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Updates

DATE	PAGE	DESCRIPTION
Nov. 2023	All	ACET842 changed to ACET841 when using UN3160G ETC4124 slim sash added ACET963 details added Bay pole, frame extension & coupler details updated/expanded ACET4050 hinge added
Jun. 2024	All	ETC4125 slim heritage sash & ETC4137 heritage transom/mullion added 'G' Profile options added to various sections with additional tooling UN3570 Trickle vent added
Aug. 2024	All	ETC4110, ETC4112 & ETC4120 Cleat chambers revised to accept ACET820 cleat.
Oct. 2024	All	Section B & E Crimping tools for 'G' profiles updated & glazing pages in Section E updated.
Jun. 2025	All	ETC4101, 4105, 4132, 4133, 4137, PCX55, UN3080, 3081, 3082, 3083 & 3270 sections added. ACET963 updated to ACET963R. ACET4950 punch tool added.
Jan. 2026	All	ETC4123, ETC4330, 4410, 4430, 4446, UN3577 sections added with relevant accessories.

Specification

GENERAL DESCRIPTION

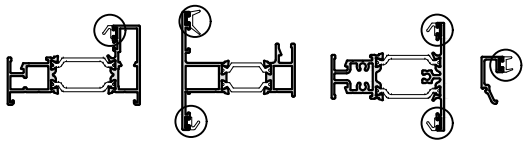
The "Alitherm 400" window system described in this manual is suitable for both replacement windows for existing buildings and for installation into new buildings.

The system incorporates internally & externally beaded vent frames suitable for espag locking.

The low line gaskets and extended polyamide thermal breaks help to provide excellent U Values and Window Energy Rating capable of achieving an 'A' Rating when used in conjunction with the correct double glazed unit.

Alitherm 400 has the option of Quick-Glaze beads with integrated gasket, providing a fast and efficient glazing process. Non integrated gasket options are also available.

Profiles with a 'G' suffix are supplied with integrated gasket.



PROFILE SPECIFICATION

The window frames are constructed of aluminium alloy extrusion to BS EN 755-9 and BS EN 12020, extruded to 6063 T6 alloy. The internal and external extrusions are separated with a polyamide thermal break.

The external aluminium alloy extrusion is pre-treated and finished either:-

a) Anodised to BS 3987: 1987, grade AA25 to a natural self colour.

b) Polyester powder organic coating to BS 6496. Dual colour is available.

GENERAL MANUFACTURING

Outer and vent frames are made by cutting the frame profiles with accurate 45° mitred ends using Tungsten Carbide Tipped Saw Blades, operating at approximately 3000 rpm.

The corners are joined using the Alitherm 400 crimping tools to form a cold forged corner joint (made by deforming small slugs of metal into the groove of the corner cleat).

The ends of transoms and mullions are profiled to fit the frame and fixed using self-tapping screws with a silicone seal.

On polyester powder coated finishes, great care should be taken to avoid getting gap sealer on visible surfaces and should be removed as soon as possible with a clean cloth.

Care should be exercised when using products not supplied by Smart Systems Ltd as no responsibility can be accepted.

Specification

WINDOW DRAINAGE

As with all dry glazed systems, it is recommended that the window system is adequately drained and ventilated. Refer to drainage details in manual, if in doubt ask The Technical Department.

In order to get maximum performance and weather resistance it is recommended that drips are used over all vents.

OUTER FRAME MANUFACTURING INFORMATION

The outer frame members are cut with 45° mitred ends to the overall size required, measured to the longest point of the metal.

Prior to corner crimping the centre line position of any transoms or mullions should be marked on the outer frame members. Where the transom/mullion runs right through, it should be marked out on both jambs or head and cill members in pairs to ensure accurate alignment of the sections.

Using the marked centre line, Drill the transom/mullion fixing holes using a 5mm dia. drill bit.

Corners are formed by coating the cut faces to be joined with a suitable small gap sealer. Into the mitred corner insert the cleat glue and the required corner cleats and, where required, the aluminium corner chevrons. The two mitred ends are then brought together and crimped. The small gap sealer ensures a permanent joint and guards against the ingress of moisture and joint movement. After crimping the corner joint, special care should be taken to ensure any excess sealer is removed from painted surfaces.

Transoms or mullions are cut with square ends to the sizes calculated on the cutting formula sheets. The ends are then profiled to allow them to fit into the outer frame. Special tooling is available on request to profile the end of transom/mullion.

Prior to fixing of transoms and mullions smear the cut ends with a suitable gap sealer. After fixing, special care should be taken to ensure any excess is cleared from painted surfaces.

PROFILES WITH INTEGRATED GASKET

When cutting profiles with integrated gaskets, it is crucial to use sharp, well-maintained saw blades to ensure clean cuts.

For optimal mitre cuts, position the profiles so the gasket channels face the saw blades. However, we recommend testing different profile orientations on your saw to determine the best cutting method.

Transoms and mullions with integrated gaskets can be end milled as standard.

Specification

MULTI-POINT LOCKING

The vent should be prepped for the locking mechanism prior to fabrication and fitted into vent before hanging. Stainless steel fixings shall be used for securing the locking mechanism and keeps in position.

GLAZING

All beads are cut to suit the glazing aperture on the fully assembled window for glazing either at factory or on site as required.

EXTERNALLY BEADED GLAZING

Glazing beads are fitted to openings by cutting the horizontal beads square to head and cill of each vent and fixed light area. Vertical beads are cut squared at both ends. Insert bottom beads and two setting blocks to ensure glass will be centralized in vertical dimension of opening (glazing blocks must be full width of cavity to fully support glass or sealed unit), then insert top bead followed by side beads. Finish glazing by insertion of internal gaskets all round.

INTERNALLY BEADED GLAZING

Glazing beads are fitted to openings by cutting the horizontal beads square to head and cill of each vent and fixed light area. Vertical beads are cut square at both ends. Insert bottom beads and two setting blocks to ensure glass will be centralized in vertical dimension of opening (glazing blocks must be full width of cavity to fully support glass or sealed unit), then insert top bead followed by side beads. Finish glazing by insertion of internal gaskets all round.

When glazing with the Quick-Glaze bead, using a glass adjuster is strongly advised to adjust the glazing accordingly with ease.

Specification

Kitemark™ Certificate
No. KM 81580

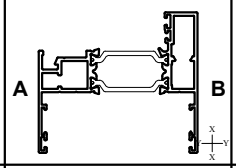
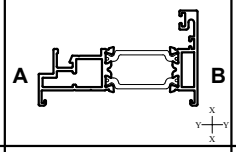
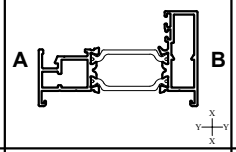
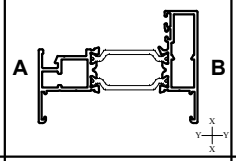
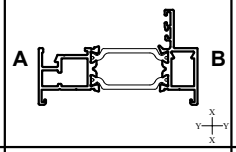
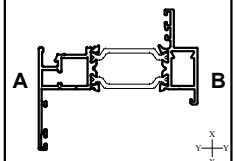
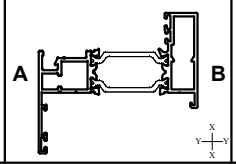
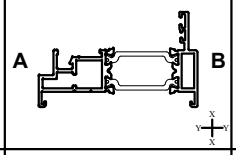
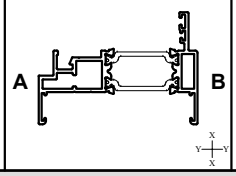
Size Limitations and Performance Characteristics
Alitherm 400 Aluminium Alloy Window System

Window Type	Width (mm) - Maximum	Height (mm) - Maximum	Weight (kg) - Maximum	Area (M^2) - Maximum	Friction Stays (up to and including)	Transom/Mullion Length (mm) inc frame - Maximum	Air Permeability classification	Water tightness classification	Resitance to Wind classification	Exposure category as given in Table 1 of BS 6375-1:2009
Sash dimensions for windows with approved sash profiles:										
Projecting top hung Internally beaded	1400	1400	40	-	24"	-	4	7A	AE2400	2000+
Projecting top hung Externally beaded	1400	1400	40	-	24"	-	4	5A	AE2400	2000+
Projecting side hung Internally beaded	600	1400	28	-	16"	-	4	7A	AE2400	2000+
Projecting side hung Externally beaded	600	1400	28	-	16"	-	4	5A	AE2400	2000+
Overall dimensions for windows with approved outer frame profiles:										
Fixed Internally Beaded	2100	2100	-	4.2	-	-	4	7A	AE2400	2000+
Fixed Externally Beaded	2100	2100	-	4.2	-	-	4	5A	AE2400	2000+
Overall dimensions for approved outer frames & transom/mullion profiles:										
Multilights* Internally Beaded	2100	2100	-	2.5	-	1200	4	7A	AE2400	2000+
Multilights* Externally Beaded	2100	2100	-	2.5	-	1200	4	5A	AE2400	2000+

***Transom/mullion subject to Ixx/Iyy requirements**

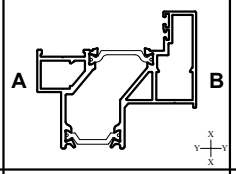
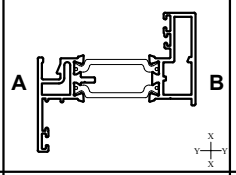
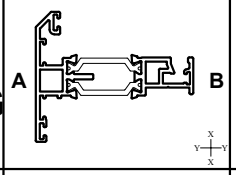
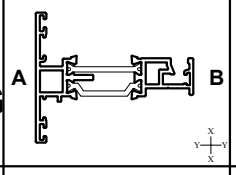
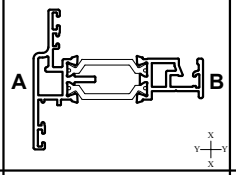
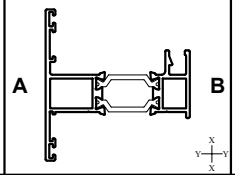
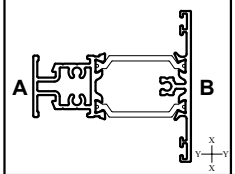
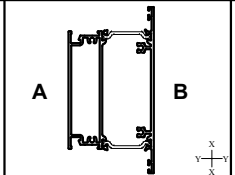
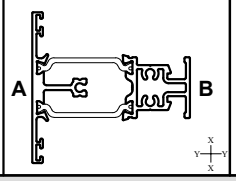
Please see pages B25 & B26 for more guidance on vent sizes & limitations.

- **Side Hung Weight Limit Can Be Increased To 40 kg Using Egress Hinges**
- **See hardware for minimum and maximum sizes**

Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
ETC4101 ETC4101G		A17	426	122	31.86 --- 8.3	9.21 --- 3.3	6.5	1	✓	✓	✓	✓	✓
ETC4105 ETC4105G		A19	333	82	23.88 --- 6.0	3.83 --- 2.16	6.5	1	✓	✓	✓	✓	✓
ETC4110 ETC4110G		A15	295	82	23.98 --- 6.16	4.12 --- 2.23	6.5	1	✓	✓	✓	✓	✓
ETC4111 ETC4111G		A15	346	97	26.73 --- 6.91	5.28 --- 2.14	6.5	1	✓	✓	✓	✓	✓
ETC4112 ETC4112G		A16	297	78	21.54 --- 6.47	2.74 --- 1.64	6.5	1	✓	✓	✓	✓	✓
ETC4113		A16	371	101	27.56 --- 7.8	5.91 --- 2.18	6.5	1	✓	✓	✓	✓	✓
ETC4114		A17	369	101	30.35 --- 8.22	7.60 --- 2.93	6.5	1	✓	✓	✓	✓	✓
ETC4115 ETC4115G		A18	297	78	21.50 --- 5.69	2.75 --- 1.68	6.5	1	✓	✓	✓	✓	✓
ETC4116 ETC4116G		A18	351	96	26.38 --- 6.61	4.39 --- 1.93	6.5	1	✓	✓	✓	✓	✓

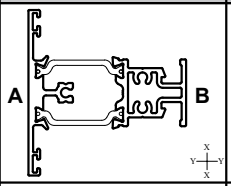
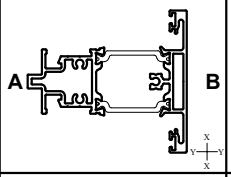
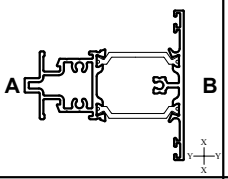
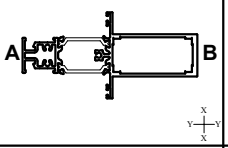
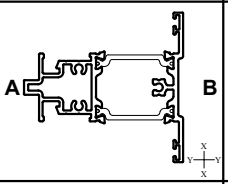
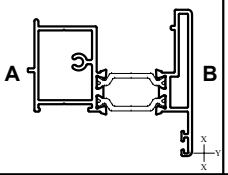
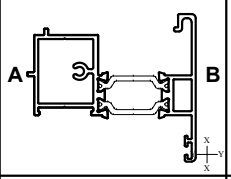
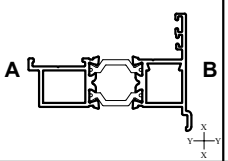
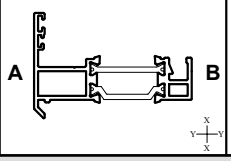
A = Outside
B = Inside

MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
M = Dual Colour

Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
ETC4117		A20	391	76	26.4 --- 7.14	11.73 --- 3.90	6.5	1	✓	✓	✓	✓	✓
ETC4120 ETC4120G		A20	297	87	18.24 --- 6.10	4.63 --- 1.95	6.5	1	✓	✓	✓	✓	✓
ETC4123 ETC4123G		A23	359	67	14.47 --- 3.87	3.24 --- 1.37	6.5	1	✓	✓	✓	✓	✓
ETC4124 ETC4124G		A21	346	72	14.37 --- 3.88	2.75 --- 1.13	6.5	1	✓	✓	✓	✓	✓
ETC4125 ETC4125G		A22	344	79	13.93 --- 3.77	2.84 --- 1.18	6.5	1	✓	✓	✓	✓	✓
ETC4129 ETC4129G		A23	335	99	19.34 --- 5.51	5.91 --- 1.95	6.5	1	✓	✓	✓	✓	✓
ETC4130 ETC4130G		A24	312	89	19.39 --- 5.84	4.66 --- 1.63	6.5	1	✓	✓	✓	✓	✓
ETC4131		A43	427	213	93.65 --- 16.15	43.02 --- 16.42	6.5	1	✓	✓	✓	✓	✓
ETC4132		A21	381	89	19.8 --- 5.88	4.53 --- 1.59	6.5	1	✓	✓	✓	✓	✓

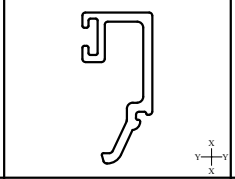
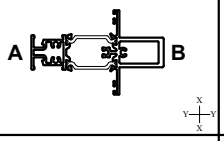
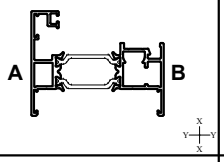
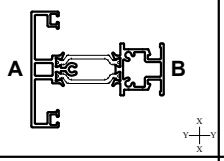
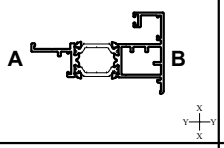
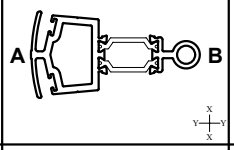
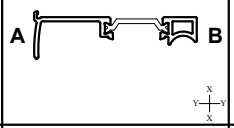
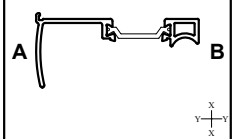
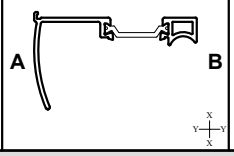
A = Outside
B = Inside

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Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
ETC4133		A22	371	89	16.27 --- 5.1	4.6 --- 1.61	6.5	1	✓	✓	✓	✓	✓
ETC4134 ETC4134G		A19	453	117	29.83 --- 7.07	10.05 --- 3.25	6.5	1	✓	✓	✓	✓	✓
ETC4135 ETC4135G		A26	337	111	23.74 --- 6.30	6.51 --- 2.11	6.5	1	✓	✓	✓	✓	✓
ETC4136		A25	421	201	95.03 --- 15.97	9.13 --- 3.21	6.5	1	✓	✓	✓	✓	✓
ETC4137 ETC4137G		A26	410	113	23.74 --- 6.30	6.51 --- 2.11	6.5	1	✓	✓	✓	✓	✓
ETC4138		A27	306	83	20.06 --- 5.62	7.04 --- 2.88	6.5	1	✓	✓	✓	✓	✓
ETC4139		A27	340	84	19.48 --- 5.40	6.55 --- 2.54	6.5	1	✓	✓	✓	✓	✓
ETC4146		A28	248	74	12.60 --- 3.50	2.64 --- 1.35	6.5	1	✓	✓	✓	✓	✓
ETC4147		A28	256	65	13.69 --- 3.89	2.00 --- 1.22	6.5	1	✓	✓	✓	✓	✓

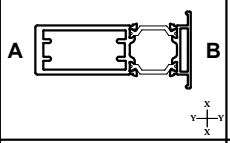
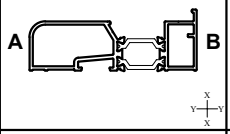
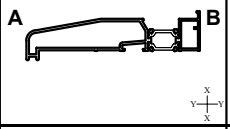
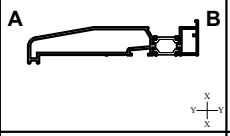
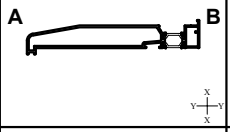
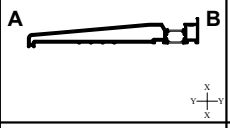
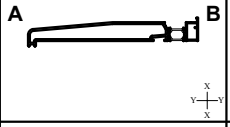
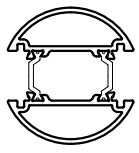
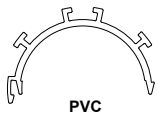
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Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
ETC4179 ETC4179G		A30	104	29	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
ETC4330		A24	436	148	48.04 --- 9.82	5.90 --- 2.07	6.5	1	✓	✓	✓	✓	✓
ETC4410		A44	419	109	30.43 --- 7.95	7.45 --- 2.79	6.5	1	✓	✓	✓	✓	✓
ETC4430		A44	484	120	32.84 --- 7.82	10.8 --- 3.53	6.5	1	✓	✓	✓	✓	✓
ETC4446		A44	359	67	16.49 --- 3.46	3.88 --- 1.77	6.5	1	✓	✓	✓	✓	✓
ETC080		A36	334	61	25.58 --- 5.47	4.88 --- 2.57	6.5	1	✓	✓	✓	✓	✓
ETC081		A36	197	35	13.85 --- 3.8	0.36 --- 0.52	6.5	1	✓	✓	✓	✓	✓
ETC082		A36	221	47	16.21 --- 4.19	1.15 --- 1.29	6.5	1	✓	✓	✓	✓	✓
ETC083		A36	243	58	17.66 --- 4.32	2.64 --- 2.36	6.5	1	✓	✓	✓	✓	✓

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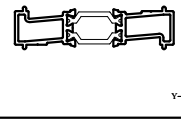
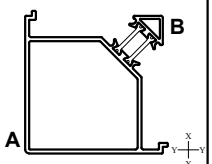
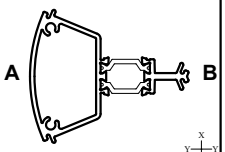
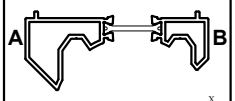
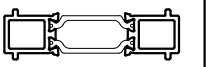
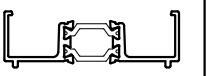
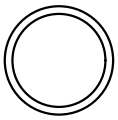
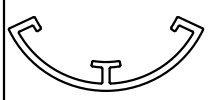
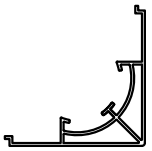
Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
ETC357		A37	297	138	41.5 --- 9.86	52 --- 2.67	6.5	1	✓	✓	✓	✓	✓
ETC451		A38	304	109	32.44 --- 7.29	3.46 --- 2.79	6.5	1	✓	✓	✓	✓	✓
ETC452		A38	414	197	122.46 --- 18.03	6.01 --- 3.34	6.5	1	✓	✓	✓	✓	✓
ETC457		A38	444	212	164.27 --- 21.60	6.79 --- 3.73	6.5	1	✓	✓	✓	✓	✓
ETC458		A39	524	252	313.62 --- 32.63	8.87 --- 4.79	6.5	1	✓	✓	✓	✓	✓
ETC477		A40	752	408	1591.6 --- 105.33	26.84 --- 12.84	6.5	1	✓	✓	✓	✓	✓
ETC479N		A39	594	287	501.64 --- 44.04	9.72 --- 5.34	6.5	1	✓	✓	✓	✓	✓
ETC869		A32	332	144	18.38 --- 6.13	14.3 --- 5.17	6.5	1	✓	✓	✓	✓	✓
PCX55		A33	207	-	- --- -	- --- -	3	1	✓				

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Alitherm 400

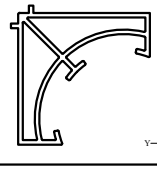
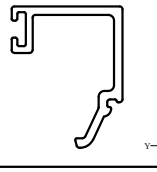
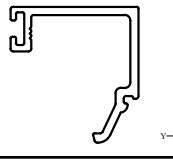
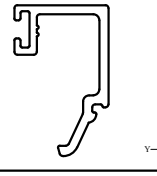
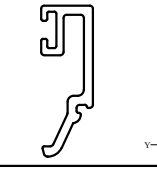
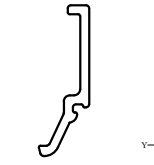
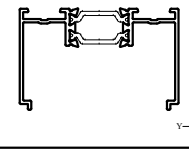
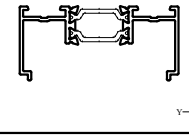
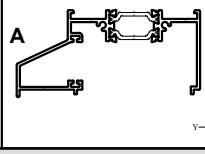
PROFILES : TECHNICAL INFORMATION

Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
UN3000		A37	251	41	15.8 --- 4.51	0.79 --- 0.84	6.5	1	✓	✓	✓	✓	✓
UN3010		A35	369	226	41.4 --- 10.7	40.0 --- 11.6	6.5	1	✓	✓	✓	✓	✓
UN3011		A35	288	130.3	22.3 --- 5	12.2 --- 4.1	6.5	1	✓	✓	✓	✓	✓
UN3012		A32	238	76	17.24 --- 4.78	1.53 --- 1.46	6.5	1	✓	✓	✓	✓	✓
UN3015		A37	214.5	56	18.1 --- 5.2	0.95 --- 0.95	6.5	1	✓	✓	✓	✓	✓
UN3020		A41	281.6	70.4	14.8 --- 4.2	0.9 --- 1	6.5	1	✓	✓	✓	✓	✓
UN3080		A33	-	-	4.69 --- 4.69	2.47 --- 2.47	6.5	1	✓				
UN3081		A33	189	68	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
UN3082		A34	379	151	- --- -	- --- -	6.5	1	✓	✓	✓	✓	

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ISSUED: JANUARY 2026

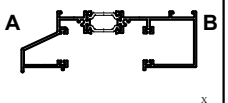
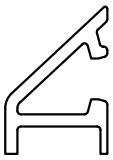
Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
UN3083		A34	235	12	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
UN3160 UN3160G		A29	120	39	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
UN3162N UN3162NG		A29	128	41	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
UN3164 UN3164G		A30	112	33	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
UN3166		A31	98	43	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
UN3168		A31	65	23	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
UN3270		A41	407	85	23.39 --- 6.68	5.8 --- 1.83	6.5	1	✓	✓	✓	✓	✓
UN3370		A41	360	61	18.4 --- 5.26	2.15 --- 1.97	6.5	1	✓	✓	✓	✓	✓
UN3570		A42	545	140	47.47 --- 9.53	9.26 --- 4.87	6.5	1	✓	✓	✓	✓	✓

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Alitherm 400

PROFILES : TECHNICAL INFORMATION

Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
UN3577		**A42**	**751**	**178**	**117.89** --- **17.11**	**15.81** --- **8.83**	**6.5**	**1**	✓	✓	✓	✓	✓
VL72		**A32**	**251**	**41**	**16.30** --- **4.66**	**1.12** --- **1.55**	**6.5**	**1**	✓	✓	✓	✓	

A = Outside
B = Inside

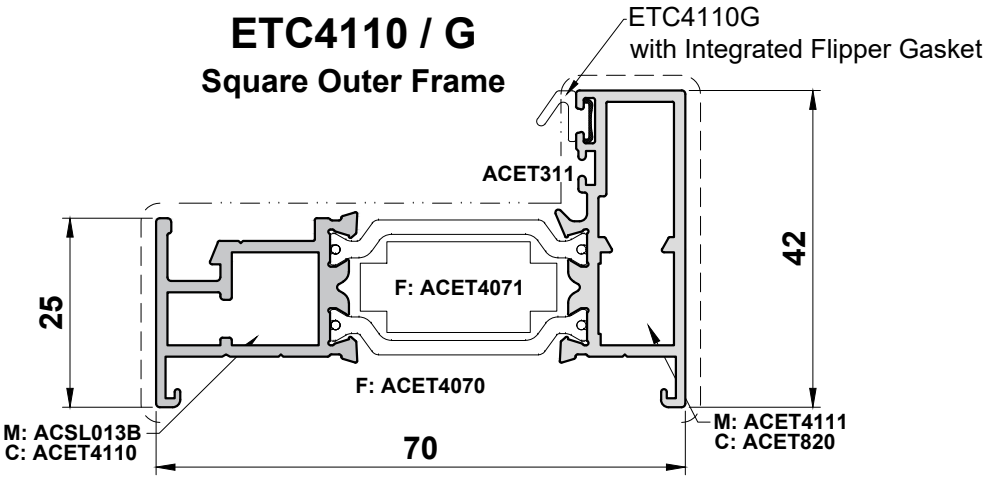
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Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side —·—·—·—·—·—·—·—

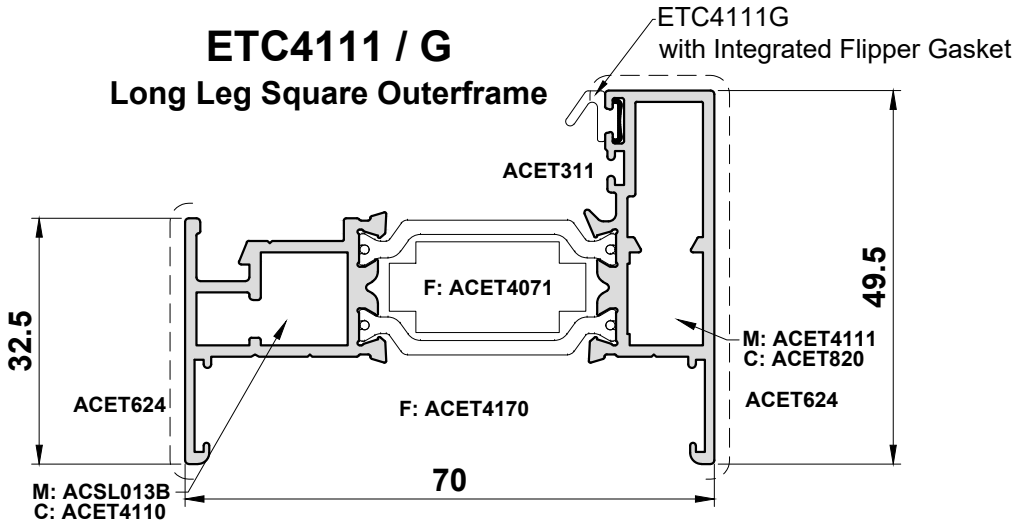
ETC4110 / G

Square Outer Frame



ETC4111 / G

Long Leg Square Outerframe

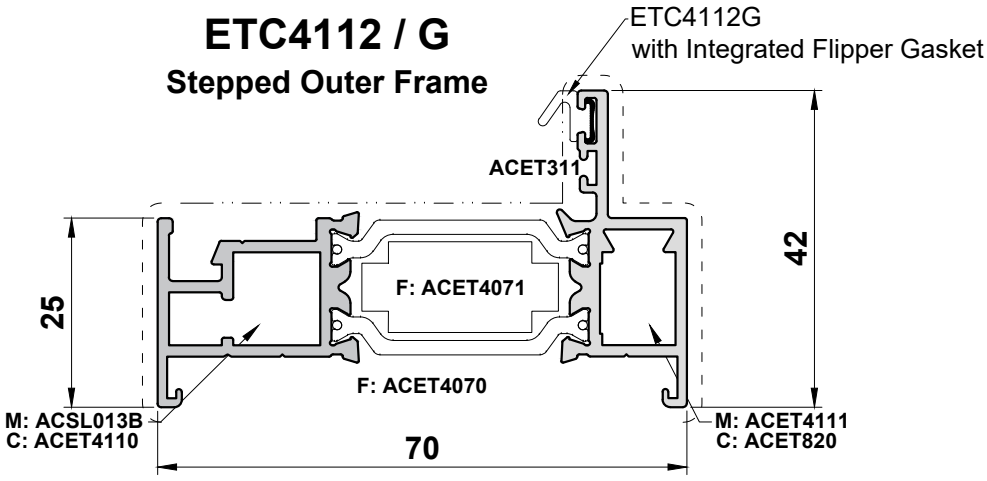


Scale 1:1

Primary Visible Side – – – – – – – – – – – – – – – – – – Secondary Visible Side — · — · — · — · — · — · —

ETC4112 / G

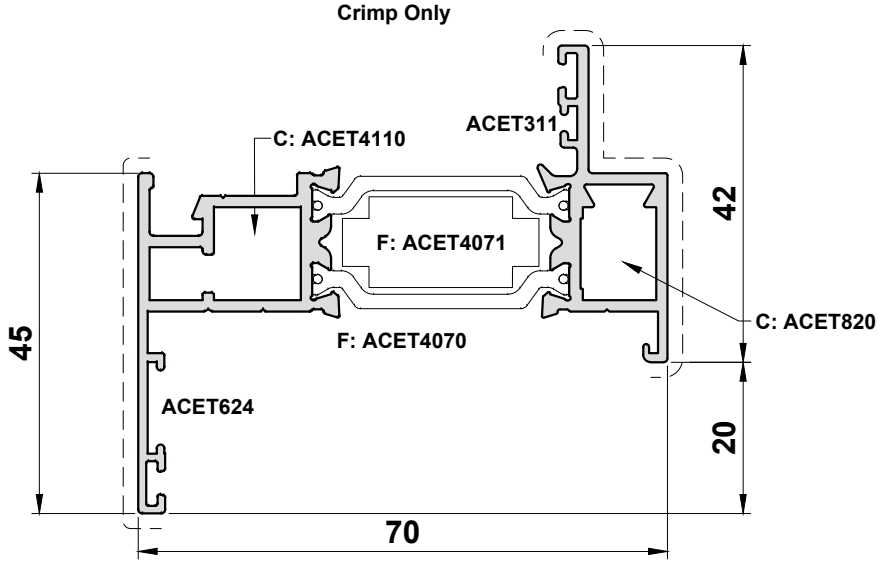
Stepped Outer Frame



ETC4113

Odd Leg Stepped Outerframe

Crimp Only



Scale 1:1

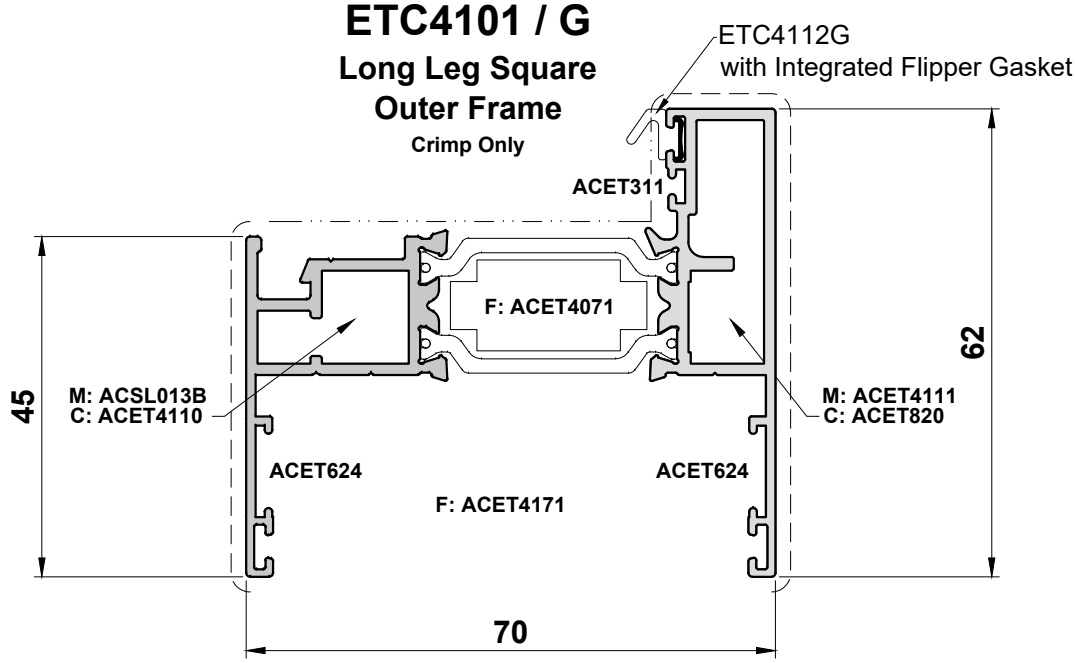
ISSUED: JANUARY 2026

Primary Visible Side – – – – – – – – – – – – – – – – – Secondary Visible Side —·—·—·—·—·—·—·—

