urbanplus™

DESIGNER
391 DOUBLE HUNG WINDOW

TECHNICAL MANUAL

CAPRAL ALUMINIUM

URBAN PLUS 391 DOUBLE HUNG WINDOW

The Urban Plus Double Hung Window features a substantial outer frame allowing for large, configurations with a modern, architectural aesthetic.

Bold mitred sash profiles sit within a clean square cut frame demonstrating the simplicity and style which are hallmarks of the Urban Plus range. High quality operating hardware and a simple sash release system for easy cleaning from within the building make the Urban Plus Double Hung Window the ideal choice for elevated applications. This system incorporates integrated finger pulls and high quality latch hardware to further enhance the functionality of this modern take on a classic window style.

FEATURES AND BENEFITS

- Premium quality 76mm architectural framing system
- Large capacity single and double glazing options
- Height adjustable sash panels
- AGS 300/325 and 400/425 Narrowline compatible for seamless integration
- Compatible with the full range of Urban Plus window suites
- Integrated insect and security screening options
- Exclusively designed components to improve the system's performance and function
- Provision for High, Low and Side Lights

LocAl® GREEN

Capral's Urban Plus range is extruded in Australia using LocAl® Green primary aluminium.

- 50% lower-carbon emissions than global averages for primary aluminium
- 8kg CO2e/kg Al
- ASI Certified Smelter

asi MEMBER

CAPRAL ALUMINIUM

1800 ALUMINIUM (258 646)
capral.com.au
Capral Limited ABN 78 004 213 692
March 2023

MAXIMUM PERFORMANCE

Serviceability Pressure	2200Pa
Ultimate Pressure	3800Pa
Water Penetration	350Pa

FRAME DIMENSIONS

Depth	76mm

MAXIMUM RECOMMENDED SIZE

Sash Height	1200mm
Sash Width	1200mm
Sash Weight	20.4kg

GLAZING CAPACITY

Single Glazed	4mm - 10mm
Double Glazed	16mm & 18mm

ACOUSTICS (MAX)

Rw (C;Ctr)	35 (-1;-3)

WINDOW ENERGY RATINGS

Window ID	Glazing	Uw	SHGC	Tvw	Air Inf
CAP-528-01	6.38CPGy	4.9	0.37	0.27	0.21
CAP-528-02	6.38CPNtl	4.9	0.38	0.41	0.21
CAP-528-03	6.38CPClr	4.9	0.50	0.57	0.21
CAP-528-04	6.38ClrLam	6.3	0.57	0.61	0.21
CAP-528-05	6ET	4.9	0.50	0.57	0.21
CAP-528-06	4Clr	6.4	0.62	0.63	0.21
CAP-529-01	4Clr/10/4Clr	4.3	0.56	0.58	0.21
CAP-529-02	4Clr/10Ar/4Clr	4.2	0.56	0.58	0.21
CAP-529-03	4Gy/10Ar/4Clr	4.3	0.41	0.36	0.21
CAP-529-04	4ET/10Ar/4Clr	3.6	0.47	0.53	0.21
CAP-529-05	LB Gy 4/10/4	3.5	0.31	0.36	0.21
CAP-529-06	LB Clr 4/10/4	3.5	0.45	0.58	0.21

View full list of Residential WERs ratings at capral.com.au

Technical Manual History

The table below is a summary of this manual's update history. Contact Capral for details of past updates.

RELEASE DATE	UPDATE SUMMARY
30-07-2021	First Issue
01-09-2021	BOM & General updates
01-10-2021	Machining Update
01-04-2022	Sash cap details updated
01-08-2022	Components, Formula & Machining updated
01-10-2022	Profiles updated, Component added & removed
01-03-2023	Acoustic Test Report Summaries added

The table below shows the details of the latest manual update.

MANUAL RELEASE – 01-06-2023	
DESCRIPTION	AFFECTED PAGES
Flyscreen width formula updated	4.2 ~ 7.8
314906 30mm Bumper Block Removed	3.4 ~ 4.2 ~ 6.7 ~ 7.7

Technical Manual History

IMPORTANT CONDITIONS

By using this manual you agree to the following:

DISCLAIMER

Whilst best efforts have been made to ensure the details contained herein are accurate and correct, Capral is not responsible for any loss or damage whatsoever arising as a result of any errors contained in this manual. Interpretation of standards or codes within this manual is Capral's interpretation of such codes. Responsibility for code compliance remains with the user of this manual. In some cases product specifications may vary without notice. Users should not act or rely upon any information contained in this manual without obtaining appropriate professional advice relating to their particular circumstances. To the maximum extent permitted by law Capral disclaims all liability for loss or damage suffered by anyone who acts or fails to act in reliance of this manual.

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Product Specifications

SIZE LIMITATIONS

Sash Height
- Minimum: 420mm
- Maximum: 1200mm

Sash Width
- Minimum: 400mm
- Maximum: 1200mm

Sash Weight
- Minimum: 1.8kg
- Maximum: 20.4kg

Low / High Light Height
- Minimum: 300mm
- Maximum: 1200mm

Transom Width
- Minimum: 300mm
- Maximum: 1200mm

NOTE: Refer to the information below & Span Tables to check the maximum sizes that can be achieved for the assigned performance requirements of the installation.

SERVICEABILITY PRESSURE & WATER PERFORMANCE

Residential & Commercial Applications:
The Serviceability Pressures listed in the Span Tables have not been limited by a water performance.
Where water performance is necessary the product should be limited to the following maximum water ratings or serviceability pressures:

Configuration	Sill	Transom	Max. Water Rating (Pa)	Max. Serviceability Pressure (Pa) (Max. Water Rating / 30%)
F/DH	EP18466	EP18465 / EP2207	350	1160
DH/F	EP18376	EP18466 / EP2207	350	1160
DH	EP18466	N/A	350	1160

Note: The use of a standard Sub Sill has been assumed for the Water Performance Ratings listed above.

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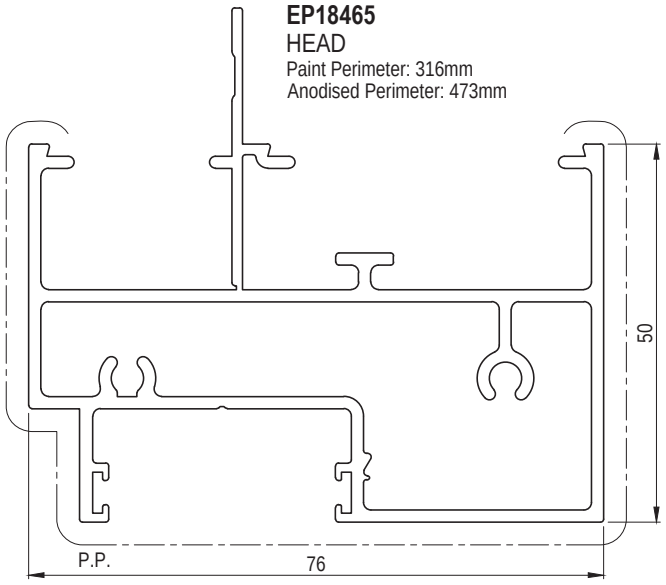
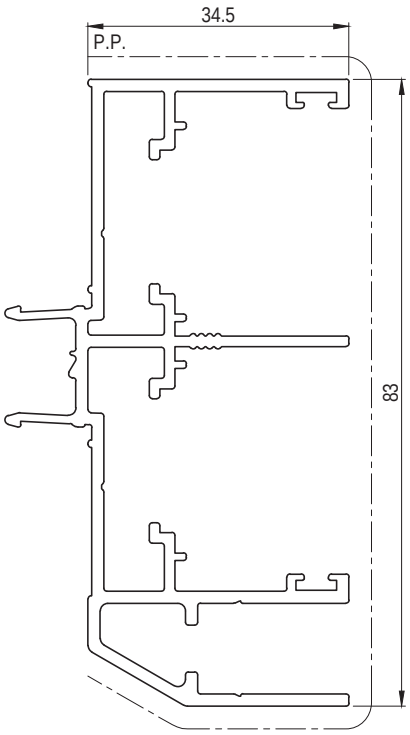
Extrusions

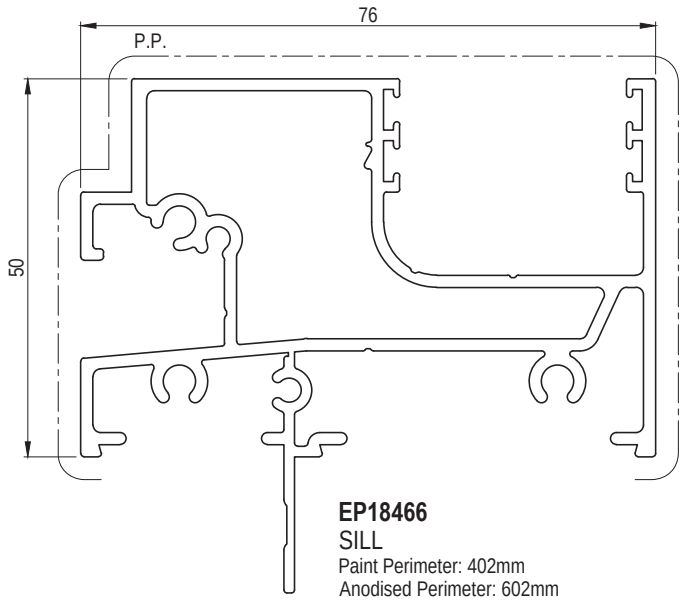
Scale 1:1



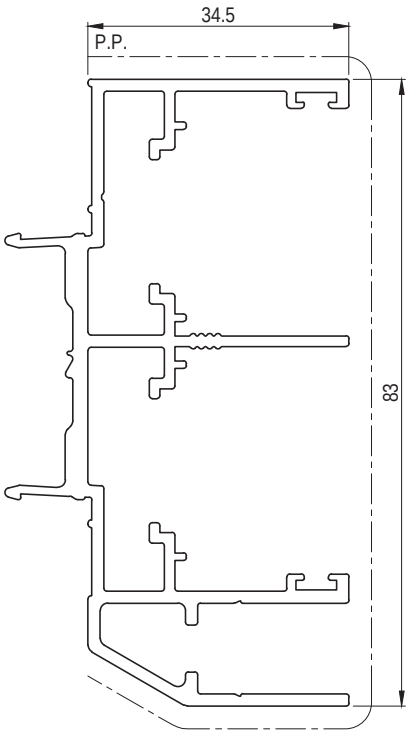
EP18465
HEAD
Paint Perimeter: 316mm
Anodised Perimeter: 473mm



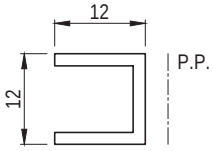
EP18463
SG POCKET JAMB ADAPTOR
Paint Perimeter: 395mm
Anodised Perimeter: 591mm



EP18466
SILL
Paint Perimeter: 402mm
Anodised Perimeter: 602mm



EP18464
DG POCKET JAMB ADAPTOR
Paint Perimeter: 393mm
Anodised Perimeter: 589mm



EK9149
JAMB CHANNEL
12 x 12 x 1.60mm
Paint Perimeter: 100mm
Anodised Perimeter: 68mm

Extrusions

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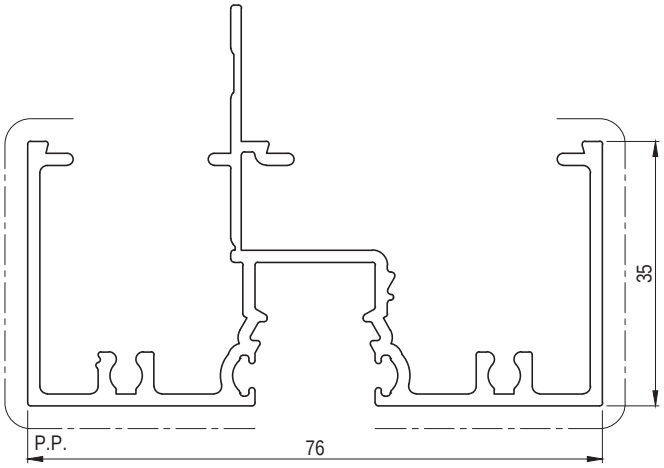
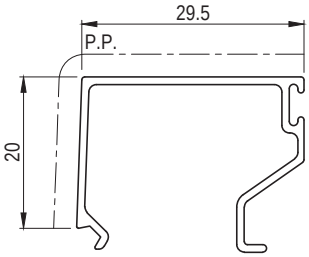
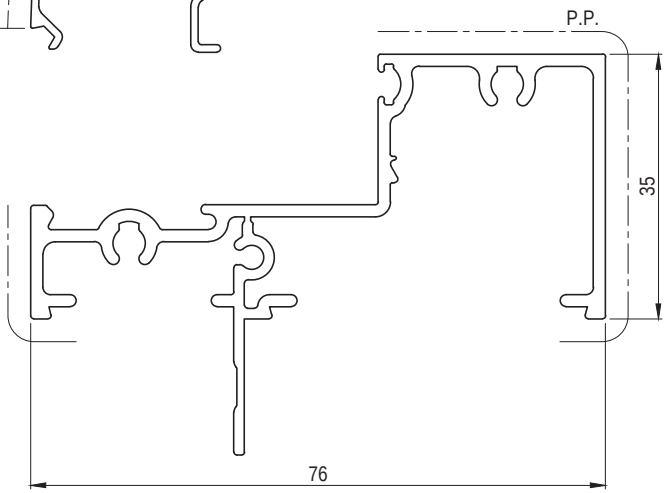


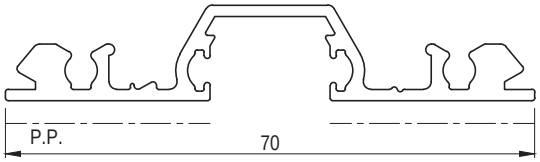
EP18378
300 NARROWLINE REVEAL FRAME
Paint Perimeter: 352mm
Anodised Perimeter: 528mm



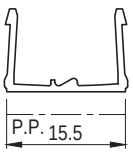
EU9182
300 NARROWLINE BEAD
Paint Perimeter: 100mm
Anodised Perimeter: 173mm



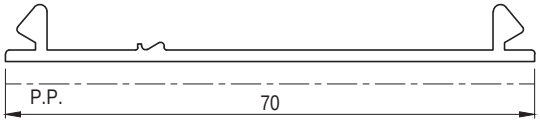
EP18376
300 NARROWLINE REVEAL SILL
Paint Perimeter: 299mm
Anodised Perimeter: 448mm



EP2207
300 POCKETED FILLER
Paint Perimeter: 167mm
Anodised Perimeter: 250mm



EK5925
300 FLUSH FILLER
Paint Perimeter: 100mm
Anodised Perimeter: 100mm



E32173
300/325 FLAT FILLER
Paint Perimeter: 100 mm
Anodised Perimeter: 171 mm

Extrusions

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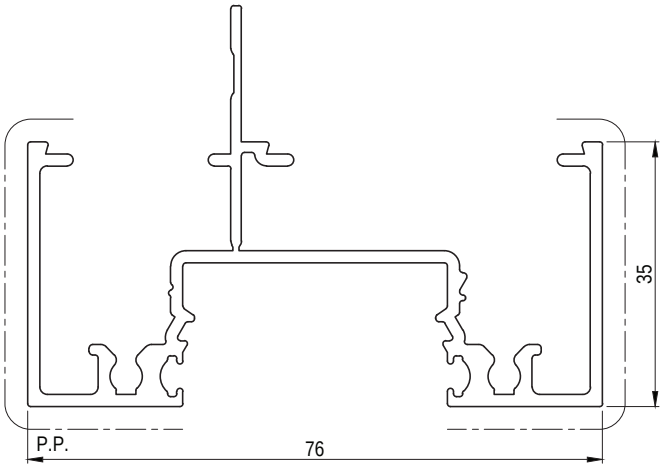
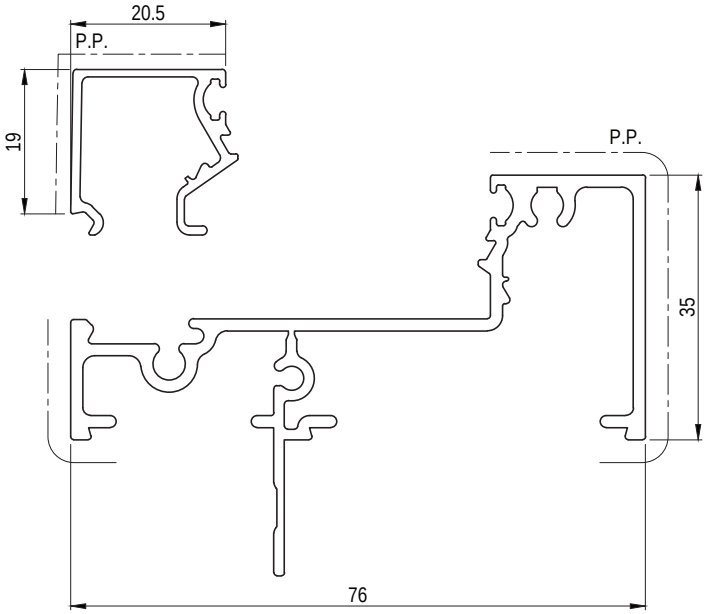
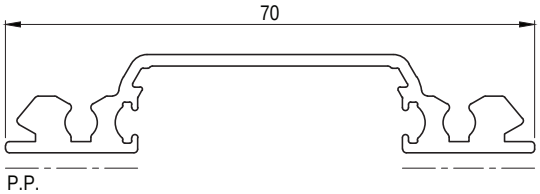


EP18379
325 NARROWLINE REVEAL FRAME
Paint Perimeter: 342mm
Anodised Perimeter: 513mm

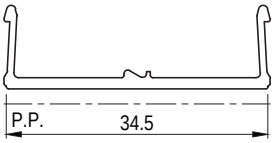


EP14726
325 NARROWLINE BEAD
Paint Perimeter: 100 mm
Anodised Perimeter: 150 mm

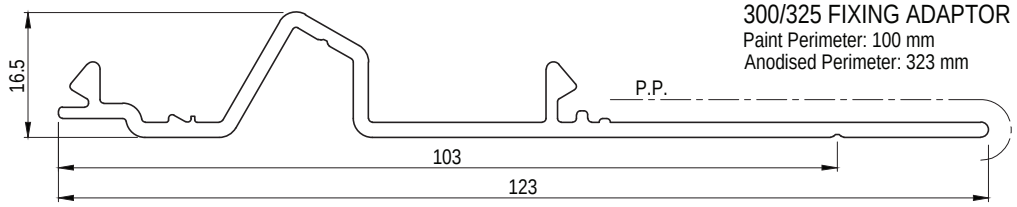
EP18377
325 NARROWLINE REVEAL SILL
Paint Perimeter: 296mm
Anodised Perimeter: 443mm



EP12851
325 POCKETED FILLER
Paint Perimeter: 152 mm
Anodised Perimeter: 227 mm



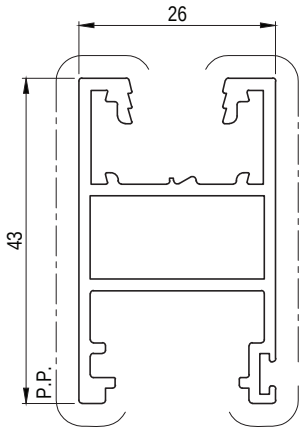
EP15702
325 FLUSH FILLER
Paint Perimeter: 100 mm
Anodised Perimeter: 113 mm



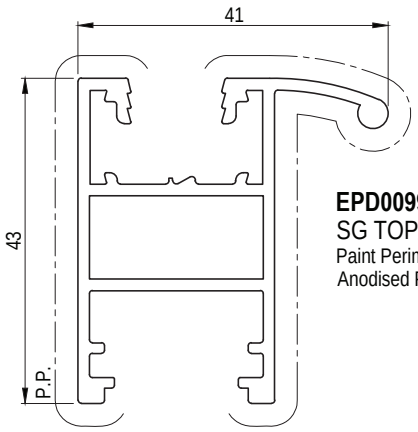
EP10568
300/325 FIXING ADAPTOR
Paint Perimeter: 100 mm
Anodised Perimeter: 323 mm

Extrusions

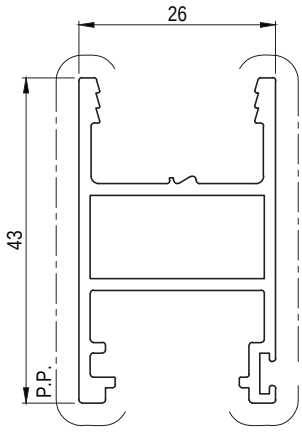
Scale 1:1



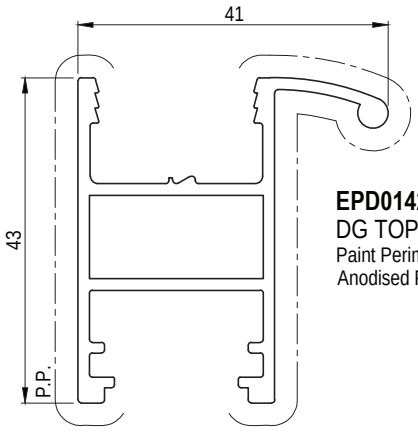
EPD0103
SG RAIL
Paint Perimeter: 115mm
Anodised Perimeter: 264mm



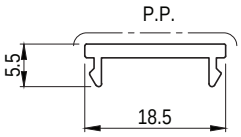
EPD0099
SG TOP/BOTTOM RAIL
Paint Perimeter: 141mm
Anodised Perimeter: 294mm



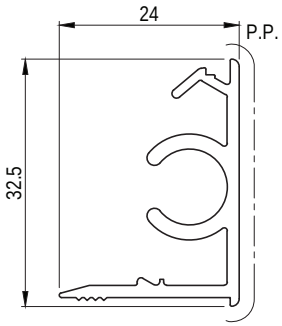
EPD0141
DG RAIL
Paint Perimeter: 107mm
Anodised Perimeter: 224mm



EPD0142
DG TOP/BOTTOM RAIL
Paint Perimeter: 132mm
Anodised Perimeter: 254mm

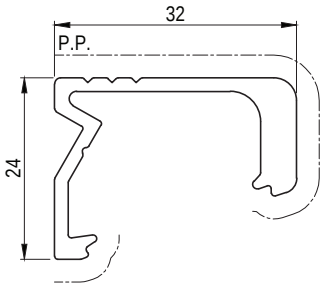


EPD0097
SASH/JAMB CAP
Paint Perimeter: 100mm
Anodised Perimeter: 56mm

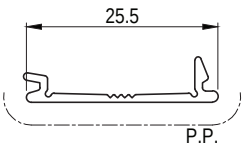


EPD0102
TRACK CAP
Paint Perimeter: 100mm
Anodised Perimeter: 174mm

NOTE: Only used to restrict opening or lock one sash in position to create a single hung configuration.



