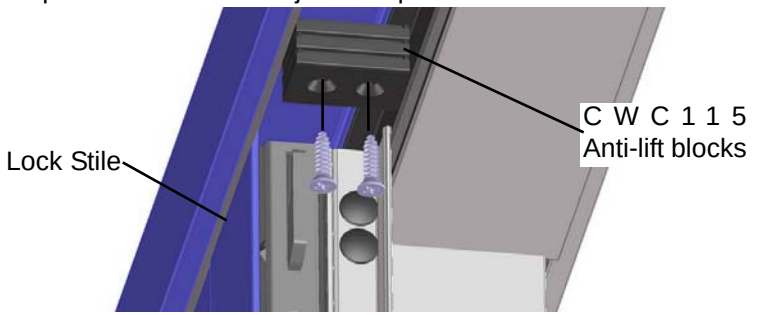
Adjusting Keep

Slacken two keep fixing screws previously fitted. Line up recess in keep with anti-lift pin on lock. Re-tighten screws and check lock operation. Adjust if necessary. Once Keep is correctly adjusted, fit No. 8 x 1 1/2” csk pozi self tappers to all remaining keep fixing holes. Cut and fit trim CP069 above and below keep.



Fitting Anti Lift Blocks (Not required when concealed trickle vent is fitted)

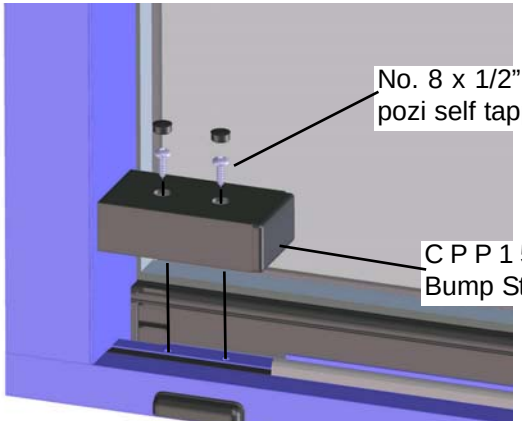
Temporarily remove handles and cylinder. Without bump stops fitted, carefully open door as far as it will go. Using CWC115 anti-lift block as a template, with it held tight against the polyamide upstand, drill two 4.2 dia holes. Fit 2 or 3 anti-lift blocks and /or horseshoe packing shims depending on clearance using No. 10 x 1 1/4” csk pozi self tapper. Repeat as close to lock jamb as possible.

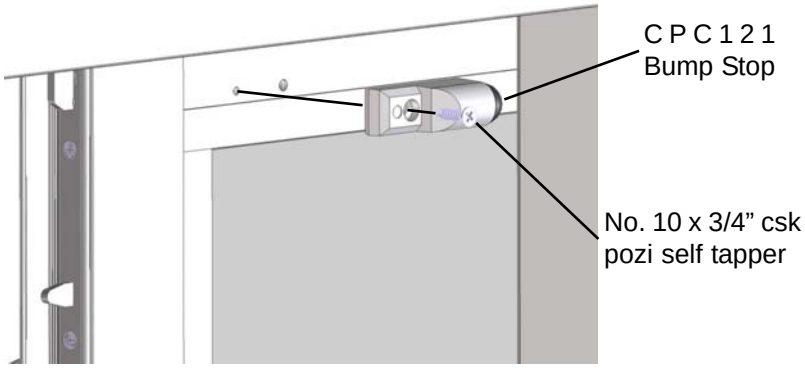


Fitting Bump Stops

Fix CPP151 Bump Stops to head and cill using No. 8 x 1/2” pan pozi self tapper as shown below. On non-handed 2 & 3 pane cut down kits, where there are un-used bump stop fixing holes, fill them using CPC122 5mm hole plugs. Where necessary, a second bump stop buffer can be fitted to the opposite end of the stop to pack it off the jamb. On 3 pane XOX and uneven pane doors, use CPC121 bump stops fitted to the inside of the top and bottom rails as shown below.

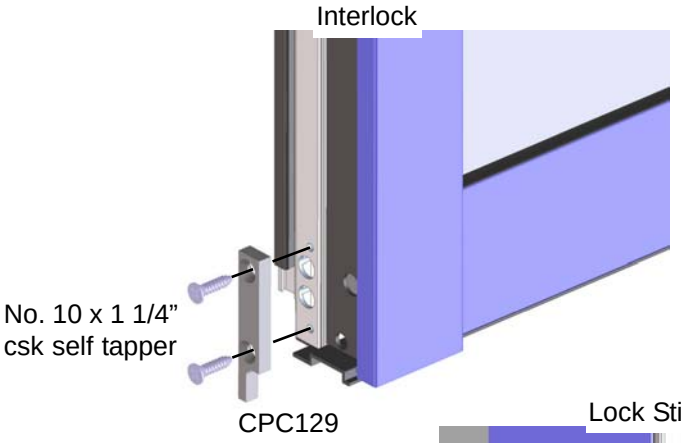
Re-fit handles and test operation of the door. Make any necessary adjustments and re-check operation.