ETC4101 / G

Long Leg Square Outer Frame

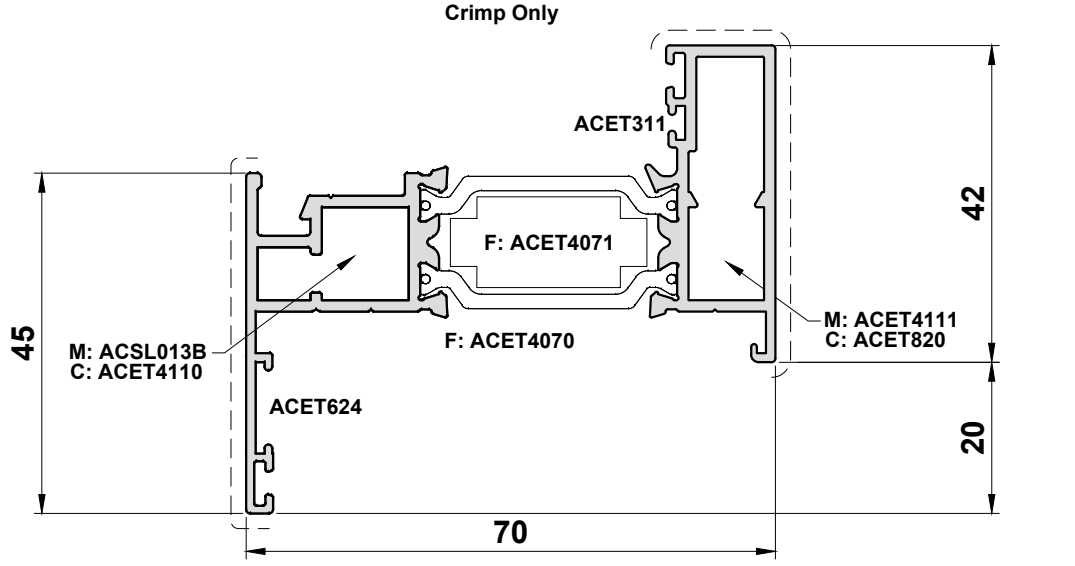
Crimp Only



ETC4114

Odd Leg Square Outerframe

Crimp Only



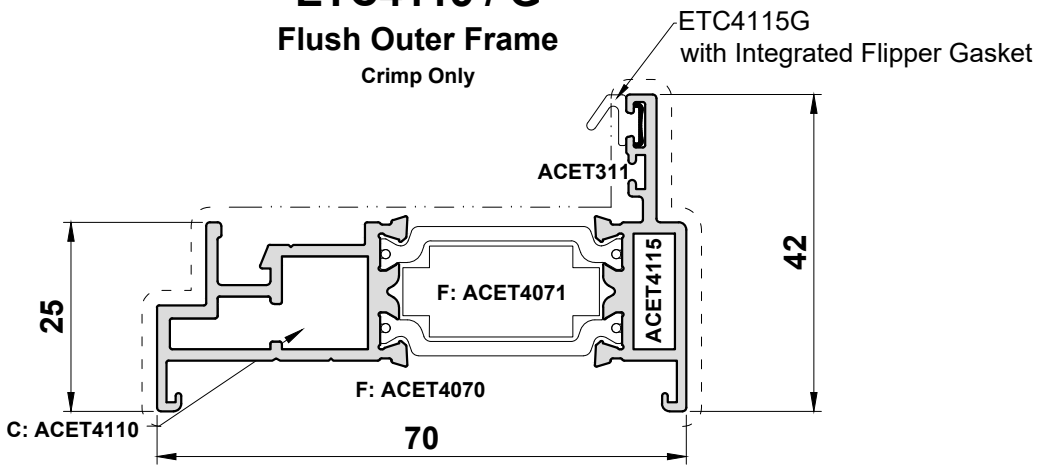
Scale 1:1

Primary Visible Side – – – – – – – – – – – – – – – – – – Secondary Visible Side — · — · — · — · — · — · —

ETC4115 / G

Flush Outer Frame

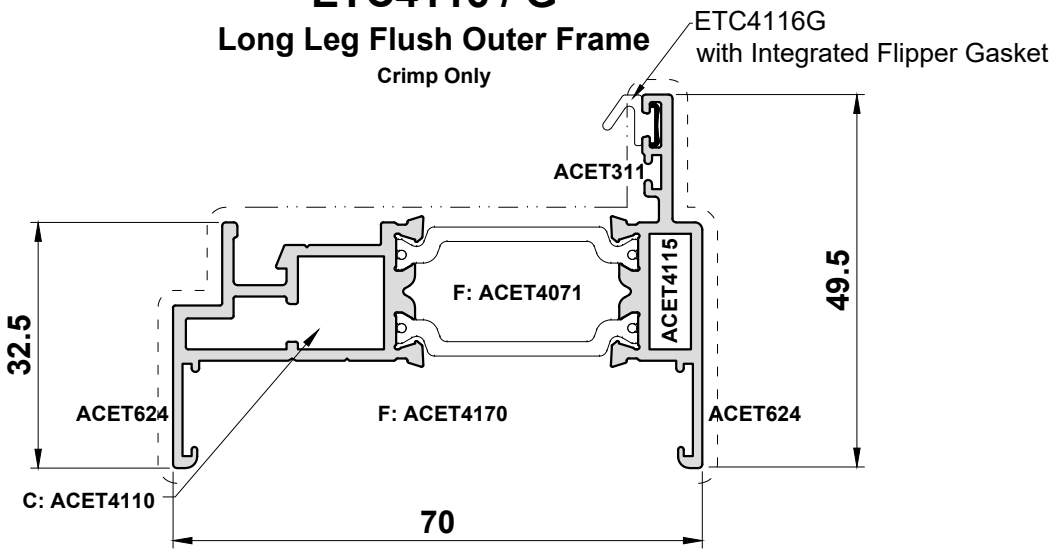
Crimp Only



ETC4116 / G

Long Leg Flush Outer Frame

Crimp Only



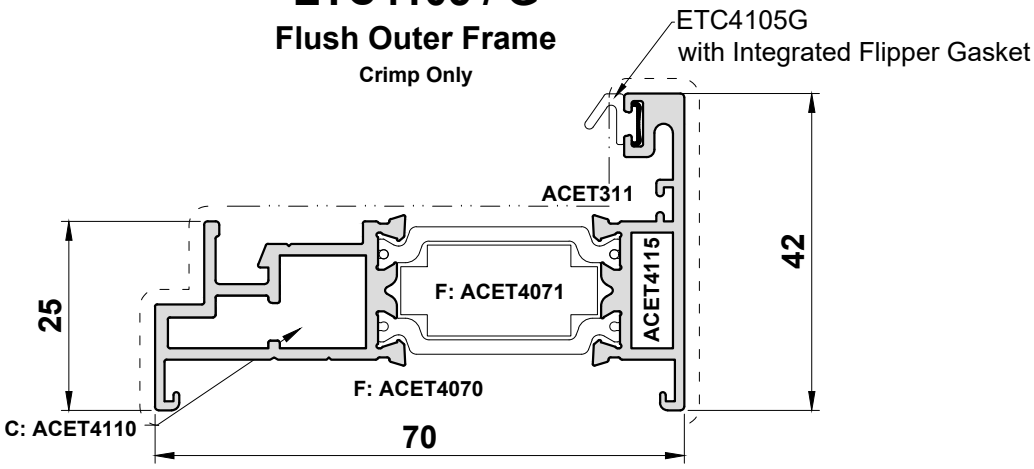
Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

ETC4105 / G

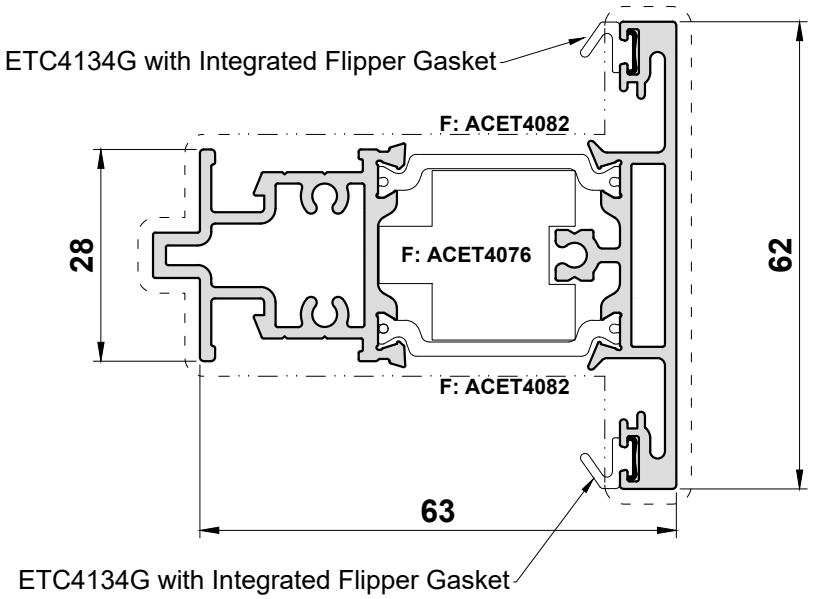
Flush Outer Frame

Crimp Only



ETC4134 / G

Flush Transom/Mullion



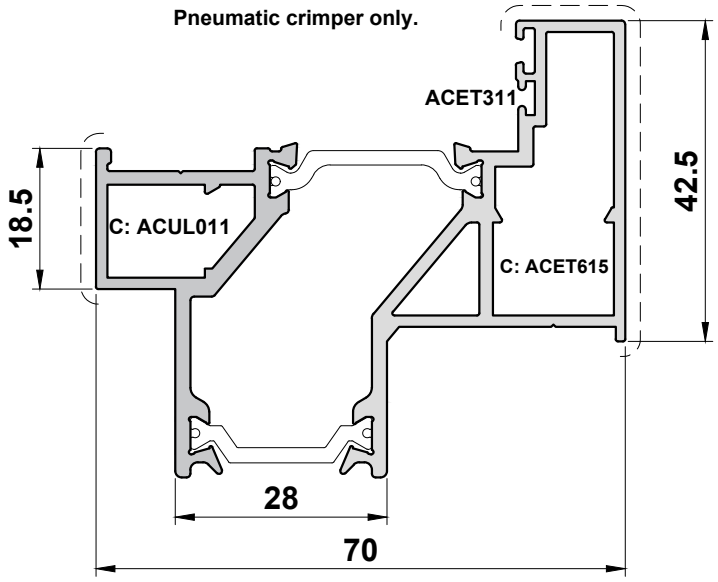
Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

ETC4117

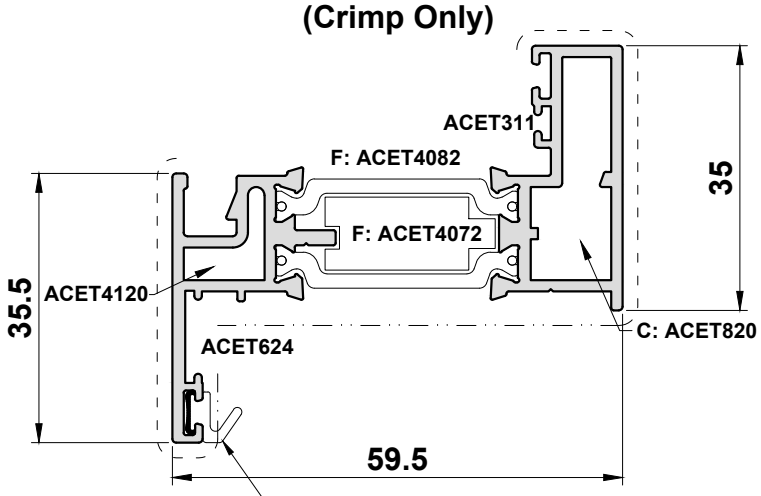
Curtain Wall Adaptor

(For Single Opening Lights Only)
Pneumatic crimper only.



ETC4120 / G

Externally Beaded Sash
(Crimp Only)



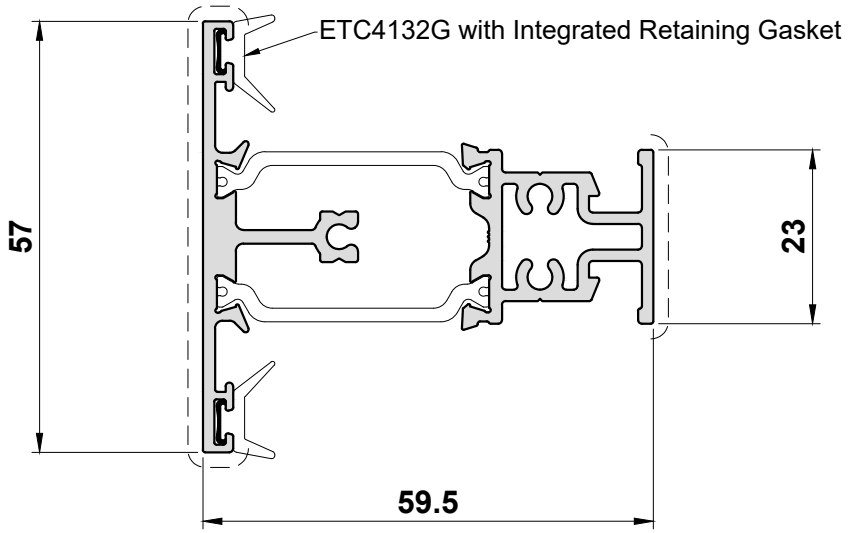
ETC4120G with Integrated Flipper Gasket Only

Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

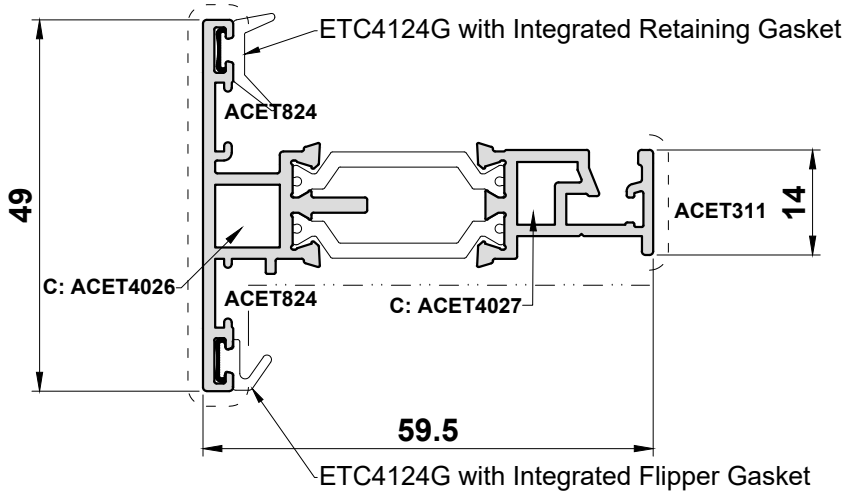
ETC4132 / G

ETC4124 Dummy Transom



ETC4124 / G

Slimline Sash

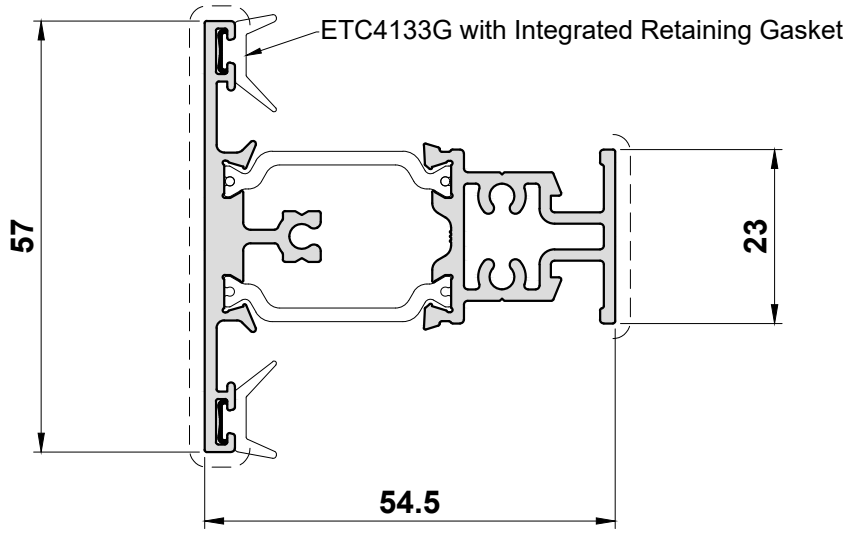


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

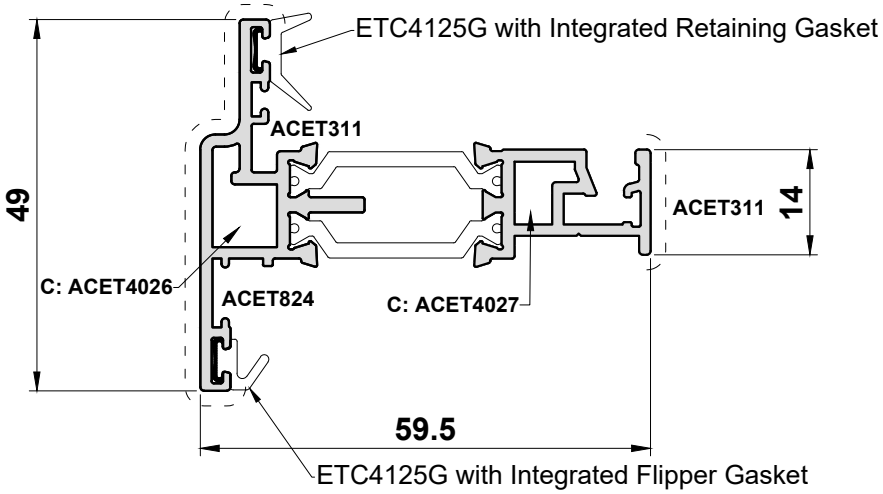
ETC4133 / G

ETC4125 Dummy Transom



ETC4125 / G

Heritage Sash
for 24mm & 28mm Glazing Only

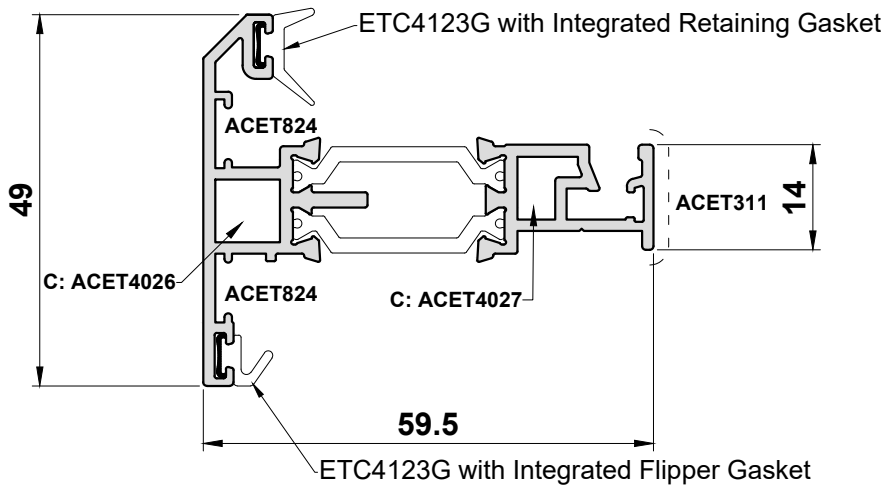


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side —·—·—·—·—·—·—·—

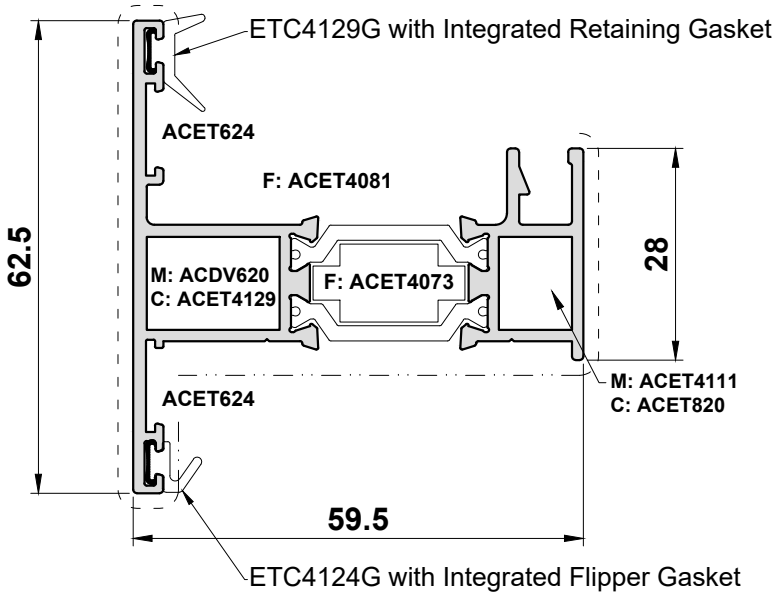
ETC4123 / G

Chamfered Sash
for 24mm & 28mm Glazing Only



ETC4129 / G

Internally Bead Sash

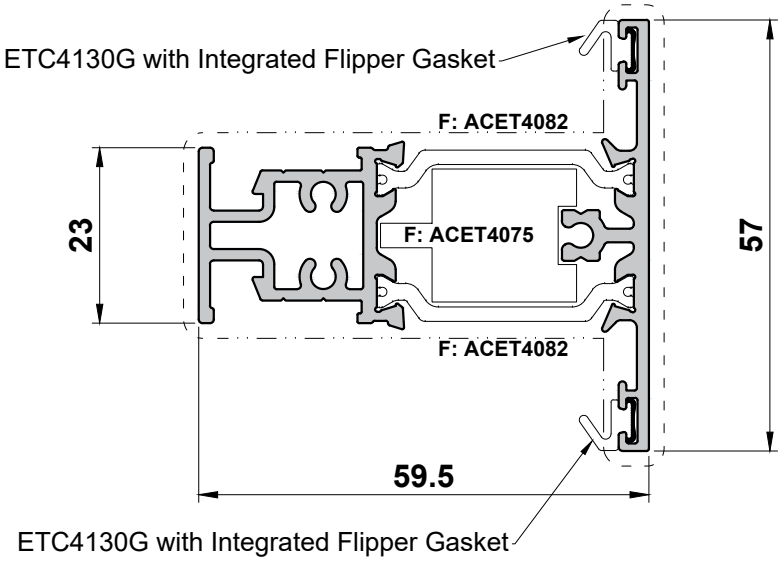


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

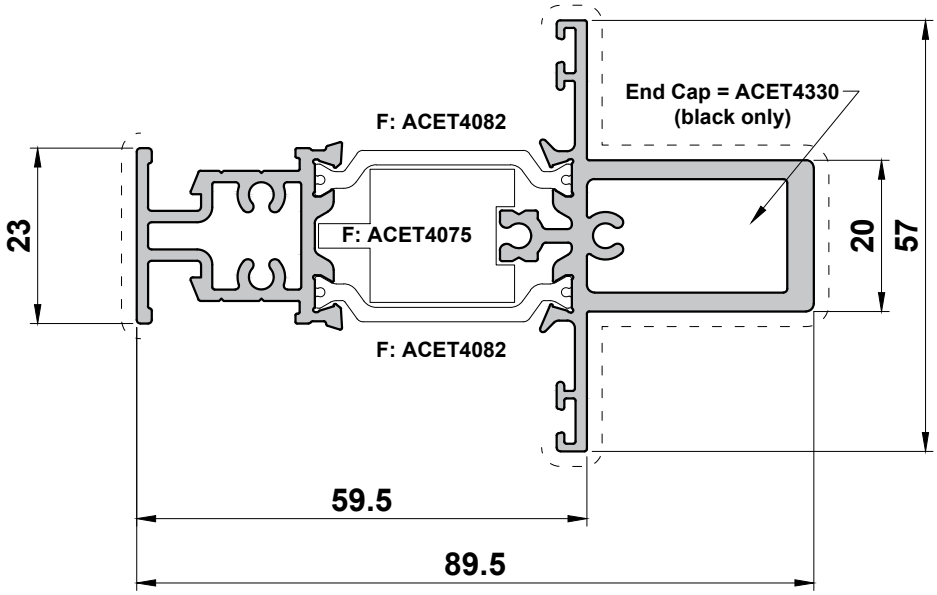
ETC4130 / G

Transom/Mullion



ETC4330

Reinforced Transom/Mullion

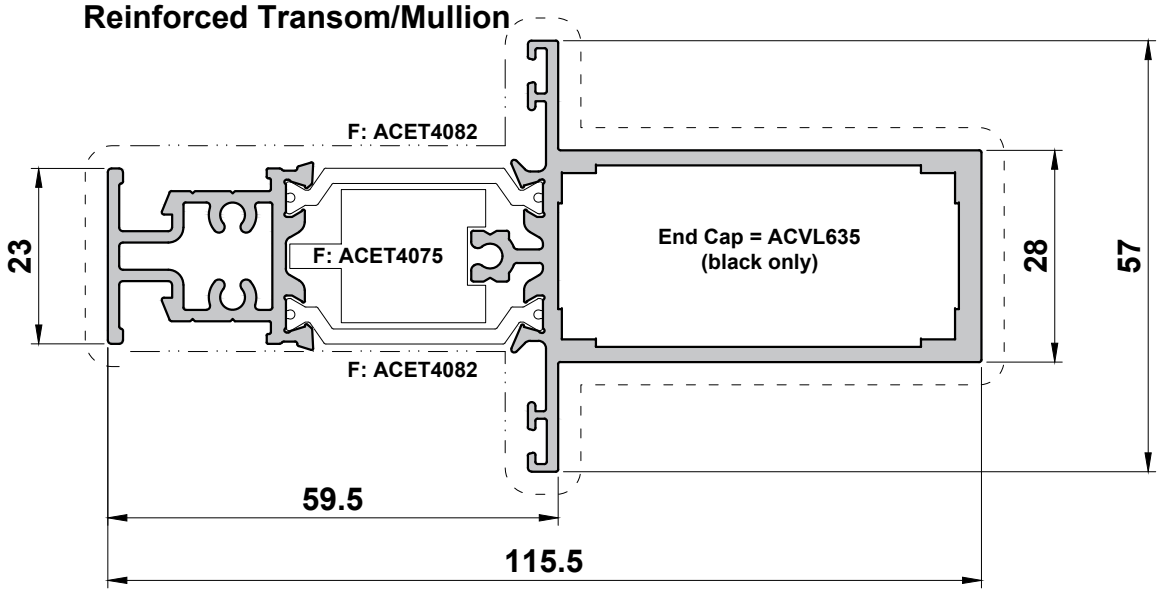


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

ETC4136

Reinforced Transom/Mullion

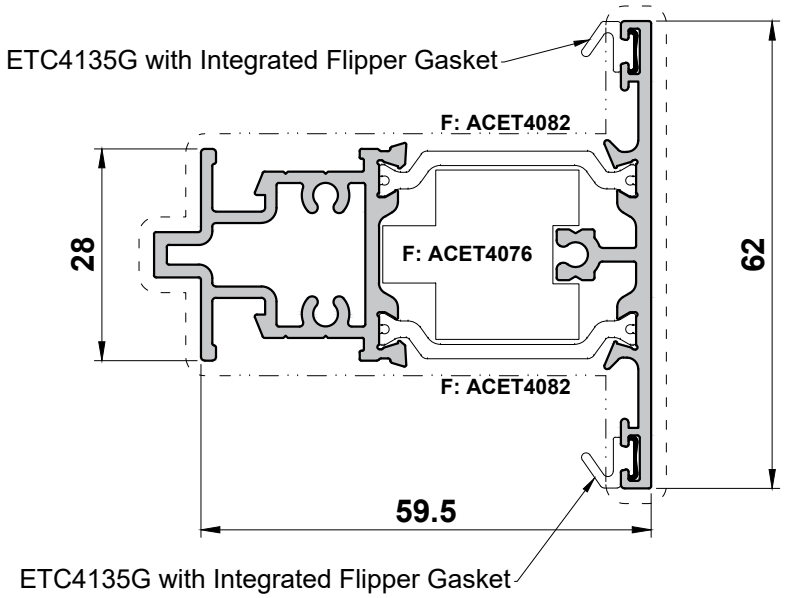


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

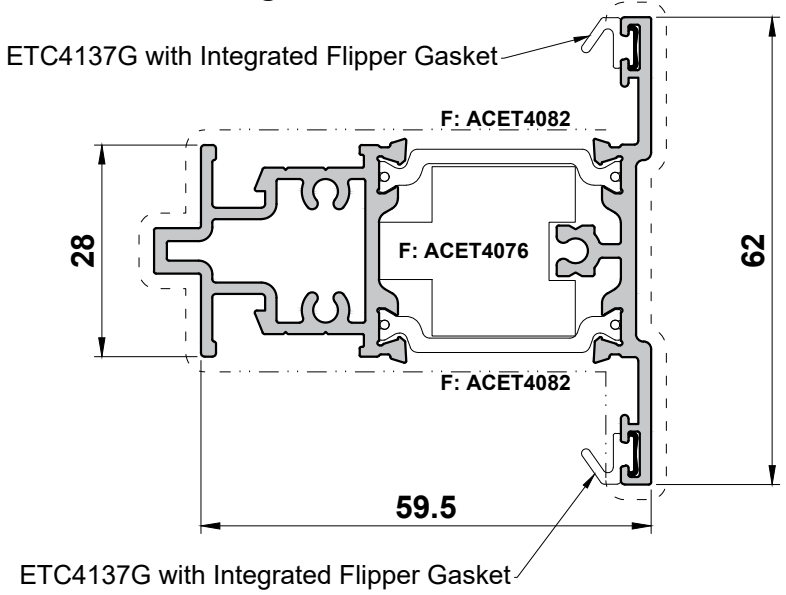
ETC4135 / G

Flush Transom/Mullion



ETC4137 / G

Heritage Flush Transom/Mullion

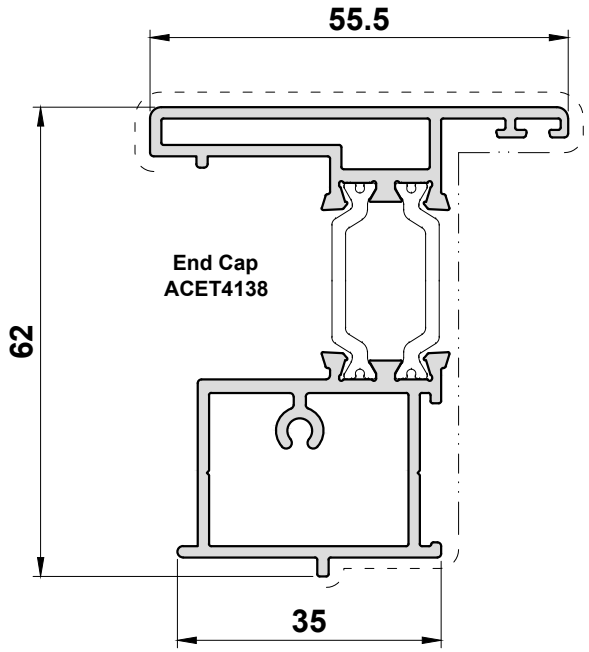


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

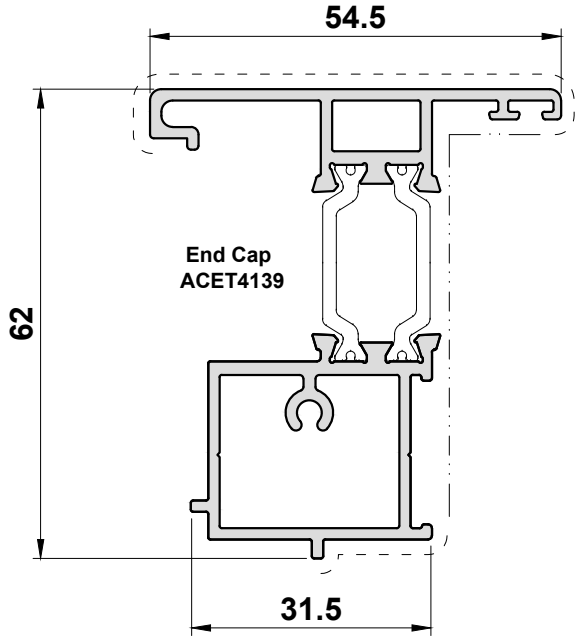
ETC4138

French Casement Mullion



ETC4139

French Casement Mullion
for Slimline Sash ETC4124 & ETC4125

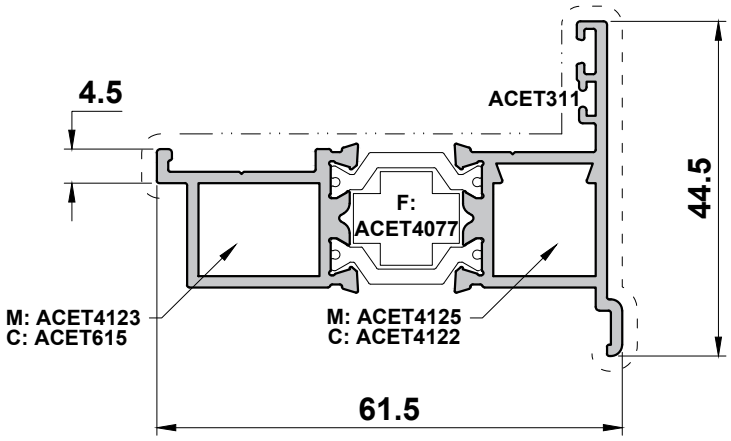


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side —·—·—·—·—·—·—

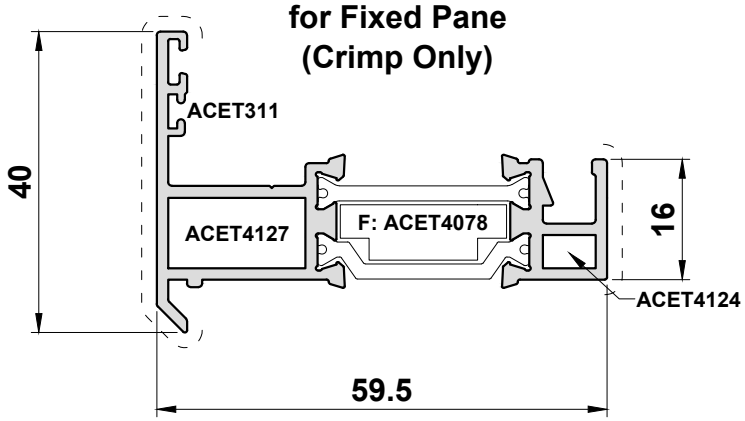
ETC4146

Reverse Adaptor for Opening Sash



ETC4147

Reverse Adaptor for Fixed Pane (Crimp Only)

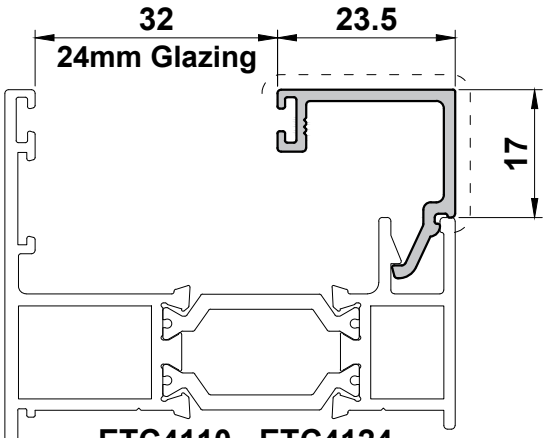


Scale 1:1

ISSUED: JANUARY 2026

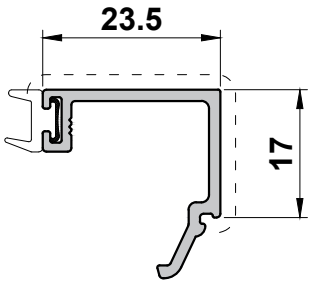
Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side —·—·—·—·—·—·—·—