ED8610
STIFFENER
Paint Perimeter: 100mm
Anodised Perimeter: 151mm



ED8611
STIFFENER FILLER
Paint Perimeter: 100mm
Anodised Perimeter: 100mm

Extrusion Data

Extrusion	Description	Structural Properties *			
		Ixx (10^3mm^4)	Iyy (10^3mm^4)	Zxx (10^3mm^3)	Zyy (10^3mm^3)
E32173	Flat Filler	0.426	72.882	0.072	2.069
ED8610	Stiffener	8.214	27.080	0.502	1.622
ED8611	Stiffener Filler	0.067	2.738	0.014	0.204
EK5925	300 Flush Filler	0.452	1.356	0.062	0.166
EK9149	Jamb Channel	1.137	0.742	0.190	0.100
EP10568	Fixing Adaptor	5.440	379.523	0.421	5.629
EP12851	325 Pocketed Filler	4.302	123.937	0.601	3.541
EP14726	325 Narrowline Bead	4.466	5.482	0.367	0.493
EP15702	325 Flush Filler	0.636	10.759	0.073	0.611
EP18376	300 Narrowline Reveal Sill	57.029	220.703	1.724	5.509
EP18377	325 Narrowline Reveal Sill	50.690	230.703	1.564	5.648
EP18378	300 Narrowline Reveal Frame	74.812	268.152	1.948	6.808
EP18379	325 Narrowline Reveal Frame	68.690	292.812	1.851	7.458
EP18463	SG Pocket Jamb Adaptor	335.132	56.718	7.925	2.411
EP18464	DG Pocket Jamb Adaptor	346.168	62.736	8.232	2.567
EP18465	Head	141.116	385.184	3.272	10.105
EP18466	Sill	156.940	396.813	3.840	10.218
EP2207	300 Pocketed Filler	3.270	115.282	0.393	3.282
EPD0097	Sash & Jamb Cap	0.071	1.466	0.017	0.158
EPD0099	SG Top/Bottom Rail	52.855	42.306	2.129	1.656
EPD0102	Track Cap	13.571	4.590	0.708	0.256
EPD0103	SG Rail	42.614	27.319	1.835	2.074
EPD0141	DG Rail	33.668	26.015	1.549	1.972
EPD0142	DG Top/Bottom Rail	45.584	40.831	1.956	1.613
EU9182	300 Bead	5.568	11.586	0.335	0.757

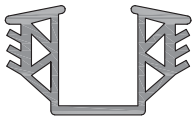
* NOTE: The structural properties listed above are using the orientations as listed within the extrusion pages.

Glazing Details - Sash

Scale 1:1

300055
4mm GLAZING CHANNEL
100m ROLL - PVC
(M027455)

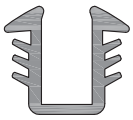
323141
10/10.38mm GLAZING CHANNEL
50m ROLL - PVC
(SPD05026)



300030
5mm GLAZING CHANNEL
100m ROLL - PVC
(M027241)

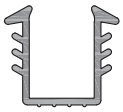
301261
16mm GLAZING CHANNEL
100m ROLL - PVC
(M027274)

322624
6 / 6.38mm GLAZING CHANNEL
85m ROLL - PVC
(SPD05745)

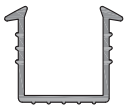


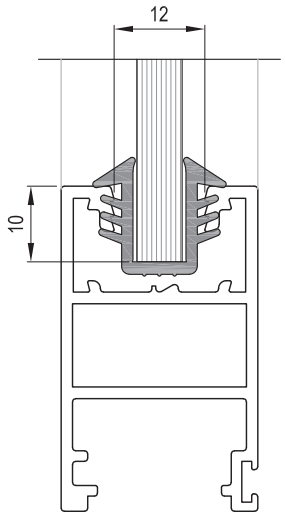
300610
18mm GLAZING CHANNEL
100m ROLL - PVC
(M027275)

300038
8/8.38mm GLAZING CHANNEL
100m ROLL - PVC
(M027266)

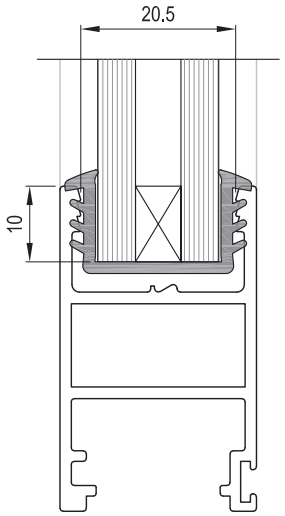


300039
10/10.38mm GLAZING CHANNEL
100m ROLL - PVC
(M027268)





SINGLE GLAZED	
GLASS	CHANNEL
4mm	300055
5mm	300030
6/6.38mm	322624
8/8.38mm	300038
10/10.38mm	300039



DOUBLE GLAZED	
GLASS	CHANNEL
10/10.38mm	323141
16mm	301261
18mm	300610

Glazing Details - Fixed Lights

Scale 1:1

300001
GLAZING WEDGE 3mm GAP
100m ROLL
(M027101)

315787
CO EXT CAPTIVE WEDGE 3mm GAP
200m ROLL
(MSC34)

300013
GLAZING WEDGE 5mm GAP
200m ROLL
(M027142)

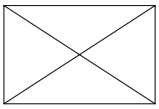
315788
CO EXT CAPTIVE WEDGE 5mm GAP
100m ROLL
(MSC28)

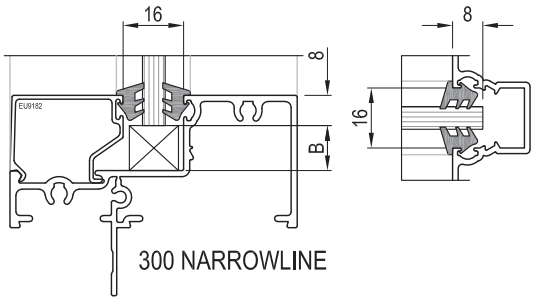
300003
GLAZING WEDGE 7mm GAP
100m ROLL
(M027103)

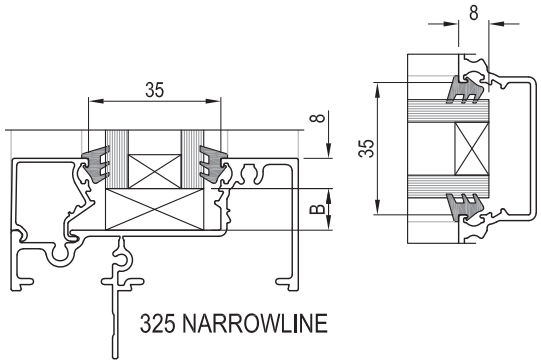
322527
CO EXT CAPTIVE WEDGE 9mm GAP
75m ROLL
(SPD05221)

300004
GLAZING WEDGE 8mm GAP
100m ROLL
(M027104)

317384 - 6 x 24 x 50mm (SPD04150)
317200 - 8 x 24 x 120mm (SPD04094)
317385 - 13 x 24 x 120mm (SPD04151)
317195 - 20 x 25 x 170mm (SPD04087)
SETTING BLOCK
EACH - TRIM TO SUIT







DRY GLAZING - 16mm Pocket				
GLASS SIZE	WEDGE	GAP	WEDGE	GAP
4mm	300013 (315788*)	5mm	300004	8mm
5mm	300013 (315788*)	5mm	300003	7mm
6mm	300013 (315788*)	5mm	300013	5mm
8mm	300001 (315787*)	3mm	300013	5mm
10mm	300001 (315787*)	3mm	300001	3mm

* Captive Wedge Alternative

DRY GLAZING - 35mm Pocket				
GLASS SIZE	WEDGE	GAP	WEDGE	GAP
18mm	322527*	9mm	300004	8mm
19/20mm	322527*	9mm	300003	7mm
21mm	300003	7mm	300003	7mm
21/22mm	322527*	9mm	300013	5mm
23mm	300013 (315788*)	5mm	300003	7mm
25mm	300013 (315788*)	5mm	300013	5mm
27mm	300001 (315787*)	3mm	300013	5mm
29mm	300001 (315787*)	3mm	300001	3mm

* Captive Wedge Alternative

SETTING BLOCK (B)
300 = 12, HIGH LIGHT = 3
325 = 11, HIGH LIGHT = 3.5

NOTE: POLYETHYLENE OR POLYPROPYLENE GLASS SETTING BLOCK RECOMMENDED FOR DG GLASS.
AVOID USING PVC DUE TO THE RISK OF PLASTICISER MIGRATION.

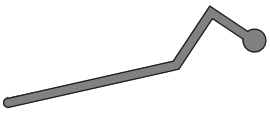
Components

Not To Scale

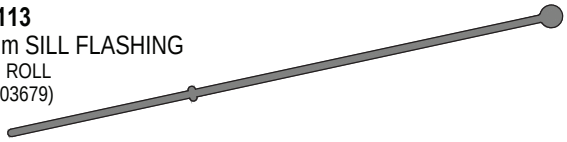
307393
FIN SEAL (4.8 x 6mm)
400m ROLL
(PBF48600-2B)

302272
HIGH FIN SEAL (4.8 x 8.5mm)
300m ROLL
(M027835)

300047
SILL FLASHING
200m ROLL
(M027409)

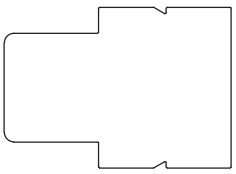


316113
75mm SILL FLASHING
100m ROLL
(SPD03679)

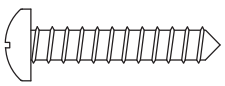


300027
DRAINAGE SEAL
250m ROLL
(M027231)

313607
DG DEEP POCKET FILLER
50 PACK
(SPD02555)

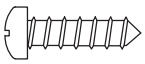


300059
10g x 25mm SS PAN SCREW
EACH
(M028598)



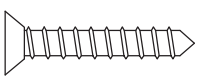
FRAME

301086
8g x 15mm SS PAN SCREW
EACH
(M028259)



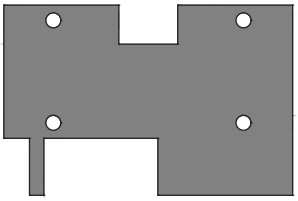
STIFFENER

300671
8g x 25mm SS CSK SCREW
EACH
(M029622)



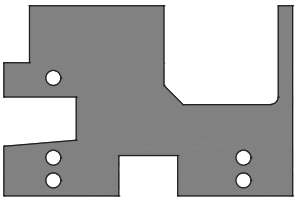
LATCH

322149
HEAD GASKET
EACH
(SPD04972)



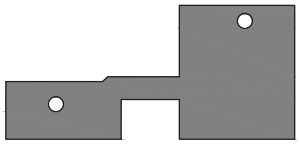
TRIM TO SUIT DG HIGH LIGHT

322150
SILL GASKET
EACH
(SPD04973)

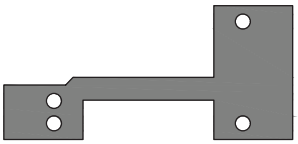


TRIM TO SUIT DG LOW LIGHT

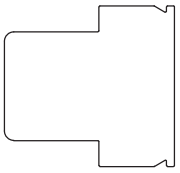
321146
300 SILL GASKET
EACH
(SPD04766)



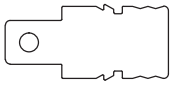
321148
325 SILL GASKET
EACH
(SPD04769)



313608
DG SHALLOW POCKET FILLER
50 PACK
(SPD02556)

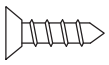


322026
SG POCKET FILLER
EACH - CLEAR
(SPD04773)



TRIM TO SUIT

310549
6g x 13mm SS CSK SCREW
EACH
(FSC052)

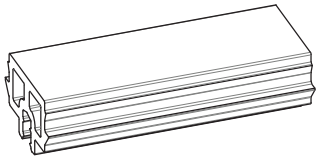


LATCH KEEPER

Components

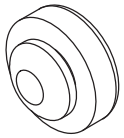
Not To Scale

314907
75mm BUMPER BLOCK
PACK 20 - BLACK
(SPD03127)

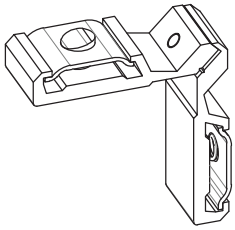


CUT IN HALF FOR SASH RESTRICTION

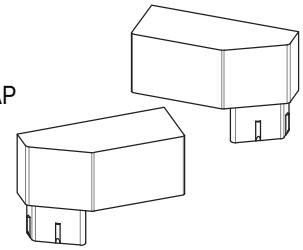
306961
RUBBER GROMMET
EACH - BLACK
(SPD0800)



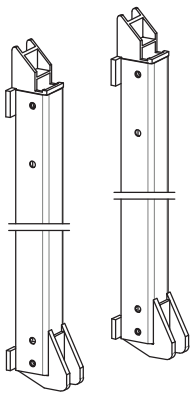
307155
22.4mm x 10mm
ALUMINIUM CORNER SPIGOT
EACH - MILL FINISH
(SPD01036)



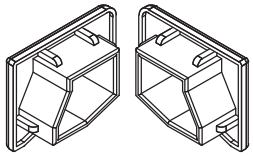
322199 - BLACK
322201 - GREY
322200 - WHITE
JAMB ADAPTOR END CAP
PAIR
(SPD04748)



SASH BALANCES
(REFER TO BALANCE SELECTION CHART)
PAIR - GALVANISED
(SPD01035)

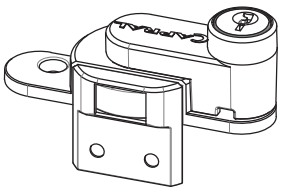


311833
STIFFENER END CAPS
20 PACK
(HM363)

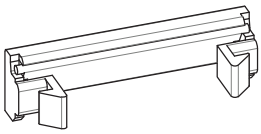


USE WITH ED8610/ED8611

317034 - BLACK
317035 - WHITE
317036 - SILVER
LATCH
10 PACK - KEY#27001
(SPD03972)

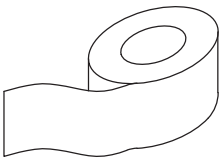


309330
DRAIN VALVE
EACH - BLACK
(H056)



USE WITH EP18465 HIGH LIGHT TRANSOM

311592
REINFORCED FOIL TAPE
50m ROLL
(PT018)



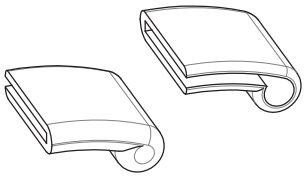
Components

Not To Scale

307342
TAKE OFF CLIPS
EACH
(SPD01039)

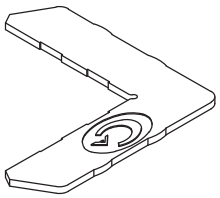
323304
SASH END CAPS
PAIR
(SPD00945)

AS INCLUDED IN 319732 KIT

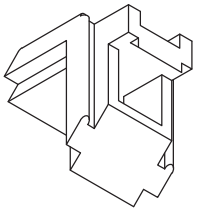


319732
DH COMPONENT KIT
10 WINDOW PACK
(SPD01016)

12.4mm PLASTIC CORNER CLEAT
80 QTY
(SPD00953)

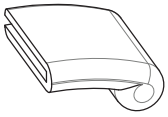


BALANCE CAM LOCATOR
40 QTY
(SPD00946)



L/H SASH LIFT END CAP
20 QTY
(SPD00945)

AVAILABLE SEPARATELY AS PART OF
323304 - PAIR

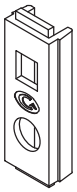


R/H SASH LIFT END CAP
20 QTY
(SPD00945)

AVAILABLE SEPARATELY AS PART OF
323304 - PAIR

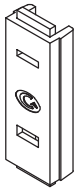
TERMINAL CLIP BRACKET
40 QTY
(SPD00947)

AVAILABLE SEPARATELY
314366 - 50 PACK



TAKE OFF CLIP BRACKET
40 QTY
(SPD00948)

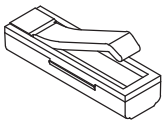
AVAILABLE SEPARATELY
314367 - 50 PACK



Screening

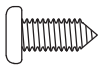
Not To Scale

319621
FLYSCREEN SPRING BLOCK
EACH - BLACK
(SPD04156)



NON SECURITY SCREENS & NO SCREENS AT JAMBS

NON STOCKED
10mm SECURITY SCREW

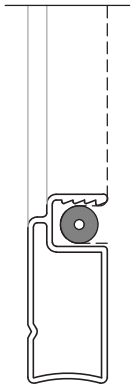


SECURITY WINDOW SCREEN TO SCREEN JAMB ADAPTOR AT REQ. CTRS

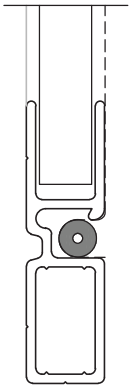
WINDOW SCREENS

REFER TO Sec7 FOR ARRANGEMENTS & Sec4 FOR SIZE CUTTING FORMULAS
REFER TO CAPRAL SCREENING OR AMPLIMESH MANUALS FOR OTHER SCREEN DETAILS

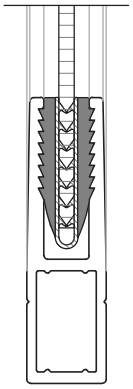
FLY11
FLY FRAME 25 x 11mm
ED7677 CNR FLC2



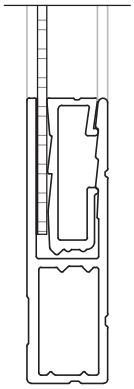
SWF11
SECURITY WINDOW
FRAME 11mm
ED9629 CNR SWC3



SFR11
SUPASCREEN WINDOW
FRAME 11mm
EQ6434 CNR SWC5



IGS11
INTRUDAGUARD WINDOW
FRAME 11mm
EP14943 CNR SWC3



Sash Balance Selection Chart

Sash Height Range (mm)	Sash Weight Range (kg)	SAP Number	Sash Balance Description	OC2 & IC2 Length (mm)
414 - 464.5	1.80 - 2.72	322579	Bal 381mm A1410	206
	2.72 - 4.50	307162	Bal 381mm A1420	
	4.50 - 5.44	307163	Bal 381mm A1430	
	5.44 - 5.90	322583	Bal 381mm A1440	
	5.90 - 9.00	307165	Bal 381mm A1490	
	9.00 - 11.80	322587	Bal 381mm A14DS.26	
465 - 515.5	2.26 - 3.60	322591	Bal 432mm A1610	257
	3.60 - 5.44	322595	Bal 432mm A1620	
	5.44 - 6.30	307169	Bal 432mm A1630	
	6.30 - 8.60	307170	Bal 432mm A1640	
	8.60 - 11.33	307171	Bal 432mm A1690	
	11.33 - 13.60	322599	Bal 432mm A16DS.30	
	13.60 - 15.88	322603	Bal 432mm A16DS.35	
516 - 565.5	2.26 - 3.60	322607	Bal 483mm A1810	308
	3.60 - 5.44	307174	Bal 483mm A1820	
	5.44 - 6.30	307175	Bal 483mm A1830	
	6.30 - 7.70	307176	Bal 483mm A1840	
	7.70 - 11.33	307177	Bal 483mm A1890	
	11.33 - 13.60	322611	Bal 483mm A18DS.30	
	13.60 - 15.88	307178	Bal 483mm A18DS.35	
566 - 616.5	2.26 - 3.60	322615	Bal 533mm A2010	358
	3.60 - 5.44	322619	Bal 533mm A2020	
	5.44 - 6.80	307181	Bal 533mm A2030	
	6.80 - 10.40	307182	Bal 533mm A2040	
	10.40 - 13.60	307183	Bal 533mm A2090	
	13.60 - 15.88	322623	Bal 533mm A20DS.35	
	15.88 - 18.14	307184	Bal 533mm A20DS.40	
617 - 677.5	2.26 - 3.60	322627	Bal 584mm A2210	409
	3.60 - 5.44	307186	Bal 584mm A2220	
	5.44 - 8.60	307187	Bal 584mm A2230	
	8.60 - 10.40	307188	Bal 584mm A2240	
	10.40 - 13.60	307189	Bal 584mm A2290	
	13.60 - 15.88	322631	Bal 584mm A22DS.35	
	15.88 - 18.14	307190	Bal 584mm A22DS.40	
678 - 718.5	2.26 - 4.00	322635	Bal 635mm A2410	460
	4.00 - 6.80	307192	Bal 635mm A2420	
	6.80 - 8.60	307193	Bal 635mm A2430	
	8.60 - 10.90	307194	Bal 635mm A2440	
	10.90 - 13.60	307195	Bal 635mm A2490	
	13.60 - 15.88	322639	Bal 635mm A24DS.35	
	15.88 - 18.14	322643	Bal 635mm A24DS.40	
	18.14 - 20.40	307196	Bal 635mm A24DS.45	
719 - 769.5	2.26 - 4.00	322647	Bal 686mm A2610	511
	4.00 - 5.90	322651	Bal 686mm A2620	
	5.90 - 8.60	322655	Bal 686mm A2630	
	8.60 - 11.80	307200	Bal 686mm A2640	
	11.80 - 13.60	307201	Bal 686mm A2690	
	13.60 - 15.88	322659	Bal 686mm A26DS.35	
	15.88 - 18.14	322663	Bal 686mm A26DS.40	
	18.14 - 20.40	307202	Bal 686mm A26DS.45	
770 - 819.5	3.17 - 5.44	322667	Bal 737mm A2810	562
	5.44 - 7.25	322671	Bal 737mm A2820	
	7.25 - 10.40	307205	Bal 737mm A2830	
	10.40 - 12.70	307206	Bal 737mm A2840	
	12.70 - 14.50	307207	Bal 737mm A2850	
	14.50 - 15.90	307208	Bal 737mm A2890	
	15.90 - 18.14	322675	Bal 737mm A28DS.40	
	18.14 - 20.40	307209	Bal 737mm A28DS.45	