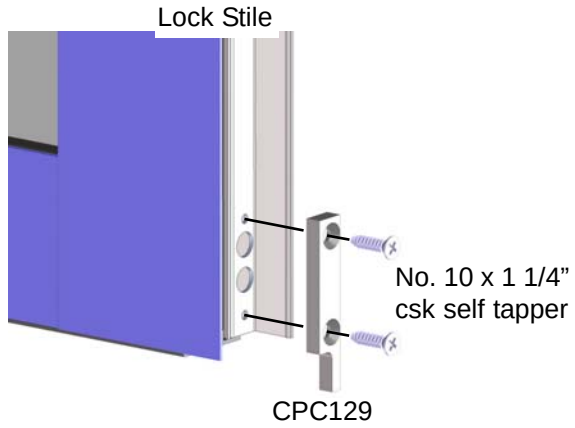




Fitting Anti Jemi Plates

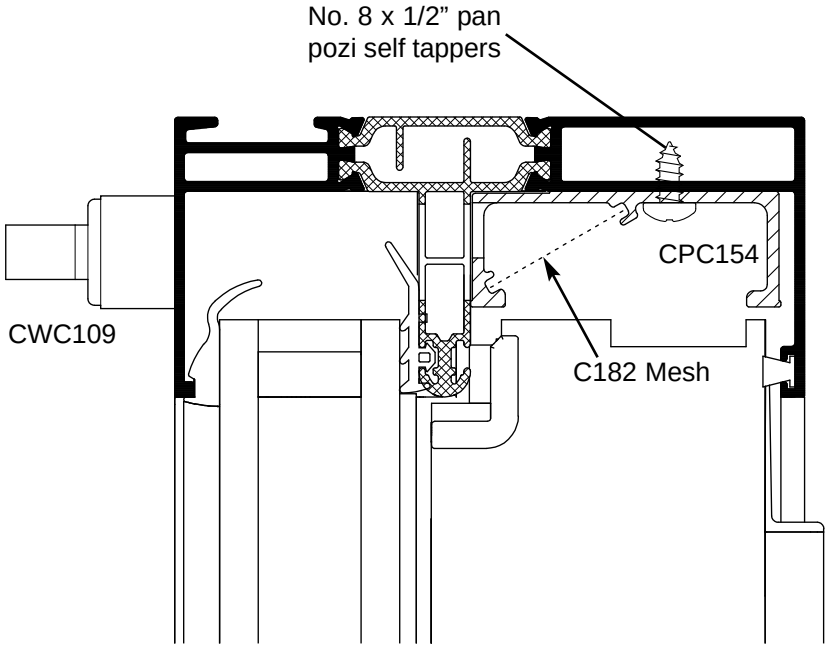
Fit Anti-Jemi plates (CPC129) to bottom of interlock and lock stile using 2 off No. 10 x 1 1/4” csk self tappers as shown below. Check operation of sliding door. Fit interlock capping as usual.





Fitting Concealed Trickle Vent

Slide C182 mesh into groove in CPC154 trickle vent. With sliding pane(s) already fitted, close door into locked positon. Slide CPC154 PVC extrusion up over the top of the slding pane as shown alongside with the slots facing towards the inside. Take care not to distort the mesh. (on sites where access is restricted - near a return wall or similar - the CPC154 can be cut in two before inserting). Push the CPC154 tight against the polyamide downstand in the head. Drill 3.5 dia holes through existing holes in trickle vent into head. Fix using No. 8 x 1/2" pan pozi self tappers. Fix CWC109 operator to inside of head using screws supplied.



Finishing Off

Sealing

The recommended sealant for the perimeter exterior is Low Modulous Neutral Cure Silicone Sealant. Backing foam should be used where the perimeter gap is over 5mm. Where the gap is within the 5mm range, a neat application of silicone is all that is required on the outside.

A final check of the internal and external perimeter seals should be undertaken. Any weak spots that are identified should be rectified and tooled to a high visual finish. Any excess sealant must be cleaned off of the finished surfaces using appropriate cleaner.

Cleaning After Installation

If excess sealant is to be cleaned off. Ensure that any solvent used will not damage any of the metal finishes, synthetic rubbers or plastics which may be present.

Warning

Take particular care if there is any cement or plaster on the aluminium. It is harmful to the metal finish and should be washed off while still wet. DO NOT RUB or particles of grit will permanently damage the metal or paint finish.

Routine Cleaning

No aluminium finish is “Maintenance Free” and hence should be cleaned at regular intervals. See surface treatment suppliers literature/website for cleaning and maintenance requirements.

Maintenance

Locks and rollers are sealed for life and require no special regular maintenance other than wiping the faceplate of the lock and the stainless steel track down with a damp cloth periodically. In addition, regular checks must be made to ensure that the track is not damaged or obstructed in any way. If you are unsure DO NOT operate the door and seek professional help.

Operating And Safety Instructions

In order to preserve functionality of the door, and to guarantee safety, it is imperative the directives listed below are observed.

- *The door sash must not be burdened with additional weight.*
- *Do not place any objects between the sliding pane and frame.*
- *Do not allow children to operate the door.*
- *Do not leave pane open during strong winds.*
- *Caution! A slamming pane can lead to injuries while closing. Do not grasp the door between the sliding pane and frame.*