UN3162N
23.5mm Bead

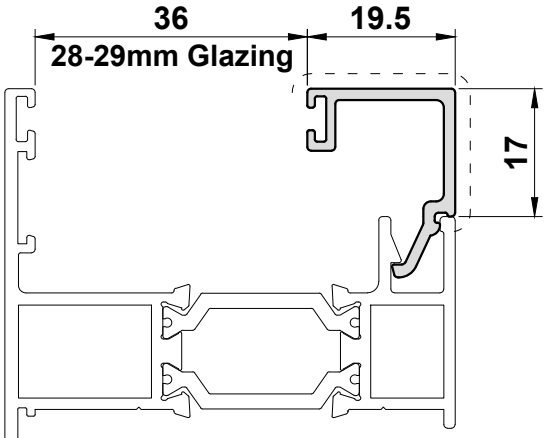


ETC4110 ETC4124
ETC4111 ETC4129
ETC4112 ETC4130
ETC4113 ETC4135
ETC4115 ETC4136
ETC4116 ETC4147

UN3162NG
23.5mm Bead with Gasket

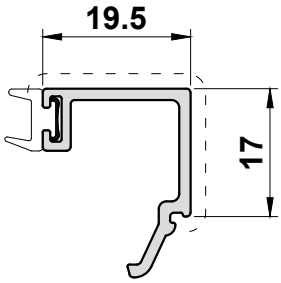


UN3160
19.5mm Bead



ETC4110 ETC4124
ETC4111 ETC4125 (24mm glazing)
ETC4112 ETC4129
ETC4113 ETC4130
ETC4115 ETC4135
ETC4116 ETC4136
ETC4147

UN3160G
19.5mm Bead with Gasket

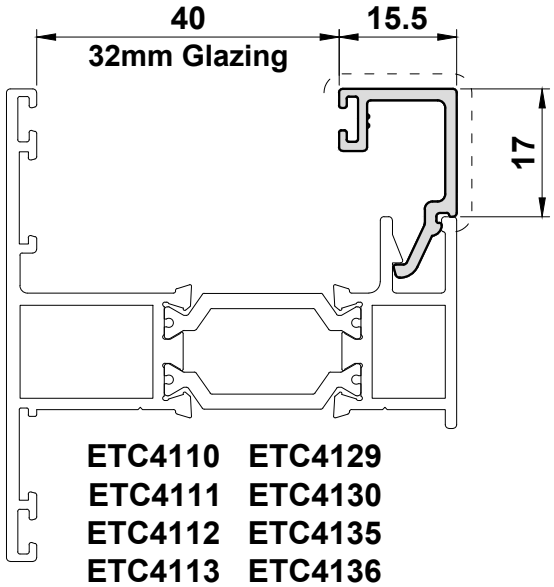


See Section E glazing chart for ETC4120 glazing details

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · · — — · · — — · · — — · · — — · · —

UN3164

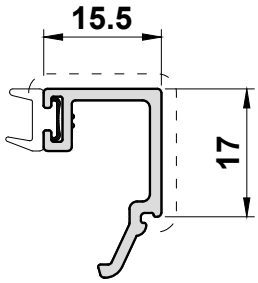
15.5mm Bead



ETC4110 ETC4129
ETC4111 ETC4130
ETC4112 ETC4135
ETC4113 ETC4136
ETC4115 ETC4147
ETC4116

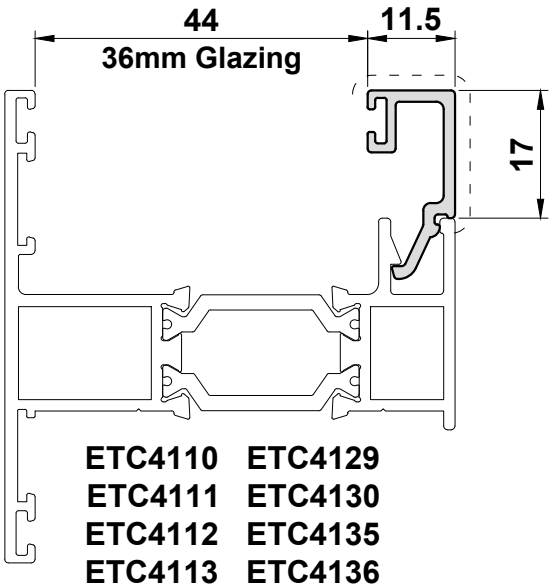
UN3164G

15.5mm Bead with Gasket



ETC4179

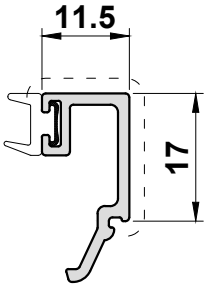
11.5mm Bead



ETC4110 ETC4129
ETC4111 ETC4130
ETC4112 ETC4135
ETC4113 ETC4136
ETC4115 ETC4147
ETC4116

ETC4179G

11.5mm Bead with Gasket



Scale 1:1

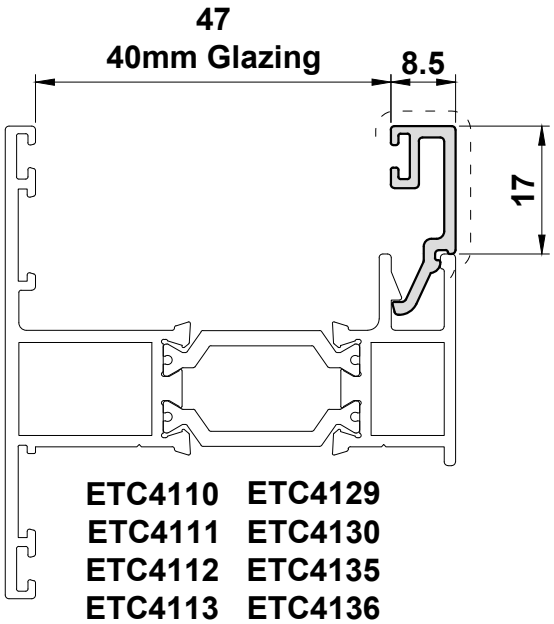
See Section E glazing chart for ETC4120 glazing details

Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

UN3166

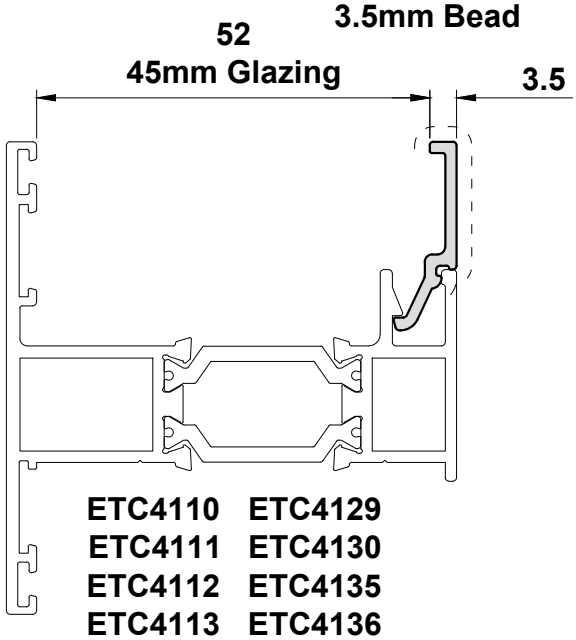
8.5mm Bead



ETC4110 ETC4129
ETC4111 ETC4130
ETC4112 ETC4135
ETC4113 ETC4136
ETC4115 ETC4147
ETC4116

UN3168

3.5mm Bead



ETC4110 ETC4129
ETC4111 ETC4130
ETC4112 ETC4135
ETC4113 ETC4136
ETC4115 ETC4147
ETC4116

See Section E glazing chart for ETC4120 glazing details

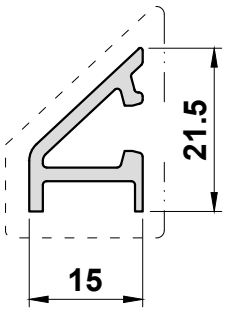
Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

VL72

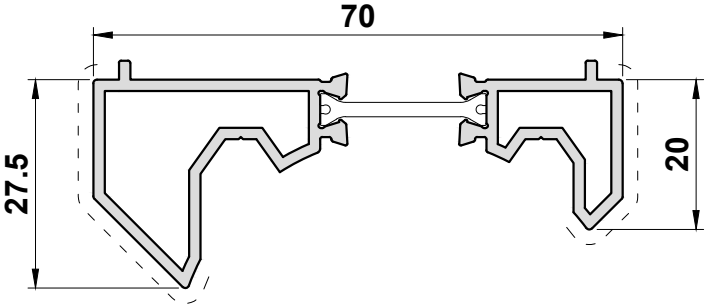
Drip / Weather Bar

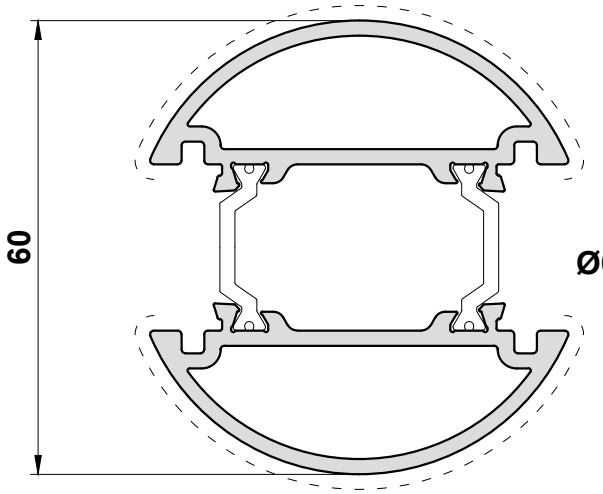
End Caps: ACVL059



UN3012

Bay Pole Adaptor





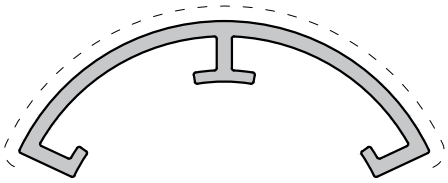
ETC869

Ø60mm Bay Pole

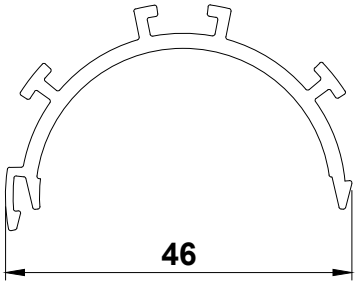
Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

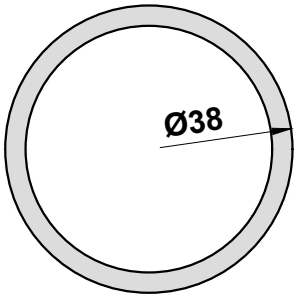
UN3081
Bay Pole Cover

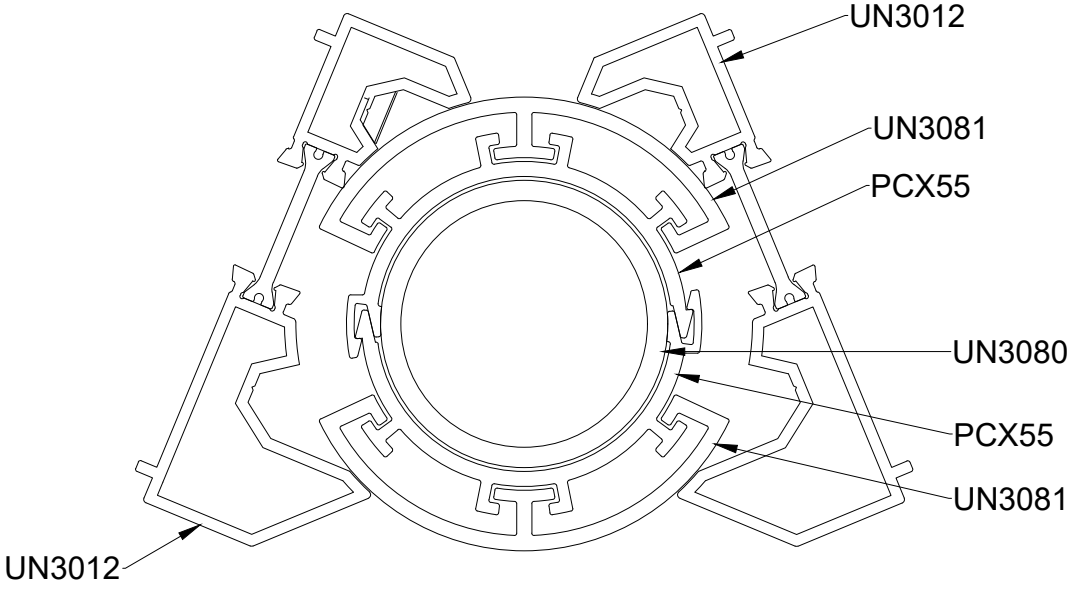


PCX55
Bay Pole Isolator



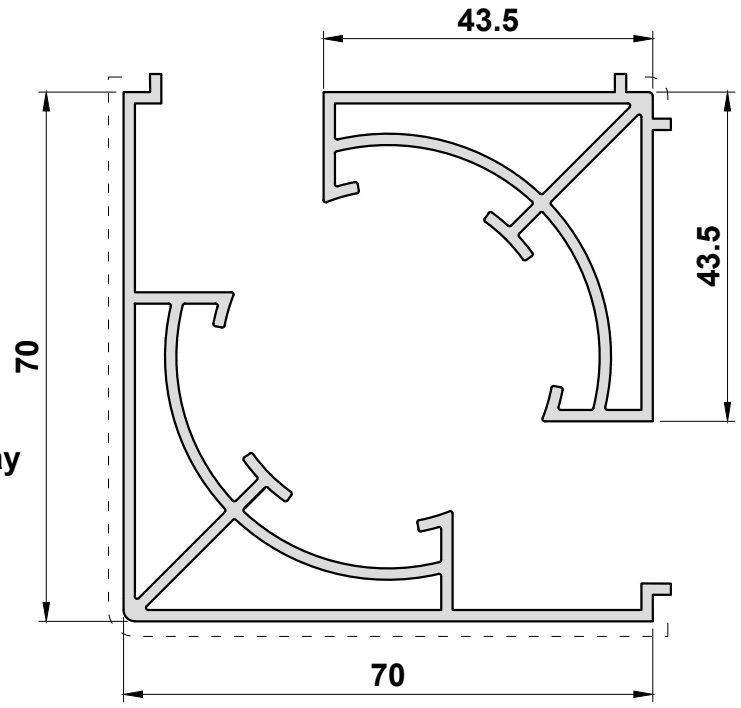
UN3080
Bay Pole





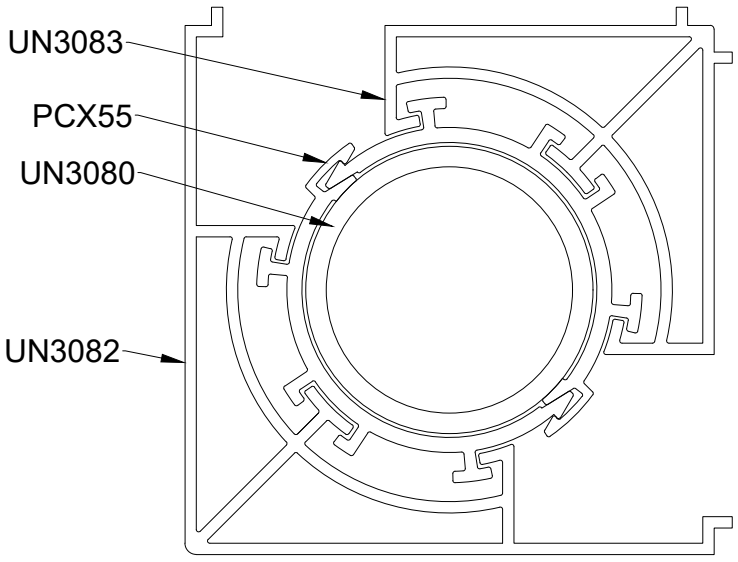
Scale 1:1

Primary Visible Side – – – – – – – – – – – – – – – – – Secondary Visible Side —·—·—·—·—·—·—·—



UN3083
Internal 90° Bay Pole Adaptor

UN3082
External 90° Bay Pole Adaptor



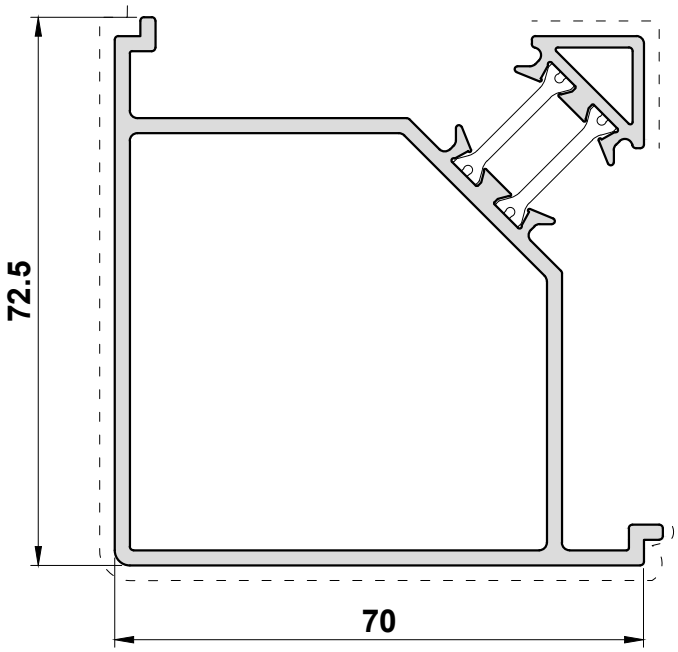
Scale 1:1

ISSUED: JANUARY 2026

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · —

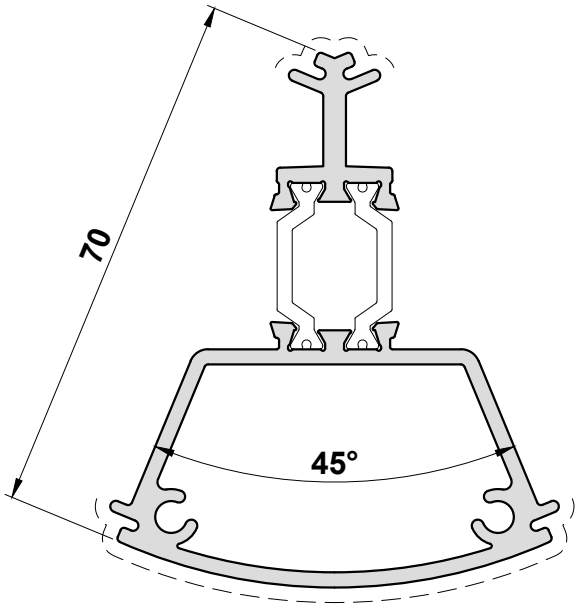
UN3010

90° Corner Post



UN3011

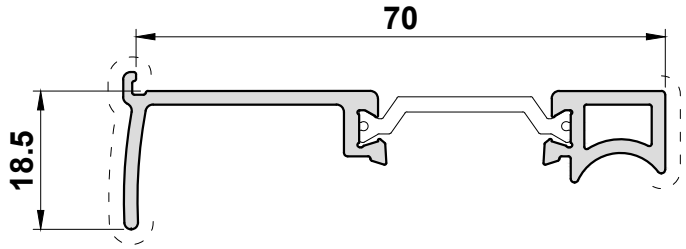
135° Bay Pole



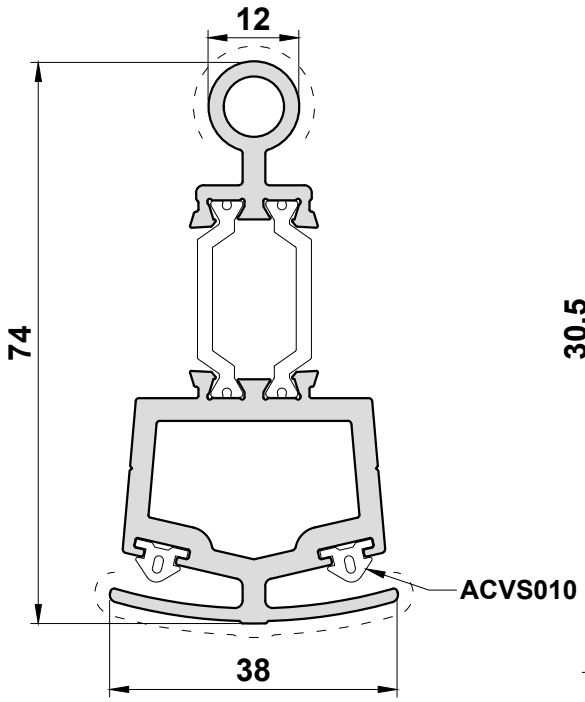
Scale 1:1

Primary Visible Side – – – – – – – – – – – – – – – – – – Secondary Visible Side — · — · — · — · — · — · —

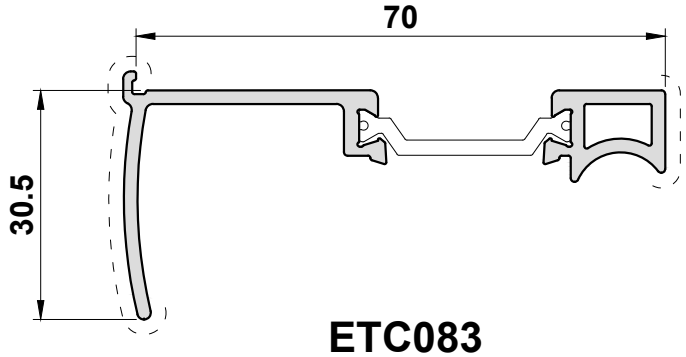
ETC081
169° - 150°
Bay Pole Adaptor



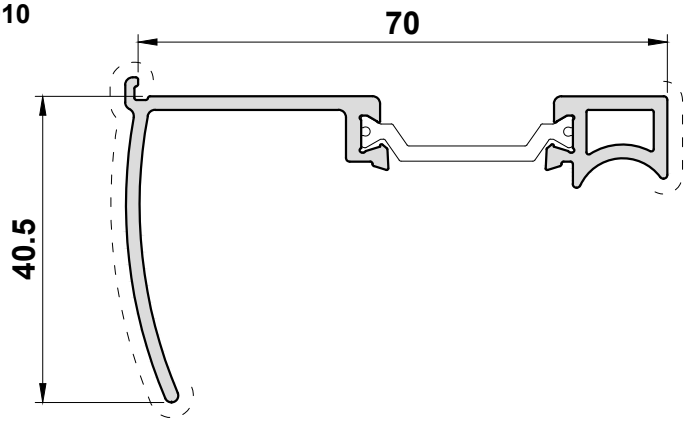
ETC080
Bay Pole



ETC082
149° - 130°
Bay Pole Adaptor



ETC083
129° - 115°
Bay Pole Adaptor

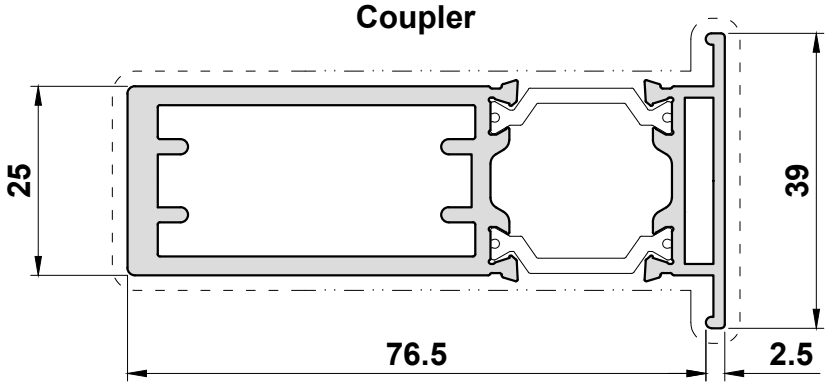


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side —·—·—·—·—·—·—·—

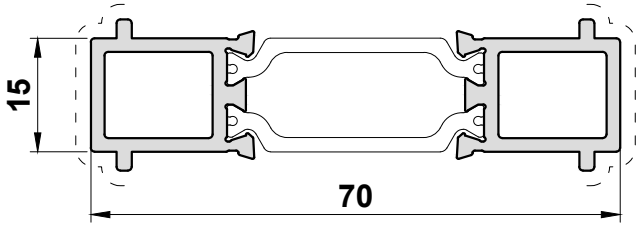
ETC357

Coupler



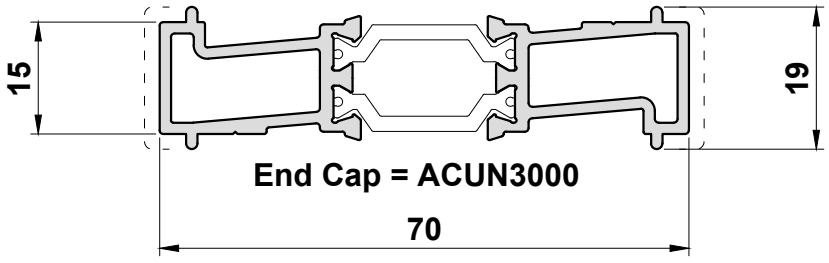
UN3015

70mm x 15mm Coupler



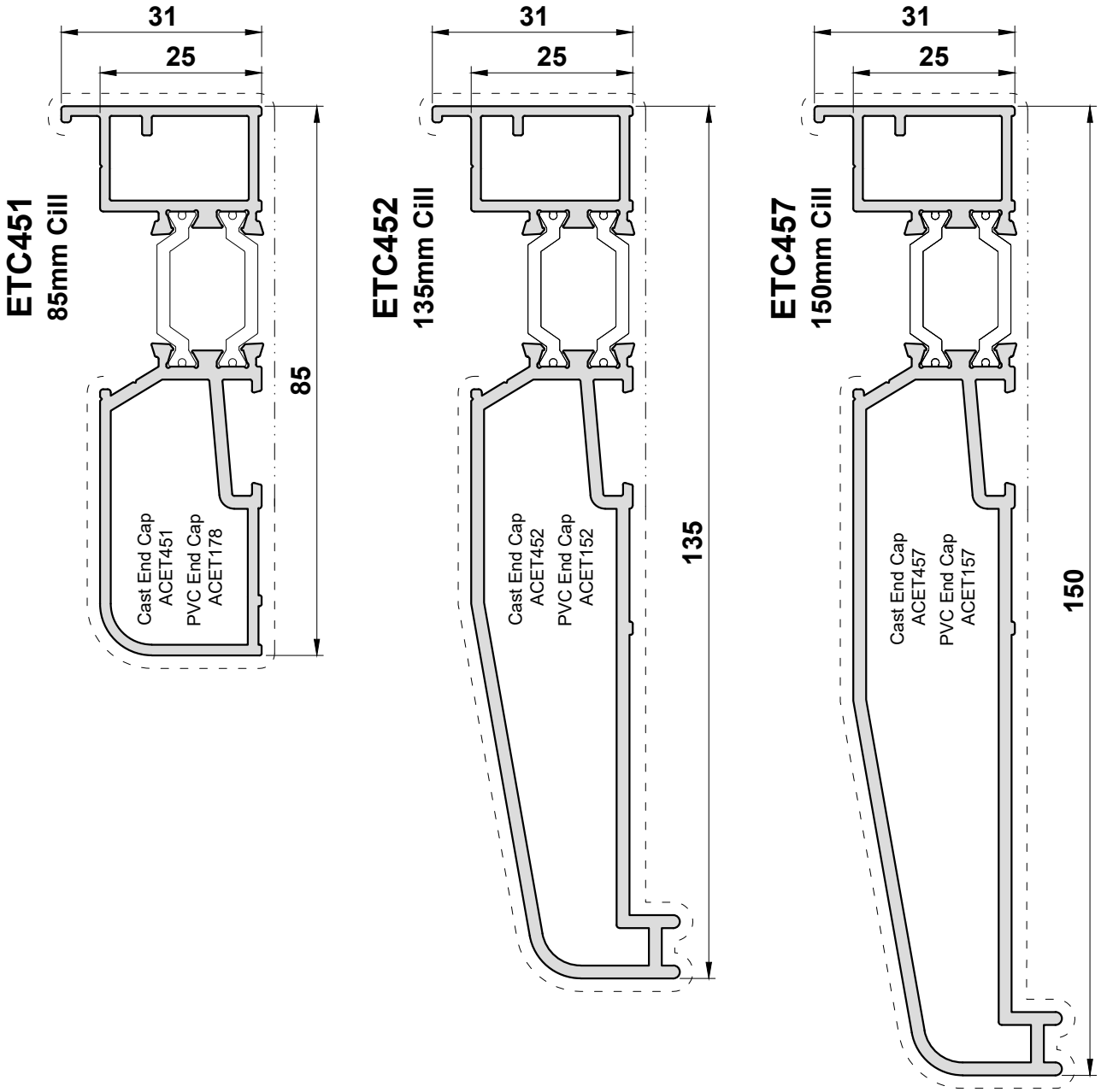
UN3000

Flush Horizontal Coupler



Scale 1:1

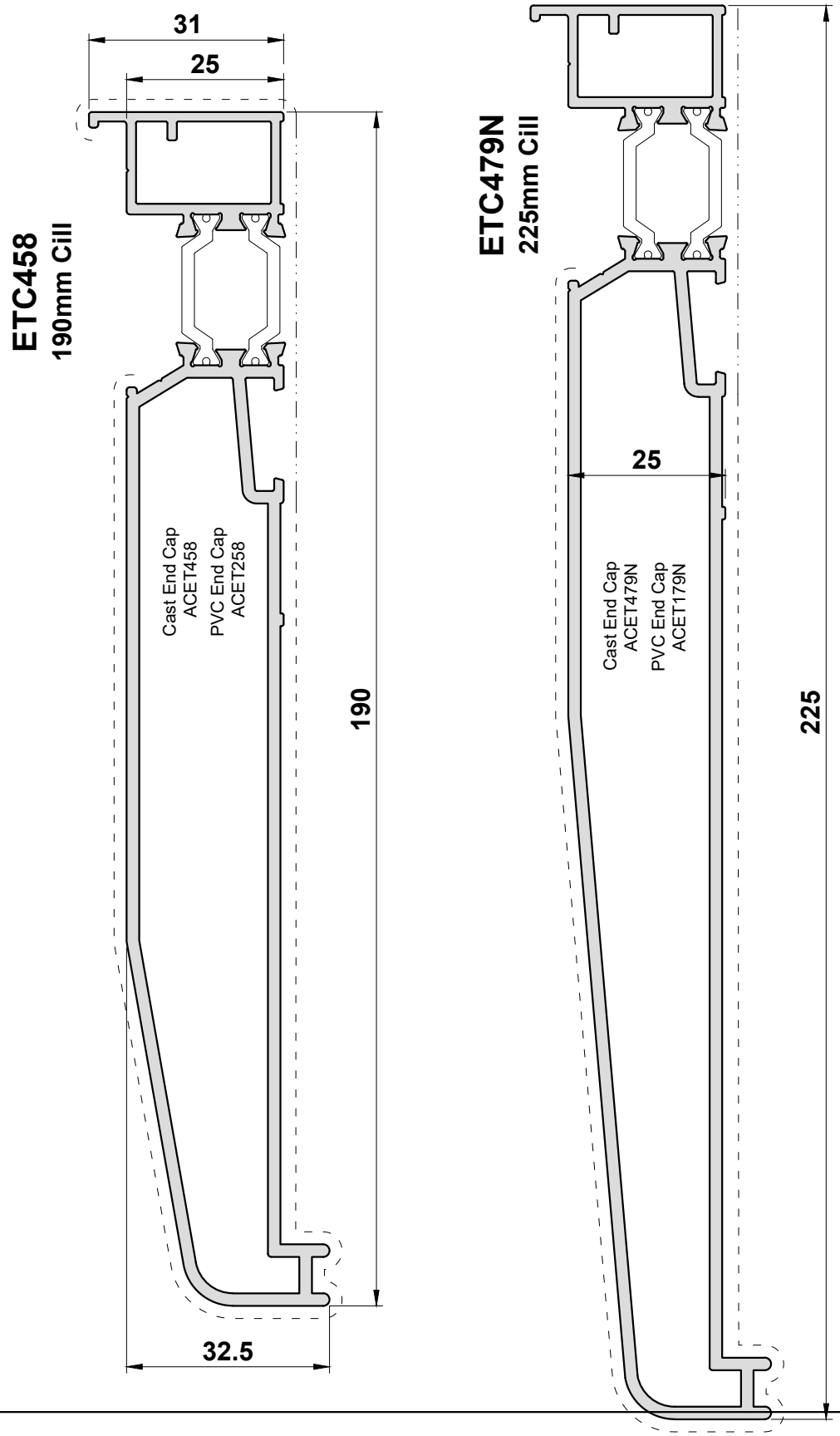
Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side —·—·—·—·—·—·—