Sash Balance Selection Chart

Sash Height Range (mm)	Sash Weight Range (kg)	SAP Number	Sash Balance Description	OC2 & IC2 Length (mm)
820 - 870.5	3.17 - 5.44	322679	Bal 787mm A3010	612
	5.44 - 7.25	307211	Bal 787mm A3020	
	7.25 - 10.40	307212	Bal 787mm A3030	
	10.40 - 12.70	307213	Bal 787mm A3040	
	12.70 - 14.50	307214	Bal 787mm A3050	
	14.50 - 15.90	307215	Bal 787mm A3090	
	15.90 - 18.14	322683	Bal 787mm A30DS.40	
	18.14 - 20.40	307216	Bal 787mm A30DS.45	
871 - 921.5	3.60 - 5.90	307217	Bal 838mm A3210	663
	5.90 - 8.16	307218	Bal 838mm A3220	
	8.16 - 10.40	307219	Bal 838mm A3230	
	10.40 - 12.70	307220	Bal 838mm A3240	
	12.70 - 14.50	307221	Bal 838mm A3250	
	14.50 - 15.90	307222	Bal 838mm A3290	
	15.90 - 18.14	322687	Bal 838mm A32DS.40	
	18.14 - 20.40	307223	Bal 838mm A32DS.45	
922 - 972.5	3.60 - 5.90	307224	Bal 889mm A3410	714
	5.90 - 8.16	307225	Bal 889mm A3420	
	8.16 - 10.40	307226	Bal 889mm A3430	
	10.40 - 13.60	307227	Bal 889mm A3440	
	13.60 - 15.40	307228	Bal 889mm A3450	
	15.40 - 15.90	307229	Bal 889mm A3490	
	15.90 - 18.14	322691	Bal 889mm A34DS.40	
	18.14 - 20.40	307230	Bal 889mm A34DS.45	
973 - 1022.5	3.60 - 5.90	307231	Bal 940mm A3610	765
	5.90 - 8.16	307232	Bal 940mm A3620	
	8.16 - 10.40	307233	Bal 940mm A3630	
	10.40 - 13.60	307234	Bal 940mm A3640	
	13.60 - 15.90	307235	Bal 940mm A3650	
	15.90 - 18.14	322695	Bal 940mm A36DS.40	
	18.14 - 20.40	307236	Bal 940mm A36DS.45	
1023 - 1073.5	4.08 - 6.30	307237	Bal 990mm A3810	815
	6.30 - 8.60	307238	Bal 990mm A3820	
	8.60 - 10.90	307239	Bal 990mm A3830	
	10.90 - 13.60	307795	Bal 990mm A3840	
	13.60 - 15.90	307241	Bal 990mm A3850	
	15.90 - 18.14	322699	Bal 990mm A38DS.40	
	18.14 - 20.40	307242	Bal 990mm A38DS.45	
1074 - 1124.5	4.08 - 6.30	307243	Bal 1041mm A4010	866
	6.30 - 8.60	307244	Bal 1041mm A4020	
	8.60 - 10.40	307245	Bal 1041mm A4030	
	10.40 - 13.60	307246	Bal 1041mm A4040	
	13.60 - 15.90	307247	Bal 1041mm A4050	
	15.90 - 18.14	322703	Bal 1041mm A40DS.40	
	18.14 - 20.40	307248	Bal 1041mm A40DS.45	
1125 - 1179	6.30 - 8.60	307249	Bal 1092mm A4220	917
	8.60 - 10.90	307250	Bal 1092mm A4230	
	10.90 - 13.60	307251	Bal 1092mm A4240	
	13.60 - 15.90	307252	Bal 1092mm A4250	
	15.90 - 18.14	323539	Bal 1092mm A42DS.40	
	18.14 - 20.40	307254	Bal 1092mm A42DS.45	

391 Double Hung Window

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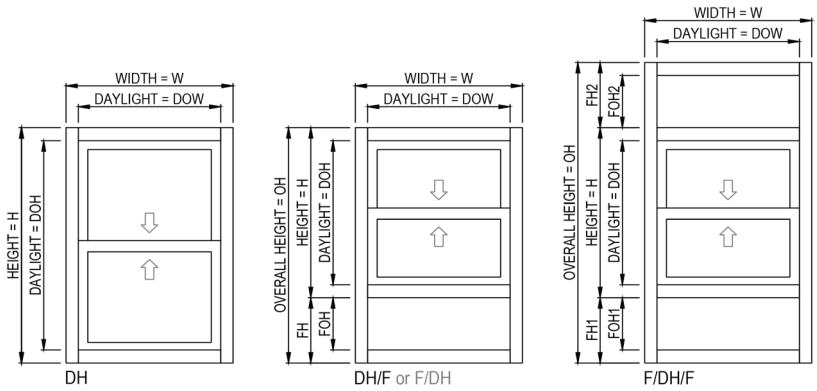
Cutting Formula and BOM - Double Hung



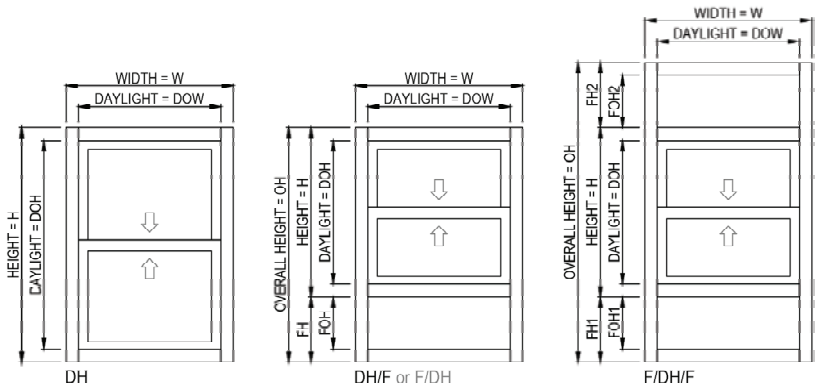
DAYLIGHT OPENING	
Description	Formula
Daylight Opening Height (DOH) - Double Hung	H - 100
Daylight Opening Height (FOH) - High or Low Light	FH - 35 or FH1 - 35 or FH2 - 35
Daylight Opening Width (DOW)	W - 70
Overall Width for multiple width configurations	SUM of DOW + (35 x (number of DOW + 1)) e.g. (600 + 800 + 600) + (35 x 4) = 2140

CUTTING FORMULAS					
	Description	Section SG	Section DG	Formula	Qty
HEIGHTS	Narrowline Reveal Frame	EP18378	EP18379	H or OH	2
	Narrowline Frame	EP2206	EP12852		
	Narrowline Pocketed Filler (Multiple W)	EP2207	EP12851		
	Jamb Adaptor	EP18463	EP18464	DOH	2
	Narrowline Flush Filler	EK5925	EP15702	DH HEAD/SILL = 50, TRANSOM = 38 FL HEAD/SILL = 15	4 0, 2 or 4
	Jamb Cap	EPD0097		Refer to Jamb Cap Formula Page	
	Track Cap (optional to restrict sash)	EPD0102		DOH / 2 - 63 - desired opening*	2 or 4
	Jamb Channel (option when no screen)	EK9149		DOH + 26	2
	Rail	EPD0103	EPD0141	DOH / 2 + 33	4

* used with half of 75mm Bumper. For no opening (without bumper) add 37.5mm to cut length

CUTTING FORMULAS				DH	DH/F or F/DH	F/DH/F
	Description	Section SG	Section DG	Formula	Qty	Qty	Qty
WIDTHS	Head	EP18465		DOW	1	1	1
	Sill	EP18466		DOW	1	1	1
	Narrowline Reveal Sill	EP18376	EP18377	DOW		1	2
	Narrowline Sill	EP2205	EP12583				
	Narrowline Pocket Filler	EP2207	EP12851	DOW		1	2
	Narrowline Bead	EU9182	EP14726	DOW		1	2
	Fixing Adaptor (optional with no reveal frame)	E35769		DOW	2	2	2
	Sub Sill	EP1285		Building Opening Width	Optional	1	1
	Reveal Sub Sill	EP9487					
	Handle Rail	EPD0099	EPD0142	DOW - 51	2	2	2
	Rail	EPD0103	EPD0141	DOW - 51	2	2	2
	Sash Cap - Top rails of each sash	EPD0097		DOW - 81	2	2	2
	Sash Cap - Bottom rail of each sash			DOW - 51	2	2	2
	OPTIONAL						
	Stiffener	ED8610		DOW - 87	1	1	1
	Stiffener Filler	ED8611		DOW - 87	1	1	1

Cutting Formula and BOM - Double Hung



CUTTING FORMULAS				DH	DH/F or F/DH	F/DH/F
GLASS	Description		Formula	Qty	Qty	Qty
	Sash Glass	Height	DOH / 2 - 33	2	2	2
		Width	DOW - 117			
	Fixed Glass	Height	DOH + 16		1	2
		Width	DOW + 16			

SCREEN	Description		Formula	Qty	Qty	Qty
	Screen	Height	DOH + 25	1	1	1
		Flyscreen Width	DOW - 57			
		Security Screen Width	DOW - 51			

BILL OF MATERIALS				DH	DH/F or F/DH	F/DH/F
COMPONENTS	Description	Part No.	UOM*	Qty^	Qty^	Qty^
	Glazing Channel	Ref. Sec3	mm	2DOH + 4DOW		
	Glazing Wedge	Ref. Sec3	mm		4FOH + 4DOW	8FOH + 8DOW
	Setting Block	317385	each		2 or 3	4 or 6
	Fin Seal	307393	mm	8DOH + 6DOW		
	Hi Fin Seal	302272	mm	2DOW		
	Bumper Block 75mm	314907	each	4		
	Bumper Block 75mm - cut in half for restricted sa	314907	Half of each			
	Sill Flashing	300047	mm	W		
	Sill Baffle	300027	mm	DOW		
	Drain Valve	309330	each		F/DH = 2	2
	Jamb Adaptor End Cap	Ref. Sec3	pair	2		
	Sill Gasket	322150	each	2		
	Head Gasket	322149	each	2		
	300 Sill Gasket	321146	each		2	4
	325 Sill Gasket	321148	each			
	10g x 25mm PAN Screw - Frame	300059	each	10	14 (18♦)	18 (22♦)
	6g x 13mm CSK Screw - Latch Keeper	310549	each	2		
	8g x 25mm CSK Screw - Latch	300671	each	2		
	Take Off Clips	307342	each	4		
	Latch	Ref. Sec3	each	1		
	Rubber Grommet	306961	each	6		
	Corner Spigot	307155	each	8		
	Sash Balance	Ref. Sec3	pair	2		
	Flyscreen Clip (not req for Security Screen)	319621	each	2		
	Stiffener End Cap (optional stiffener only)	311833	pair	1		
	8g x 15mm PAN Screw - Stiffener	301086	each	300 CTRS		
	DH Component Kit	319732	Set	1		
	12.4mm Corner Cleat	Part of 319732	each	16		
	Balance Cam Locator		each	4		
	LH Sash End Cap		each	2		
	RH Sash End Cap		each	2		
	Terminal Clip Bracket		each	4		
	Take Off Clip Bracket		each	4		

^ Part Number may not reflect Unit of Measure (UOM) ♦ Use with DG Frame

Please read in conjunction with Important Conditions – Index (also available on Capral website)

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Cutting Formula - Jamb Cap

Not To Scale

DETAILS TO BE USED IN CONJUNCTION WITH ALL CUTTING LISTS

SASH BALANCE INFORMATION & OC1 / OC2 VALUES

Knowing the required sash balance for the configuration is necessary to determine the cutting lengths of Jamb Cap EPD0097. Refer to the following steps;

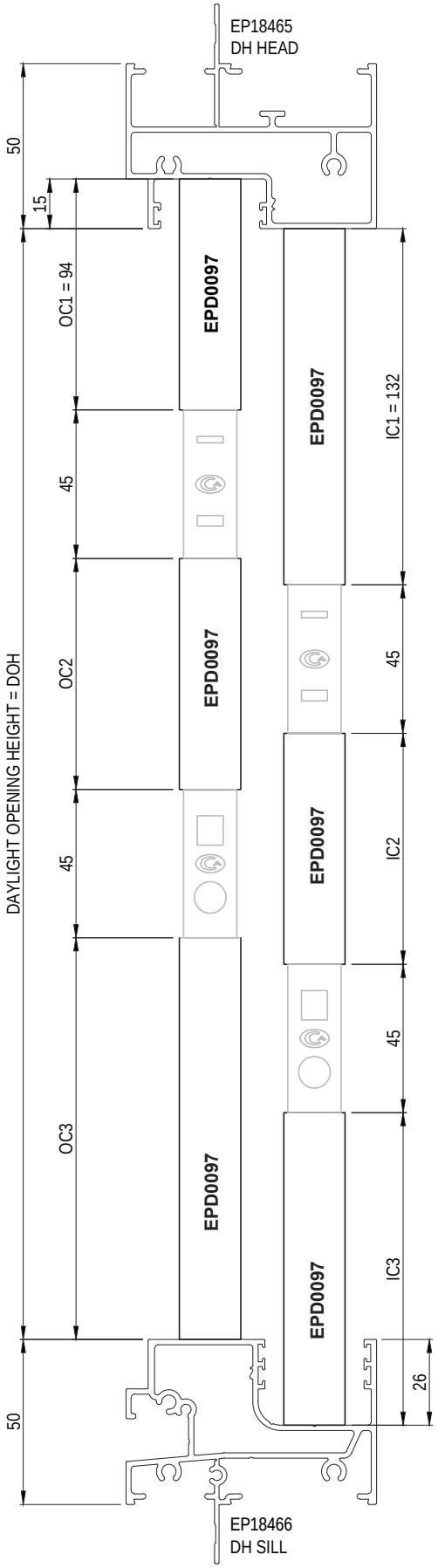
1) Determine the required Sash Balance by establishing the weight of the resultant fully assembled sash.

2) Look up the specified Sash Balance in the 'Sash Balance Selection Chart' and obtain the corresponding OC2 & IC2 values.

3) Use the OC2 & IC2 values to calcualte the cutting lengths of Jamb Cap EPD0097 below.

EPD0097		CUTTING LENGTH FORMULA
OC1	=	94
OC2	=	Refer to Balance Selection Chart
OC3	=	DOH - 169 - OC2
IC1	=	132
IC2	=	Refer to Balance Selection Chart
IC3	=	DOH - 196 - IC2

LEGEND:
H = Frame Height
IC = Inside Jamb Cap (EPD0097)
OC = Outside Jamb Cap (EPD0097)



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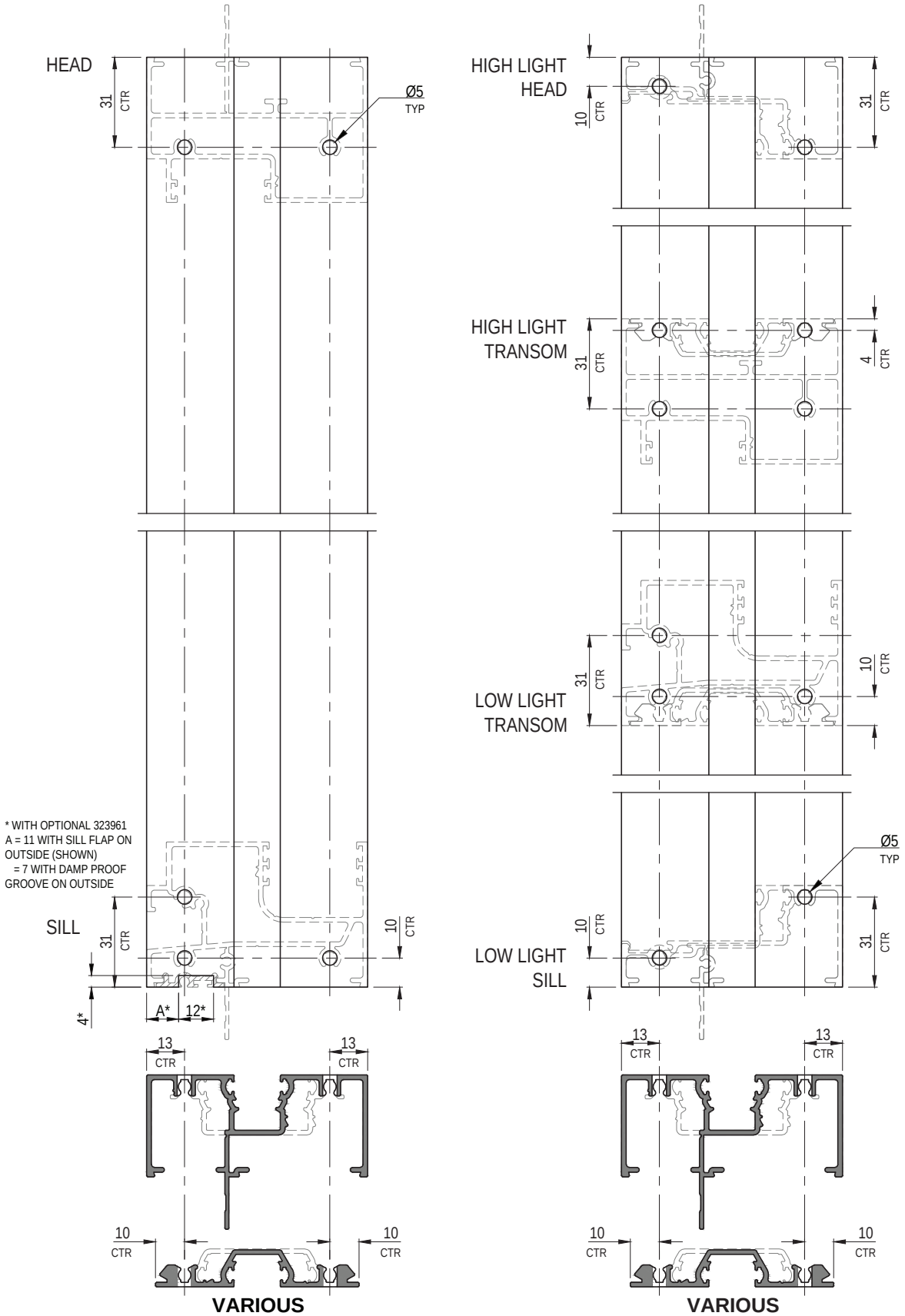
Machining - Frame

Scale 1:2



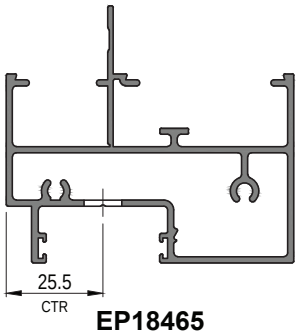
VARIOUS
76mm NARROWLINE FRAMES &
POCKETED FILLERS

VARIOUS
76mm NARROWLINE FRAMES &
POCKETED FILLERS

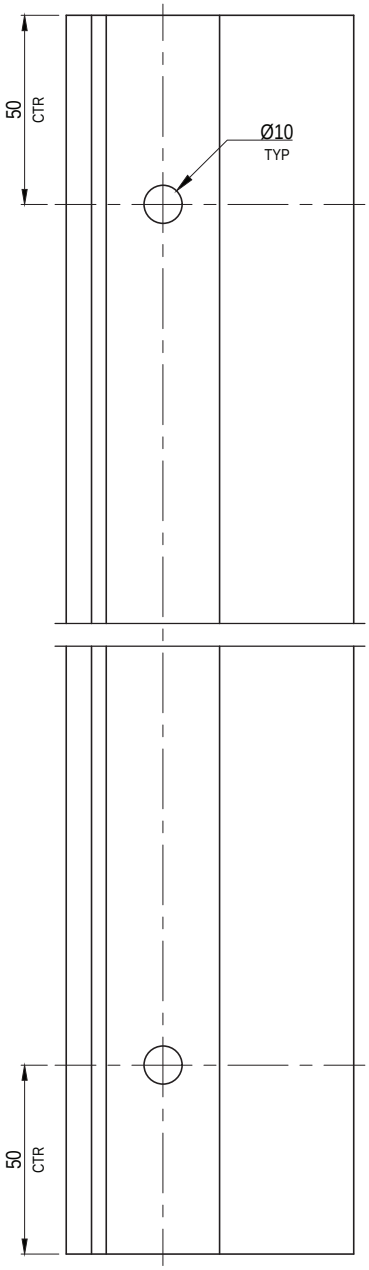
Please read in conjunction with Important Conditions – Index (also available on Capral website)

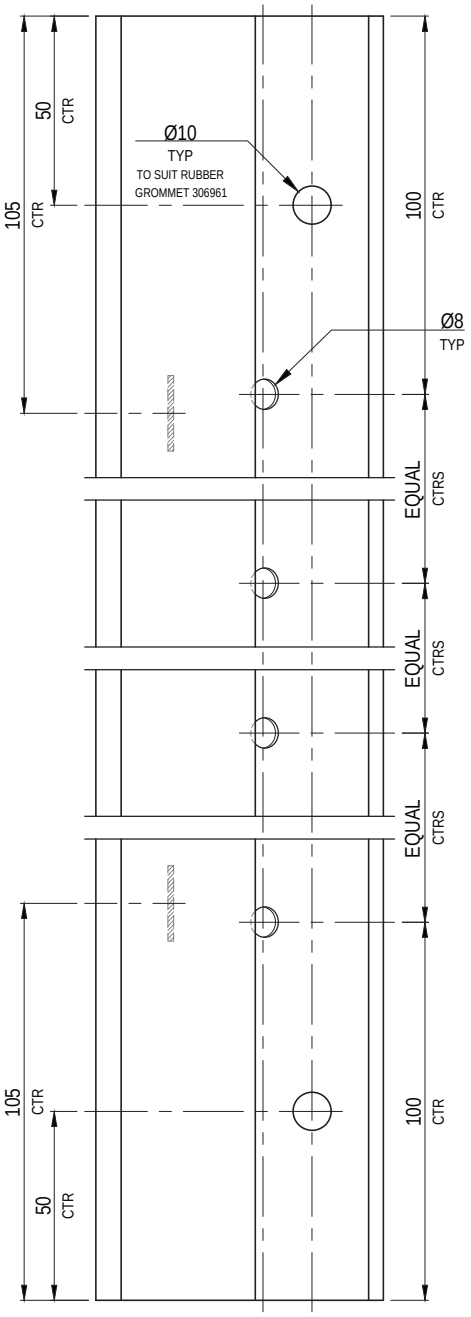
Machining - Head & Sill Drainage

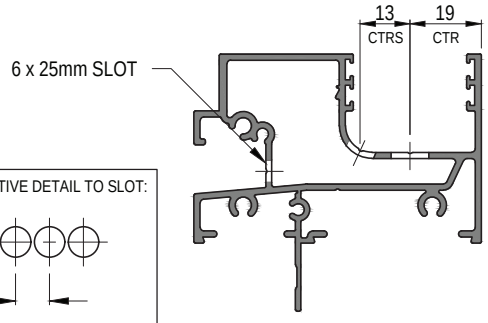
Scale 1:2



EP18465
HEAD
TO SUIT RUBBER GROMMET 306961







ALTERNATIVE DETAIL TO SLOT:

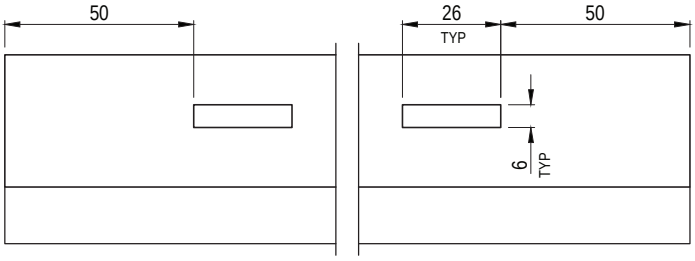
CTRS TYP
3 x Ø8.00mm DRILLED HOLES

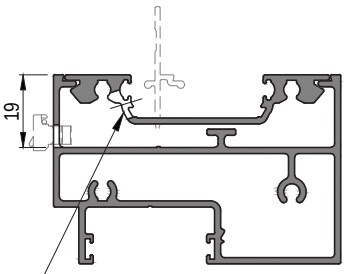
EP18466
SILL / TRANSOM

urbanplus DESIGNER RESIDENTIAL

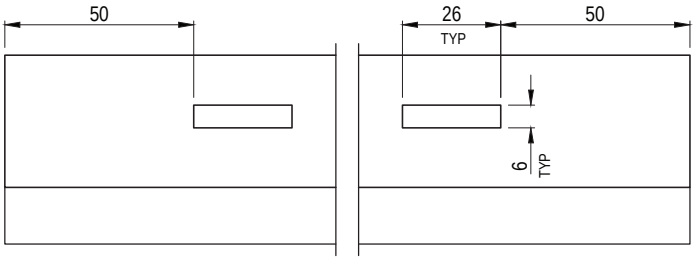
Machining - High Light Transom & F/L Sill Drainage

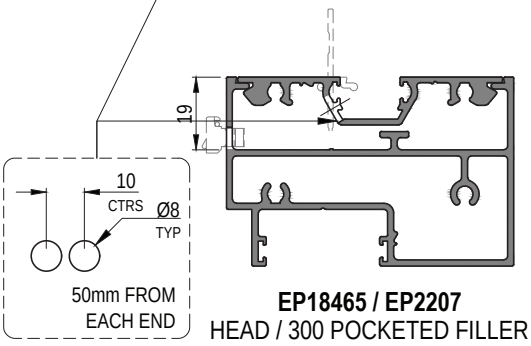
Scale 1:2



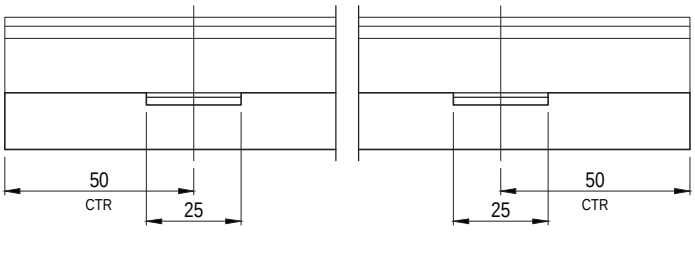


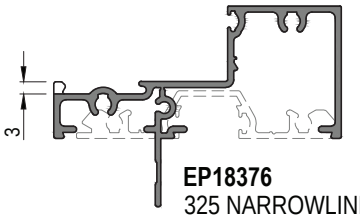
EP18465 / EP12851
HEAD / 325 POCKETED FILLER
OUTSIDE SLOT TO SUIT 309330



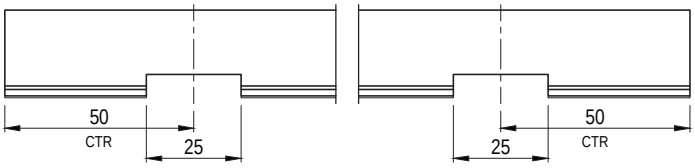


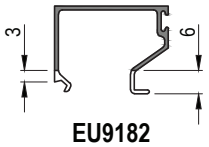
EP18465 / EP2207
HEAD / 300 POCKETED FILLER
OUTSIDE SLOT TO SUIT 309330



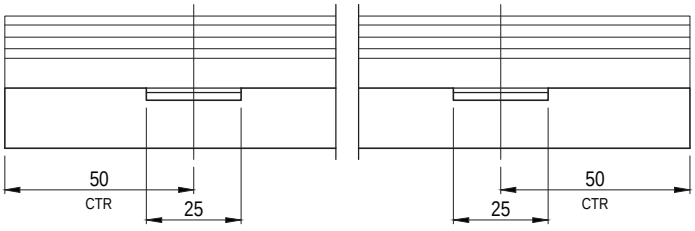


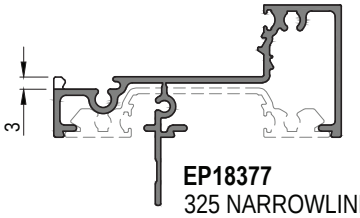
EP18376
325 NARROWLINE SILL



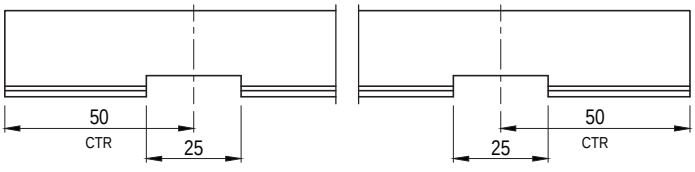


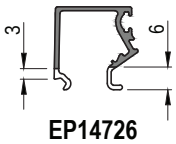
EU9182
300 NARROWLINE BEAD





EP18377
325 NARROWLINE SILL

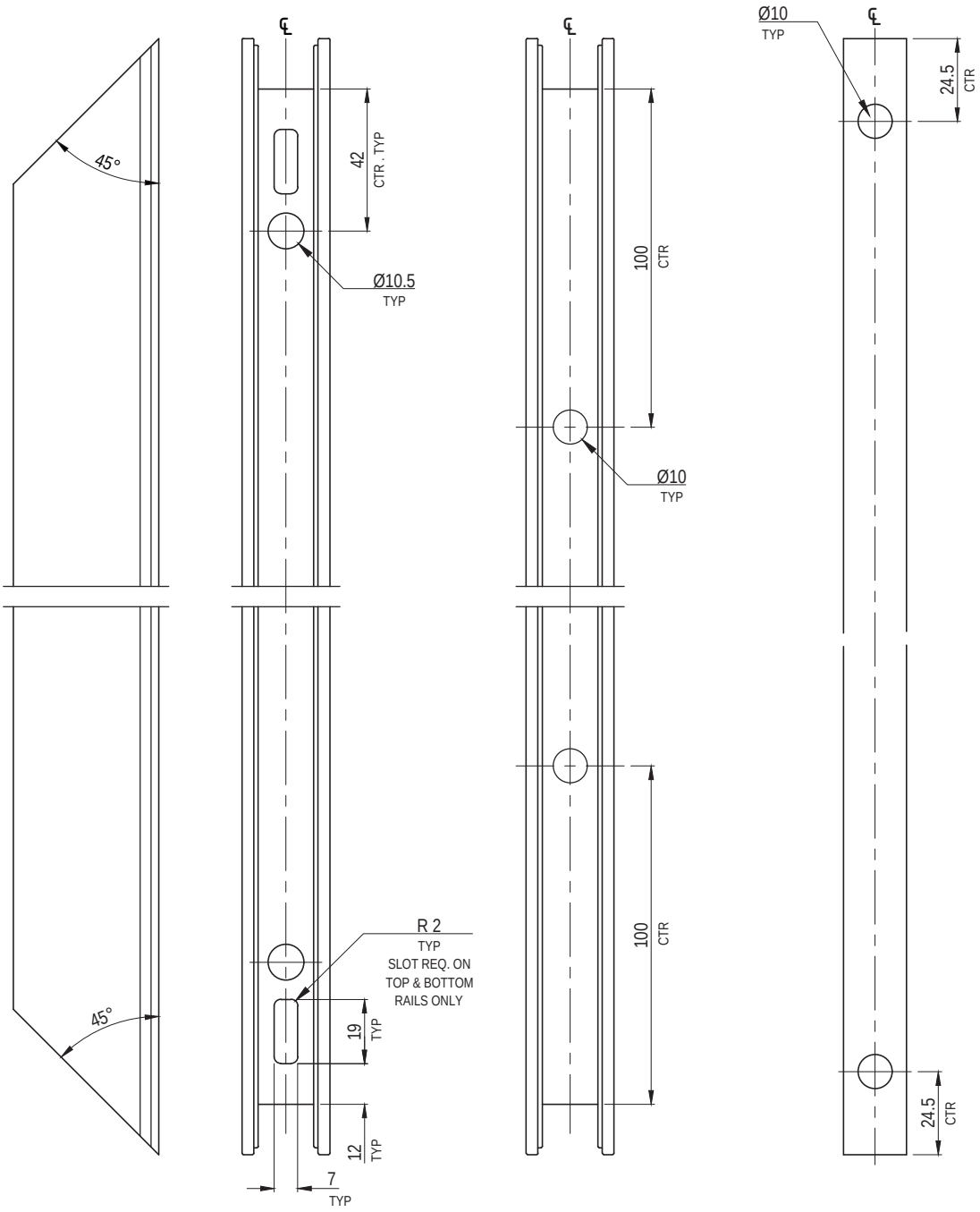


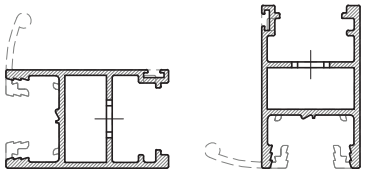


EP14726
325 NARROWLINE BEAD

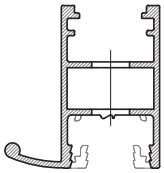
Machining - Rails & Sash Cap

Scale 1:2





EPD0103 . EPD0141
EPD0099 . EPD0142
SG . DG RAILS

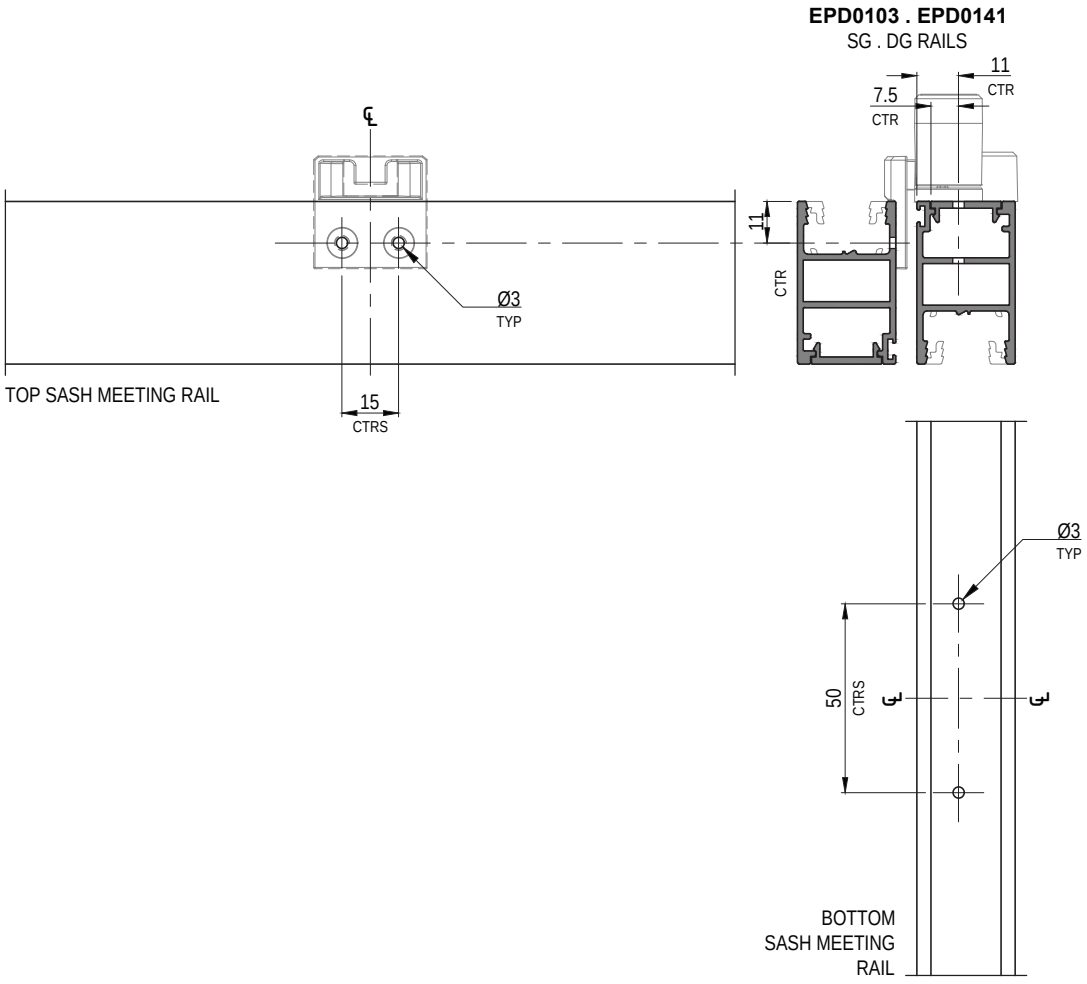


EPD0099 . EPD0142
BOTTOM RAIL

EPD0097
SASH CAP
TO SUIT RUBBER GROMMET 306961
BOTTOM OF BOTTOM SASH ONLY

Machining - Latch

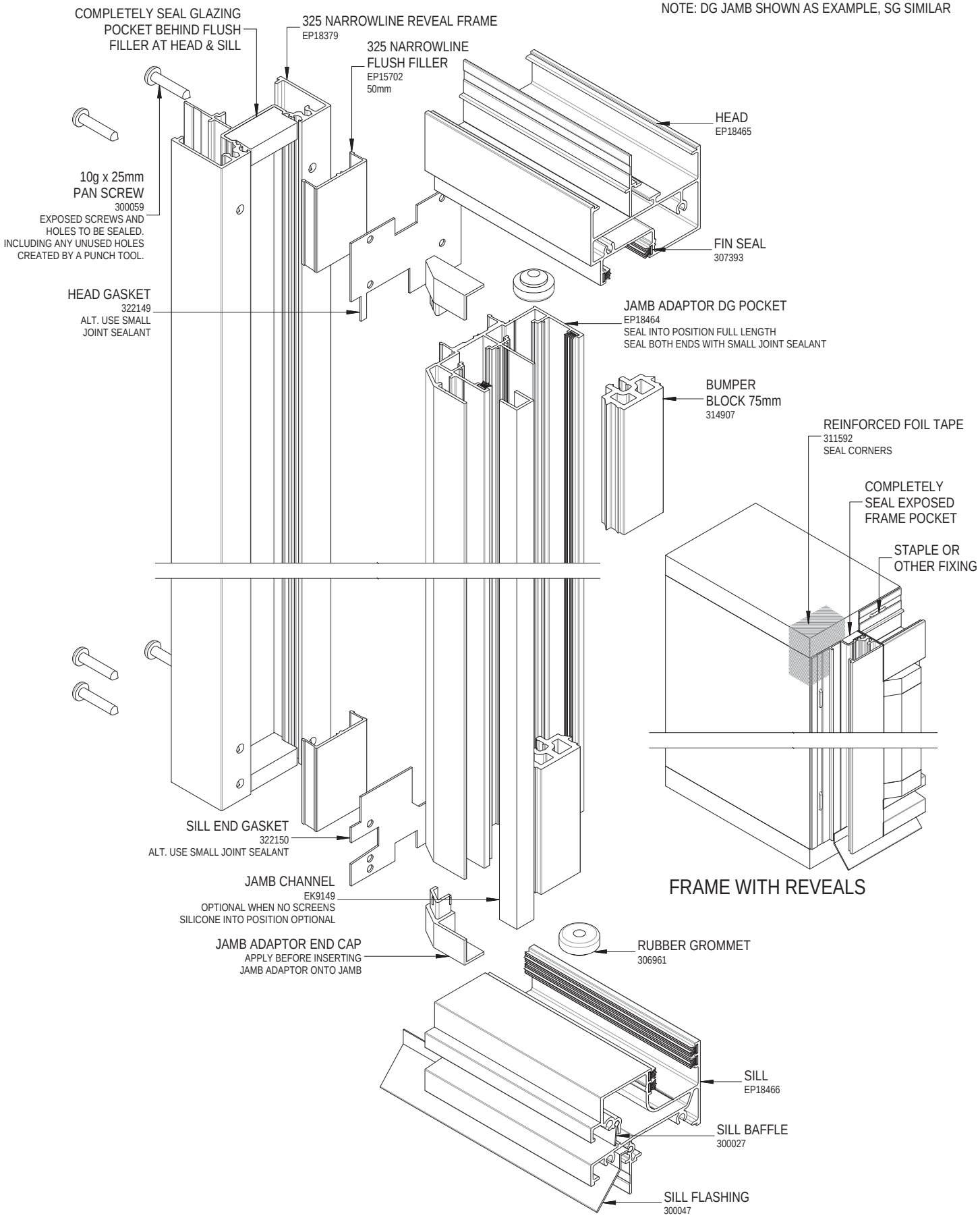
Scale 1:2



Assembly - Frame

Not To Scale

NOTE: DG JAMB SHOWN AS EXAMPLE, SG SIMILAR

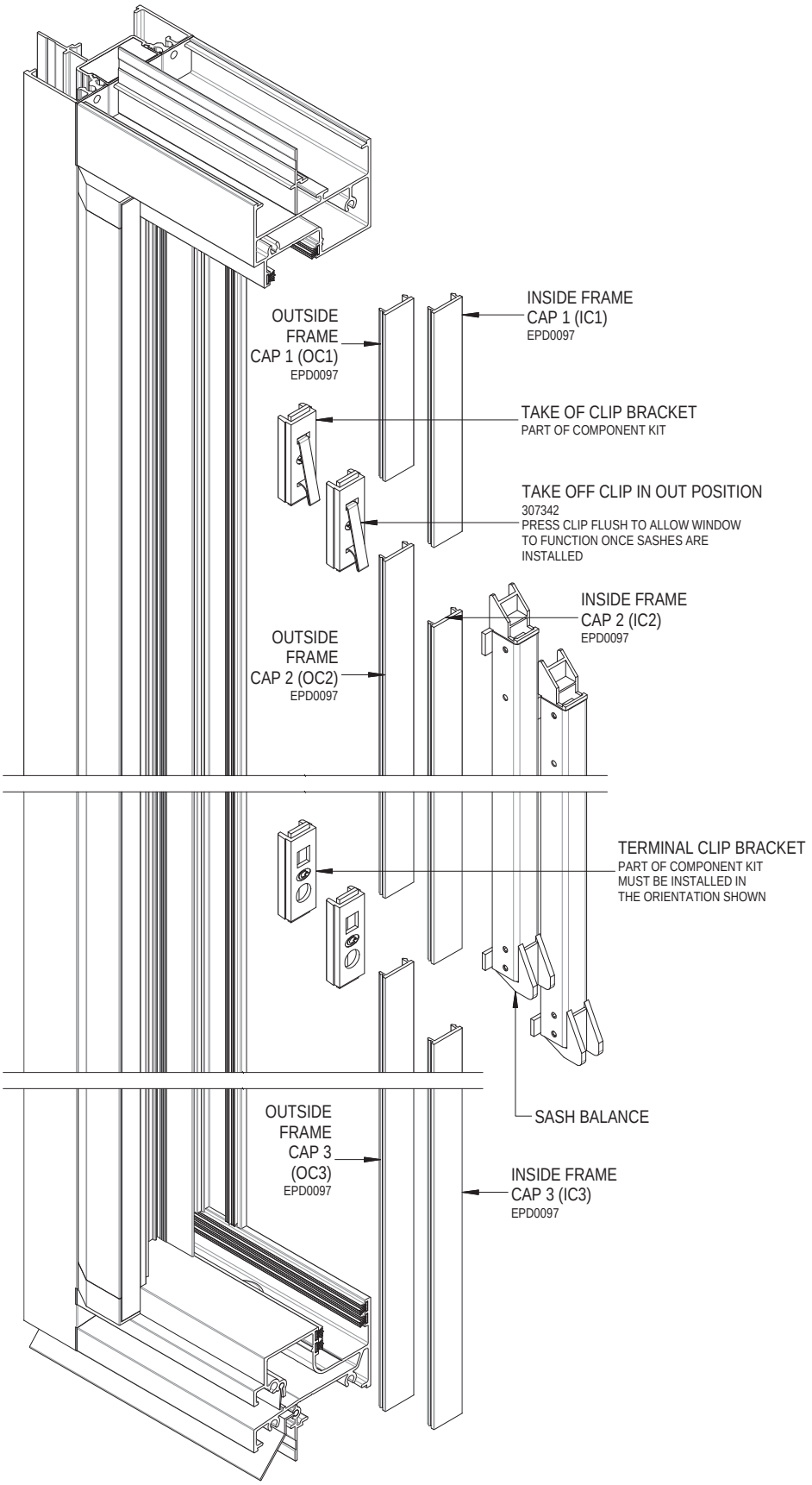


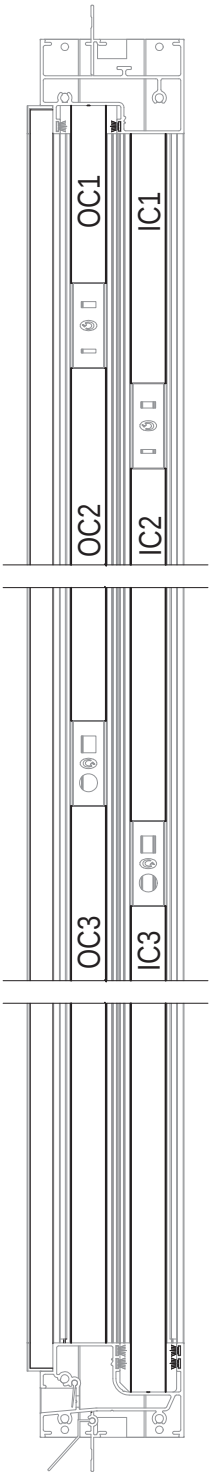
FRAME WITH REVEALS

Please read in conjunction with Important Conditions – Index (also available on Capral website)