Scale 1:1

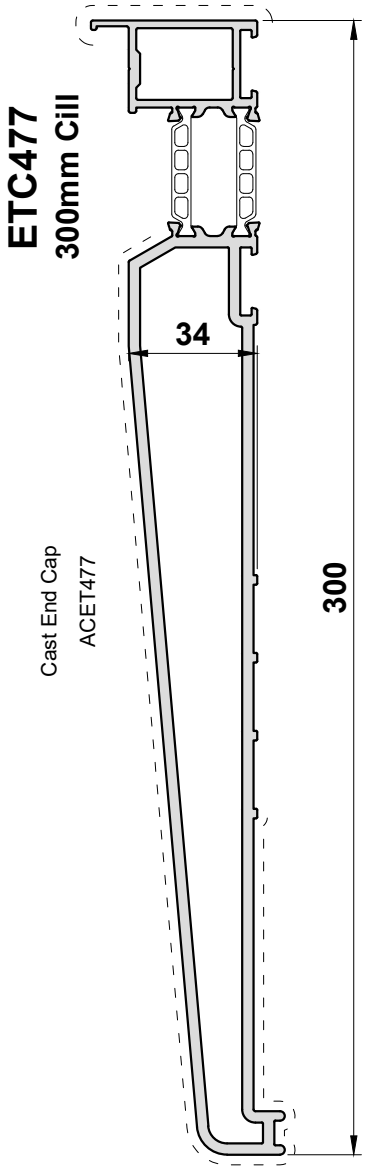
ISSUED: JANUARY 2026

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side —·—·—·—·—·—·—·—



Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —



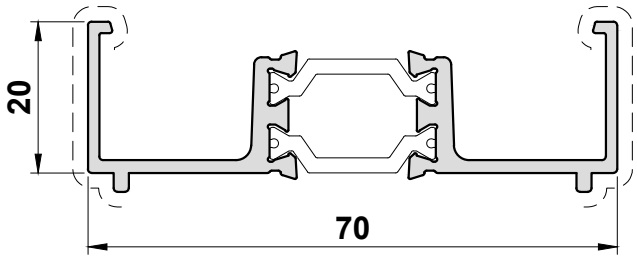
Scale 1:2

ISSUED: JANUARY 2026

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

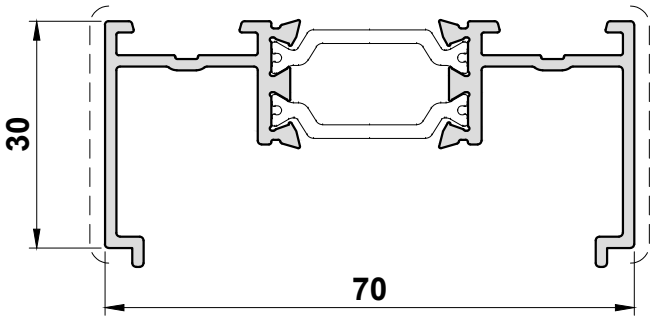
UN3020

70mm x 20mm Frame Extension



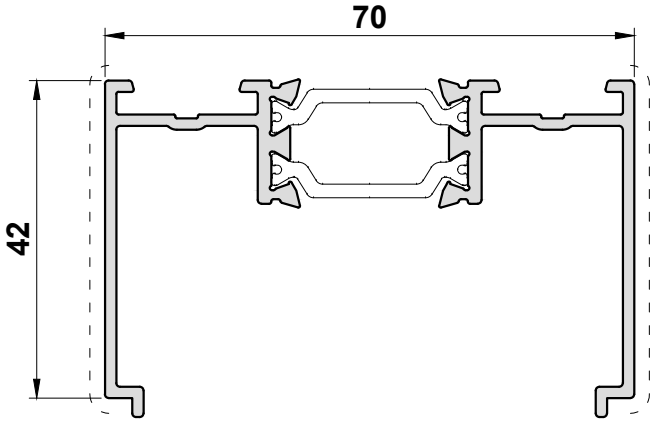
UN3370

30mm x 70mm Head Extension



UN3270

70 x 42mm Head Extension

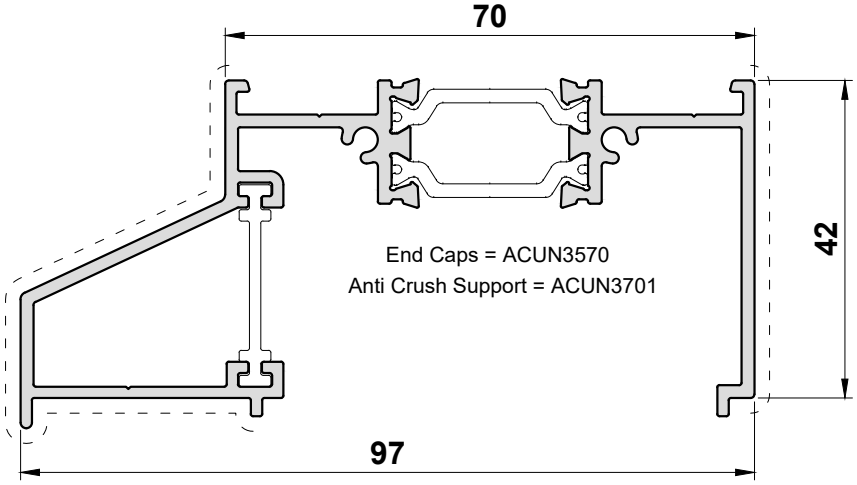


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

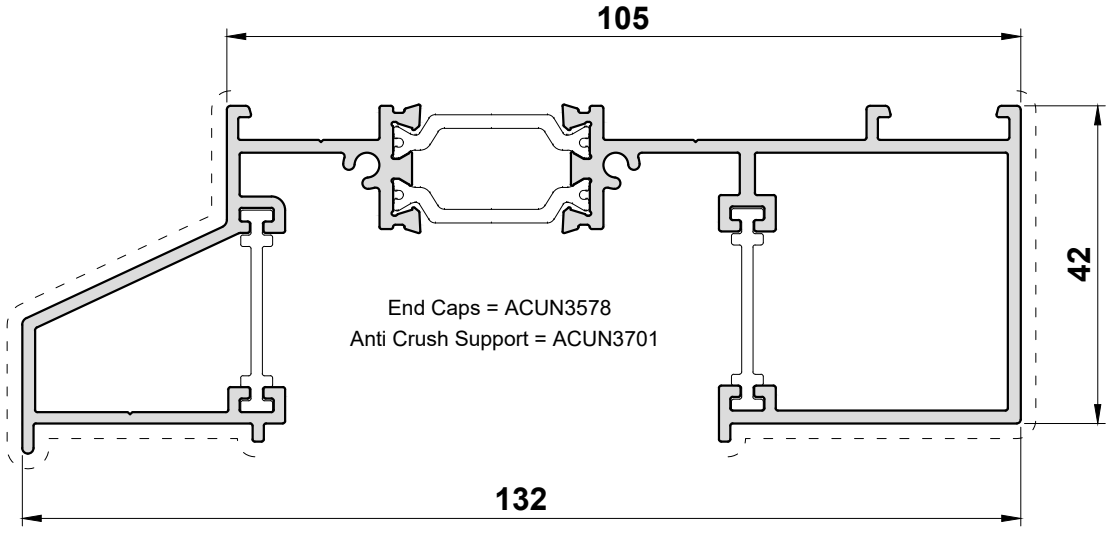
UN3570

70 x 42mm Hooded Head Extension



UN3577

70 x 42mm Hooded Head Extension



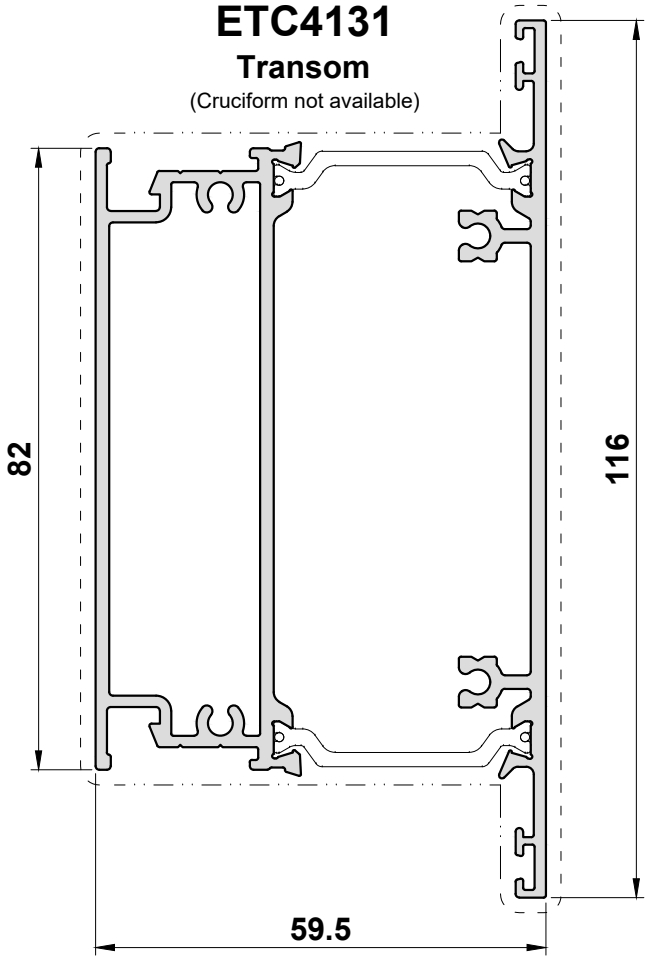
Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · —

ETC4131

Transom

(Cruciform not available)

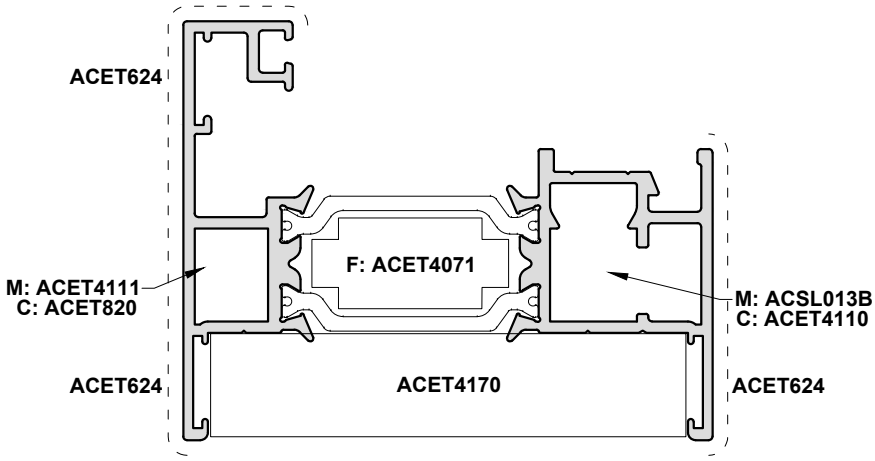


Scale 1:1

Primary Visible Side - - - - - - - - - - - - - - - - - - Secondary Visible Side — · — · — · — · — · — · —

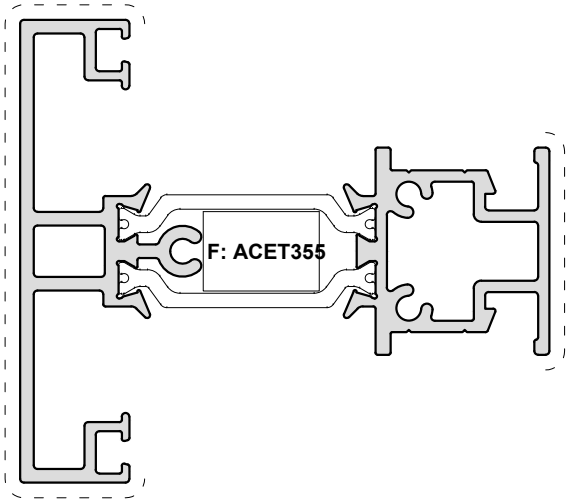
ETC4410

Internally Glazed Outer frame



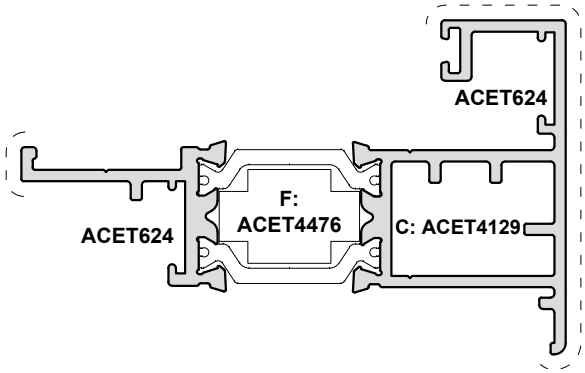
ETC4430

Internally Glazed Transom



ETC4446

Reverse Adaptor



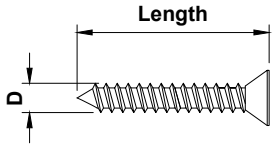
Scale 1:1

Section B

Accessories

Photos & Drawings

Countersunk Screws



Gauge	'D' (mm)
No.6	3.5
No.7	3.8
No.8	4
No.10	5
No.12	6

Part Number	Gauge	X	Length	Description	Box Qty.
ACUN3530	No.6	X	5/8" (16mm)	Countersunk Pozi Self Tapper S/S	100
MUA025SSZ	No.6	X	1" (25mm)	Countersunk Pozi Self Tapper S/S	100
ACET067	No.7	X	1/2" (12mm)	Countersunk Pozi Self Tapper S/S	100
ACET060	No.7	X	1" (25mm)	Countersunk Pozi Self Tapper S/S	100
ACET066	No.7	X	1 1/2" (40mm)	Countersunk Pozi Self Tapper S/S	100
MUA067SSZ	No.7	X	2" (50mm)	Countersunk Pozi Self Tapper S/S	100
ACET064	No.8	X	5/8" (16mm)	Countersunk Pozi Self Tapper S/S	100
ACUN3512	No.8	X	1 1/4" (30mm)	Countersunk Pozi Self Tapper S/S	100
ACUN3513	No.8	X	1 3/4" (45mm)	Countersunk Pozi Self Tapper S/S	100
ACET072	No.8	X	2 1/2" (60mm)	Countersunk Pozi Self Tapper S/S	100
ACET048	No.10	X	3/8" (10mm)	Countersunk Pozi Self Tapper S/S	100
ACIM062	No.10	X	1 1/4" (30mm)	Countersunk Pozi Self Tapper S/S	100
ACET062	No.10	X	2" (50mm)	Countersunk Pozi Self Tapper S/S	100
ACET076	No.10	X	2 1/2" (60mm)	Countersunk Pozi Self Tapper S/S	100

POLYAMIDE SCREWS

Part Number	Gauge	X	Length	Description	Box Qty.
ACET490	4.3mm	X	16mm	Countersunk PH2 Polyamide Screw	1000
ACET290	4.3mm	X	20mm	Countersunk PH2 Polyamide Screw	100
ACET390	4.3mm	X	25mm	Countersunk PH2 Polyamide Screw	200
ACET190	4.3mm	X	45mm	Countersunk PH2 Polyamide Screw	1000
ACVS062	4.3mm	X	65mm	Countersunk PH2 Polyamide Screw	1000

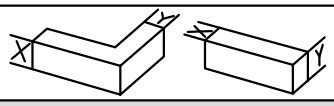


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

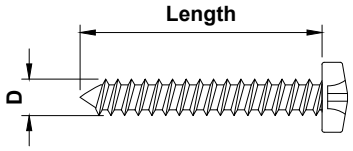


Screw (Grub)

MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Pan Head Screws



Gauge	'D' (mm)
No.6	3.5
No.7	3.8
No.8	4
No.10	5
No.12	6

Part Number	Gauge	X	Length	Description	Box Qty.
ACET068	No.8	X	3/8" (10mm)	Pozi Flange AB	100
ACET063	No.8	X	1/2" (12mm)	Pan Head Self Tapper	100
ACET070	No.8	X	1/2" (12mm)	Pozi Flange Self Tapper S/S	100
ACUN3535	No.8	X	5/8" (16mm)	Pan Head Pozi S/S	100
ACET099	No.8	X	3/4" (20mm)	Pozi Flange Self Tapper S/S	100
ACDR050	4.8mm	X	32mm	Pan Head Pozi S/S	200
PUA028	No.10	X	1" (25mm)	Pan Head Pozi S/S	100
ACDR052	No.10	X	2" (50mm)	Pan Head Self Tapper S/S	200
ACET079	No.10	X	2 1/2" (60mm)	Pan Head Pozi S/S	100
ACW20160	No.12	X	1" (25mm)	Flange Head Self Tapper S/S	100
ACMC109	6.3mm	X	38mm	DIN7981 - Pan Head Self Tapper	200



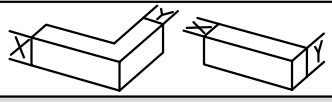
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



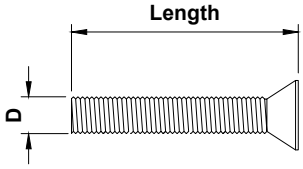
Screw (Grub)

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SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome

W = White
Z = Black



Machine Screws



Thread	'D' (mm) Nominal
M4	4
M5	5
M6	6
M8	8
M10	10

Part Number	Thread	X	Length	Description	Box Qty.
ACET122	M4	X	10	CSK Pozi Machine Screw	100
ACET123	M4	X	20	CSK Pozi Machine Screw	100
ACDV264	M4	X	35	CSK Pozi Machine Screw	100
ACSG071	M4	X	40	CSK Pozi Machine Screw	100
ACDV266	M4	X	45	CSK Pozi Machine Screw	100
ACDV262	M4	X	50	CSK Pozi Machine Screw	100
ACDV265	M4	X	60	CSK Pozi Machine Screw	100
AAE014	M5	X	10	CSK Pozi Machine Screw	100
ACET069	M5	X	12	CSK Pozi Machine Screw	100
HEA132	M5	X	16	CSK Pozi Machine Screw	100
WCA134	M5	X	20	CSK Pozi Machine Screw	100
WCA143	M5	X	25	CSK Pozi Machine Screw	50
ACVS061	M5	X	40	CSK Pozi Machine Screw	100
ACET133	M5	X	50	CSK Pozi Machine Screw	100
ACET220	M5	X	60	CSK Pozi Machine Screw	100
ACET238	M5	X	70	CSK Pozi Machine Screw	100
ACMX861	M5	X	80	DIN965 - CSK Machine Screw	10
ACMX862	M5	X	90	DIN965 - CSK Machine Screw	10
ACUN3503	M6	X	10	CSK Socket Machine Screw	24
ACUN3525	M6	X	13	CSK Flange Socket Machine Screw	48
ACMX852	M6	X	16	DIN965 - CSK Machine Screw	10
ACET235	M6	X	60	CSK Pozi Machine Screw	100
ACET237	M6	X	70	CSK Pozi Machine Screw	100

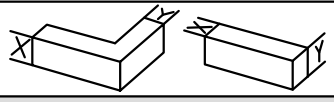


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

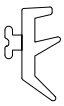
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Glazing Gaskets

Retaining Gasket

Commonly known as an E Gasket. Retaining gaskets create a seal between the Glass and the Aluminium Profile.

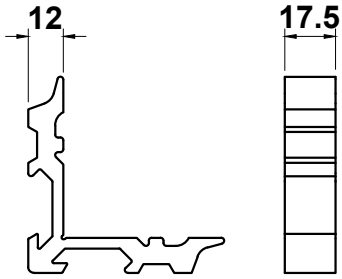
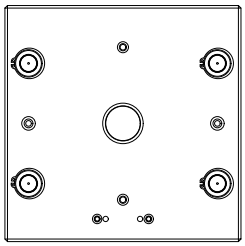
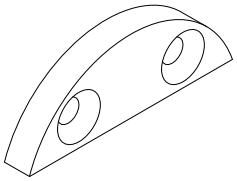
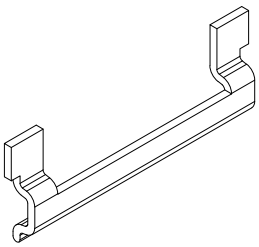
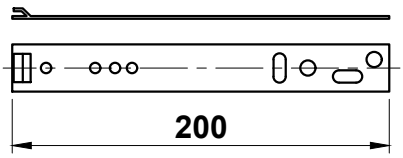
High Line	2mm		**ACVG231**
			200m
			BL
	3mm		**ACVG31**
			200m
			BL
	4mm		**ACVG131**
			100m
			BL
Low Line	2mm		**ACET844**
			200m
			BL
	3mm		**ACET842**
			200m
			BL
	4mm		**ACET841**
			200m
			BL
	4mm		**ACET835**
			200m
			BL
	4mm		ACVG131N
			100m
			BL
	5mm		ACUN3065
			100m
			BL

Thickness	Drawing 1:1	**Part number**
		Coil length
		Available Colours

Wedge Gasket

Wedge Gaskets help to hold the bead in place by providing tension between the bead and the glazing unit.

High Line	3mm		**ACVG32**
			100m
			BL
	3mm		**ACVG32N**
			100m
			BL
	4mm		**ACVG33**
			100m
			BL
	5mm		**ACVG34**
			100m
			BL
	6mm		**ACVG340**
			100m
			BL
	6mm		**ACVG340N**
			100m
			BL
Low Line	4mm - 3mm		**ACW20038**
			200m
			BL
	5mm - 4mm		**ACET848**
			200m
			BL

Image	Part Code	Pack	Unit	Application	Colour	
	**ACDV620** **Mechanical Cleat**	**24**	**Pack**	**ETC4129**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACDV916** **Bead Punch Tool**	**1**	**each**	**UN3160G** **UN3160**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET041** **Cill Nose Bracket**	**1**	**Each**	**ETC451** **ETC452** **ETC457** **ETC458** **ETC477** **ETC479**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET125** **Anti-Twist Clip**	**100**	**Pack**	**ETC4110** **ETC4112** **ETC4130**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET130** **Galvanised Steel Fixing Strap** **200mm x 25mm x 1.5mm**	**100**	**Pack**	**ETC4101** **ETC4105** **ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4114** **ETC4115** **ETC4116**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	





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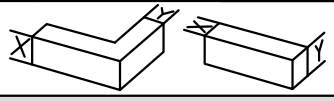
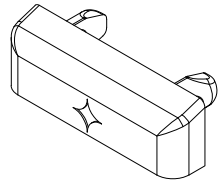
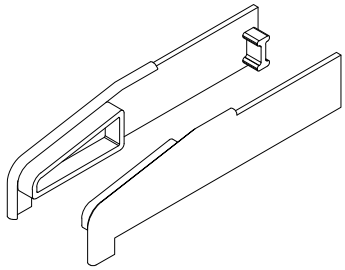
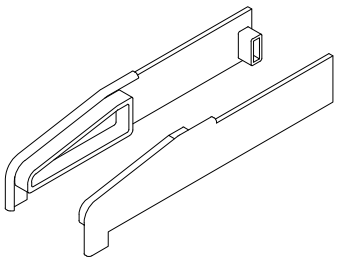
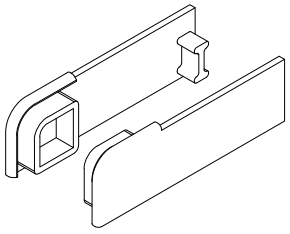
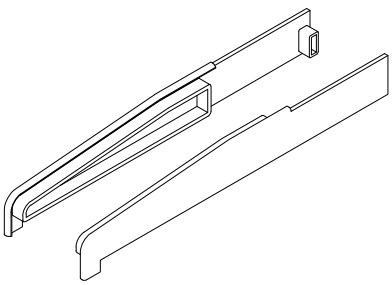


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET131** **Drainage Cover Cap** **For colour matched drainage caps, please order ACET432**	**100**	**Pack**	**Outer Frames, Sashes, Transoms & UN3000**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACET152** **Cill End Cap**	**10**	**Pair**	**ACET452**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACET157** **Cill End Cap**	**10**	**Pair**	**ETC457**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACET178** **Cill End Cap**	**10**	**Pair**	**ETC451**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACET179N** **Cill End Cap**	**10**	**Pair**	**ETC479N**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓



T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

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KL = Basic Colour
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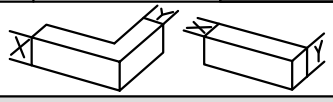
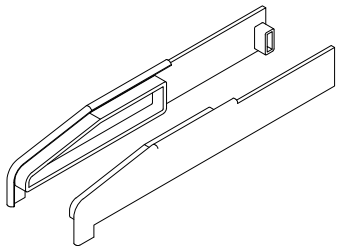
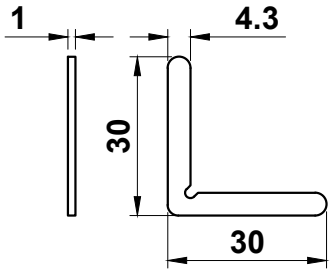
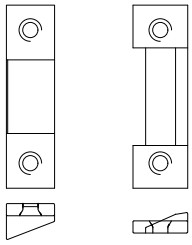
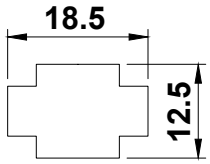
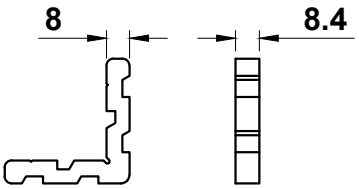


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET258** **Cill End Cap**	**10**	**Pair**	**ETC458**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACET311** **Stainless Steel Chevron**	**50**	**Pack**	**ETC4101** **ETC4105** **ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4114** **ETC4115** **ETC4116** **ETC4117** **ETC4120** **ETC4124** **ETC4146** **ETC4147**	MF SA KL HP SSC SMC W Z PC	
	**ACET352** **Pull in Block for Egress Hinges** **2 x ACET394 required**	**50**	**pack**	**ETC4124** **ETC4125**	MF SA KL HP SSC SMC W Z PC	
	**ACET355** **Foam**	**1**	**Each**	**ETC4430**	MF SA KL HP SSC SMC W Z PC	
	**ACET4026** **Crimping Cleat**	**1**	**Each**	**ETC4124** **ETC4125**	MF SA KL HP SSC SMC W Z PC	✓





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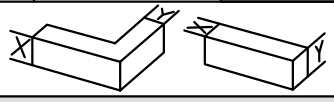
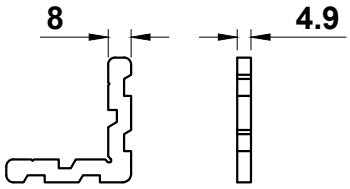
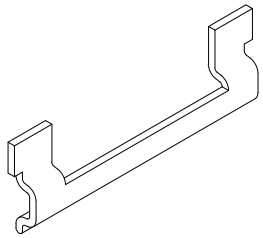
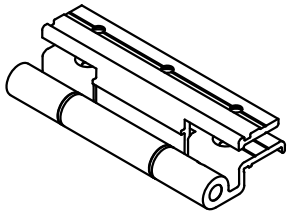
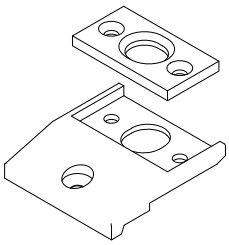
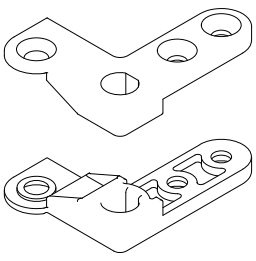


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4027** **Crimping Cleat**	**1**	**Each**	**ETC4124** **ETC4125**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4036** **Anti-Twist Clip**	**100**	**Pack**	**ETC4105** **ETC4115** **ETC4116** **ETC4134** **ETC4135** **ETC4137**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4050** **Butt Hinge**	**1**	**Each**	**ETC4101** **ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4114** **ETC4120** **ETC4129**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4054** **French Casement Keep Kit** **Kit Contains:** **2 x Packers** **2 x Reversible Keeps**	**1**	**Pack**	**ETC4138** **ACET4055** **ACET4138** **ACUN3055**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4055** **French Casement Shootbolt Guide**	**1**	**Pair**	**ETC4138** **ACET4054** **ACET4138** **ACUN3055**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	





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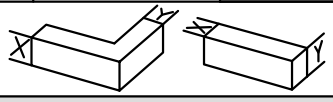
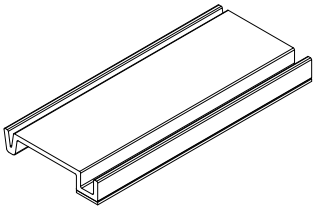
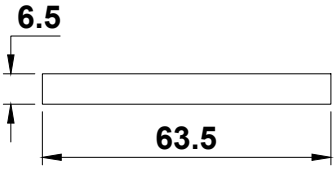
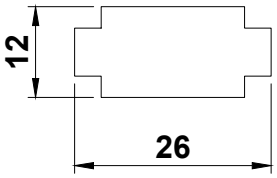
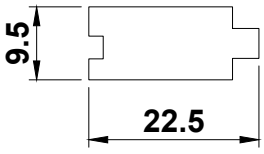
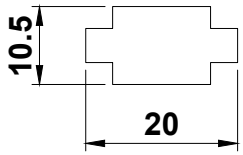


Image	Part Code	Pack	Unit	Application	Colour
	**ACET4058** **Bridge Packer**	**12**	**Pack**	**ETC4129**	MF SA KL HP SSC SMC W Z PC
	**ACET4070** **Foam**	**1**	**Each**	**ETC4105** **ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4114** **ETC4115**	MF SA KL HP SSC SMC W Z ✓ PC
	**ACET4071** **Foam**	**1**	**Each**	**ETC4101** **ETC4105** **ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4114** **ETC4115** **ETC4116**	MF SA KL HP SSC SMC W Z ✓ PC
	**ACET4072** **Foam**	**1**	**Each**	**ETC4120**	MF SA KL HP SSC SMC W Z ✓ PC
	**ACET4073** **Foam**	**1**	**Each**	**ETC4129**	MF SA KL HP SSC SMC W Z ✓ PC





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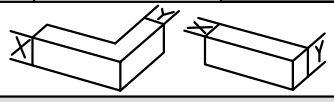
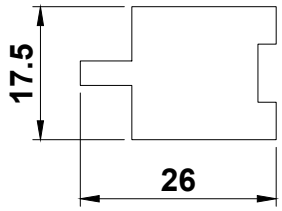
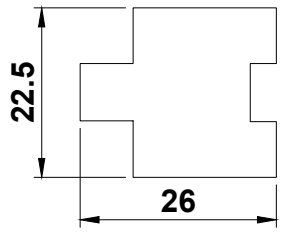
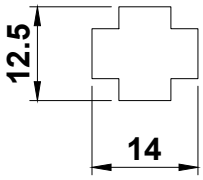
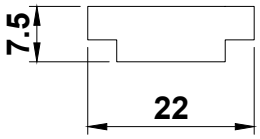
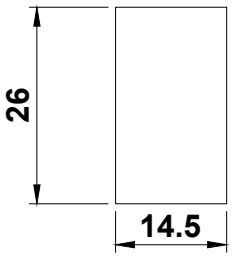


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4075** **Foam**	**1**	**Each**	**ETC4130**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	**ACET4076** **Foam**	**1**	**Each**	**ETC4135**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	**ACET4077** **Foam**	**1**	**Each**	**ETC4146**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	**ACET4078** **Foam**	**1**	**Each**	**ETC4147**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	**ACET4081** **Foam**	**150**	**m**	**ETC4129**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	



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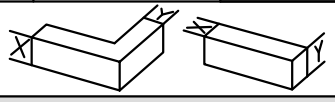
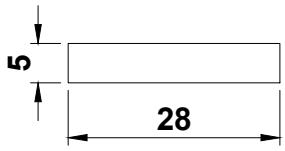
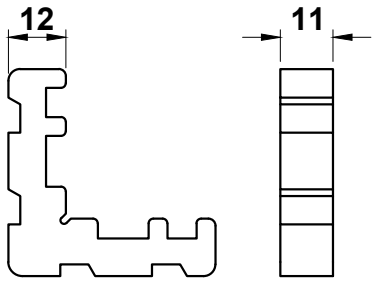
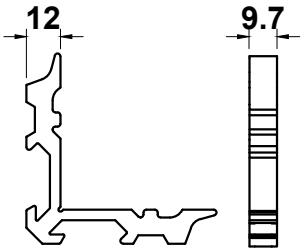
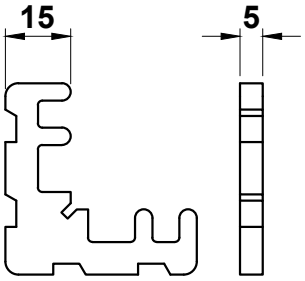
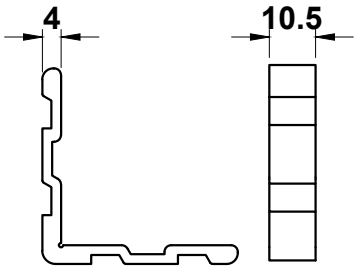


Image	Part Code	Pack	Unit	Application	Colour
	**ACET4082** **Foam**	**200**	**m**	**ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4115** **ETC4120** **ETC4130** **ETC4135**	MF SA KL HP SSC SMC W Z ✓ PC
	**ACET4110** **Crimping Cleat**	**24**	**Pack**	**ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4115**	MF ✓ SA KL HP SSC SMC W Z PC
	**ACET4111** **Mechanical Cleat**	**24**	**Pack**	**ETC4110** **ETC4111** **ETC4112** **ETC4129**	MF ✓ SA KL HP SSC SMC W Z PC
	**ACET4115** **Crimping Cleat**	**24**	**Pack**	**ETC4115**	MF ✓ SA KL HP SSC SMC W Z PC
	**ACET4120** **Crimping Cleat**	**24**	**Pack**	**ETC4120**	MF ✓ SA KL HP SSC SMC W Z PC



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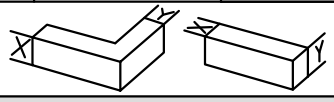
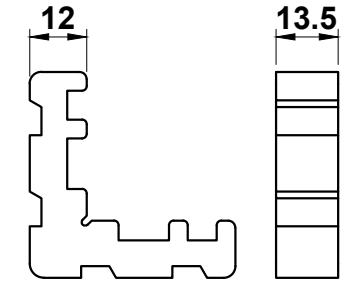
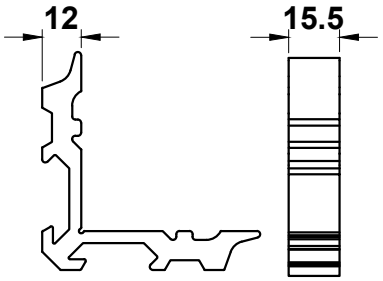
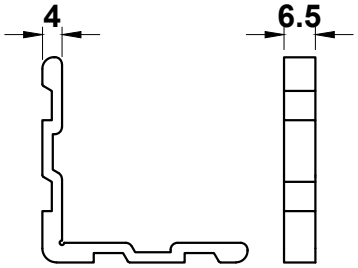
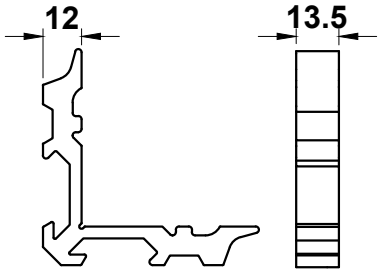
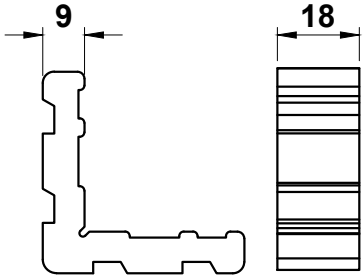


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4122** **Crimping Cleat**	**24**	**Pack**	**ETC4146**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4123** **Mechanical Cleat**	**24**	**Pack**	**ETC4146**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4124** **Crimping Cleat**	**24**	**Pack**	**ETC4147**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4125** **Mechanical Cleat**	**24**	**Pack**	**ETC4146**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4127** **Crimping Cleat**	**24**	**Pack**	**ETC4147**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	





MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

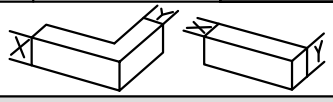
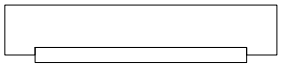
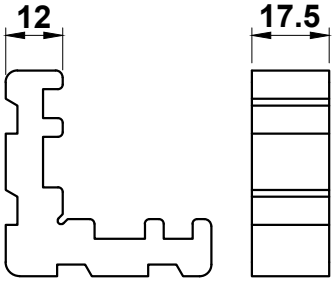
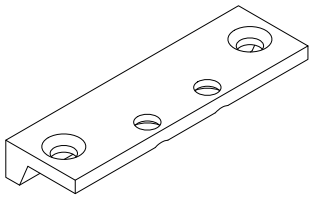
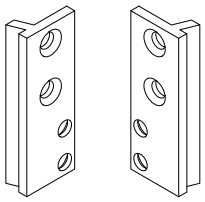
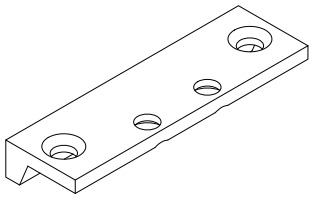


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4128** **Adhesive Packer**	**12**	**Pack**	**ETC4147**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4129** **Crimping Cleat**	**24**	**Pack**	**ETC4129**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4130** **Cruciform Block**	**10**	**Pack**	**ETC4130**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4131** **Offset Cruciform Block**	**10**	**Pairs**	**ETC4130**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4135** **Cruciform Block**	**10**	**Pack**	**ETC4135**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	



T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

MF	**= Mill Finish**	**W**	**= White**
SA	**= Silver Anodised**	**Z**	**= Black**
KL	**= Basic Colour**		
HP	**= Special Colour**		
SSC	**= Smooth Satin Chrome**		
SMC	**= Smokey Chrome**		
PC	**= Polished Chrome**		

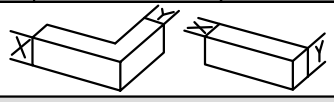
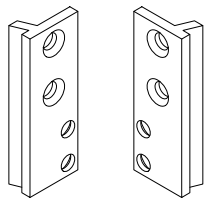
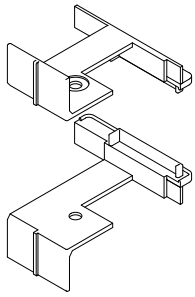
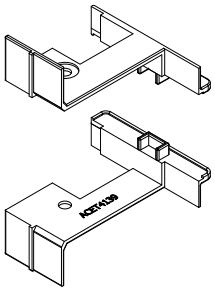
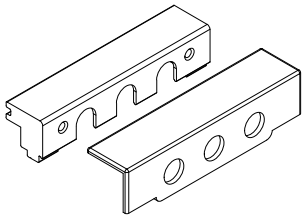
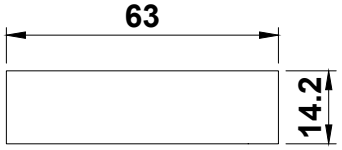


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4136** **Offset Cruciform Block**	**10**	**Pairs**	**ETC4135**	MF SA KL HP SSC SMC W Z PC	
	**ACET4138** **End Cap**	**1**	**Pair**	**ETC4138** **ACET4054** **ACET4055** **ACUN3050**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACET4139** **End Cap**	**1**	**Pair**	**ETC4139**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACET4165** **Cast Handle Block**	**1**	**each**	**ETC4124** **UN3160/G**	MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓
	**ACET4170** **Foam**	**1**	**Each**	**ETC4111** **ETC4116**	MF SA KL HP SSC SMC W Z PC	 ✓



T-BARS
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ACVL150=4.0mm



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HP	**= Special Colour**		
SSC	**= Smooth Satin Chrome**		
SMC	**= Smokey Chrome**		
PC	**= Polished Chrome**		

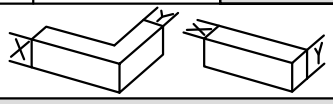
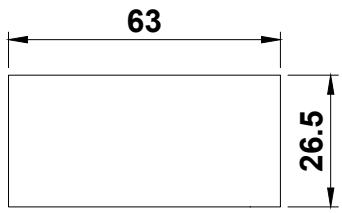
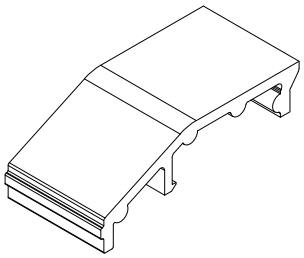
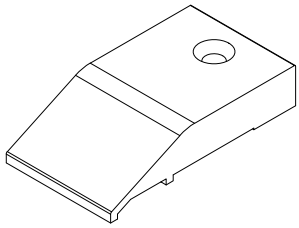
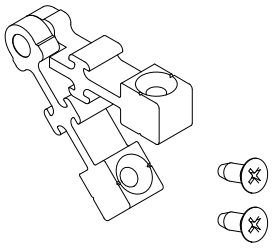
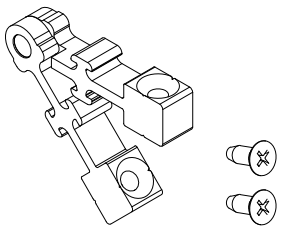


Image	Part Code	Pack	Unit	Application	Colour
	**ACET4171** **Foam**	**1**	**Each**	**ETC4101**	MF SA KL HP SSC SMC W Z ✓ PC
	**ACET4180** **Run-Up Block**	**100**	**Pack**	**Outer Frames & Transoms/ Mullions**	MF SA KL HP SSC SMC W ✓ Z ✓ PC
	**ACET4181** **Run-Up Block**	**100**	**Pack**	**ETC4146**	MF SA KL HP SSC SMC W ✓ Z ✓ PC
	**ACET4200** **Variable Angle Cleat with screws**	**24**	**Pack**	**ETC4110 ETC4111 ETC4112 ETC4113**	MF ✓ SA KL HP SSC SMC W Z PC
	**ACET4201** **Variable Angle Cleat with screws**	**24**	**Pack**	**ETC4110 ETC4111 ETC4112 ETC4113**	MF ✓ SA KL HP SSC SMC W Z PC



T-BARS
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ACVG66=3.0mm
ACVL150=4.0mm



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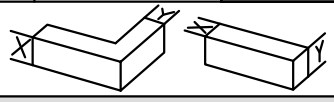
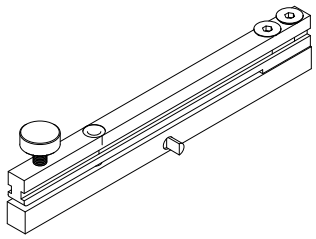
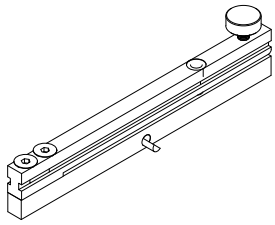
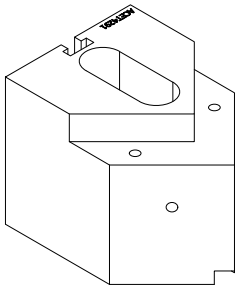
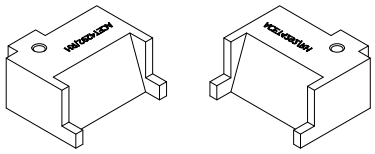
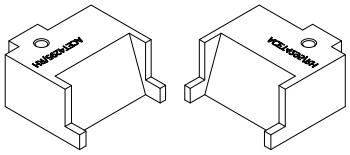


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4208** **Jig for Variable Angle Cleat for ACET4200**	**1**	**Each**	**ETC4110** **ETC4111** **ETC4112** **ETC4113**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4209** **Jig for Variable Angle Cleat for ACET4201**	**1**	**Each**	**ETC4110** **ETC4111** **ETC4112** **ETC4113**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4291N** **Vee Block**	**1**	**Each**	**ETC4110** **ETC4112** **ETC4115** **ETC4120** **ETC4146** **ETC4147**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4292** **Punches**	**1**	**Pair**	**ETC4110** **ETC4111** **ETC4112** **ETC4113**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4295** **Punches**	**1**	**Pair**	**ETC4115** **ETC4120**	MF SA KL HP SSC SMC W Z PC	✓



T-BARS
ACVG65=2.5mm
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ACVL150=4.0mm



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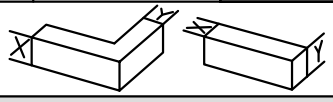
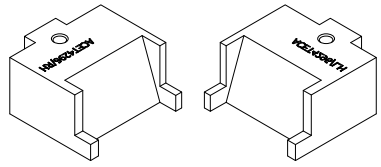
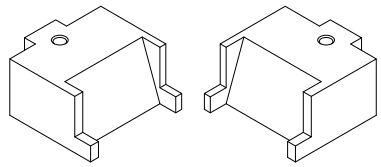
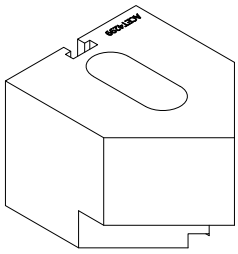
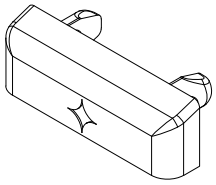
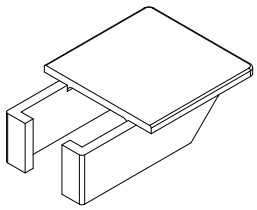


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4296** **Punches**	**1**	**Pair**	**ETC4129** **ETC4146** **ETC4147**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4298** **Punches**	**1**	**Pair**	**ETC4124** **ETC4125**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4299** **Vee Block**	**1**	**Each**	**ETC4129**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET432** **Drainage Cover Cap (Colour Match)**	**10**	**Pack**	**Outer Frames, Sashes, Transoms & UN3000**	MF	
					SA	
					KL	✓
					HP	✓
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	**ACET4330** **ETC4330 End Cap**	**50**	**Pack**	**ETC4330**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	



T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

MF = Mill Finish
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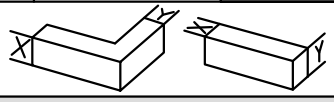
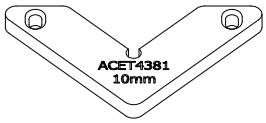


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4380** **8mm Crimping Support**	**1**	**Each**	**ACET4382** **ACET4383** **ACET4384**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4381** **10mm Crimping Support**	**1**	**Each**	**ACET4382** **ACET4383** **ACET4384**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4382** **14.5mm Crimping Support**	**1**	**Each**	**ETC4115G** **ETC4116G**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4383** **22.5mm Crimping Support**	**1**	**Each**	**ETC4110G** **ETC4111G** **ETC4112G** **ETC4124G** **ETC4125G** **ETC4129G**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4384** **25.5mm Crimping Support**	**1**	**Each**	**ETC4120G**	MF SA KL HP SSC SMC W Z PC	✓



T-BARS
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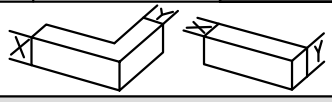
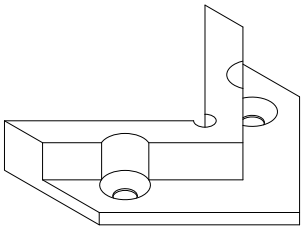
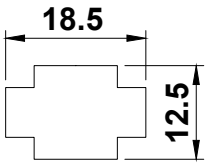
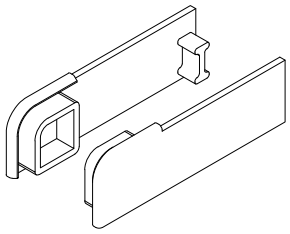
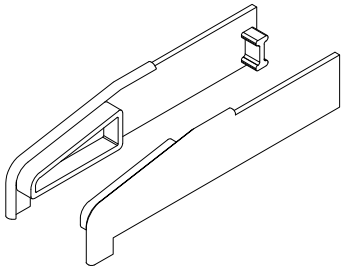
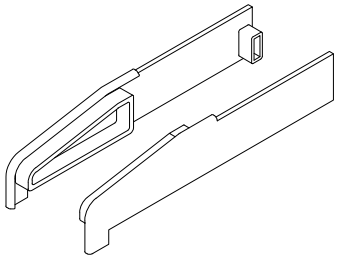


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4397** **3mm Vee Block Packer**	**1**	**Each**	**ETC4124**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET4476** **Foam**	**1**	**Each**	**ETC4446**	MF SA KL HP SSC SMC W Z PC	
	**ACET451** **Cill End Cap**	**1**	**Pair**	**ETC451**	MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓
	**ACET452** **Cill End Cap**	**1**	**Pair**	**ETC452**	MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓
	**ACET457** **Cill End Cap**	**1**	**Pair**	**ETC457**	MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓





MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

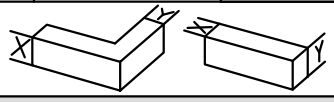
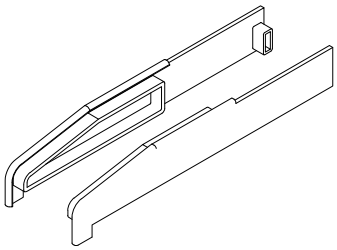
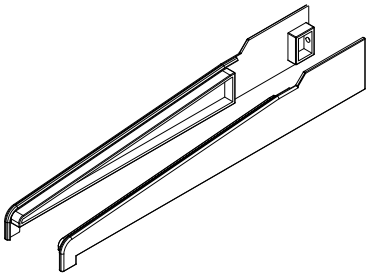
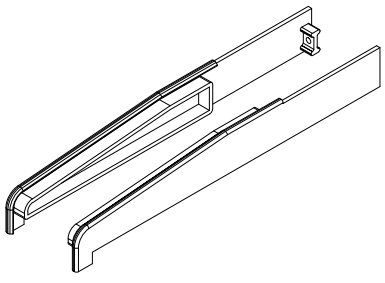


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET458** **Cill End Cap**	**1**	**Pair**	**ETC458**	MF	✓
					SA	
					KL	✓
					HP	✓
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	**ACET460** **Inline Espag Handle with 9mm Spindle**	**1**	**Each**	**ACET4001 to AET4006**	MF	
					SA	
					KL	✓
					HP	✓
					SSC	✓
					SMC	✓
					W	✓
					Z	✓
					PC	✓
	**ACET465** **Cranked Espag Handle with 9mm Spindle**	**1**	**Each**	**ACET4001 to AET4006**	MF	
					SA	
					KL	✓
					HP	✓
					SSC	✓
					SMC	✓
					W	✓
					Z	✓
					PC	✓
	**ACET477** **Cill End Cap**	**1**	**Pair**	**ETC477**	MF	✓
					SA	
					KL	✓
					HP	✓
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	**ACET479N** **Cill End Cap**	**1**	**Pair**	**ETC479N**	MF	✓
					SA	
					KL	✓
					HP	✓
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	





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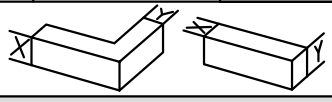
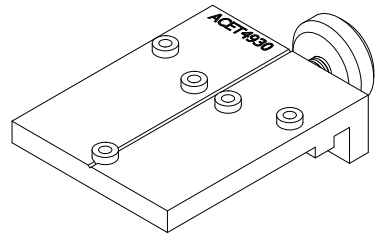
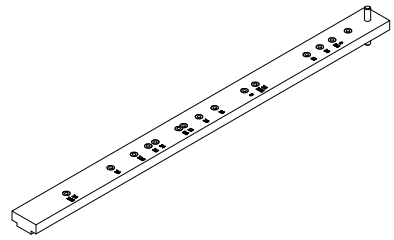
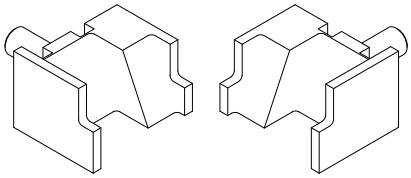
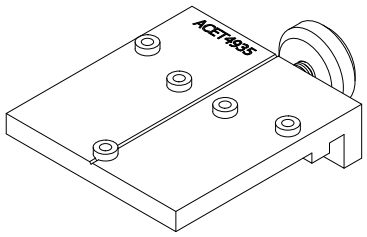
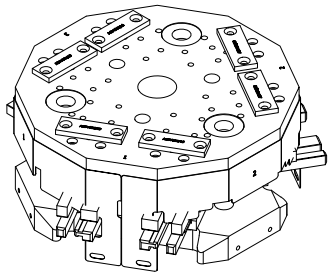


Image	Part Code	Pack	Unit	Application	Colour	
	**ACET4930** **Drill Jig**	**1**	**Pair**	**ACET4130** **ETC4130**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4904** **Drill Jig**	**1**	**Eack**	**ACETME16**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4917** **Punches**	**1**	**Pair**	**ETC4117**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4935** **Drill Jig**	**1**	**Pair**	**ACET4135** **ETC4135**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**ACET4950** **Punch Tool**	**1**	**Each**	**ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4129** **ETC4146**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	



T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

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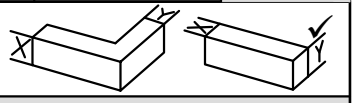
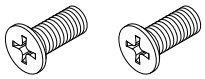
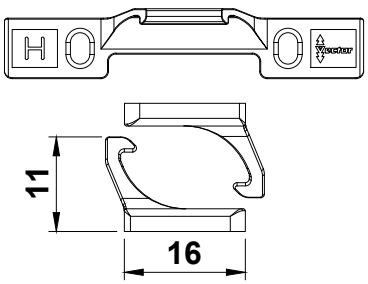
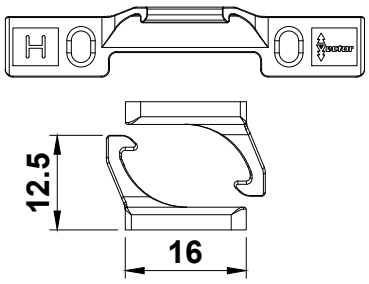
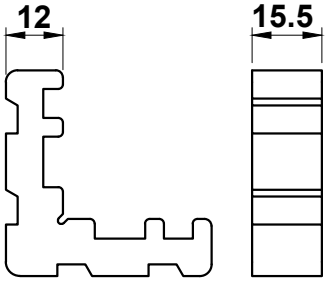
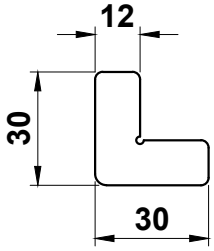


Image	Part Code	Pack	Unit	Application	Colour
	**ACET495** **Handle Fixing Kit** **1 Pack Contains:** **2No. 5 x 12 SS CSK Machine Screws**	**1**	**Pack**	**ACET460** **ACET465**	MF SA KL HP SSC SMC W Z PC
	**ACET513** **13mm Cavity Hinge Protector** **4 Per Set (2 pairs)**	**50**	**Sets**	**ETC4124** **ETC4125**	MF ✓ SA KL HP SSC SMC W Z PC
	**ACET516** **16mm Cavity Hinge Protector** **4 Per Set (2 pairs)**	**50**	**Sets**	**ETC4120** **ETC4129**	MF ✓ SA KL HP SSC SMC W Z PC
	**ACET615** **Crimping Cleat**	**24**	**Pack**	**ETC4146**	MF ✓ SA KL HP SSC SMC W Z PC
	**ACET624** **Stainless Steel Chevron**	**100**	**Pack**	**ETC4120** **ETC4129**	MF SA KL HP SSC SMC W Z PC





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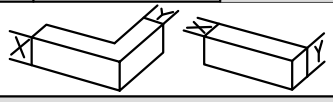


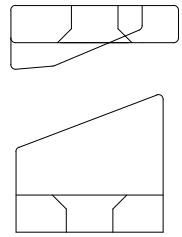
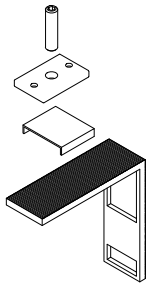
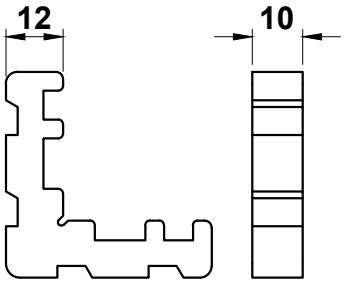
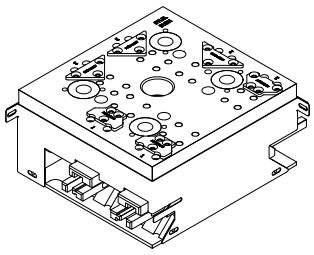
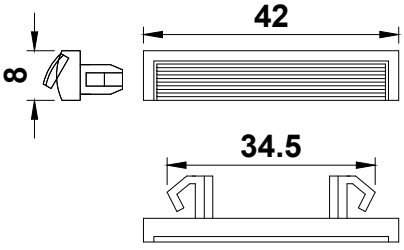
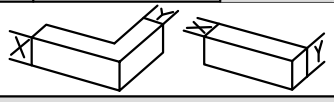
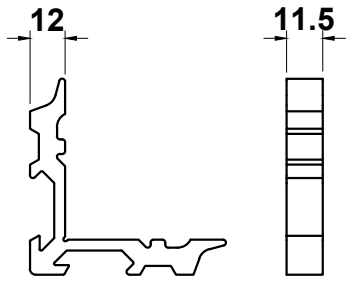
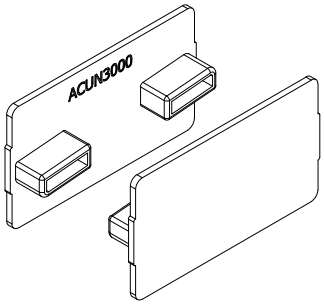
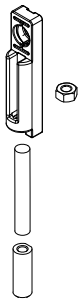
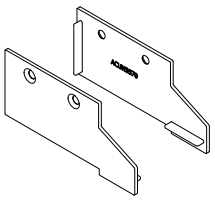
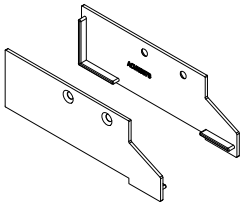
Image	Part Code	Pack	Unit	Application	Colour	
	**ACET652** **Pull-In Blocks**	**50**	**Pack**	**ETC4120** **ETC4129**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACET695** **Glass Adjuster Kit** **Kit Includes:** **1 x Adjusting Screw** **1 x Threaded Block** **1 x Steel Cover** **1 x ABS Corner**	**1**	**Kit**	**ETC4129**	MF SA KL HP SSC SMC W Z PC	
	**ACET820** **Crimping Cleat**	**24**	**Pack**	**ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4120** **ETC4129**	MF SA KL HP SSC SMC W Z PC	✓
	**ACET963R** **Punch Tool**	**1**	**Each**	**ETC4110** **ETC4111** **ETC4112** **ETC4113** **ETC4129** **ETC4146**	MF SA KL HP SSC SMC W Z PC	
	**ACGSL045** **Drainage Cap**	**100**	**Pack**		MF SA KL HP SSC SMC W Z PC	 ✓ ✓
 	**MF = Mill Finish** **SA = Silver Anodised** **KL = Basic Colour** **HP = Special Colour** **SSC = Smooth Satin Chrome** **SMC = Smokey Chrome** **PC = Polished Chrome** **W = White** **Z = Black**					

Image	Part Code	Pack	Unit	Application	Colour	
	**ACSL013B** **Mechanical Cleat**	**24**	**Pack**	**ETC4110** **ETC4111** **ETC4112** **ETC4115**	MF SA KL HP SSC SMC W Z PC	✓
	**ACUN3000** **End Caps for UN3000**	**10**	**Pairs**	**UN3000**	MF SA KL HP SSC SMC W Z PC	✓
	**ACUN3055** **French Casement Shootbolt Kit Includes:** **2 x Cam connectors** **2 x 180mm SS threaded bar** **2 x Stainless Steel Shootbolt** **2 x M8 Nuts**	**1**	**Kit**	**ETC4138** **ACET4054** **ACET4055** **ACET4138**	MF SA KL HP SSC SMC W Z PC	
	**ACUN3570** **UN3570 End Caps**	**1**	**Pair**	**UN3570**	MF SA KL HP SSC SMC W Z PC	✓ ✓
	**ACUN3578** **UN3577 End Caps**	**1**	**Pair**	**UN3577**	MF SA KL HP SSC SMC W Z PC	✓ ✓





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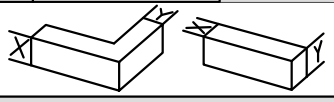
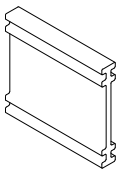
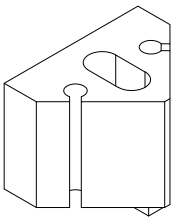
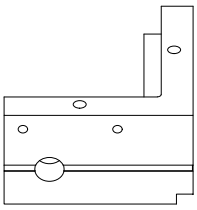
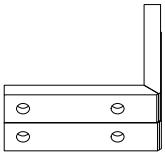
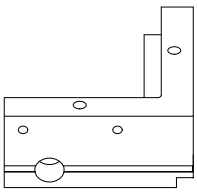


Image	Part Code	Pack	Unit	Application	Colour
	**ACUN3701** **Anti-Crush Support**	**25**	**Pack**	**UN3570**	MF SA KL HP SSC SMC W Z PC
	**ACUN3950** **Vee Block**	**1**	**Each**	**ACUN3951 ACUN3952 ACUN3953 'G' Profiles**	MF SA KL HP SSC SMC W Z PC
	**ACUN3951** **ACUN3950 Faceplate**	**1**	**Each**	**ACUN3950 ACUN3952 'G' Profiles (not ETC4129)**	MF SA KL HP SSC SMC W Z PC
	**ACUN3952** **ACUN3950 Nylon Support**	**1**	**Pair**	**ACUN3950 ACUN3951 ACUN3953 'G' Profiles**	MF SA KL HP SSC SMC W Z PC
	**ACUN3953** **ACUN3950 Faceplate**	**1**	**Each**	**ACUN3950 ACUN3952 ACUN3953 ETC4129G**	MF SA KL HP SSC SMC W Z PC



T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

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SA	**= Silver Anodised**	**Z**	**= Black**
KL	**= Basic Colour**		
HP	**= Special Colour**		
SSC	**= Smooth Satin Chrome**		
SMC	**= Smokey Chrome**		
PC	**= Polished Chrome**		

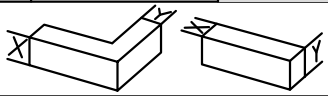
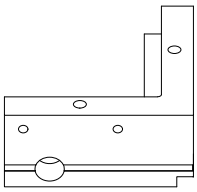
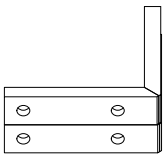
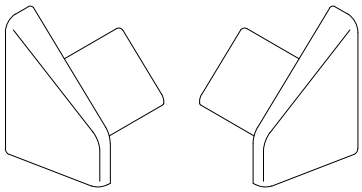
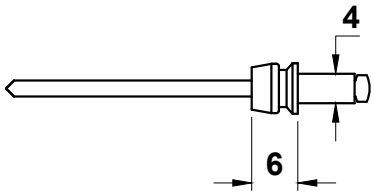
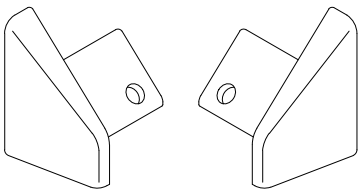


Image	Part Code	Pack	Unit	Application	Colour	
	**ACUN3957** **Adjustable Vee Block**	**1**	**Each**	**ACUN3950** **ACUN3958** **ETC4120G** **ETC4124G** **ETC4125G** **'G' Profiles**	MF SA KL HP SSC SMC W Z PC	
	**ACUN3958** **ACUN3950 Nylon Packer**	**1**	**Pair**	**ACUN3950** **ACUN3957** **ETC4124G** **ETC4125G**	MF SA KL HP SSC SMC W Z PC	
	**ACVL059** **End Cap**	**1**	**Pair**	**VL72**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	**ACVL061** **Rivet**	**100**	**Pack**	**VL72**	MF SA KL HP SSC SMC W Z PC	✓
	**ACVL072** **Cast End Cap**	**1**	**Pair**	**VL72**	MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓





MF = Mill Finish **W = White**
SA = Silver Anodised **Z = Black**
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome

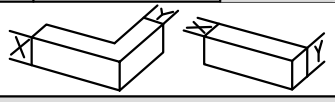
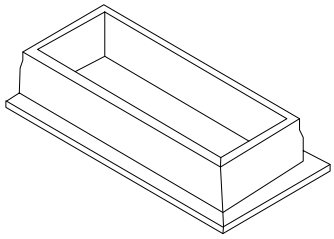
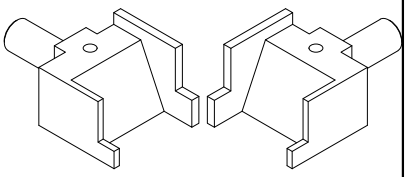
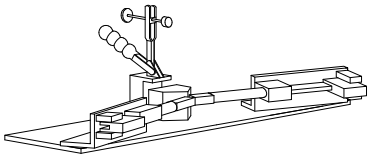


Image	Part Code	Pack	Unit	Application	Colour	
	**ACVL635** **PVC End Cap**	**1**	**each**	**ETC4136**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	**ACW909** **Punches**	**1**	**Pair**	**ETC4124**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	**WUT024HSZA** **Manual Crimper** **Note: Vee Blocks & Punches are Sold Separately**	**1**	**Each**		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
					MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
					MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	

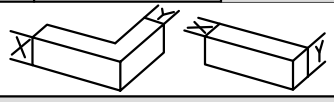


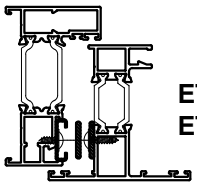
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black





ETC4120
ETC4129

Friction Hinge Stays 16mm Stack (Standard)

Top Hung Windows

Top Hung	Type of Hinge / Stay	Max. Vent Weight (kgs)	Height Mimimum	Height Maximum	Opening Angle (+/- 2.5°)
ACETDHS08	Standard	12	200	350	65°
ACETDHS10		16	275	400	80°
ACETDHS12		20	350	550	80°
ACETDHS16		21	500	780	80°
ACETDHS20		26	700	1100	50°
ACETDHS24		40	850	1300	37.5°
ACETDTH24	Heavy Duty	50	850	1500	32°
ACETDHS12R	Restricted	20	350	550	14° / 65°
ACETDHS16R		21	500	780	10° / 59°
ACETDHS20R		26	700	1100	8° / 50°
ACETDHS24R		40	850	1300	7° / 37.5°

Side Hung Windows

Side Hung	Type of Hinge / Stay	Max. Vent Weight (kgs)	Width ('A') Minimum	Width ('A') Maximum	Opening Angle (+/- 2.5°)
ACETDHSSH12	Standard	22	300	600	60°
ACETDHSSH16		24	400	600	60°
ACETSH1612L ACETSH1612R	Restricted Left Hand R/H Non-Restricted / Right Hand L/H Non-Restricted L/H Restricted — VIEWED FROM OUTSIDE — R/H Restricted	22	300	600	13°/58°
ACETSH1616L ACETSH1616R		24	400	600	11°/58°
ACETME16	Egress *use with ACET652 pull in blocks	40	365	865	90°
ACETDSH16	Heavy Duty	40	400	1000	60°

Note1: Vent Height / Width is measured in mm from rebate to rebate (not overall size or outer frame)
Note2: Top hung height and side hung width sizes to be reduced by 2mm where size is 450mm or smaller
Note3: Typical Dimensions based on Max. Size and Glass 30kg/metre
Note4: For additional security use ACET516 hinge protectors
Note5: Kitemark specification covers Top Hung Max. height up to 1400mm.
Note6: For sashes over 600mm, ACETME99 is recommended for ACETME16 to disable easy clean function

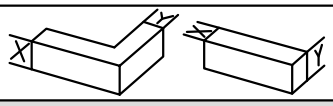


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

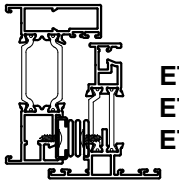


Screw (Grub)

MF	= Mill Finish	W	= White
SA	= Silver Anodised	Z	= Black
KL	= Basic Colour		
HP	= Special Colour		
SSC	= Smooth Satin Chrome		
SMC	= Smokey Chrome		
PC	= Polished Chrome		



13mm Stack Friction Hinge Stays



ETC4123
ETC4124
ETC4125

Friction Hinge Stays 13mm Stack (Standard)

Top Hung Windows

Top Hung	Type of Hinge / Stay	Max. Vent Weight (kgs)	Height ('A') Minimum	Height ('A') Maximum	Opening Angle (+/- 2.5°)
ACINDS10	Standard	16	275	400	80°
ACINDS16		21	400	780	80°
ACINDS20		26	700	1100	50°
ACINDS24		40	850	1300	37.5°
ACINDP24	Heavy Duty	50	850	1500	32°
ACINDA10	Austenitic	16	275	400	80°
ACINDA16		21	400	780	80°
ACINDA20		26	700	1100	50°
ACINDA24		40	850	1300	37.5°
ACINDR12	Restricted	20	350	550	14°/65°
ACINDR16		21	500	780	10°/59°
ACINDR20		26	700	1100	8°/50°
ACINDR24		40	850	1300	7°/37.5°

Side Hung Windows

Side Hung	Type of Hinge / Stay	Max. Vent Weight (kgs)	Width ('A') Minimum	Width ('A') Maximum	Opening Angle (+/- 2.5°)
ACINDSSH12	Standard	22	300	600	60°
ACINDSSH16		24	400	600	60°
ACINDASH12	Austenitic	22	300	600	60°
ACINDASH16		24	400	600	60°
ACETSH1312L ACETSH1312R	Restricted Left Hand R/H Non-Restricted / Right Hand L/H Non-Restricted VIEWED FROM OUTSIDE L/H Restricted / R/H Restricted	22	300	600	13°/58°
ACETSH1316L ACETSH1316R		24	400	600	11°/58°
ACETME13	Egress *use with ACET352 pull in blocks	40	365	865	90°

Note1: Vent Height / Width is measured in mm from rebate to rebate (not overall size or outer frame)

Note2: Top hung height and side hung width sizes to be reduced by 2mm where size is 450mm or smaller

Note3: Typical Dimensions based on Max. Size and Glass 30kg/metre

Note4: For additional security use ACET513 hinge protectors

Note5: Kitemark specification covers Top Hung Max. height up to 1400mm. ACINDP24 Max. height is 1500mm

Note6: For sashes over 600mm, ACETME99 is recommended for ACETME13 to disable easy clean function