Assembly - Sash Balance

Not To Scale





FRAME CAPS
EPD0097

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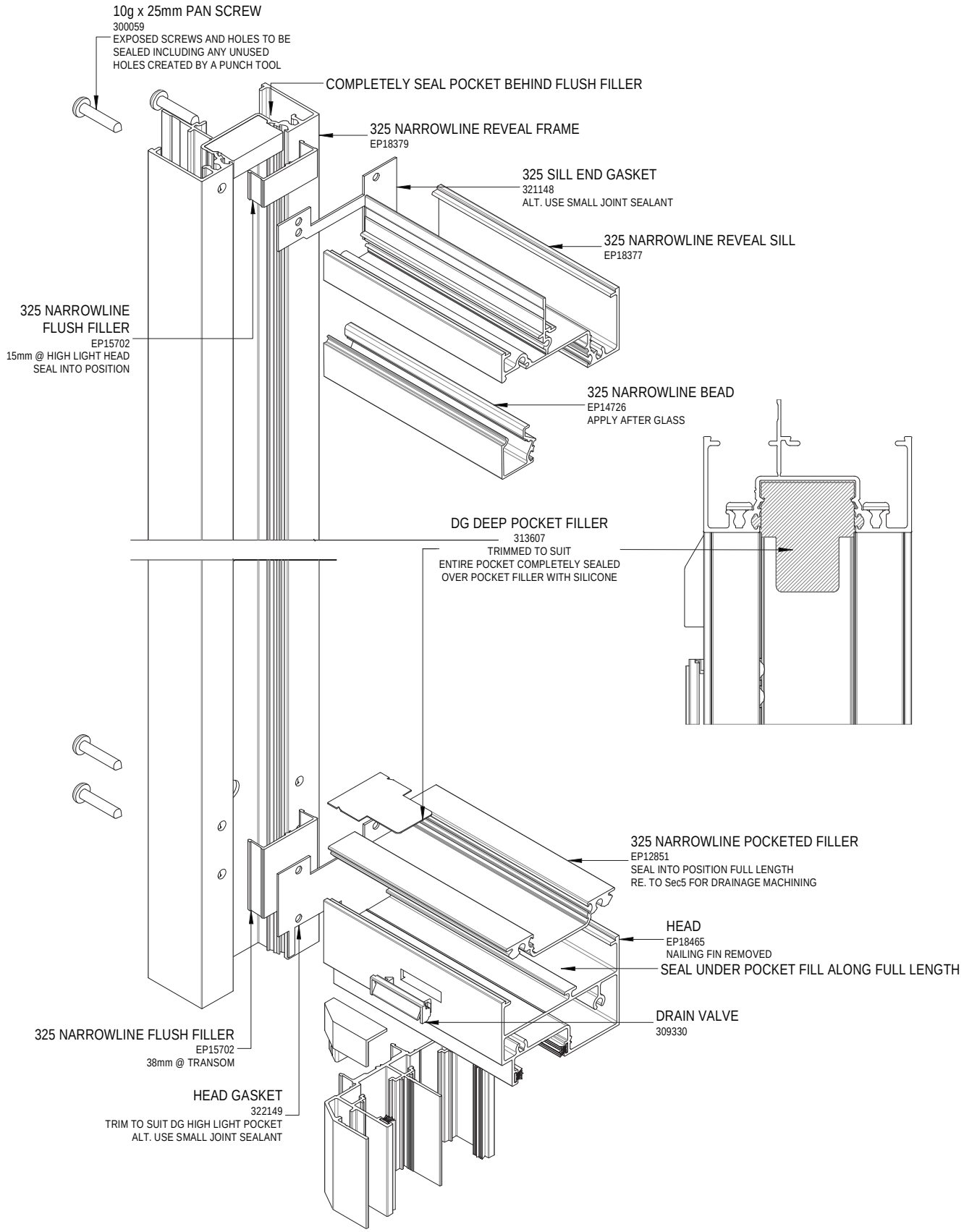
Assembly - High Light Frame

Not To Scale

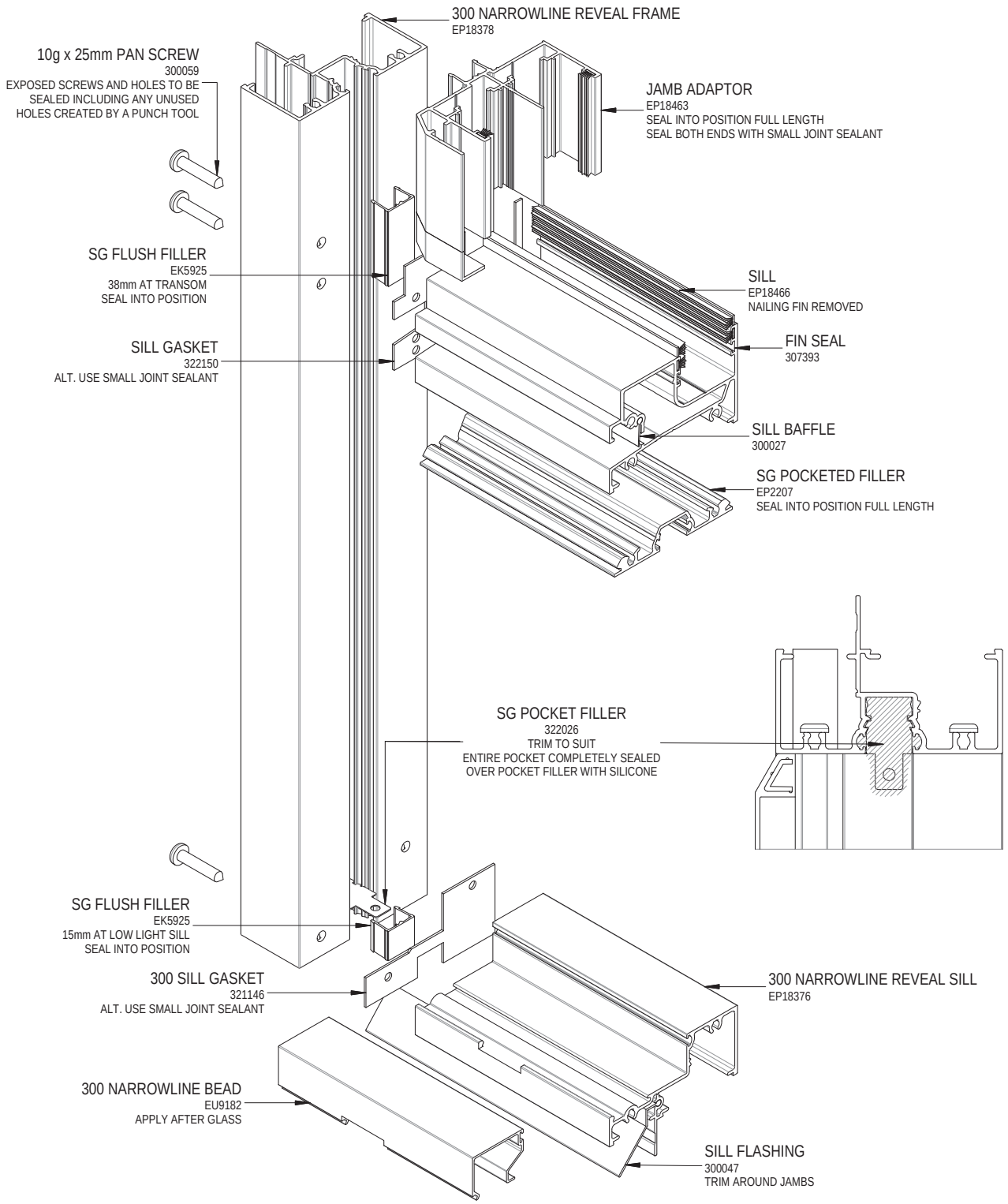
NOTE: DG FRAME SHOWN AS EXAMPLE, SG SIMILAR



Assembly - Low Light

Not To Scale

NOTE: SG SHOWN AS EXAMPLE, DG SIMILAR



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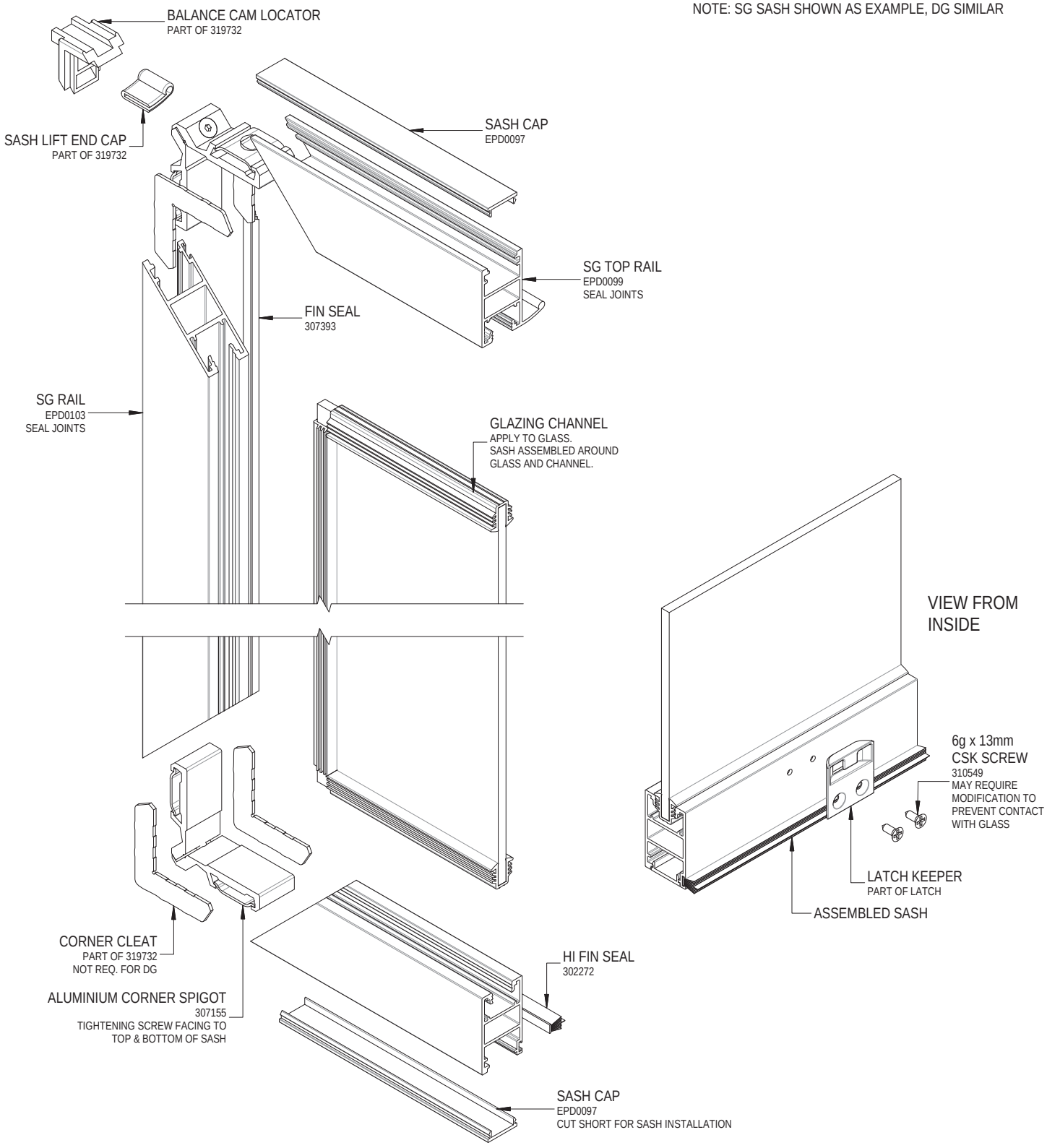
Assembly - Top Sash

Not To Scale

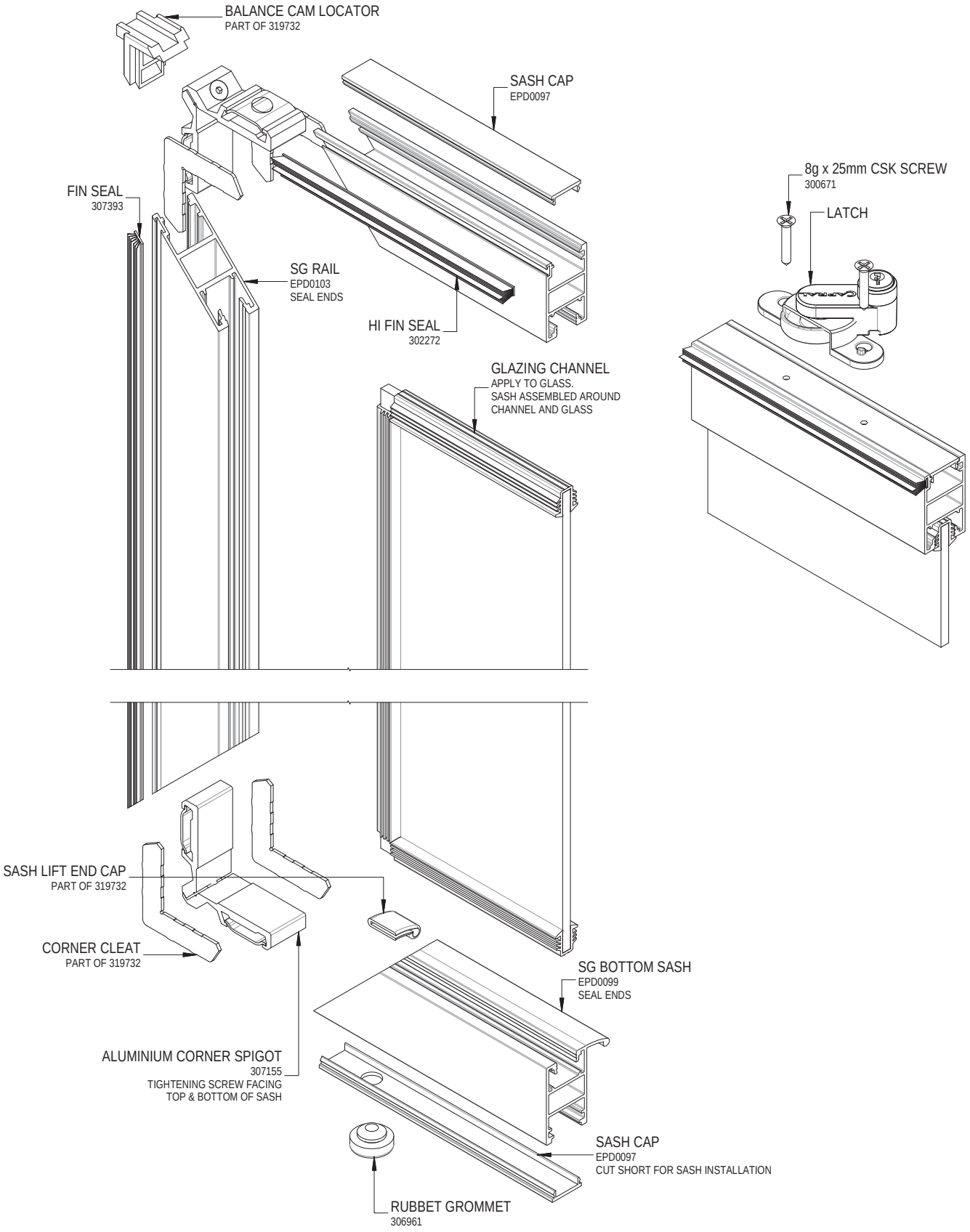
NOTE: SG SASH SHOWN AS EXAMPLE, DG SIMILAR



Assembly - Bottom Sash

Not To Scale

NOTE: SG SASH SHOWN AS EXAMPLE, DG SIMILAR



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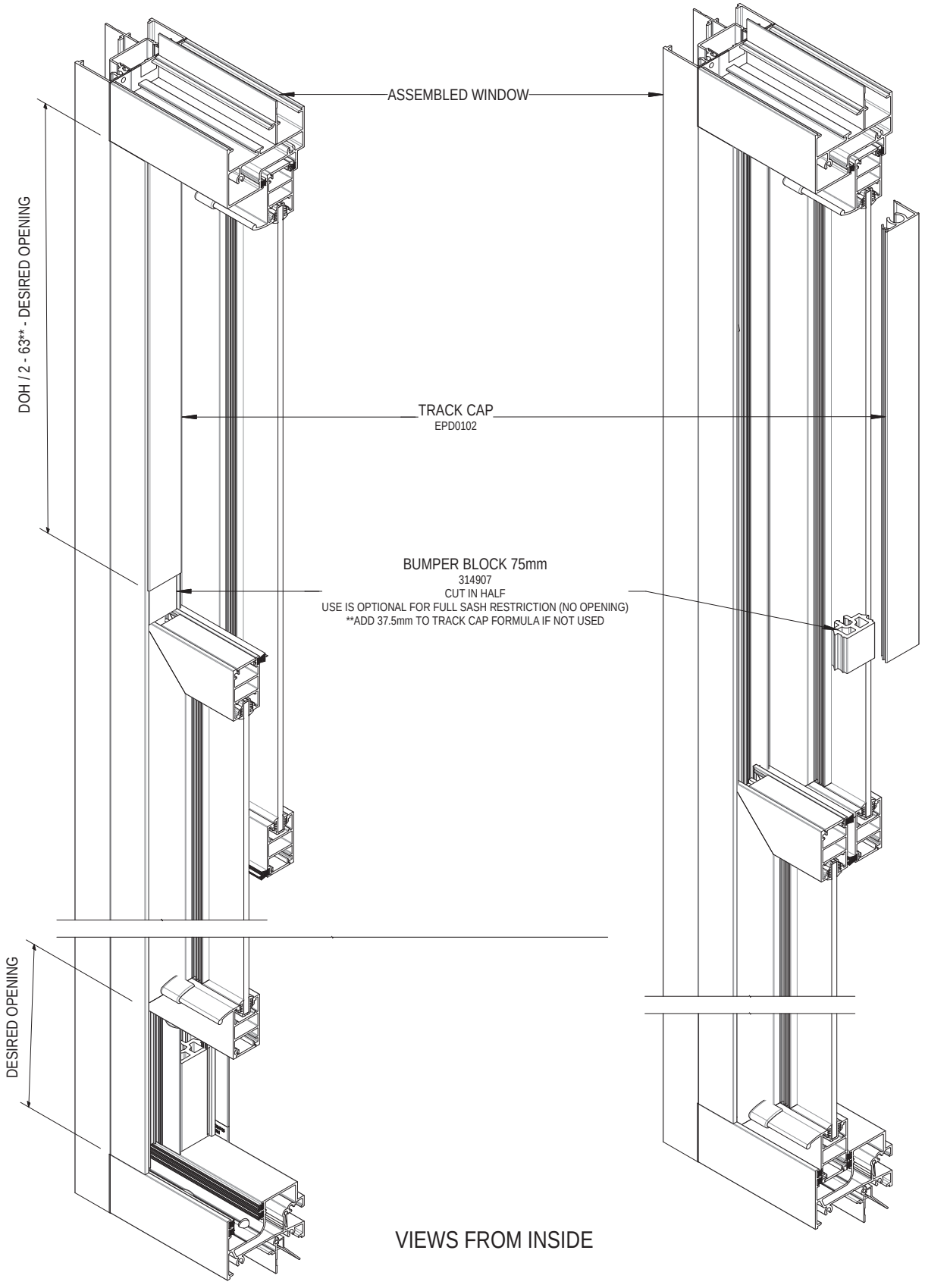
Assembly - Sash Restriction