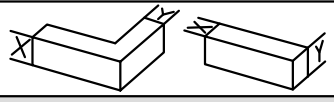


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

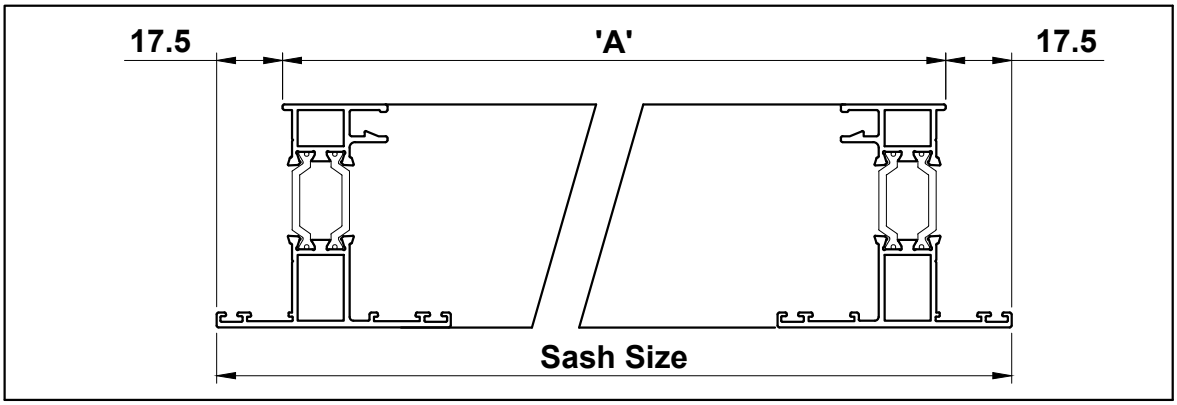


Screw (Grub)

MF	= Mill Finish	W	= White
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KL	= Basic Colour		
HP	= Special Colour		
SSC	= Smooth Satin Chrome		
SMC	= Smokey Chrome		
PC	= Polished Chrome		

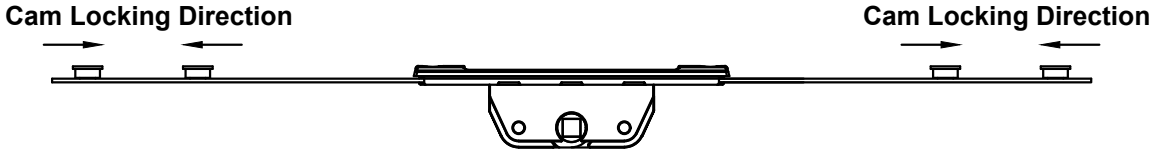


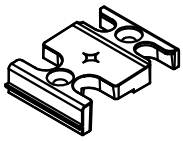
Reverse Espag Locking



Part Code	Rod Length (mm)	Number of Keeps	Sash Rebate Size ('A')		Pack QTY
			Minimum	Maximum	
ACET4001L	359	2	364	509	20
ACET4001R					
ACET4002L	505	2	510	759	20
ACET4002R					
ACET4003L	755	2	760	1009	20
ACET4003R					
ACET4004L	1005	4	1010	1259	20
ACET4004R					
ACET4005L	1255	4	1260	1400	20
ACET4005R					

Note: To Suit Handles with 7mm x 7mm spindle





Keep



T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

MF	= Mill Finish	W	= White
SA	= Silver Anodised	Z	= Black
KL	= Basic Colour		
HP	= Special Colour		
SSC	= Smooth Satin Chrome		
SMC	= Smokey Chrome		
PC	= Polished Chrome		

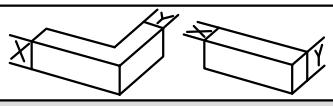


Image	Part Code	Pack	Unit	Application	Colour
	**ACMX09761** **Maxi Gloss**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09762** **Alu. Bright**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09763** **Teflon Spray**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09764** **Maxi Clean**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09765** **Alu. Cleaner**	**1**	**each**		MF SA KL HP SSC SMC W Z PC



T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

MF = Mill Finish
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KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
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W = White
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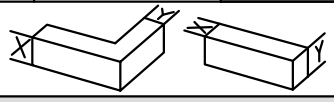
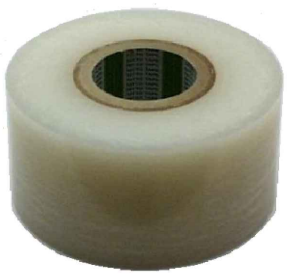
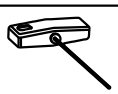
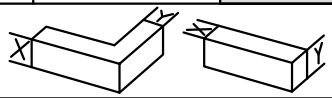


Image	Part Code	Pack	Unit	Application	Colour
	**ACMX09770** **Roll & Wrap 100mm**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09775** **Grip Handwrap**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09801** **Protective Tape 50mm**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09802** **Protective Tape 70mm**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09803** **Protective Tape 100mm**	**1**	**each**		MF SA KL HP SSC SMC W Z PC





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SA	**= Silver Anodised**	**Z**	**= Black**
KL	**= Basic Colour**		
HP	**= Special Colour**		
SSC	**= Smooth Satin Chrome**		
SMC	**= Smokey Chrome**		
PC	**= Polished Chrome**		



STANDARD ACCESSORIES

Image	Part Code	Pack	Unit	Application	Colour	
	**ACMX09830** **Rubber Sealant**	**1**	**each**		MF SA KL HP SSC SMC W Z PC	
	**ACSIL04** **Sealing Glue** **Order with suffix of KL colour (eg.ACSIL04KL005) or BL=Black/WP=White/ CL=Clear**	**1**	**each**		MF SA KL HP SSC SMC W Z PC	 ✓ ✓ ✓
	**ACSIL08** **Silicon Gun**	**1**	**each**		MF SA KL HP SSC SMC W Z PC	
	**ACSIL013** **Glue for Mitre**	**1**	**each**		MF SA KL HP SSC SMC W Z PC	
	**ACSIL014** **Anti-Corrosion Coating**	**1**	**each**		MF SA KL HP SSC SMC W Z PC	✓



T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm



Screw (Grub)

MF	**= Mill Finish**	**W**	**= White**
SA	**= Silver Anodised**	**Z**	**= Black**
KL	**= Basic Colour**		
HP	**= Special Colour**		
SSC	**= Smooth Satin Chrome**		
SMC	**= Smokey Chrome**		
PC	**= Polished Chrome**		

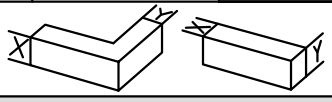
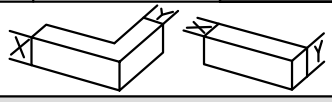


Image	Part Code	Pack	Unit	Application	Colour
	**ACUN3900** **Gasket Roller**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
					MF SA KL HP SSC SMC W Z PC
					MF SA KL HP SSC SMC W Z PC
					MF SA KL HP SSC SMC W Z PC
					MF SA KL HP SSC SMC W Z PC





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KL = Basic Colour
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SSC = Smooth Satin Chrome
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W = White
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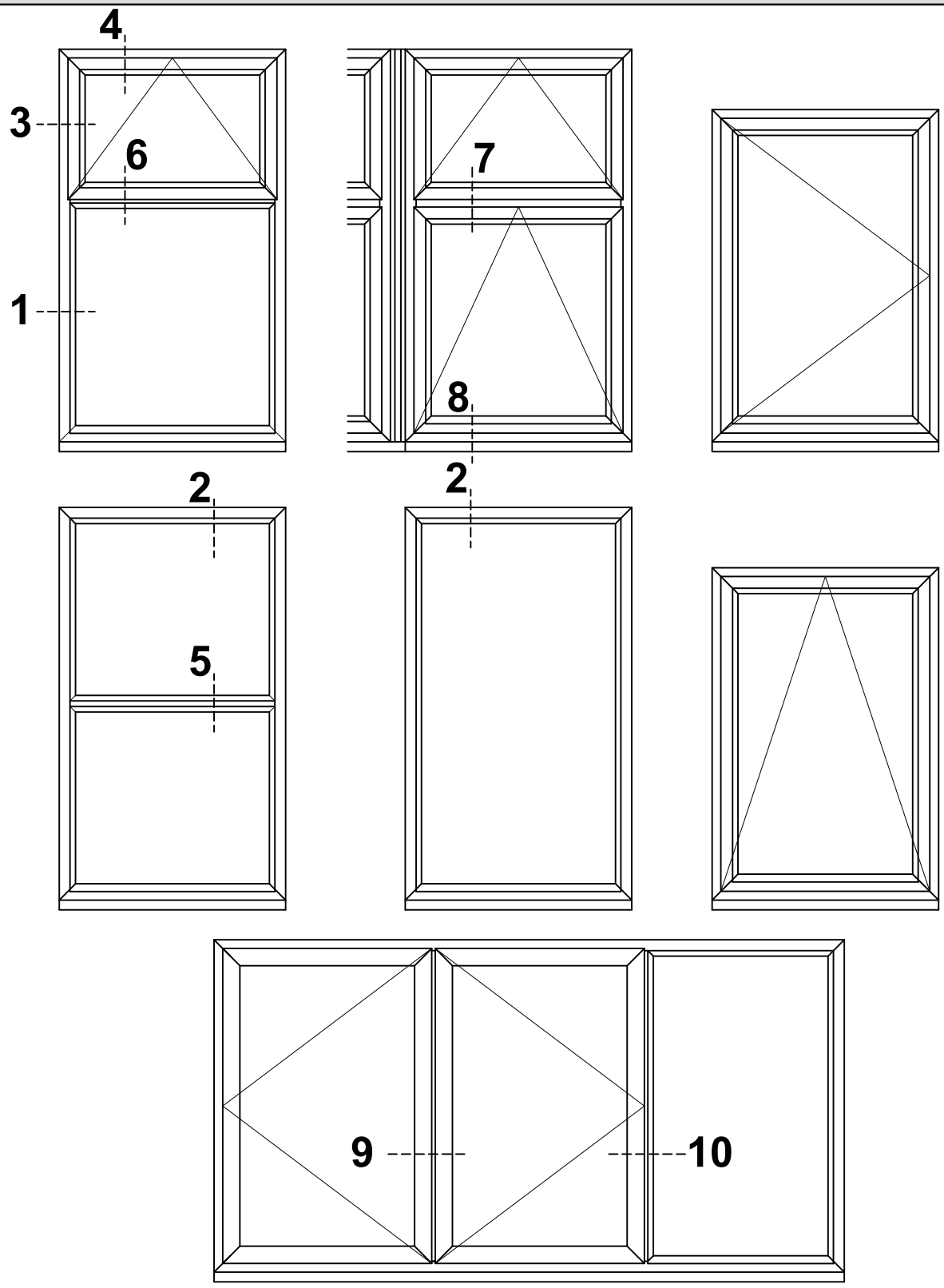


Section C

Sections

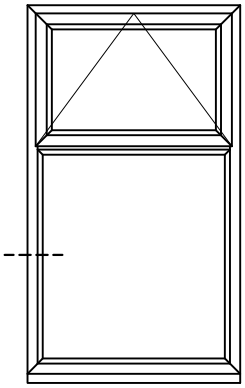
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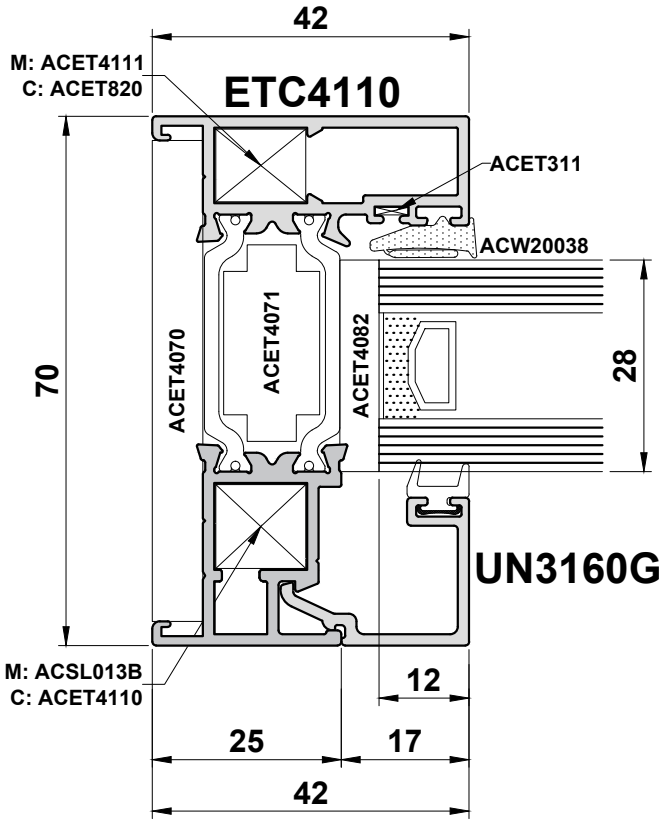
Standard Casement Detail



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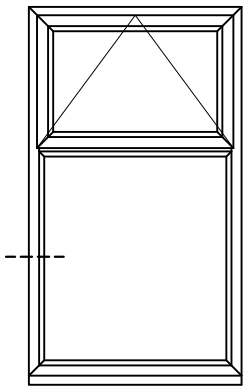
Detail 1A

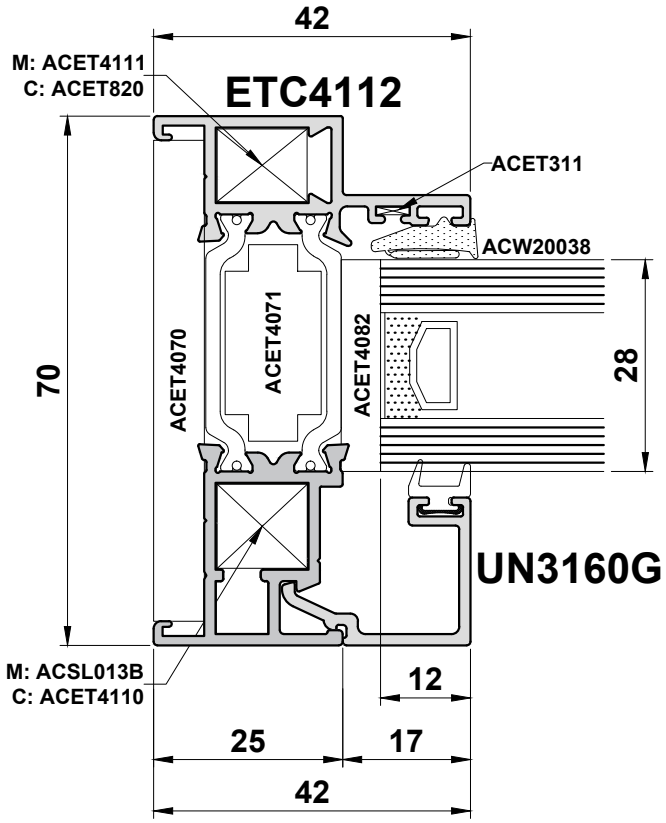




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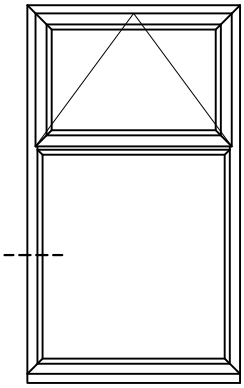
Detail 1B

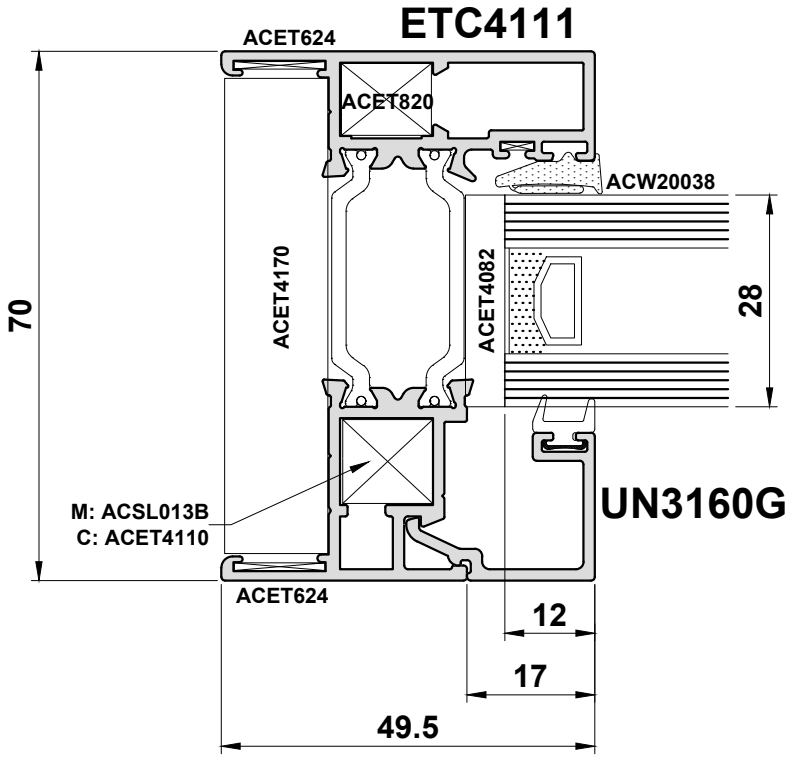




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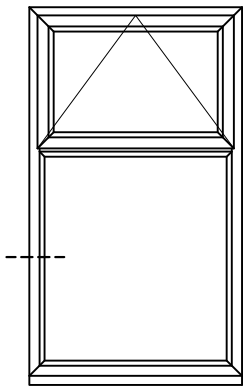
Detail 1C

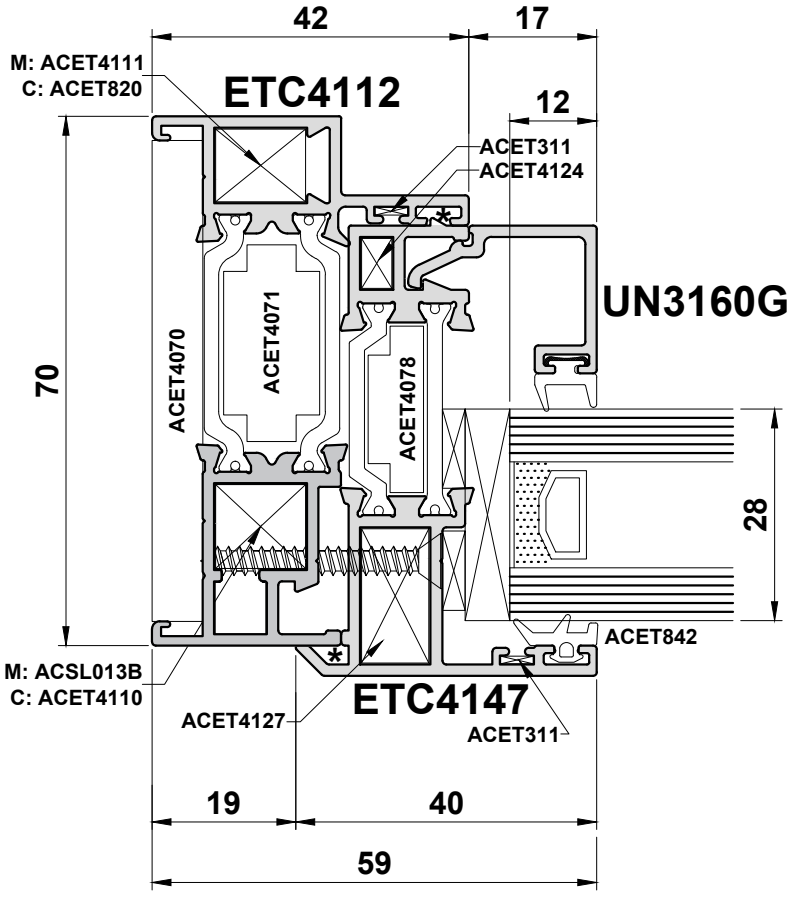


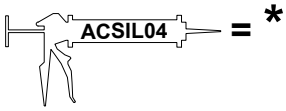


Do Not Scale From This Drawing

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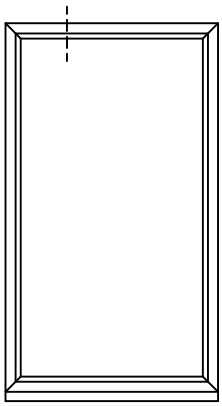


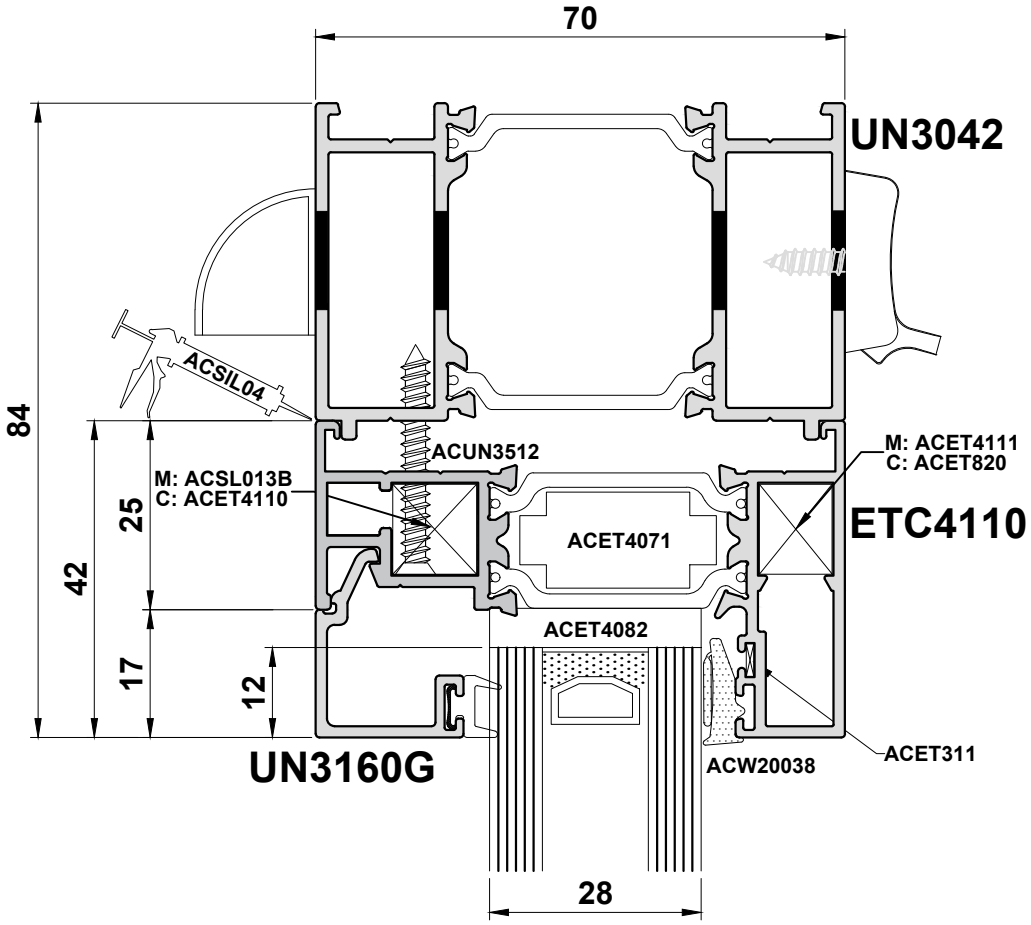




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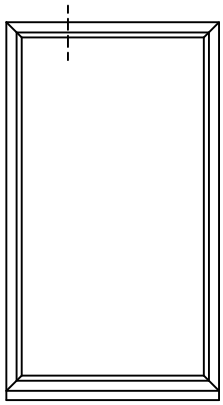
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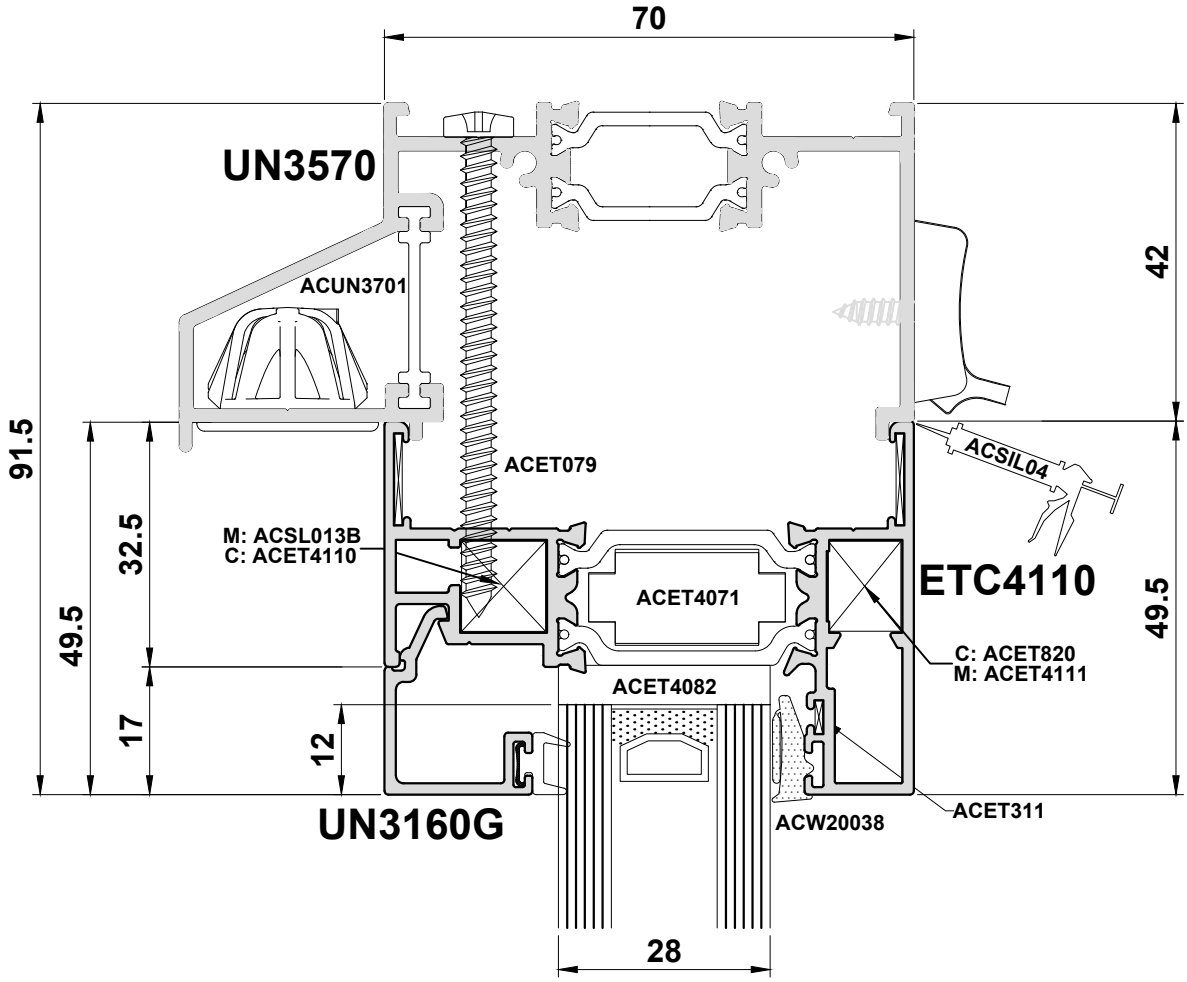




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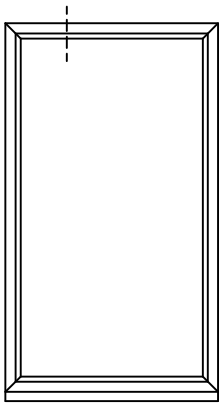
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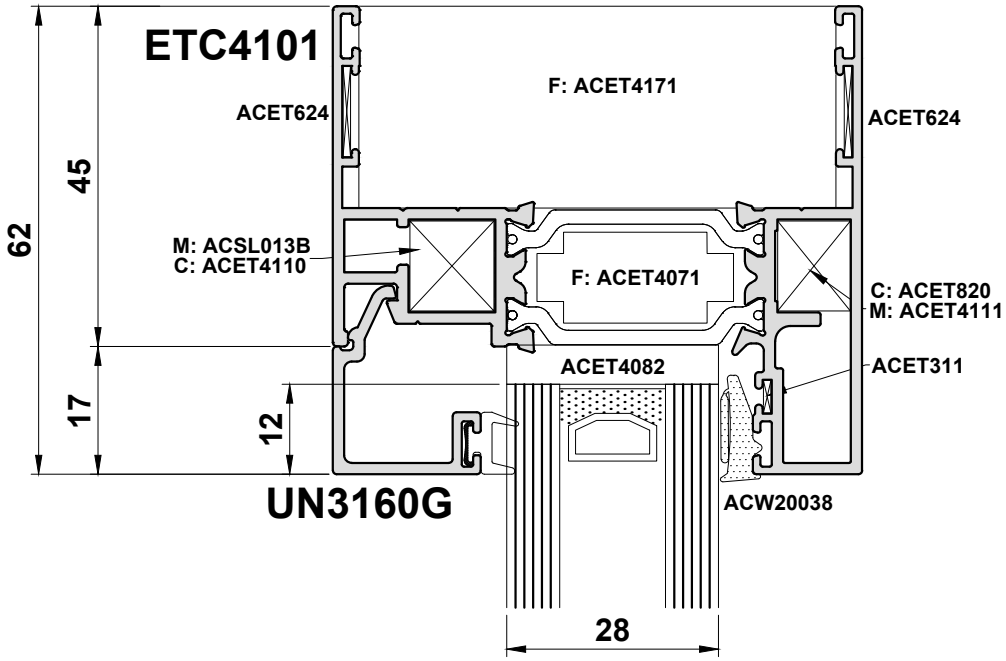




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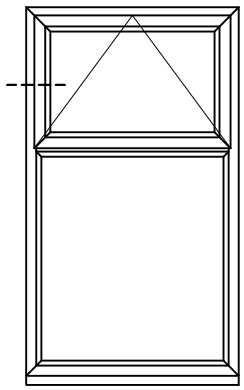
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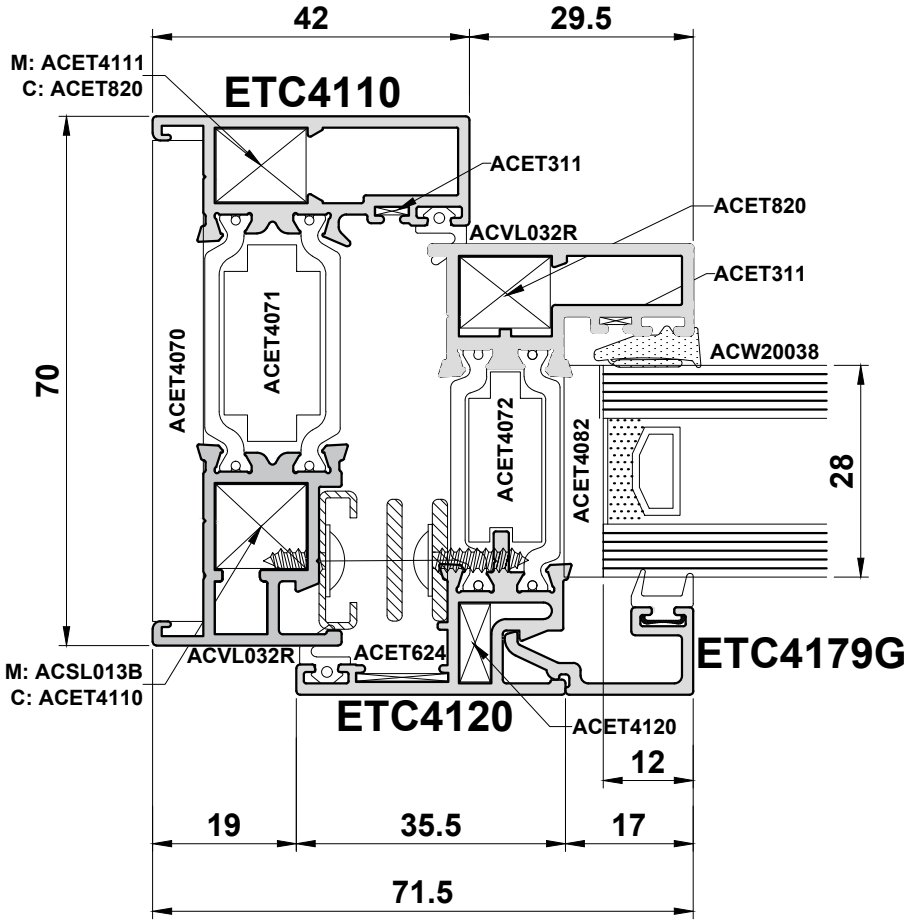




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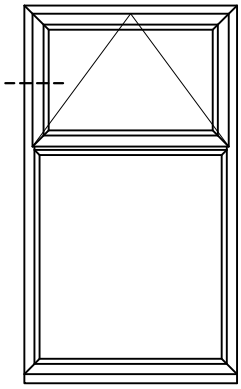
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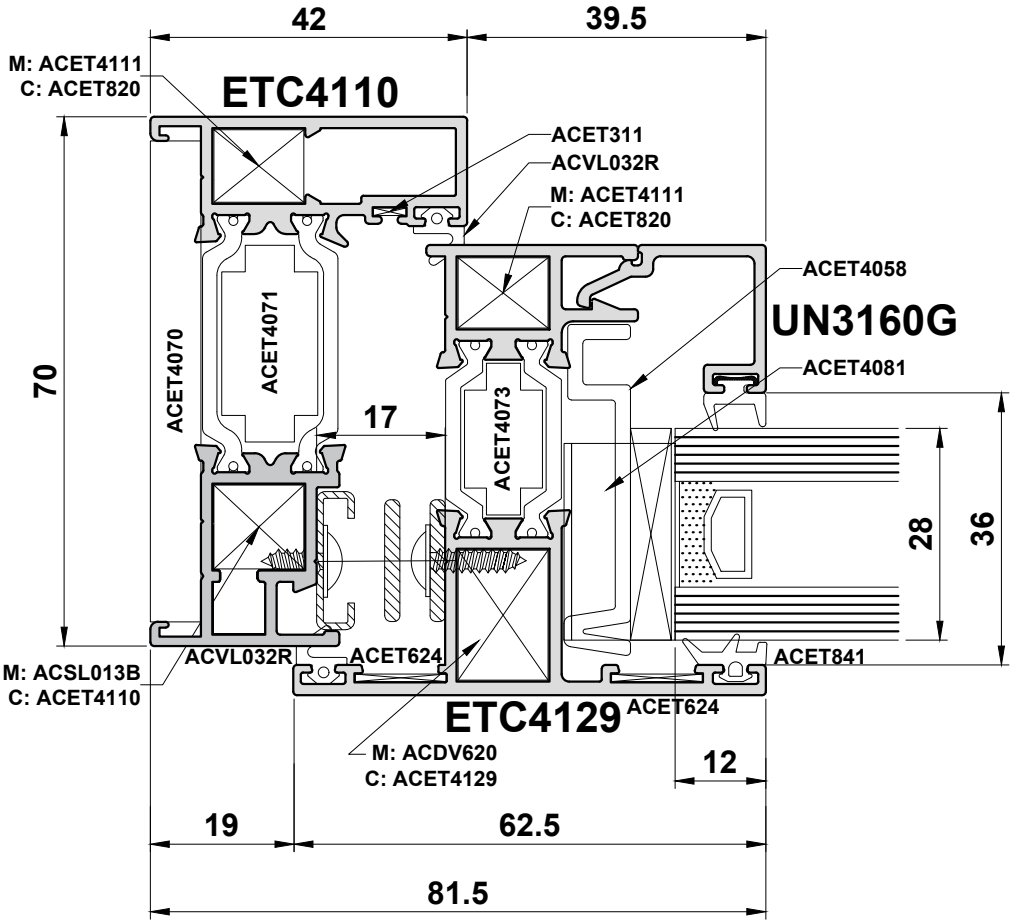