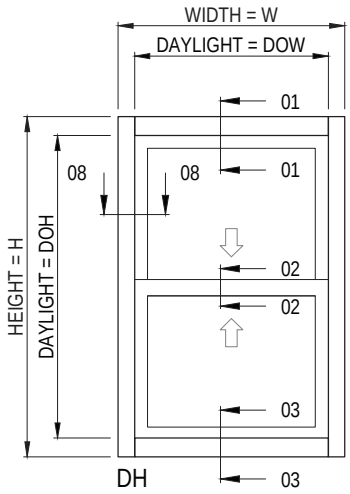
Not To Scale

NOTE: BOTTOM SASH RESTRICTION SHOWN AS EXAMPLE, TOP SASH SIMILAR

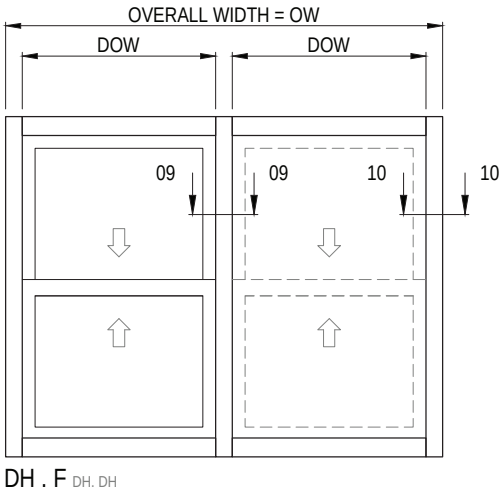


Configurations

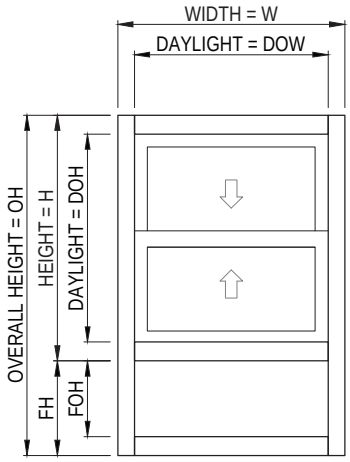
Not To Scale



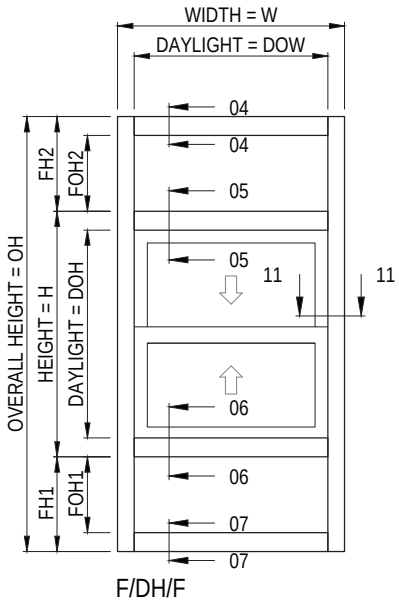
DH



DH . F DH. DH



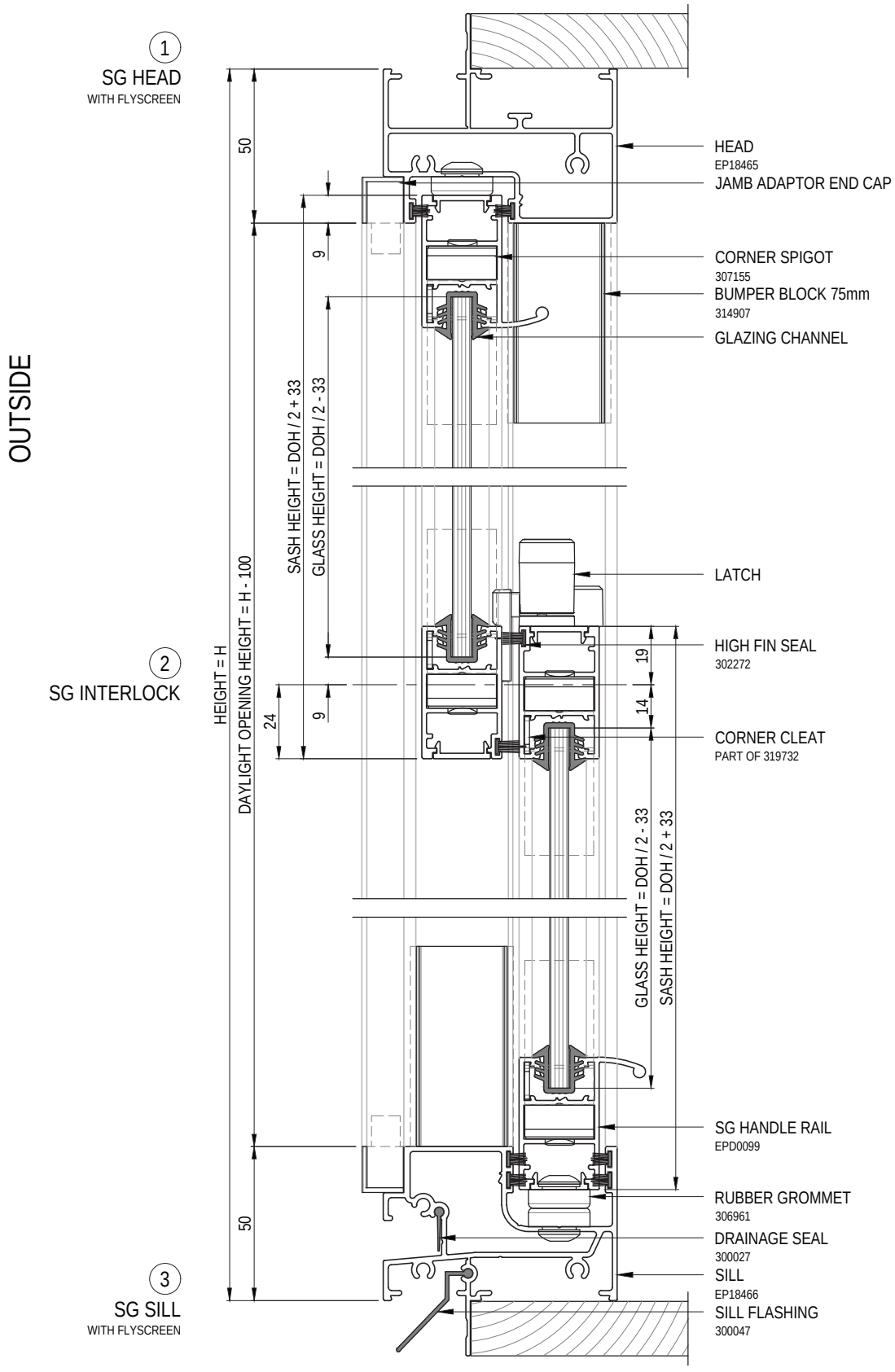
DH/F or F/DH



F/DH/F

Vertical Arrangement 01, 02 & 03 - SG Double Hung

Scale 1:2



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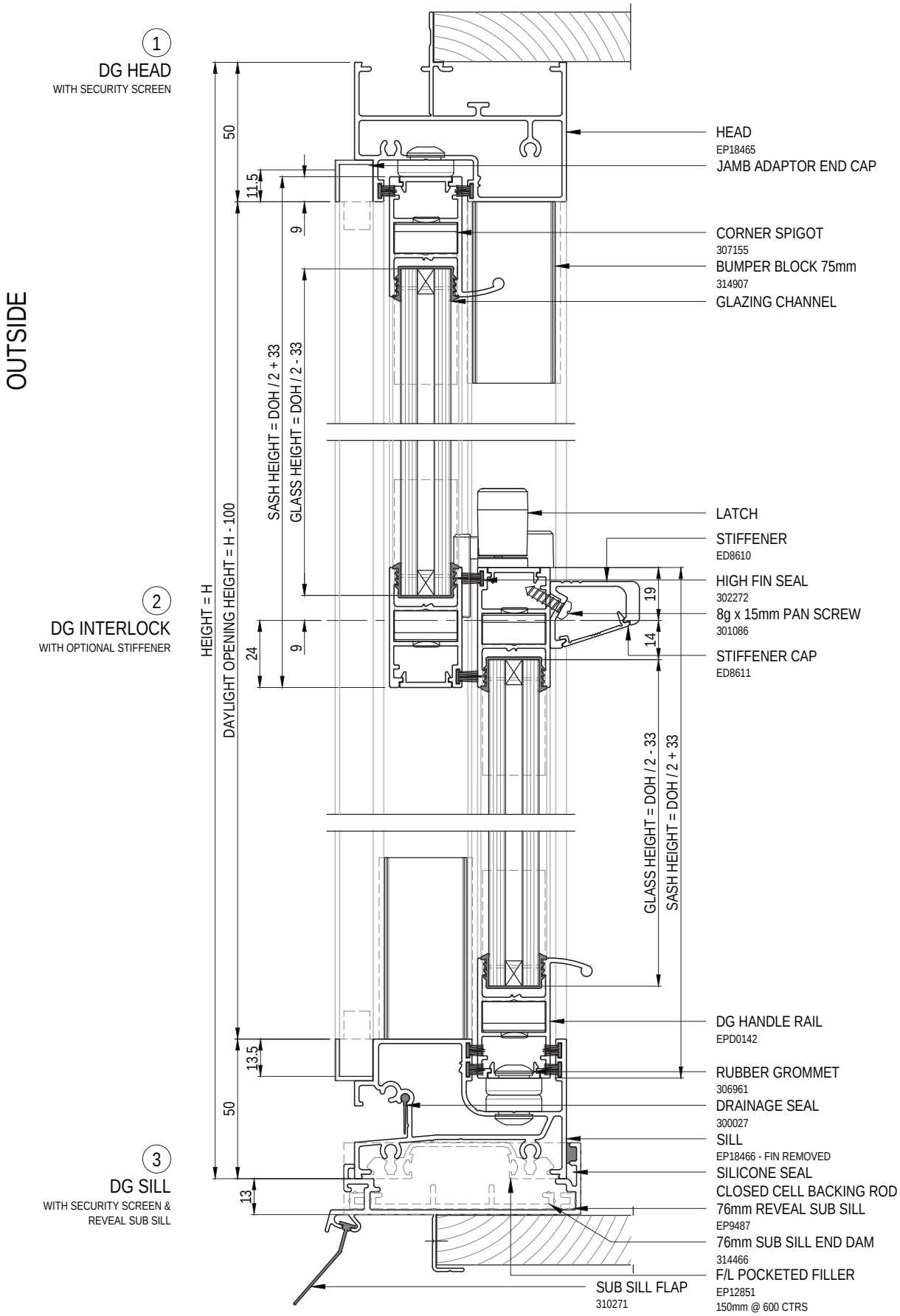
Vertical Arrangement 01, 02 & 03 - DG Double Hung