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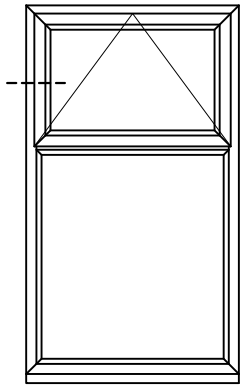
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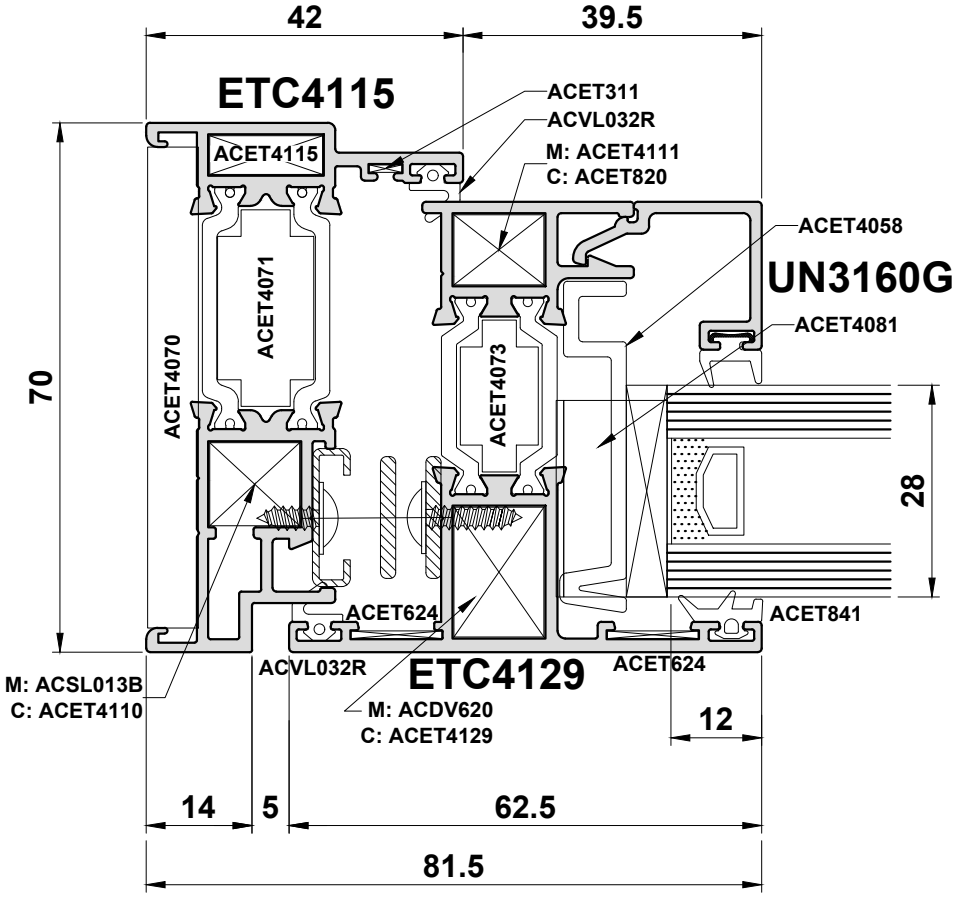




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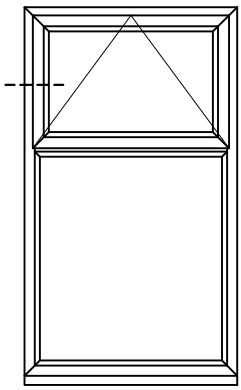
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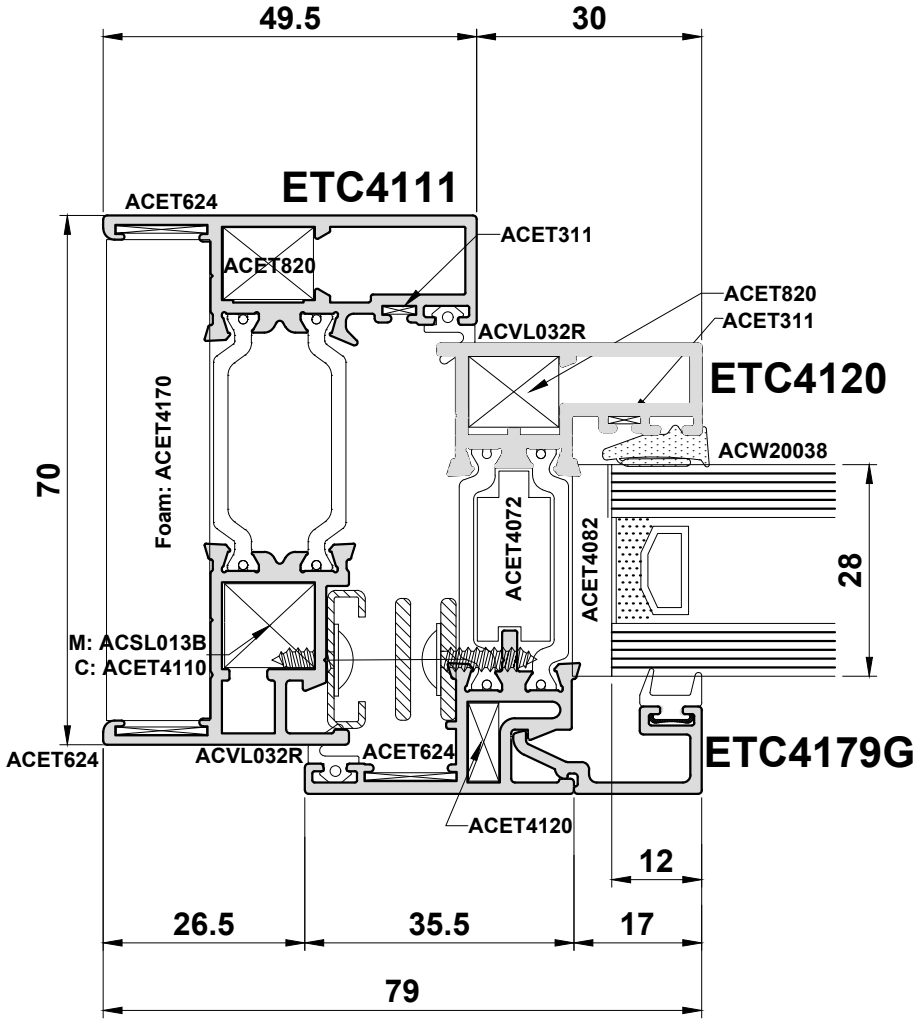




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Detail 3D

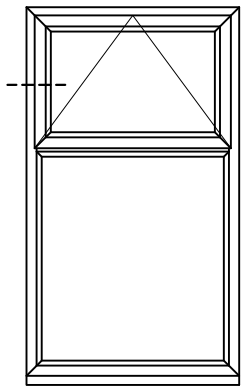


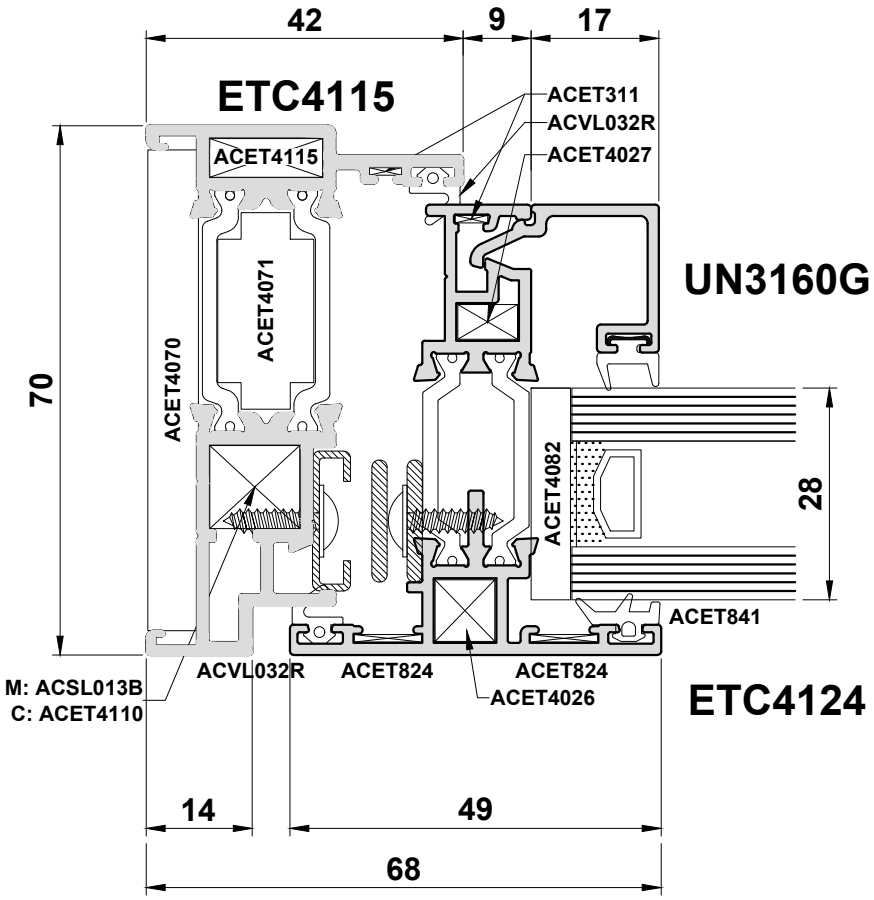


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ISSUED: JANUARY 2026

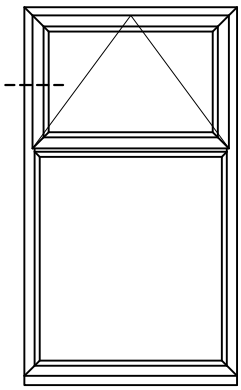
Detail 3E

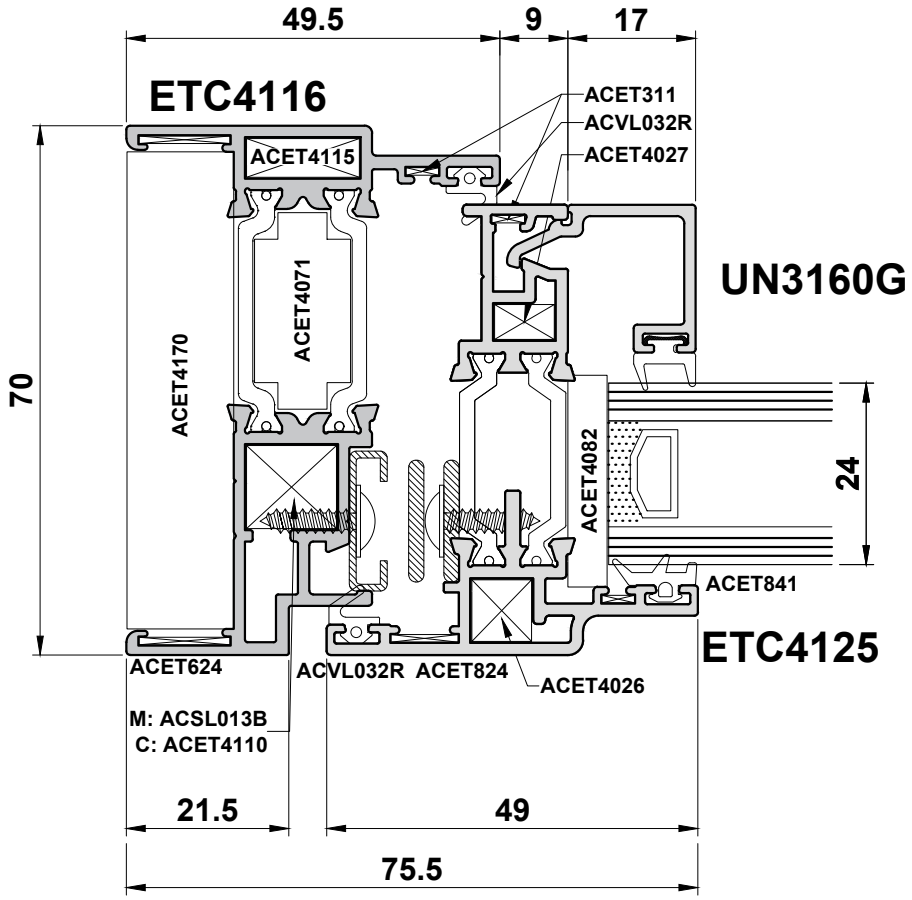




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Detail 3F

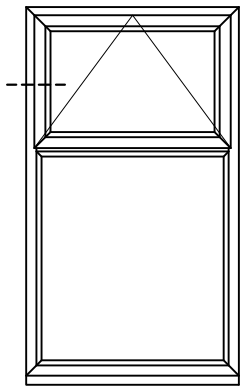


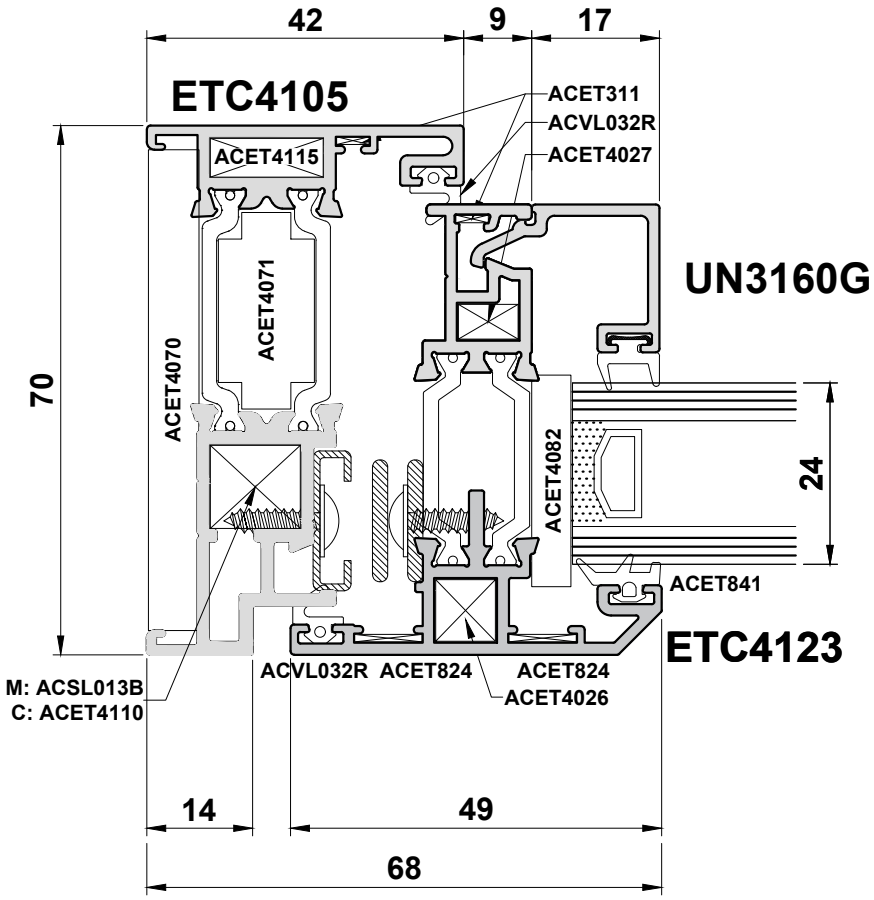


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ISSUED: JANUARY 2026

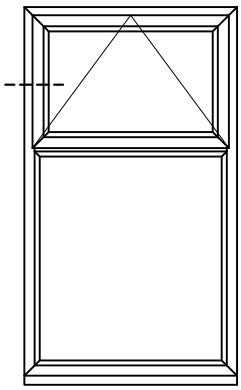
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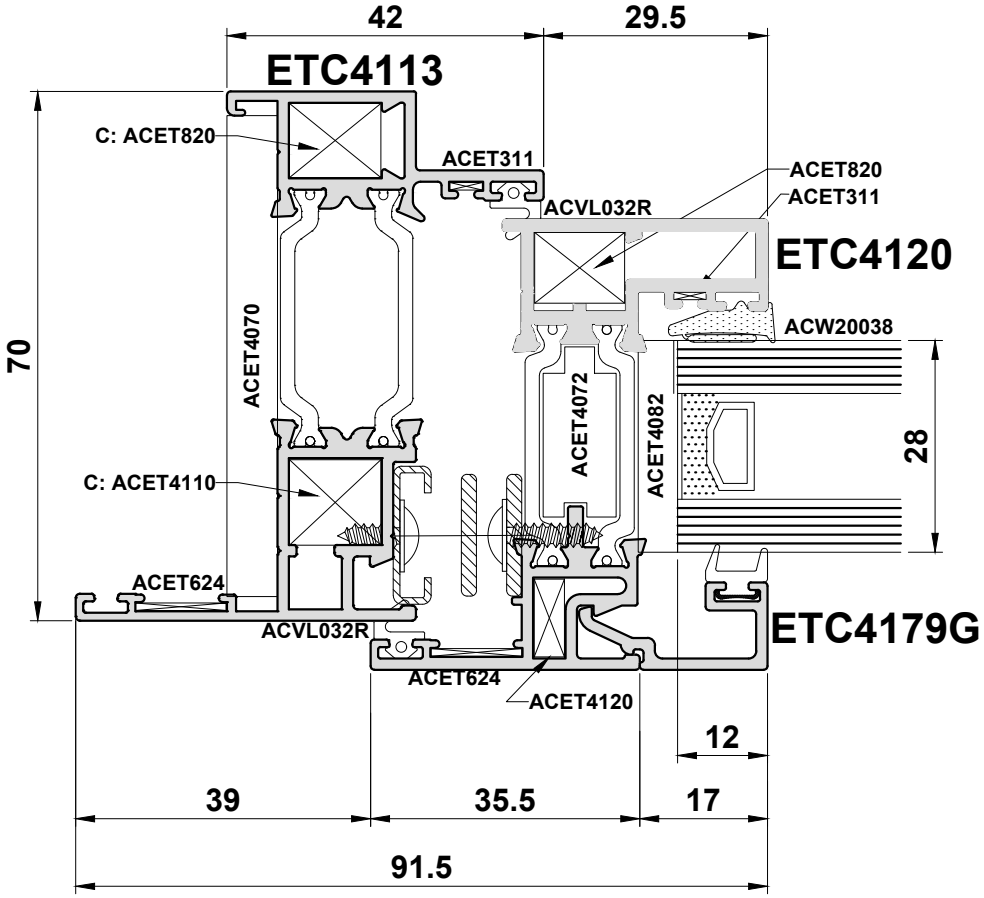




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Detail 3H

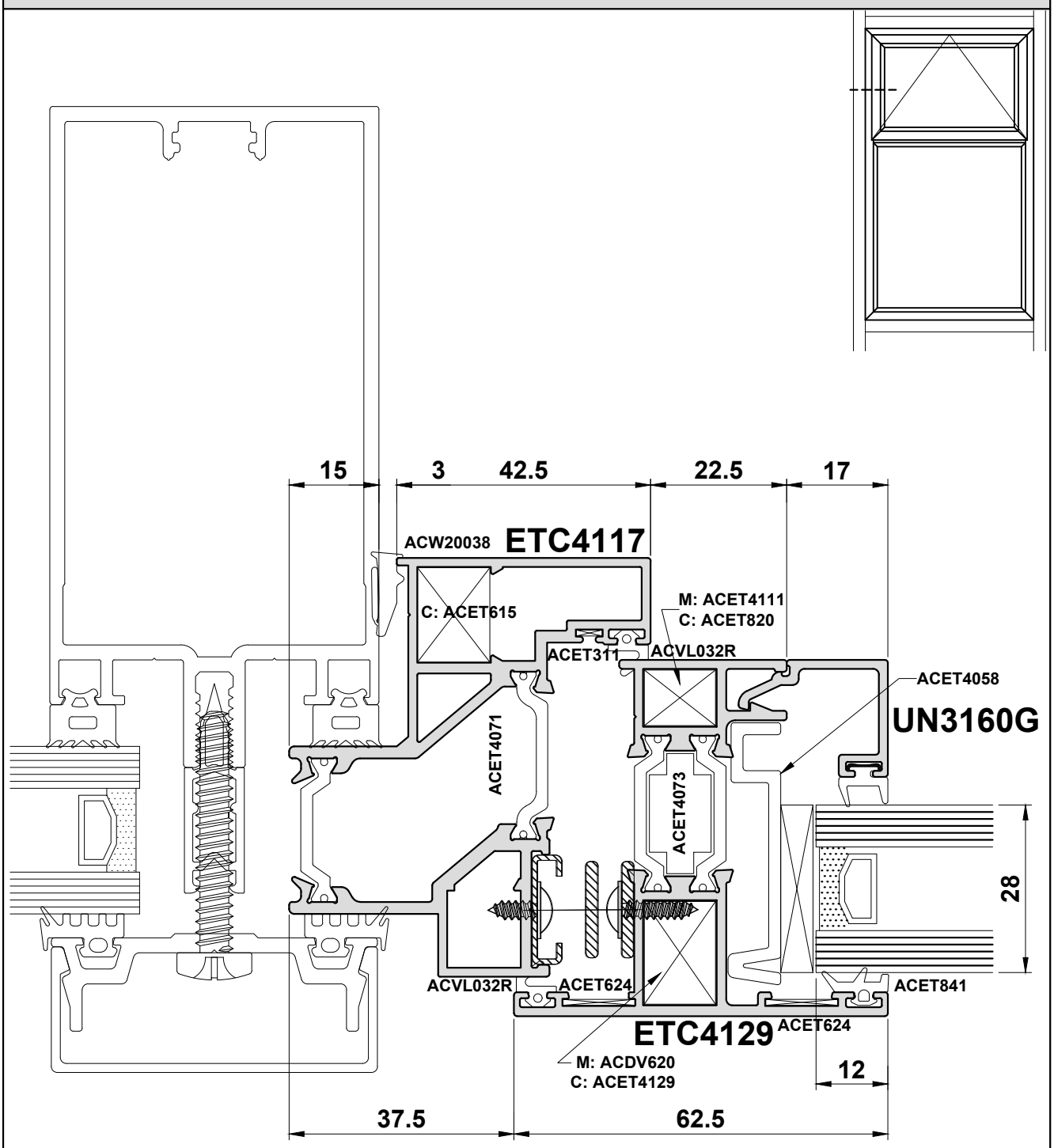




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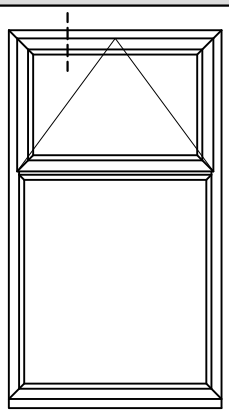
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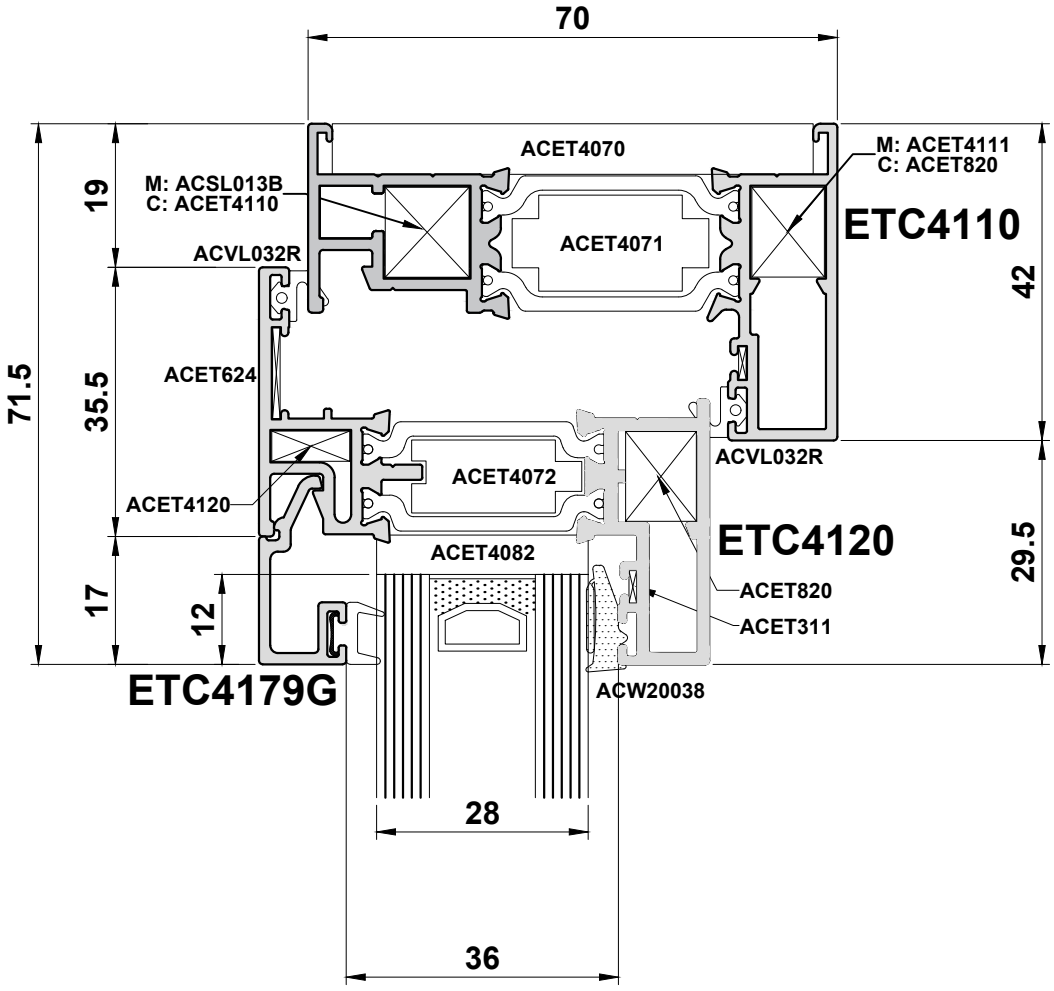
Detail 3l



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Detail 4A

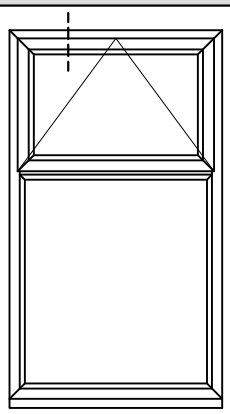


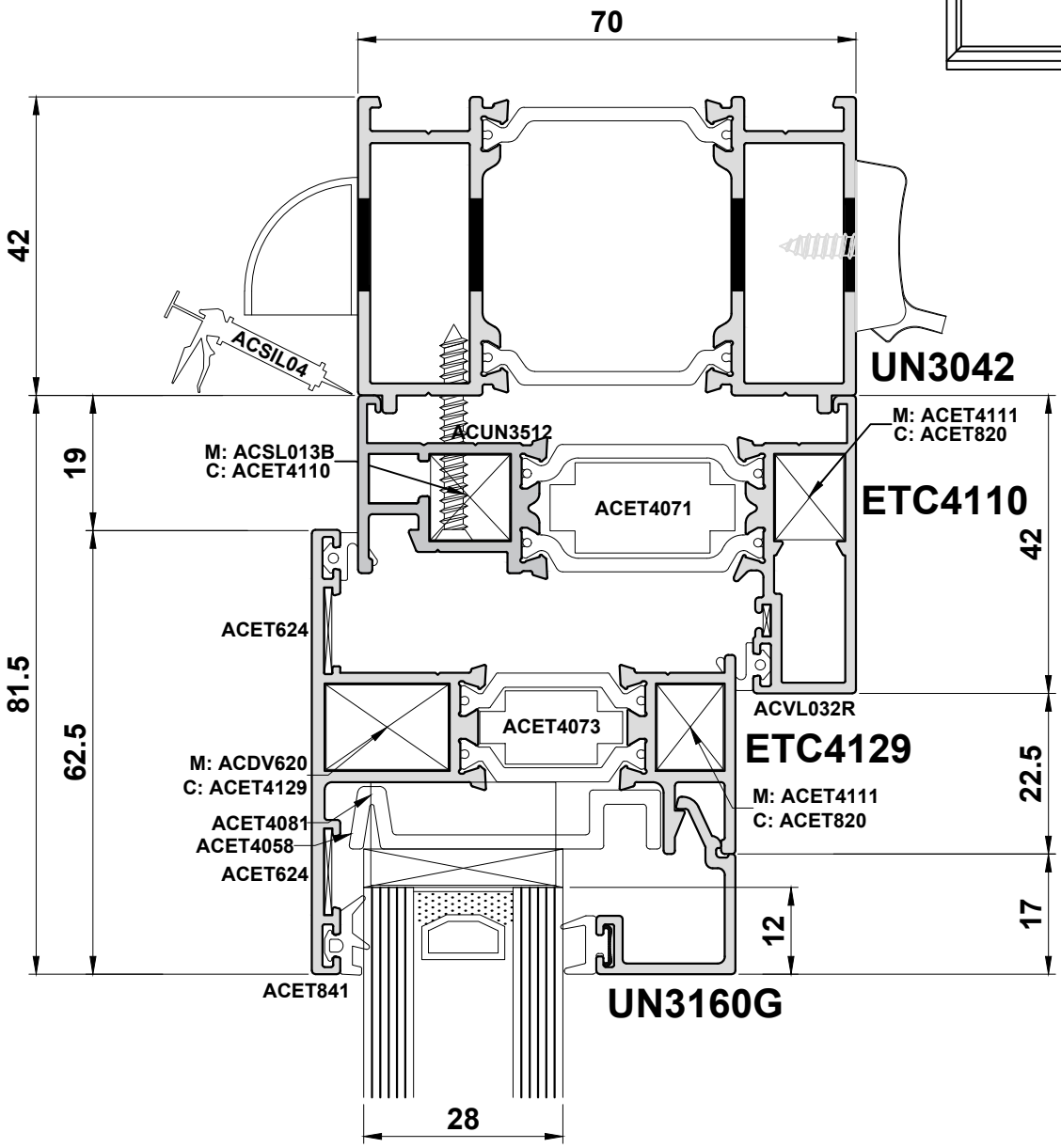


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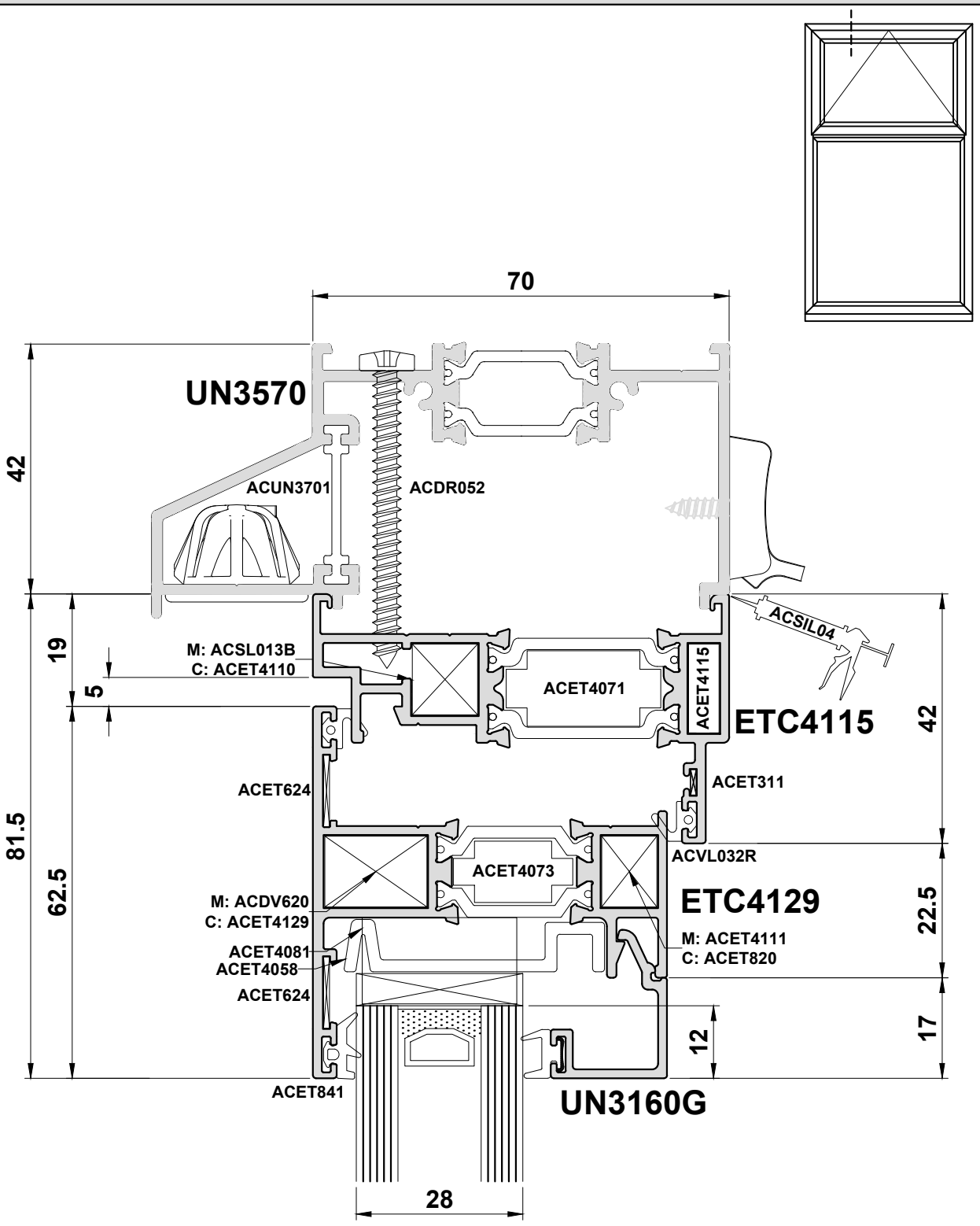
Detail 4B





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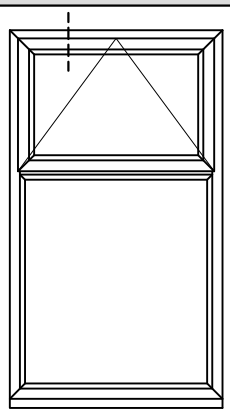
Detail 4C