Scale 1:2

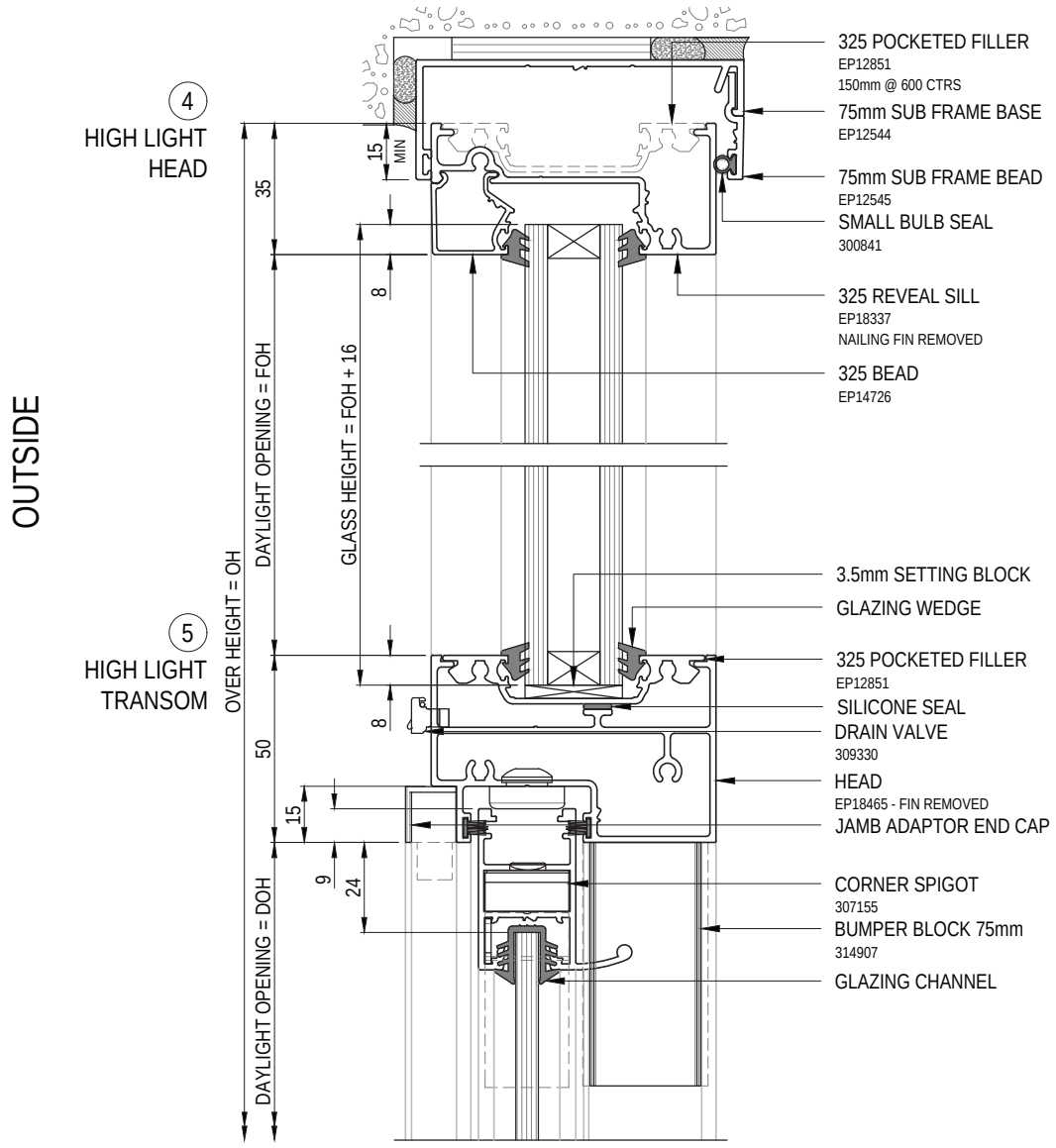
NOTE: SUB SILL REQUIRED WITH HIGH AND/OR LIGHTS BUT OTHERWISE OPTIONAL



Vertical Arrangement 04 & 05 - High Light Head & Transom

Scale 1:2

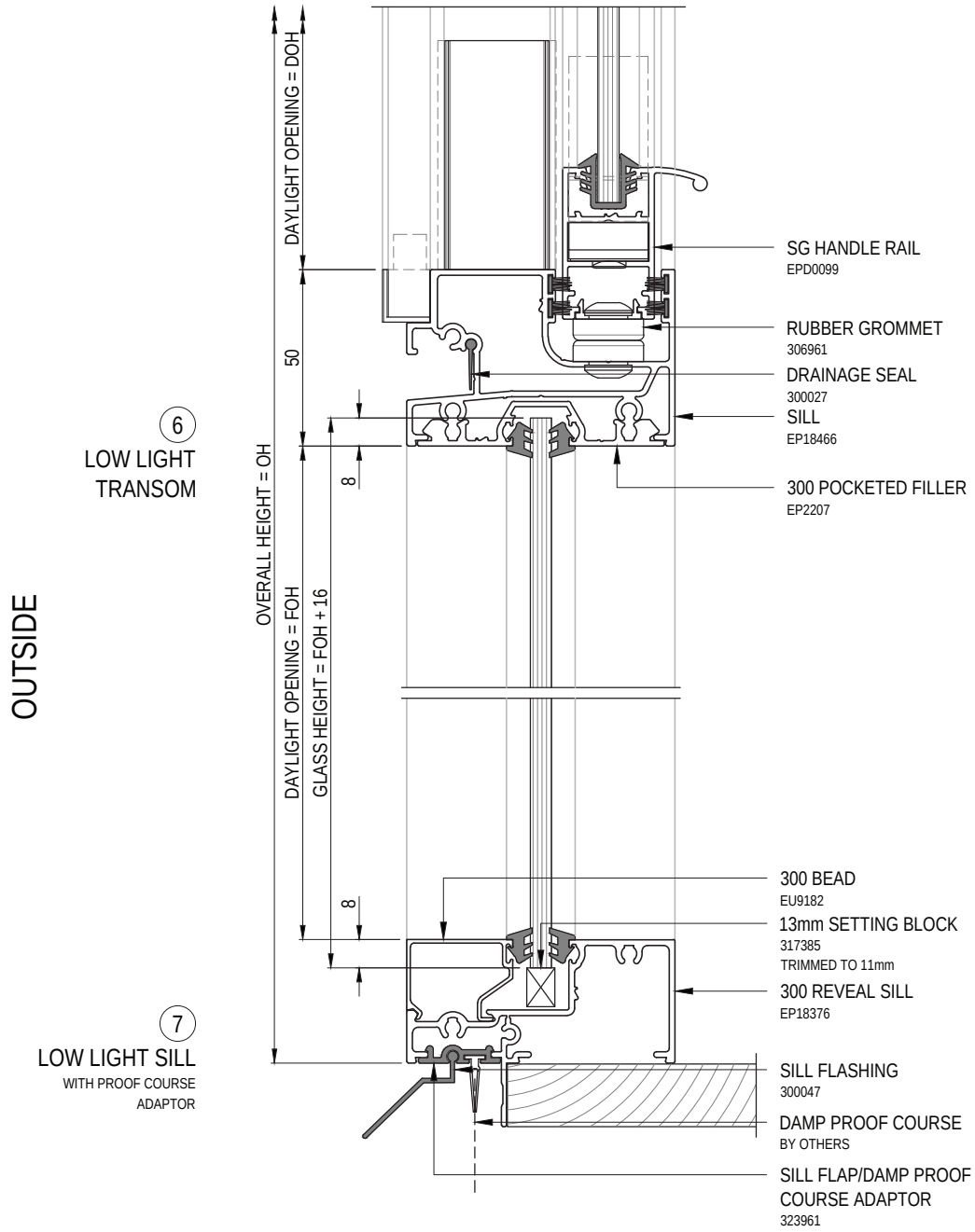
NOTE: DG SHOWN AS EXAMPLE, SG SIMILAR



Vertical Arrangement 06 & 07 - Low Light Transom & Sill

Scale 1:2

NOTE: SG SHOWN AS EXAMPLE, DG SIMILAR

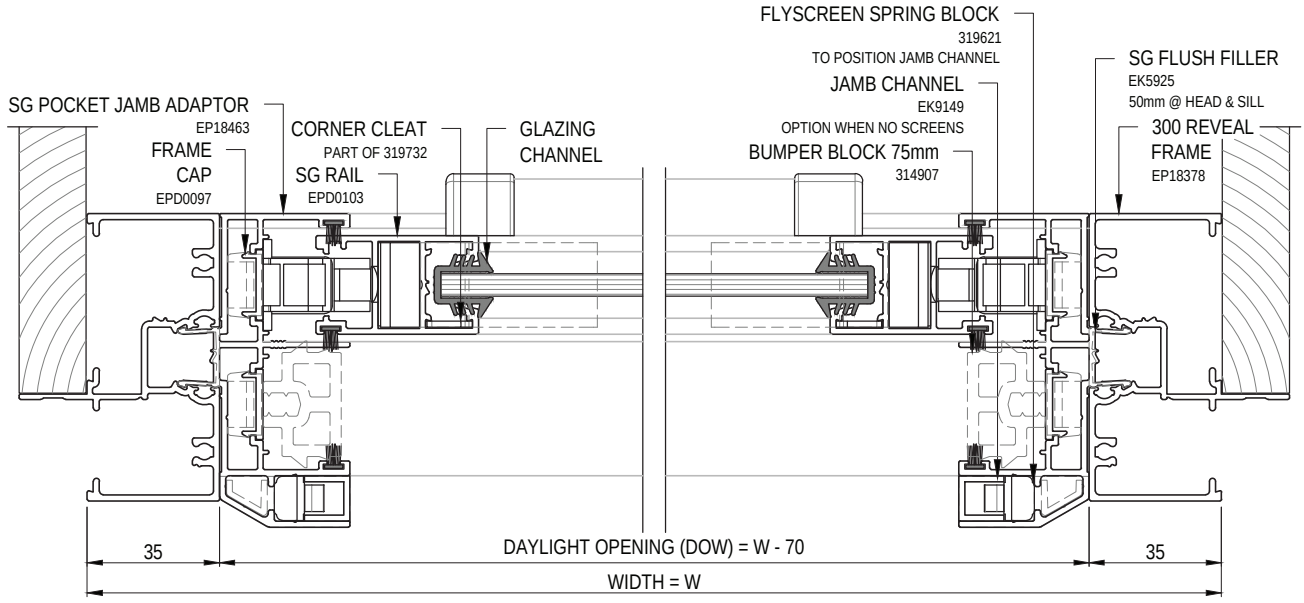


Horizontal Arrangement 08 & 11 - Jambs & High Light Jambs

Scale 1:2

(8) SG JAMB

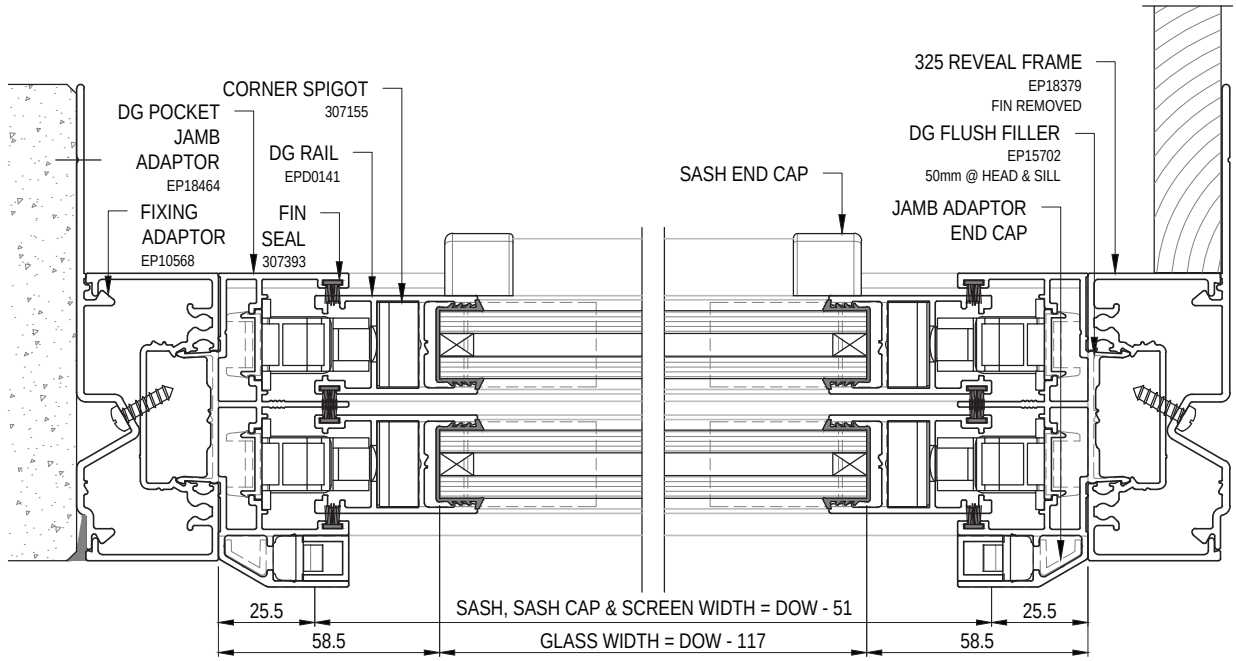
(8) SG JAMB



OUTSIDE

(11) DG JAMB
WITH FIXING ADAPTOR

(11) DG JAMB
WITH INLINE REVEAL



OUTSIDE

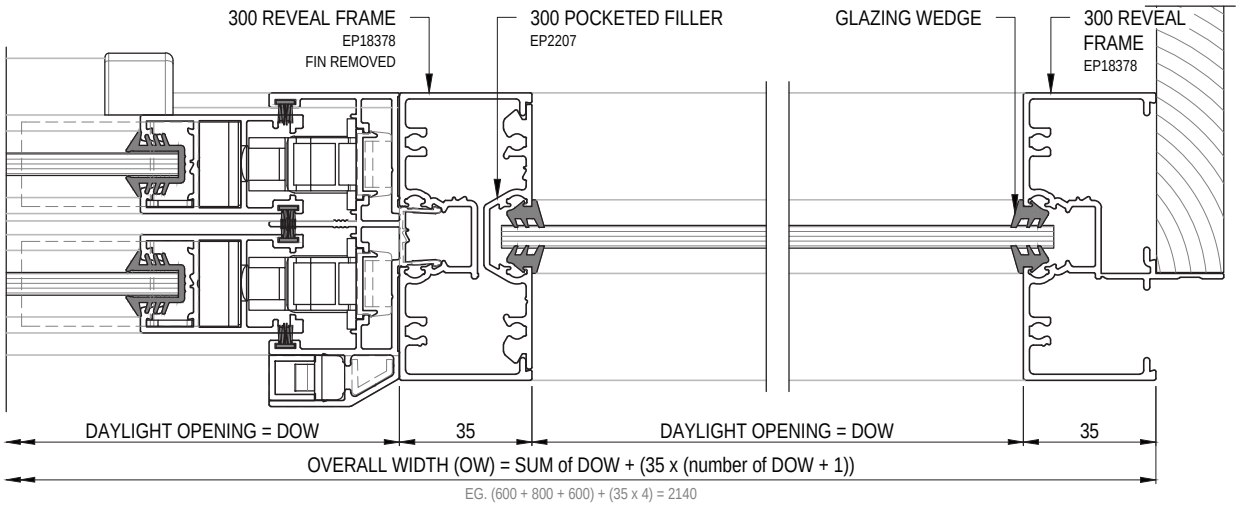
urbanplus™ DESIGNER RESIDENTIAL

Horizontal Arrangement 09 & 10 - Mullions & Side Light Jamb

Scale 1:2

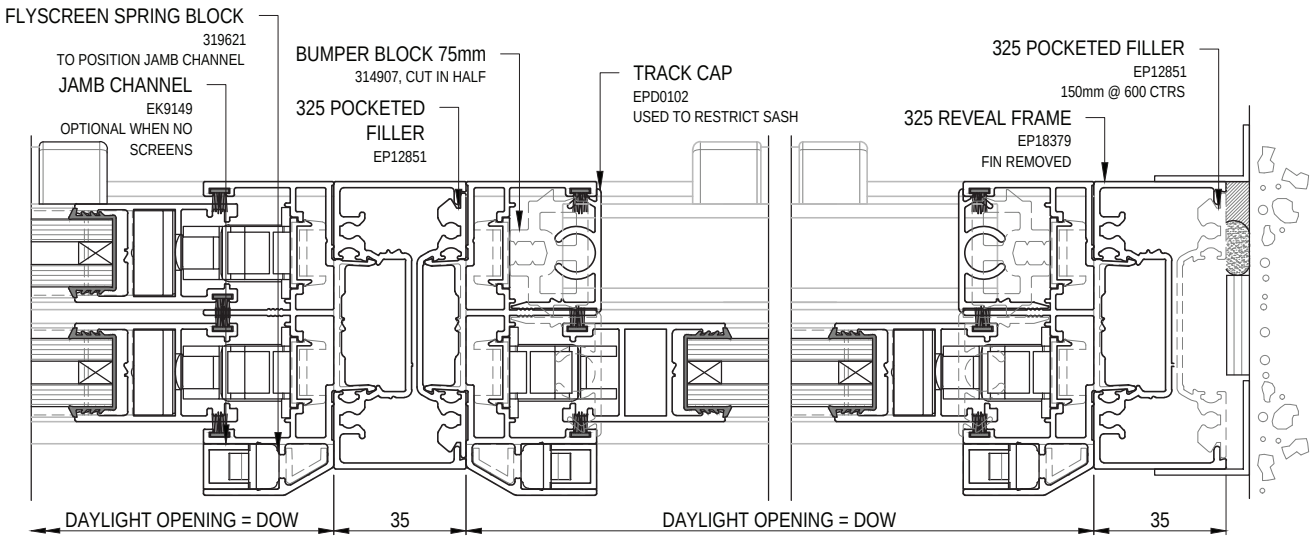
(9) SG SIDE LIGHT MULLION

(10) SG FIXED JAMB



(9) DG DOUBLE HUNG MULLION
WITH NO SCREEN

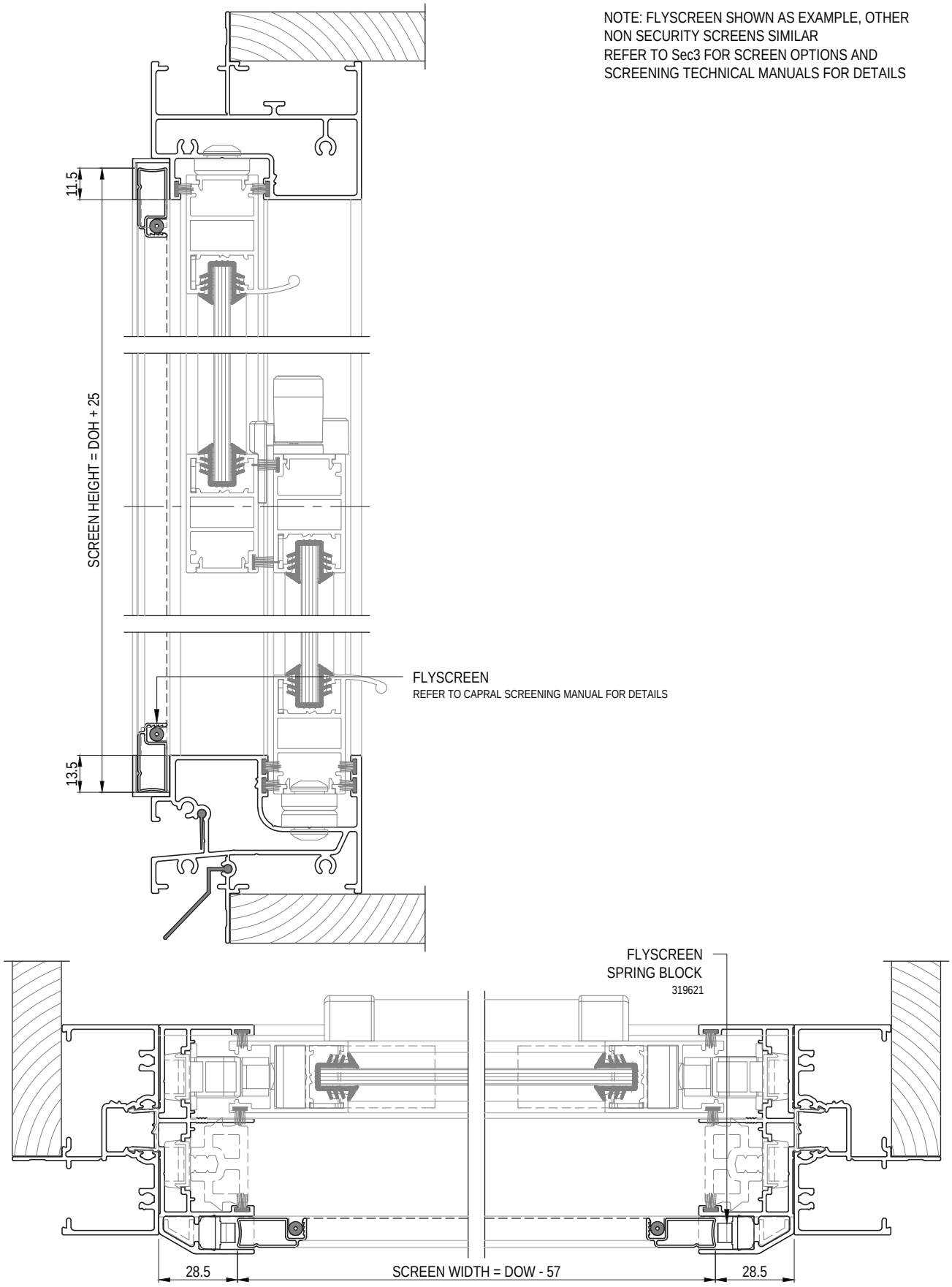
(11) DG JAMB
WITH ANGLE FIXING



Arrangement - Flyscreen

Scale 1:2

NOTE: FLYSCREEN SHOWN AS EXAMPLE, OTHER NON SECURITY SCREENS SIMILAR
REFER TO Sec3 FOR SCREEN OPTIONS AND SCREENING TECHNICAL MANUALS FOR DETAILS



OUTSIDE

Please read in conjunction with Important Conditions – Index (also available on Capral website)

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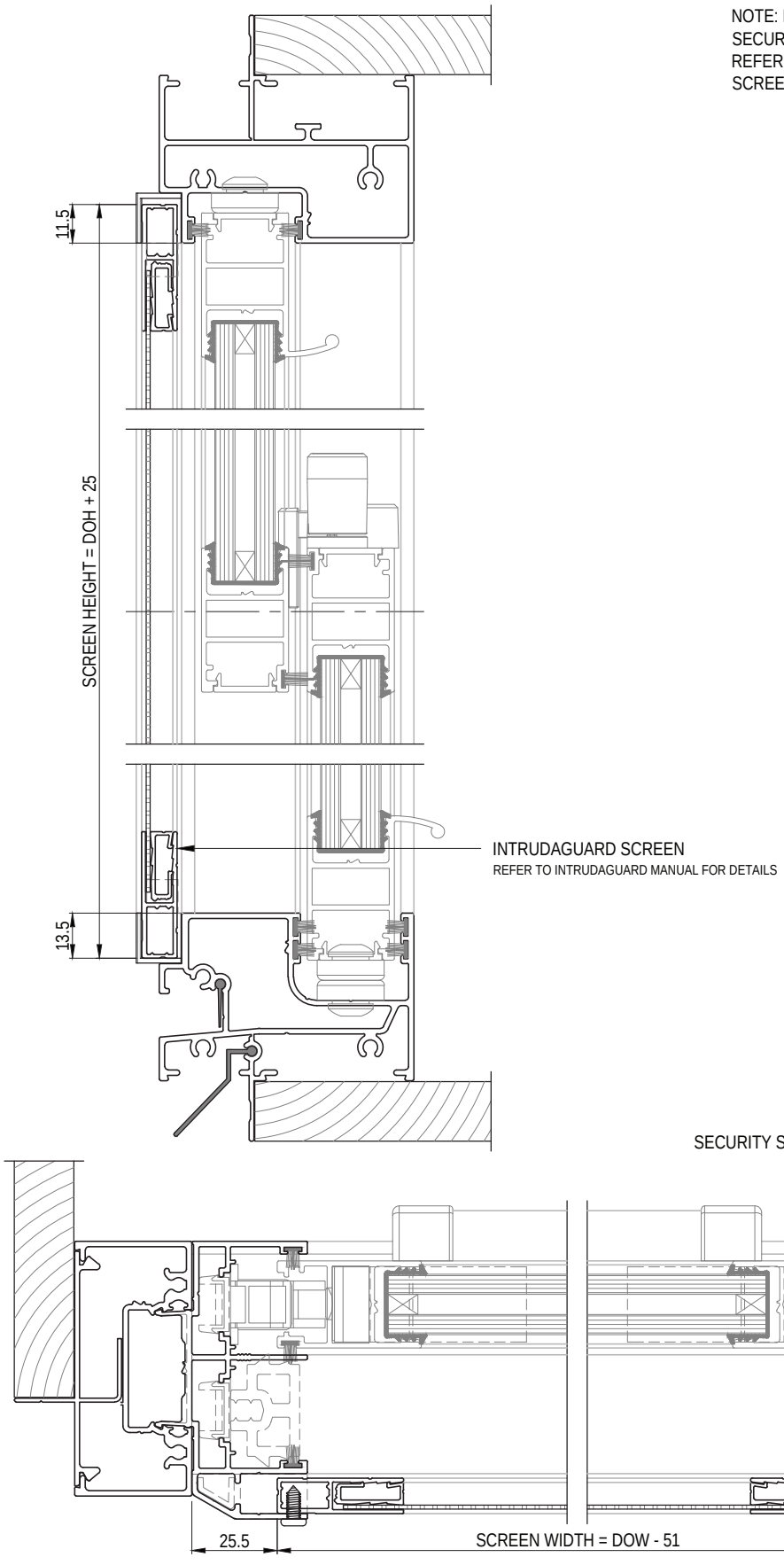
Arrangement - Security Screen

Scale 1:2

NOTE: INTRUDAGUARD SHOWN AS EXAMPLE, OTHER SECURITY SCREENS SIMILAR
REFER TO Sec3 FOR SCREEN OPTIONS AND SCREENING TECHNICAL MANUALS FOR DETAILS



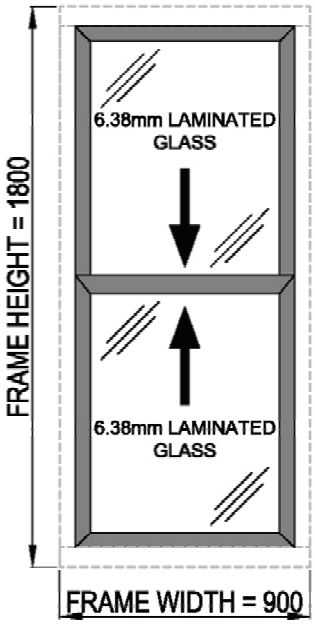
OUTSIDE

Please read in conjunction with Important Conditions – Index (also available on Capral website)

Test Report Summary

STRUCTURAL - TEST REPORT NUMBER: 5023S1

Performed by: Ian Bennie & Associates Test Laboratory, Victoria – June, 2005
Test Drawing Number: SPD01082A



Configuration: DH
Glass: 6.38mm Laminate

Approved to Standard: AS4420-1996 (as called up by AS2047-1999)
Assessed to Standard: AS4420-2016 (as called up by AS2047-2014)

DEFLECTION TEST RESULTS:

	+ Test Pressure	- Test Pressure
DH Meeting Rail: EPD0103/ EPD0103 (774mm Span)	2200Pa @ L/612	2210Pa @ L/426
	2200Pa @ L/612	*2210Pa @ L/426*

AIR INFILTRATION RESULTS:

0.93L/s.m² @ 75Pa Positive Test Pressure	*Achieved High Air Infiltration Level*
1.11L/s.m² @ 75Pa Negative Test Pressure	

WATER PENETRATION RESULTS:

Sill : EPD0100	350Pa Pressure for a period of 15mins

OPERATING FORCE RESULTS:

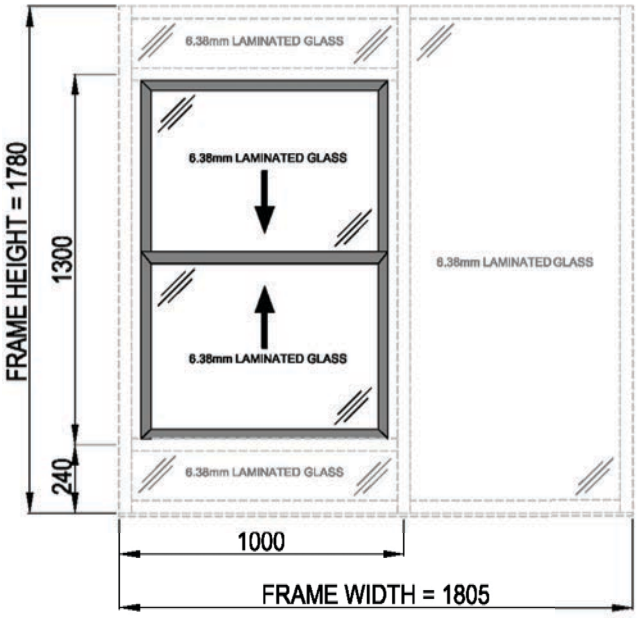
76.0N to initiate movement
146.0N to sustain movement

NOTE: This test was conducted on an alternate product however the deflection test results of the Meeting Rail remain valid.

Test Report Summary

STRUCTURAL - TEST REPORT NUMBER: C07-020

Performed by: Capral Mechanical Test Laboratory, Victoria – October, 2007
Test Drawing Number: 31-332



Configuration: 400 Narrowline - F/DH/F . F
Glass: 6.38mm Laminate

Approved to Standard: AS4420-1996 (as called up by AS2047-1999)
Assessed to Standard: AS4420-2016 (as called up by AS2047-2014)

DEFLECTION TEST RESULTS:

	+ Test Pressure	- Test Pressure
Mullion: EN5010 / EN9499 (1718mm Span)	*2200Pa @ L/368* 2200Pa @ L/368	*2200Pa @ L/446* 2200Pa @ L/446
DH / Fixed Transom: EN9499 / EN5032 / EPD0286 (985mm Span)	*2200Pa @ L/3648* 2200Pa @ L/3648	*2200Pa @ L/14071* 2200Pa @ L/14071
DH Meeting Rail: EPD0103 / EPD0103 (910mm Span)	*2200Pa @ L352* 2200Pa @ L352	*2200Pa @ L/318* 2200Pa @ L/318

AIR INFILTRATION RESULTS:

0.86L/s.m² @ 75Pa Positive Test Pressure — *Achieved High Air Infiltration Level*
1.09L/s.m² @ 75Pa Negative Test Pressure

WATER PENETRATION RESULTS:

Sill : EN5020 / EN5032 / EQ3377 — 350Pa Pressure for a period of 15mins
Transom : EN9499 / EN5032 / EPD0286

OPERATING FORCE RESULTS:

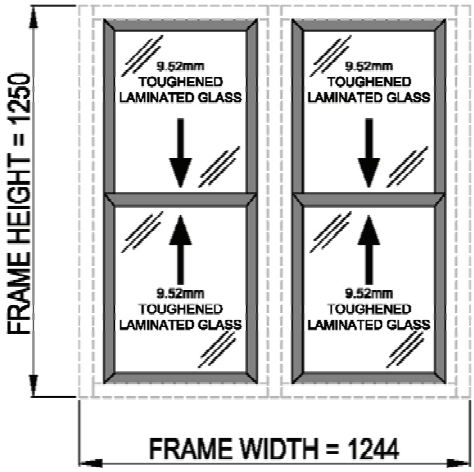
197.0N to initiate movement
137.0N to sustain movement

NOTE: This test was conducted on an alternate product however the deflection test results of the Meeting Rail remain valid.

Test Report Summary

STRUCTURAL - TEST REPORT NUMBER: C011-008

Performed by: Capral Mechanical Test Laboratory, Victoria – March, 2011
Test Drawing Number: 31-439



Configuration: 400 Narrowline - DH . DH
Glass: 9.52mm Toughened Laminate (Ultra Forza by Modern Glass)

Approved to Standard: AS4420-1996 (as called up by AS2047-1999)
Assessed to Standard: AS4420-2016 (as called up by AS2047-2014)

DEFLECTION TEST RESULTS:

	+ Test Pressure	- Test Pressure
Mullion: EP5409 / EP5409 (1174mm Span)	*4504Pa @ L/2850* 4504Pa @ L/2850	*4509Pa @ L/2536* 4509Pa @ L/2536
DH Meeting Rail: ED8610 / EPD0103 / ED8611/ EPD0103 / D8610 ED8611 (440mm Span)	*4504Pa @ L/8224* 4504Pa @ L/8224	*4509Pa @ L/3636* 4509Pa @ L/3636

AIR INFILTRATION RESULTS:

2.70L/s.m² @ 75Pa Positive Test Pressure — *Achieved High Air Infiltration Level*
1.94L/s.m² @ 75Pa Negative Test Pressure

WATER PENETRATION RESULTS:

Sill : EN5032 / EPD0286 / EN9499 / EP5693 — 500Pa Pressure for a period of 15mins

OPERATING FORCE RESULTS:

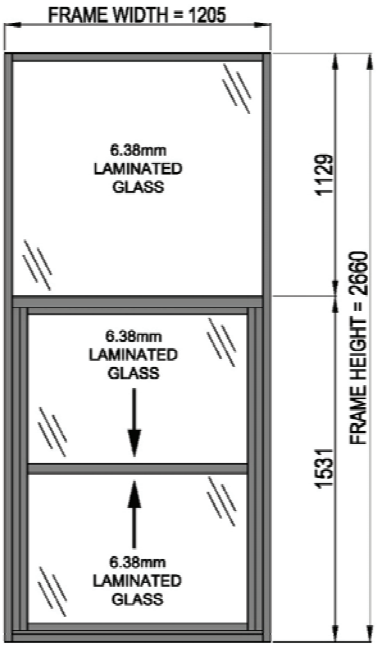
98.5N to initiate movement
107.5N to sustain movement

NOTE: This test was conducted on an alternate product however the deflection test results of the Meeting Rail remain valid.

Test Report Summary

STRUCTURAL & WATER – TEST REPORT NUMBER: C020-040

Performed by: Capral Mechanical Test Laboratory, Victoria – October, 2020
Test Drawing Number: 32-345



Configuration: F/DH
Glass: 6.38mm Laminate
Tested drainage pattern: 4 Holes Equal CTRS & 2 of 6x20mm Slots

Approved to Standard: AS4420.1-2016 (as called up by AS2047-2014)

DEFLECTION TEST RESULTS:

	+ Test Pressure	- Test Pressure
DH Meeting Rail: EPD0103/EPD0103 (1055mm Span)	1710Pa (Span/257)	1680Pa (Span/251)
High Light Transom: EP18465/EP2207 (1125mm Span)	1710Pa (Span/1110)	1680Pa (Span/1073)

AIR INFILTRATION RESULTS:

0.21 L/s.m^2 @ 75Pa Positive Test Pressure
0.39 L/s.m^2 @ 75Pa Negative Test Pressure

Achieved Low Air Infiltration Level

WATER PENETRATION RESULTS:

Sill: EP18466
DH Meeting Rail: EPD0103/EPD0103
Highlight Transom: EP18465/ EP2207

354Pa Pressure for a period of 15mins

OPERATING FORCE RESULTS:

198.0 N to initiate movement
92.0 N to sustain movement

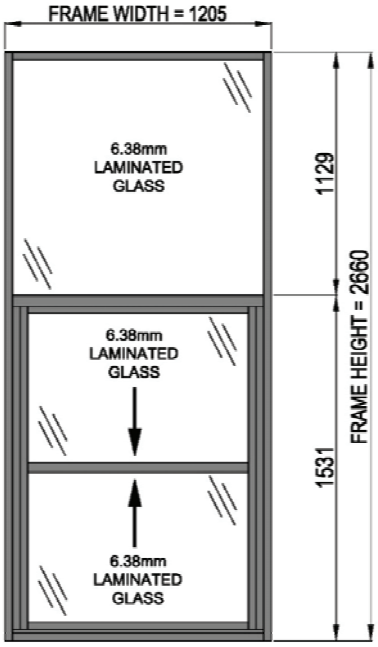
ULTIMATE STRENGTH RESULTS:

+ Test Pressure	- Test Pressure
3790Pa	3770Pa

Test Report Summary

AIR & WATER – TEST REPORT NUMBER: C020-041

Performed by: Capral Mechanical Test Laboratory, Victoria – October, 2020
Test Drawing Number: 32-346



Configuration: F/DH
Glass: 6.38mm Laminate
Tested drainage pattern: Two Holes Each End & 2 of 6x20mm Slots

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Approved to Standard: AS4420.1-2016 (as called up by AS2047-2014)

AIR INFILTRATION RESULTS:

0.21 L/s.m^2 @ 75Pa Positive Test Pressure	Achieved Low Air Infiltration Level
0.39 L/s.m^2 @ 75Pa Negative Test Pressure	

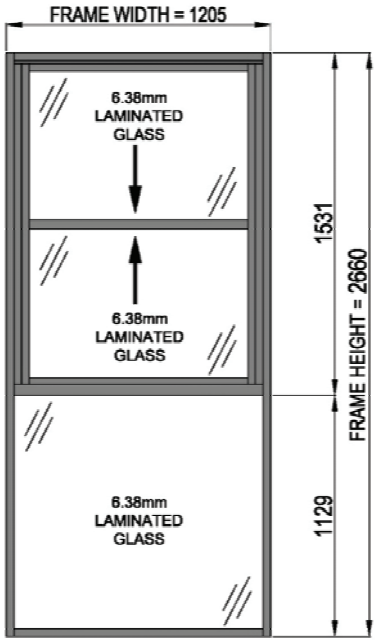
WATER PENETRATION RESULTS:

Sill: EP18466	354Pa Pressure for a period of 15mins
DH Meeting Rail: EPD0103/EPD0103	
Highlight Transom: EP18465/ EP2207	

Test Report Summary

STRUCTURAL & WATER – TEST REPORT NUMBER: C020-042

Performed by: Capral Mechanical Test Laboratory, Victoria – October, 2020
Test Drawing Number: 32-347



Configuration: DH/F
Glass: 6.38mm Laminate
Tested drainage pattern: 4 Holes Equal CTRS & 2 of 6x20mm Slots

Approved to Standard: AS4420.1-2016 (as called up by AS2047-2014)

DEFLECTION TEST RESULTS:

	+ Test Pressure	- Test Pressure
DH Meeting Rail: EPD0103/EPD0103 (1055mm Span)	1805Pa (Span/252)	1840Pa (Span/256)
Low Light Transom: EP18466/EP2207 (1125mm Span)	1805Pa (Span/1032)	1840Pa (Span/990)

AIR INFILTRATION RESULTS:

0.42 L/s.m^2 @ 75Pa Positive Test Pressure
0.29 L/s.m^2 @ 75Pa Negative Test Pressure

Achieved Low Air Infiltration Level

WATER PENETRATION RESULTS:

Sill: EP18376
DH Meeting Rail: EPD0103/EPD0103
Transom: EP18466/ EP2207

351Pa Pressure for a period of 15mins

OPERATING FORCE RESULTS:

198.0 N to initiate movement
91.0 N to sustain movement

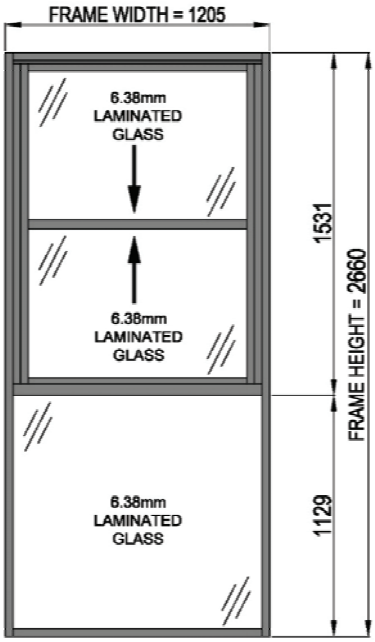
ULTIMATE STRENGTH RESULTS:

+ Test Pressure	- Test Pressure
3841Pa	3810Pa

Test Report Summary

AIR & WATER – TEST REPORT NUMBER: C020-043

Performed by: Capral Mechanical Test Laboratory, Victoria – October, 2020
Test Drawing Number: 32-348



Configuration: DH/F
Glass: 6.38mm Laminate
Tested drainage pattern: Two Holes Each End & 2 of 6x20mm Slots

Approved to Standard: AS4420.1-2016 (as called up by AS2047-2014)

AIR INFILTRATION RESULTS:

0.45 L/s.m^2 @ 75Pa Positive Test Pressure	Achieved Low Air Infiltration Level
0.21 L/s.m^2 @ 75Pa Negative Test Pressure	

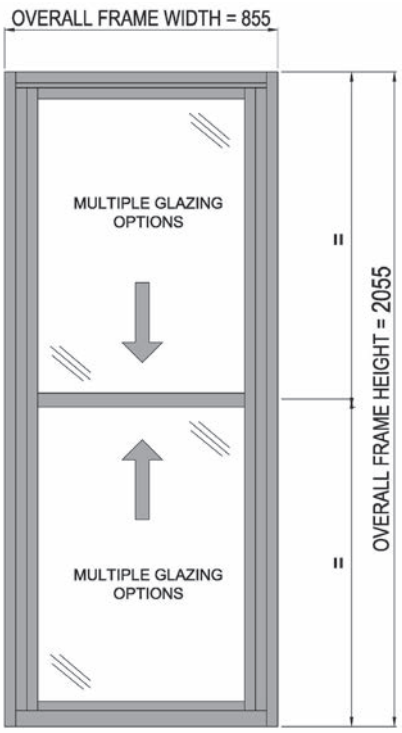
WATER PENETRATION RESULTS:

Sill: EP18376	350Pa Pressure for a period of 15mins
DH Meeting Rail: EPD0103/EPD0103	
Low light Transom: EP18466/ EP2207	

Test Report Summary

ACOUSTIC

Performed by: Commonwealth Scientific and Industrial Research Organisation (CSIRO), Clayton Victoria – February, 2023



Configuration: DH
Framing System: Urban Plus Double Hung

Approved to Standard: AS1191-2002 & AS1276.1-1999

TEST REPORT NUMBER: TL741-05-2

Test Drawing Number: 32-506
TEST SAMPLE DETAILS:

Glass:	4mm Clear Float
Glazing:	4mm Glazing Channel (300055)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

SOUND INSULATION RATING:

Rw (C;Ctr):	31 (-1;-2)

TEST REPORT NUMBER: TL741-09-2

Test Drawing Number: 32-506
TEST SAMPLE DETAILS:

Glass:	6.38mm Clear Laminate
Glazing:	6mm / 6.38mm Glazing Channel (322624)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

SOUND INSULATION RATING:

Rw (C;Ctr):	31 (0;-1)

Test Report Summary

TEST REPORT NUMBER: TL741-10-2

Test Drawing Number: 32-506

TEST SAMPLE DETAILS:

Glass:	6.50mm Clear Audioshield Laminate
Glazing:	6mm / 6.38mm Glazing Channel (322624)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

SOUND INSULATION RATING:

Rw (C;Ctr):	32 (0;-2)

TEST REPORT NUMBER: TL741-08-2

Test Drawing Number: 32-506

TEST SAMPLE DETAILS:

Glass:	10.38mm Clear Laminate
Glazing:	10.38mm Glazing Channel (300039)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

SOUND INSULATION RATING:

Rw (C;Ctr):	32 (0;-1)

TEST REPORT NUMBER: TL741-07-2

Test Drawing Number: 32-506

TEST SAMPLE DETAILS:

Glass:	10.50mm Clear Audioshield Laminate
Glazing:	10.38mm Glazing Channel (300039)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

SOUND INSULATION RATING:

Rw (C;Ctr):	31 (-1;-1)

TEST REPORT NUMBER: TL741-01-2

Test Drawing Number: 32-506

TEST SAMPLE DETAILS:

Glass:	4mm Clear Float / 10mm Argon / 4mm Clear Float
Glazing:	18mm Glazing Channel (300610)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

SOUND INSULATION RATING:

Rw (C;Ctr):	32 (0;-2)

Test Report Summary

TEST REPORT NUMBER: TL741-03-2

Test Drawing Number: 32-506

TEST SAMPLE DETAILS:

Glass:	5mm Clear Float / 8mm Argon / 5mm Clear Float
Glazing:	18mm Glazing Channel (300610)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

SOUND INSULATION RATING:

Rw (C;Ctr):	33 (0;-2)

TEST REPORT NUMBER: TL741-02-2

Test Drawing Number: 32-506

TEST SAMPLE DETAILS:

Glass:	6.38mm Clear Laminate / 8mm Argon / 4mm Clear Float
Glazing:	18mm Glazing Channel (300610)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

SOUND INSULATION RATING:

Rw (C;Ctr):	34 (0;-2)

TEST REPORT NUMBER: TL741-04-2

Test Drawing Number: 32-506

TEST SAMPLE DETAILS:

Glass:	6.5mm Clear Audioshield / 8mm Argon / 4mm Clear Float
Glazing:	18mm Glazing Channel (300610)
Seals:	Fin Seal (307393) & High Fin Seal (302272)

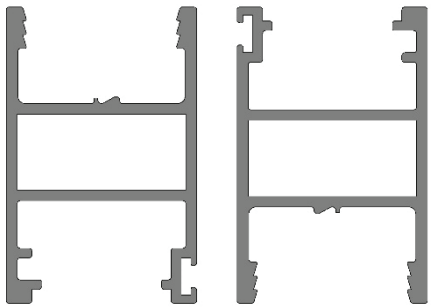
SOUND INSULATION RATING:

Rw (C;Ctr):	35 (-1;-3)

391 Double Hung Window

Span Table

MEETING RAILS - EPD0141 / EPD0141 (EPD0103 / EPD0103 SIMILAR)



Note:

Serviceability pressures have been limited to a maximum pressure of 2200Pa.

Serviceability pressures have not been limited by water performance. Where water performance is necessary, refer to Product Specifications page.

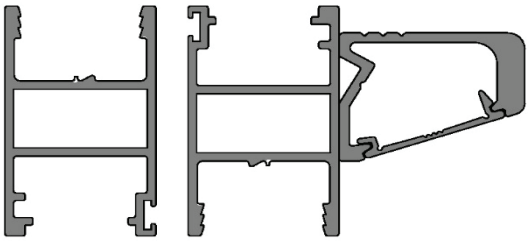
Sash Height (mm)		Maximum Design Pressure (kPa)						
1200	S (L/250)	2.200	2.200	2.200	2.200	1.731	1.182	0.835
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.013
1150	S (L/250)	2.200	2.200	2.200	2.200	1.731	1.182	0.836
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.021
1100	S (L/250)	2.200	2.200	2.200	2.200	1.731	1.182	0.842
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.044
1050	S (L/250)	2.200	2.200	2.200	2.200	1.731	1.185	0.851
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.083
1000	S (L/250)	2.200	2.200	2.200	2.200	1.731	1.194	0.864
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.137
950	S (L/250)	2.200	2.200	2.200	2.200	1.736	1.210	0.882
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.208
900	S (L/250)	2.200	2.200	2.200	2.200	1.753	1.233	0.904
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.297
850	S (L/250)	2.200	2.200	2.200	2.200	1.781	1.263	0.932
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.406
800	S (L/250)	2.200	2.200	2.200	2.200	1.821	1.301	0.965
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.537
750	S (L/250)	2.200	2.200	2.200	2.200	1.875	1.349	1.006
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.695
700	S (L/250)	2.200	2.200	2.200	2.200	1.945	1.408	1.054
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
650	S (L/250)	2.200	2.200	2.200	2.200	2.033	1.480	1.113
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
600	S (L/250)	2.200	2.200	2.200	2.200	2.144	1.568	1.184
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
Sash Width (mm)		600	700	800	900	1000	1100	1200

LEGEND: S = Serviceability Pressure, U = Ultimate Pressure

NOTE: This table is based on a combination approved AS2047 testing data and theoretical section properties.
A maximum stress level of 110MPa has been applied when generating this table.

Span Table

STIFFENED MEETING RAIL - EPD0141 / ED8610 / ED8611 / EPD0141 (EPD0103 / ED8610 / ED8611 / EPD0141 SIMILAR)



Note:

Serviceability pressures have been limited to a maximum pressure of 3000Pa.

Serviceability pressures have not been limited by water performance. Where water performance is necessary, refer to Product Specifications page.

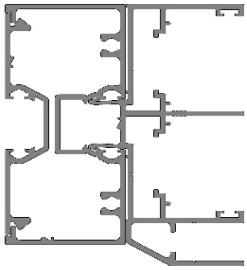
Sash Height (mm)		Maximum Design Pressure (kPa)						
1200	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.266
	U	4.500	4.500	4.500	4.500	4.500	4.351	3.352
1150	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.271
	U	4.500	4.500	4.500	4.500	4.500	4.351	3.360
1100	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.285
	U	4.500	4.500	4.500	4.500	4.500	4.351	3.386
1050	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.311
	U	4.500	4.500	4.500	4.500	4.500	4.365	3.429
1000	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.347
	U	4.500	4.500	4.500	4.500	4.500	4.404	3.489
950	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.394
	U	4.500	4.500	4.500	4.500	4.500	4.470	3.568
900	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.455
	U	4.500	4.500	4.500	4.500	4.500	4.500	3.667
850	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.529
	U	4.500	4.500	4.500	4.500	4.500	4.500	3.788
800	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.620
	U	4.500	4.500	4.500	4.500	4.500	4.500	3.934
750	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.730
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.110
700	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.862
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.320
650	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
600	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
Sash Width (mm)		600	700	800	900	1000	1100	1200

LEGEND: S = Serviceability Pressure, U = Ultimate Pressure

NOTE: This table is based on a combination approved AS2047 testing data and theoretical section properties.
A maximum stress level of 110MPa has been applied when generating this table.

Span Table

SIDE LIGHT MULLION - EP2207 / EP2206 / EP18463 (EP12852 / EP12851 / EP18464 SIMILAR)



Note:

Serviceability pressures have been limited to a maximum pressure of 3000Pa.

Serviceability pressures have not been limited by water performance. Where water performance is necessary, refer to Product Specifications page.

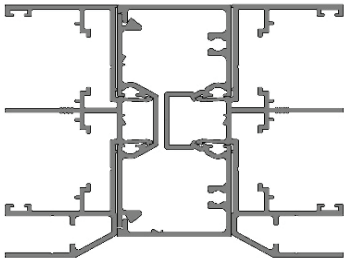
Mullion Height (mm)		Maximum Design Pressure (kPa)						
2400	S (L/250)	1.763	1.525	1.349	1.213	1.107	1.022	0.952
	U	4.118	3.557	3.140	2.820	2.568	2.365	2.199
2300	S (L/250)	2.007	1.738	1.538	1.386	1.266	1.170	1.092
	U	4.492	3.883	3.431	3.084	2.811	2.592	2.414
2200	S (L/250)	2.300	1.993	1.766	1.593	1.457	1.349	1.262
	U	4.500	4.257	3.765	3.388	3.092	2.855	2.663
2100	S (L/250)	2.652	2.301	2.041	1.844	1.689	1.567	1.469
	U	4.500	4.500	4.151	3.740	3.418	3.162	2.955
2000	S (L/250)	3.000	2.676	2.378	2.151	1.975	1.836	1.725
	U	4.500	4.500	4.500	4.151	3.801	3.522	3.299
1900	S (L/250)	3.000	3.000	2.793	2.532	2.330	2.171	2.046
	U	4.500	4.500	4.500	4.500	4.253	3.951	3.710
1800	S (L/250)	3.000	3.000	3.000	3.000	2.777	2.596	2.454
	U	4.500	4.500	4.500	4.500	4.500	4.466	4.208
1700	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	2.983
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1600	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1500	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1400	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1300	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1200	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
Mullion Spacing (mm)		600	700	800	900	1000	1100	1200

LEGEND: S = Serviceability Pressure, U = Ultimate Pressure

NOTE: This table is based on theoretical section properties only, not on approved AS2047 testing data.
A maximum stress level of 110MPa has been applied when generating this table.

Span Table

SG FRAME DOUBLE HUNG MULLION - EP18463 / EP2207 / EP2206 / EP18463



Note:

Serviceability pressures have been limited to a maximum pressure of 3000Pa.

Serviceability pressures have not been limited by water performance. Where water performance is necessary, refer to Product Specifications page.

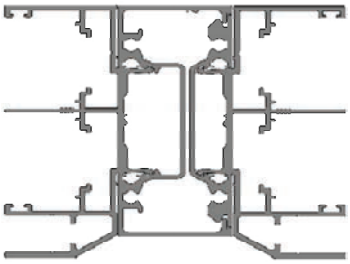
Mullion Height (mm)		Maximum Design Pressure (kPa)						
2400	S (L/250)	2.645	2.288	2.023	1.820	1.661	1.533	1.429
	U	4.500	4.500	4.500	4.232	3.853	3.548	3.300
2300	S (L/250)	3.000	2.608	2.308	2.079	1.899	1.755	1.639
	U	4.500	4.500	4.500	4.500	4.218	3.890	3.622
2200	S (L/250)	3.000	2.990	2.650	2.390	2.186	2.024	1.893
	U	4.500	4.500	4.500	4.500	4.500	4.284	3.996
2100	S (L/250)	3.000	3.000	3.000	2.766	2.535	2.351	2.203
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.433
2000	S (L/250)	3.000	3.000	3.000	3.000	2.963	2.754	2.588
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1900	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1800	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1700	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1600	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1500	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1400	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1300	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1200	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
Mullion Spacing (mm)		600	700	800	900	1000	1100	1200

LEGEND: S = Serviceability Pressure, U = Ultimate Pressure

NOTE: This table is based on theoretical section properties only, not on approved AS2047 testing data.
A maximum stress level of 110MPa has been applied when generating this table.

Span Table

DG FRAME DOUBLE HUNG MULLION - EP18463 / EP12852 / EP12851 / EP18464



Note:

Serviceability pressures have been limited to a maximum pressure of 3000Pa.

Serviceability pressures have not been limited by water performance. Where water performance is necessary, refer to Product Specifications page.

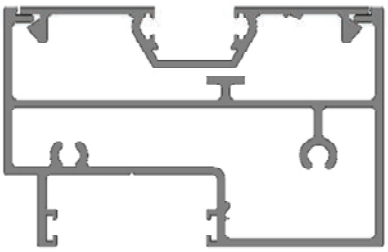
Mullion Height (mm)		Maximum Design Pressure (kPa)						
2400	S (L/250)	2.875	2.487	2.199	1.979	1.805	1.666	1.553
	U	4.500	4.500	4.500	4.500	4.213	3.880	3.608
2300	S (L/250)	3.000	2.834	2.509	2.260	2.064	1.908	1.781
	U	4.500	4.500	4.500	4.500	4.500	4.253	3.961
2200	S (L/250)	3.000	3.000	2.880	2.598	2.376	2.200	2.058
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.369
2100	S (L/250)	3.000	3.000	3.000	3.000	2.755	2.555	2.395
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
2000	S (L/250)	3.000	3.000	3.000	3.000	3.000	2.994	2.813
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1900	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1800	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1700	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1600	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1500	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1400	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1300	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
1200	S (L/250)	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	U	4.500	4.500	4.500	4.500	4.500	4.500	4.500
Mullion Spacing (mm)		600	700	800	900	1000	1100	1200

LEGEND: S = Serviceability Pressure, U = Ultimate Pressure

NOTE: This table is based on theoretical section properties only, not on approved AS2047 testing data.
A maximum stress level of 110MPa has been applied when generating this table.

Span Table

HIGH LIGHT TRANSOM - EP18465 / EP2207 (EP18465 / EP12851 SIMILAR)



Note:

Serviceability pressures have been limited to a maximum pressure of 1800Pa.

Serviceability pressures have not been limited by water performance. Where water performance is necessary, refer to Product Specifications page.

This table has been based on an above transom height of 1200mm.

Where the below transom height differs, the maximum Pressure will vary. Seek clarification from Capral for variations.

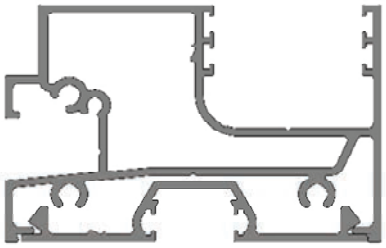
Below Transom Height (mm)		Maximum Design Pressure (kPa)						
2400	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
2350	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
2300	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
2250	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
2200	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
2150	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
2100	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
2050	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
2000	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
1950	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
1900	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
1850	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
1800	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.700	3.700	3.700	3.700	3.700	3.700	3.700
Transom Width (mm)		600	700	800	900	1000	1100	1200

LEGEND: S = Serviceability Pressure, U = Ultimate Pressure

NOTE: This table is based on a combination of approved AS2047 testing data and theoretical section properties.
A maximum stress level of 110MPa has been applied when generating this table.

Span Table

LOW LIGHT TRANSOM - EP18466 / EP2207 (EP18466 / EP12851 SIMILAR)



Note:

Serviceability pressures have been limited to a maximum pressure of 1800Pa.

Serviceability pressures have not been limited by water performance. Where water performance is necessary, refer to Product Specifications page.

This table has been based on a below transom height of 1200mm.

Where the below transom height differs, the maximum Pressure will vary. Seek clarification from Capral for variations.

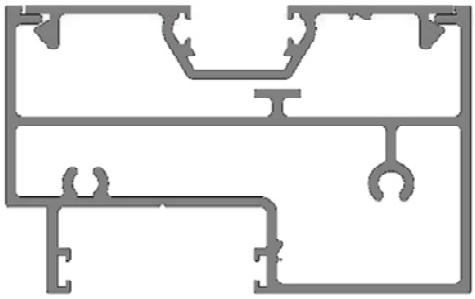
Above Transom Height (mm)		Maximum Design Pressure (kPa)						
2400	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
2350	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
2300	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
2250	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
2200	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
2150	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
2100	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.700	3.800	3.800	3.800
2050	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
2000	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
1950	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
1900	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
1850	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
1800	S (L/250)	1.800	1.800	1.800	1.800	1.800	1.800	1.800
	U	3.800	3.800	3.800	3.800	3.800	3.800	3.800
Transom Width (mm)		600	700	800	900	1000	1100	1200

LEGEND: S = Serviceability Pressure, U = Ultimate Pressure

NOTE: This table is based on a combination of approved AS2047 testing data and theoretical section properties.
A maximum stress level of 110MPa has been applied when generating this table.

Maximum Glass Thickness Table - Deadload Assessment

HIGH LIGHT TRANSOM - EP18465 / EP2207 (EP18465 / EP12851 SIMILAR)



Note:

Glass thickness has been limited to 20mm according to the capacity of the suite (Double Glazed Highlights).

These tables have been developed to assist Fabricators in making an assessment of the maximum glass thickness that the transom member can support using deflection & stress criteria.

Wind load and human impact requirements are not included in the tables below. A glass thickness assessment for windload and human impact must still be completed in accordance with AS1288.

Height Above Transom (mm)	Maximum Glass Thickness with Support Blocks at 1/4 Points (mm)						
1200	20	20	20	20	16	12	12
1100	20	20	20	20	20	16	12
1000	20	20	20	20	20	16	12
900	20	20	20	20	20	20	16
800	20	20	20	20	20	20	16
700	20	20	20	20	20	20	20
600	20	20	20	20	20	20	20
Transom Width (mm)	600	700	800	900	1000	1100	1200
Downward Deflection (mm)	1.0	1.2	1.3	1.5	1.7	1.8	2.0

Height Above Transom (mm)	Maximum Glass Thickness with Support Blocks at 1/8 Points (mm)						
1200	20	20	20	20	20	20	20
1100	20	20	20	20	20	20	20
1000	20	20	20	20	20	20	20
900	20	20	20	20	20	20	20
800	20	20	20	20	20	20	20
700	20	20	20	20	20	20	20
600	20	20	20	20	20	20	20
Transom Width (mm)	600	700	800	900	1000	1100	1200
Downward Deflection (mm)	1.0	1.2	1.3	1.5	1.7	1.8	2.0

NOTE: This table is based on theoretical section properties, not on approved tests as specified by AS2047.
A deflection ratio of L/600 has been assumed, resulting in the individual deflection figures listed on the tables.