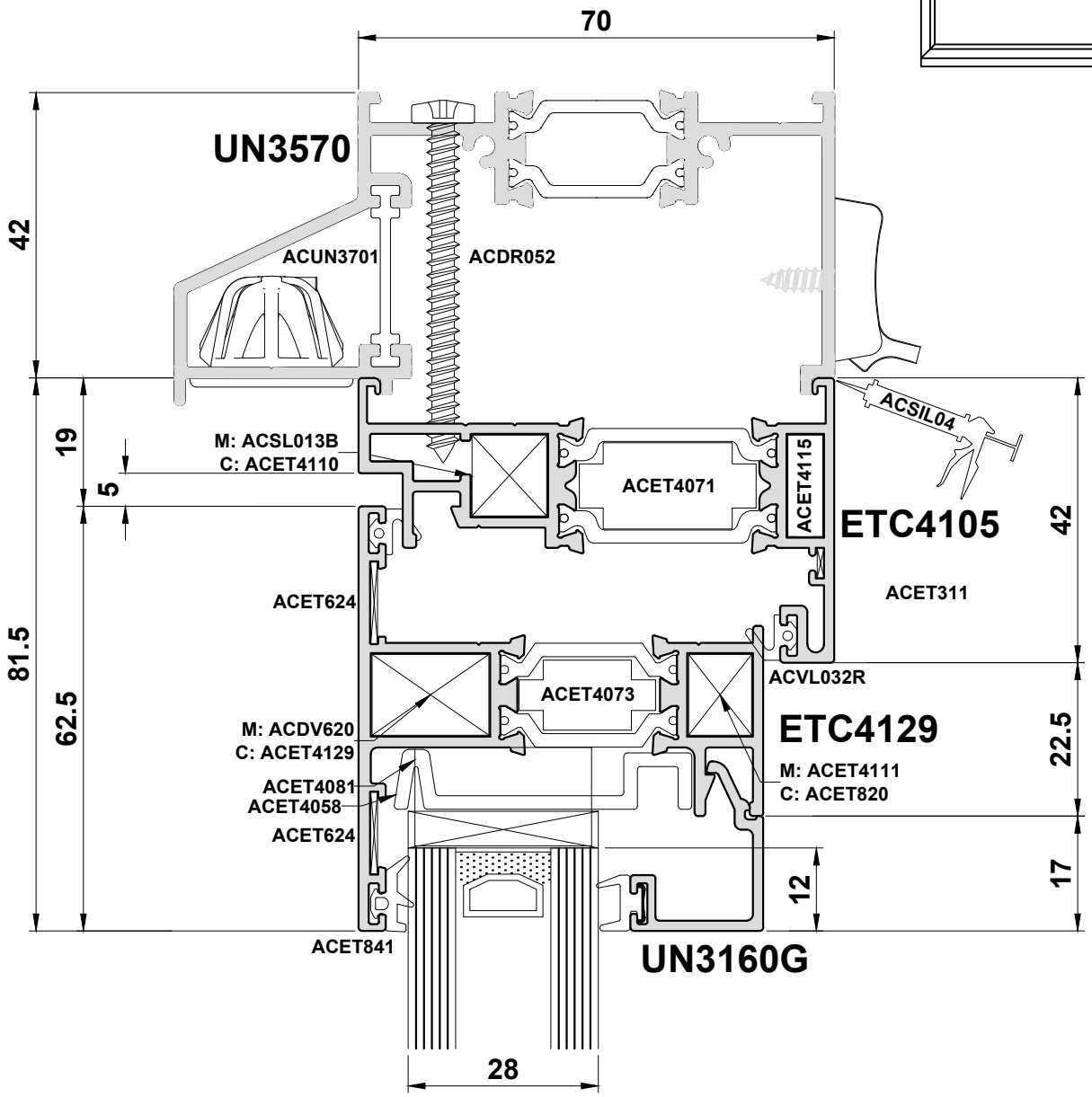


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ISSUED: JANUARY 2026

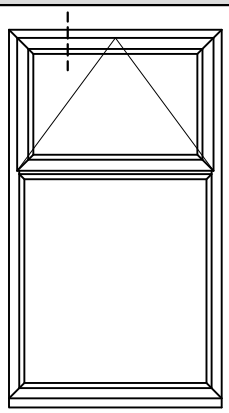
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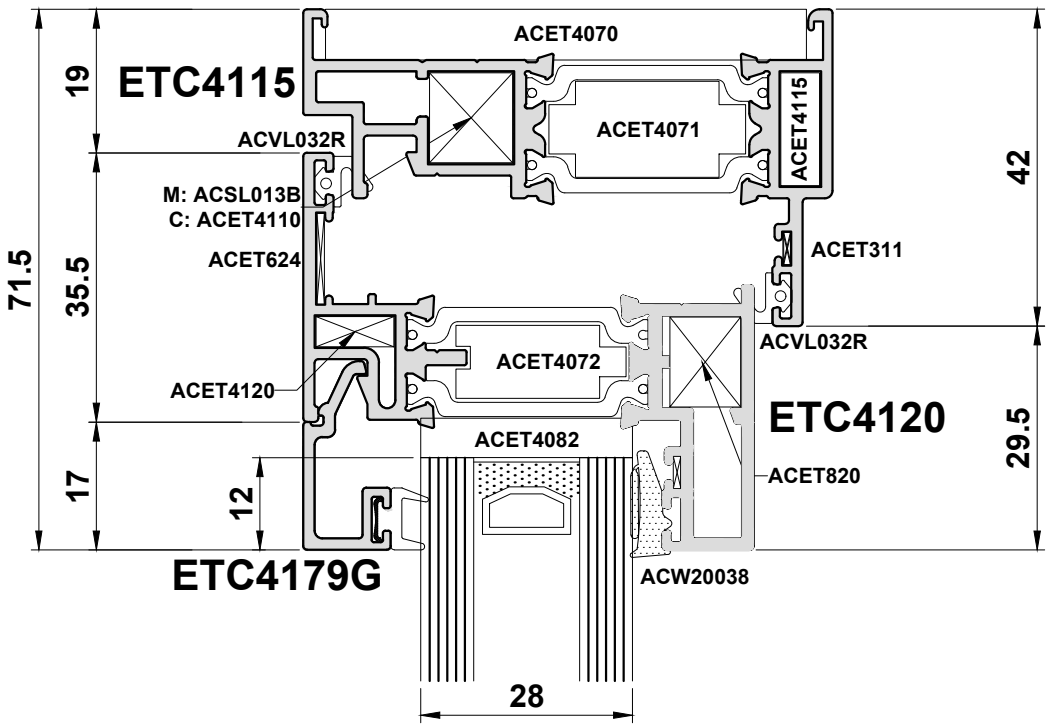




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Detail 4E

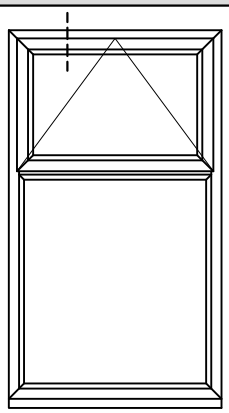


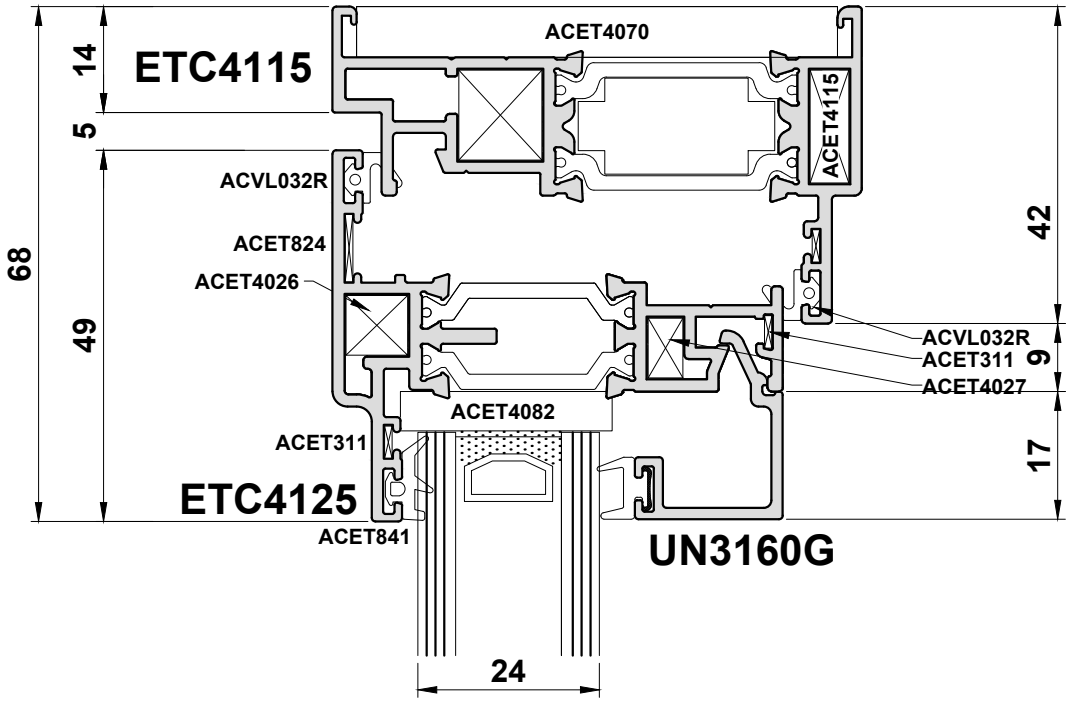


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ISSUED: JANUARY 2026

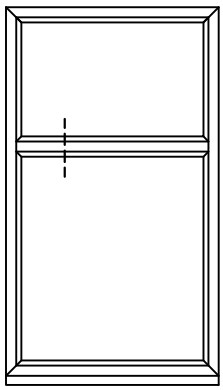
Detail 4F

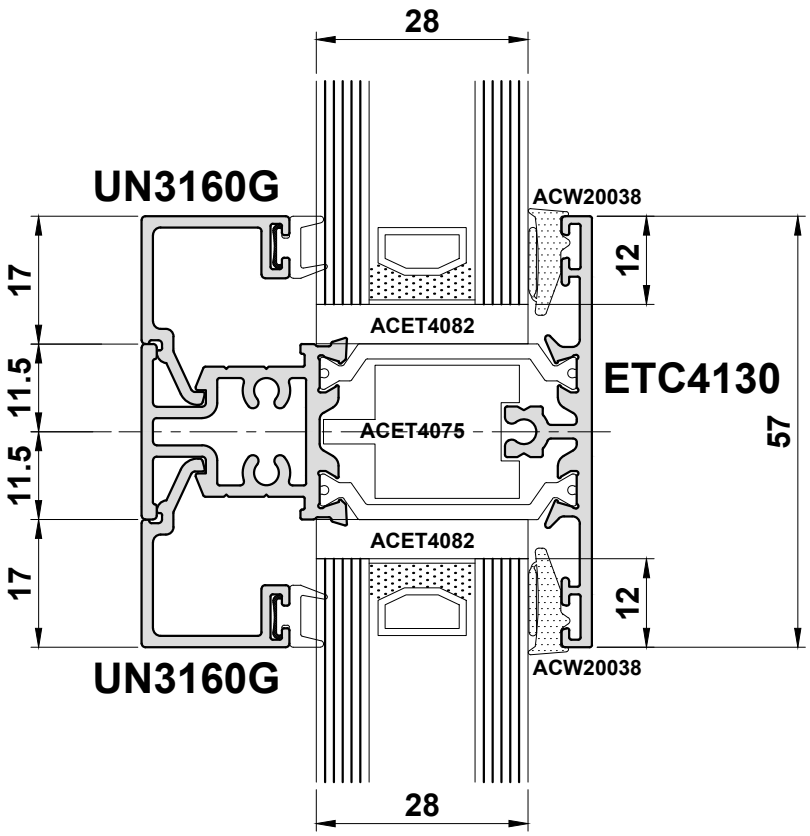




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Detail 5A

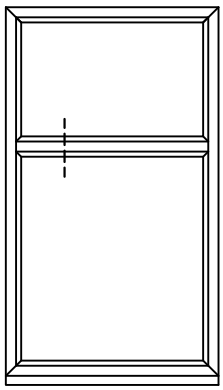


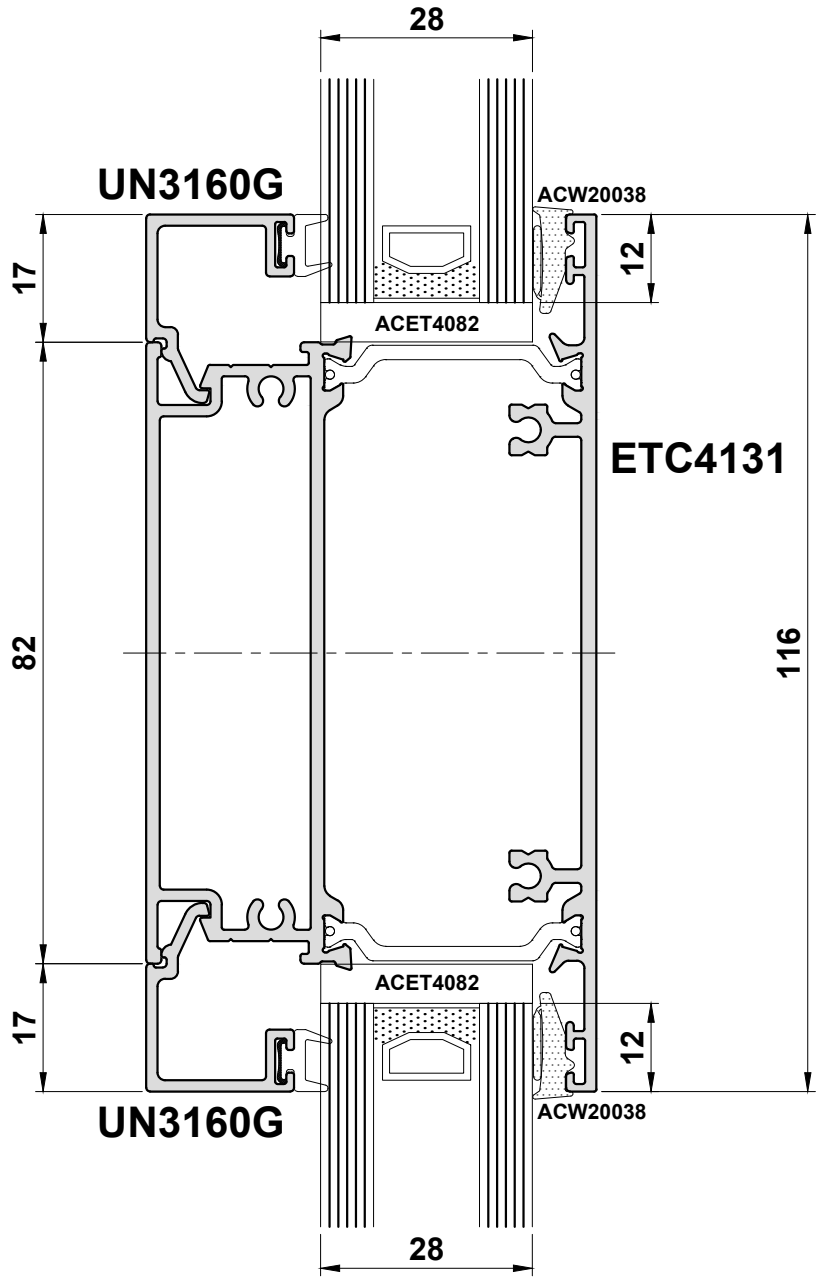


Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

Detail 5B



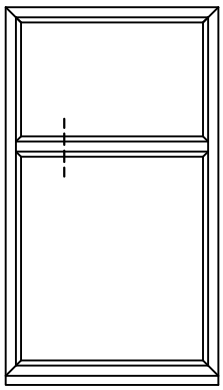


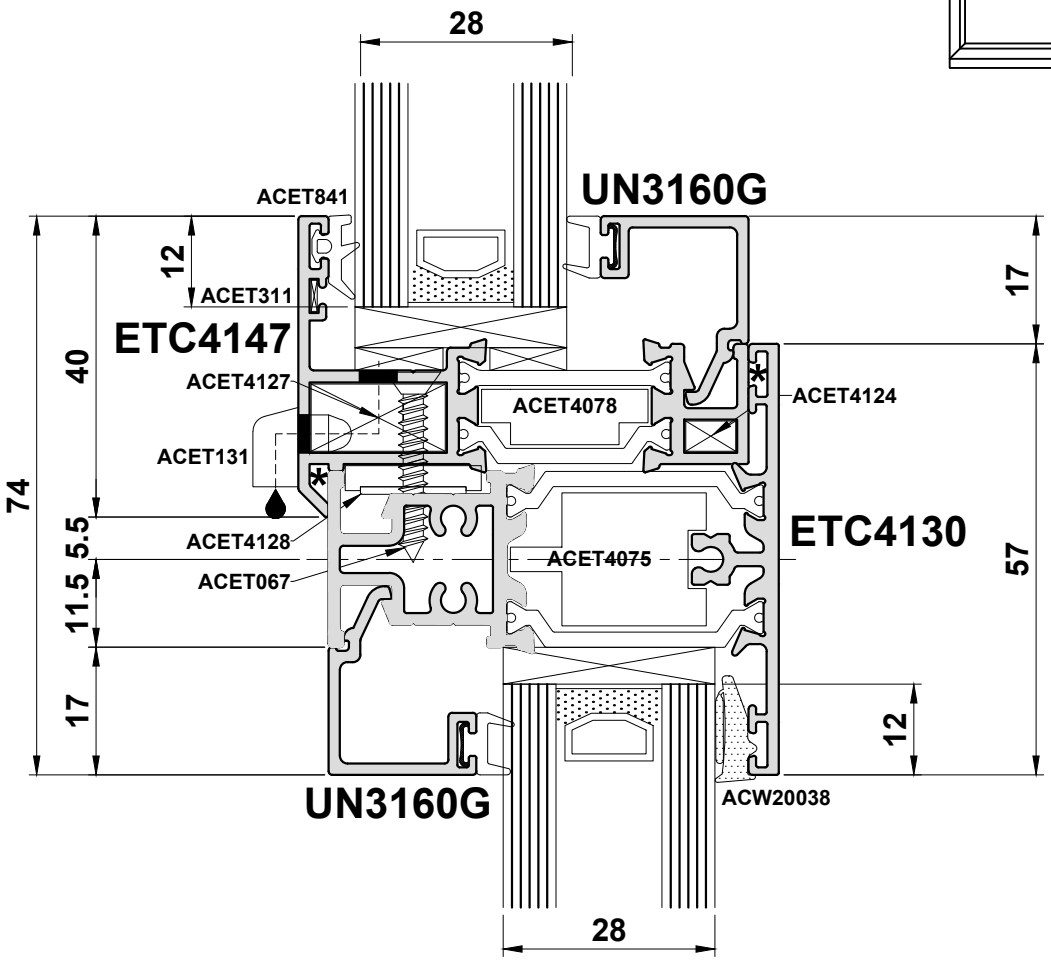
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Do Not Scale From This Drawing

Alitherm 400

Detail 5C





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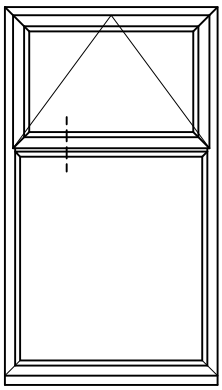
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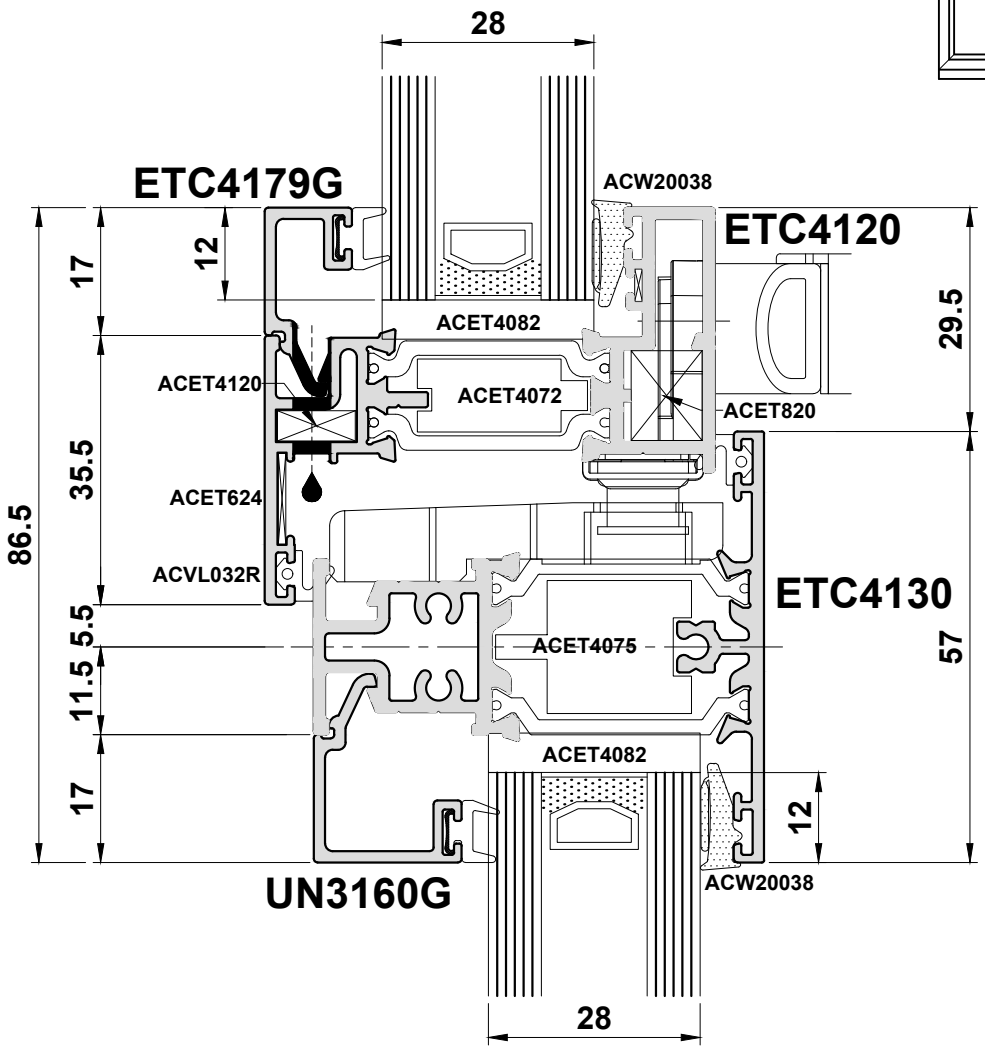
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ISSUED: JANUARY 2026

Alitherm 400

Detail 6A

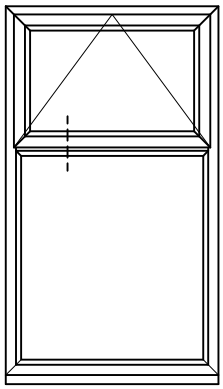


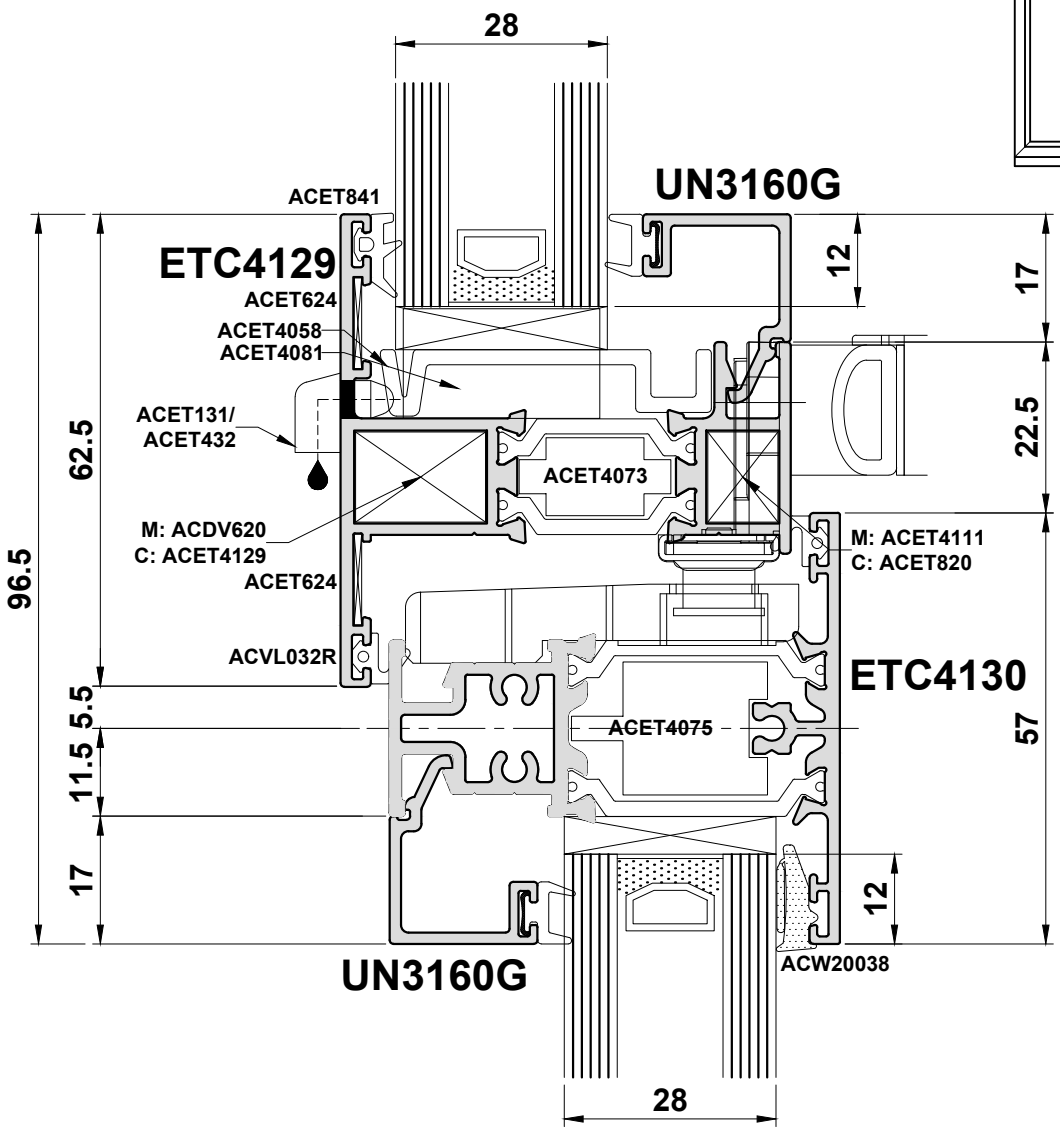


Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

Detail 6B

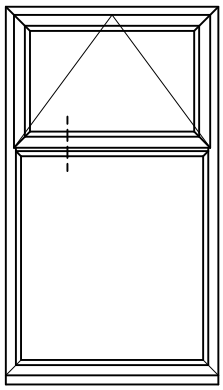


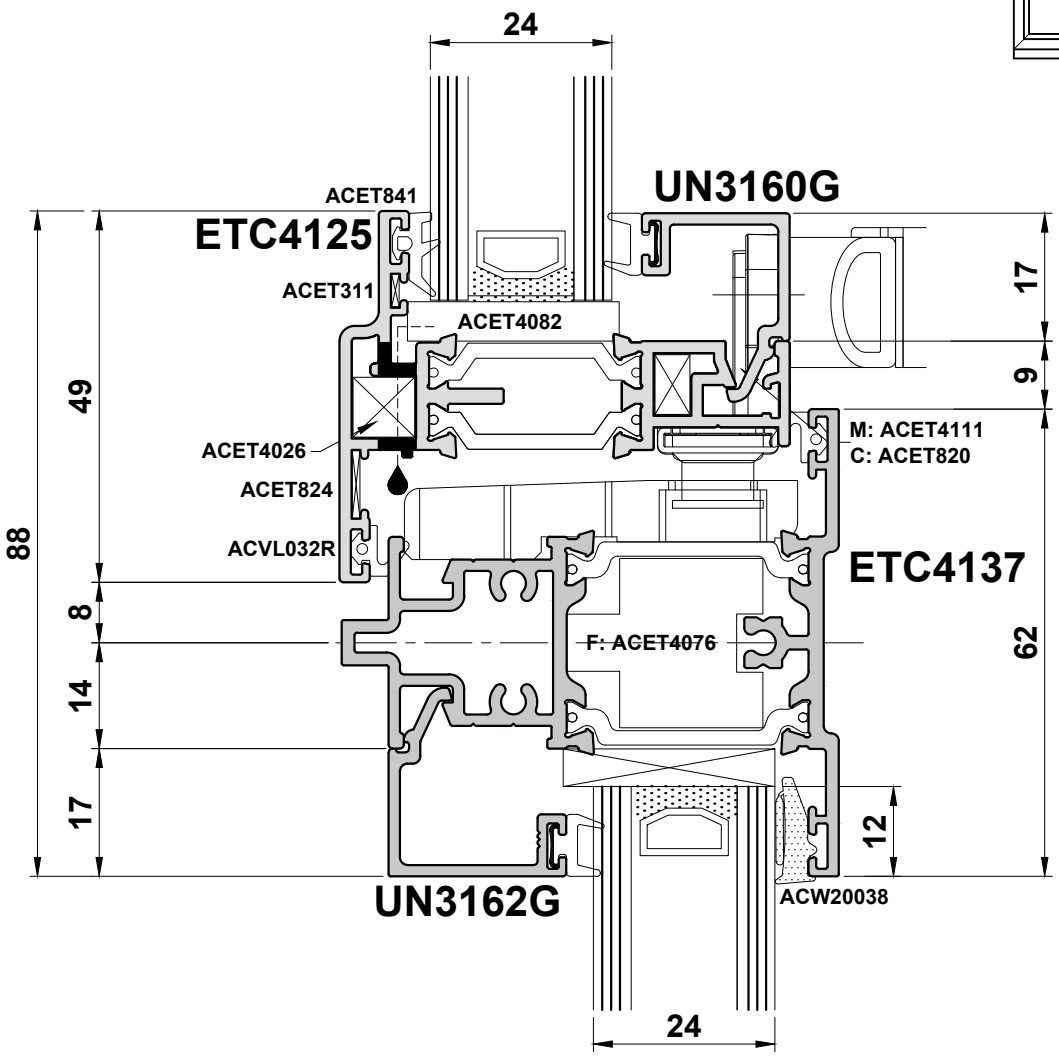


Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

Detail 6C

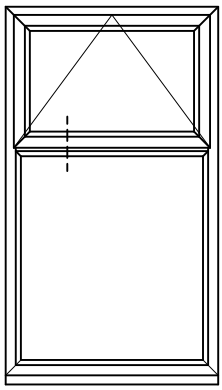


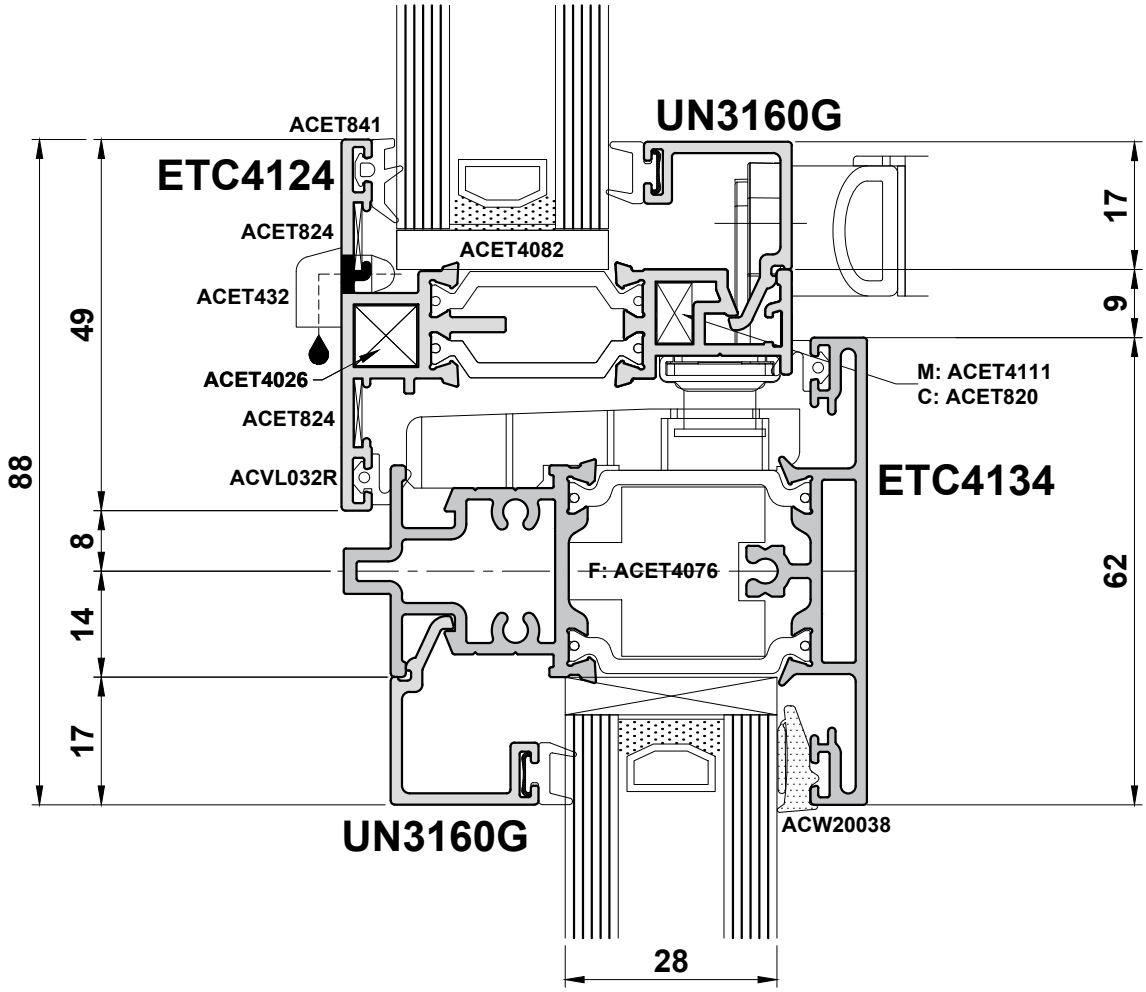


Note: Transoms will drain through the join to the outerframe.

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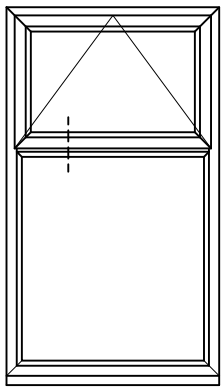
Detail 6D

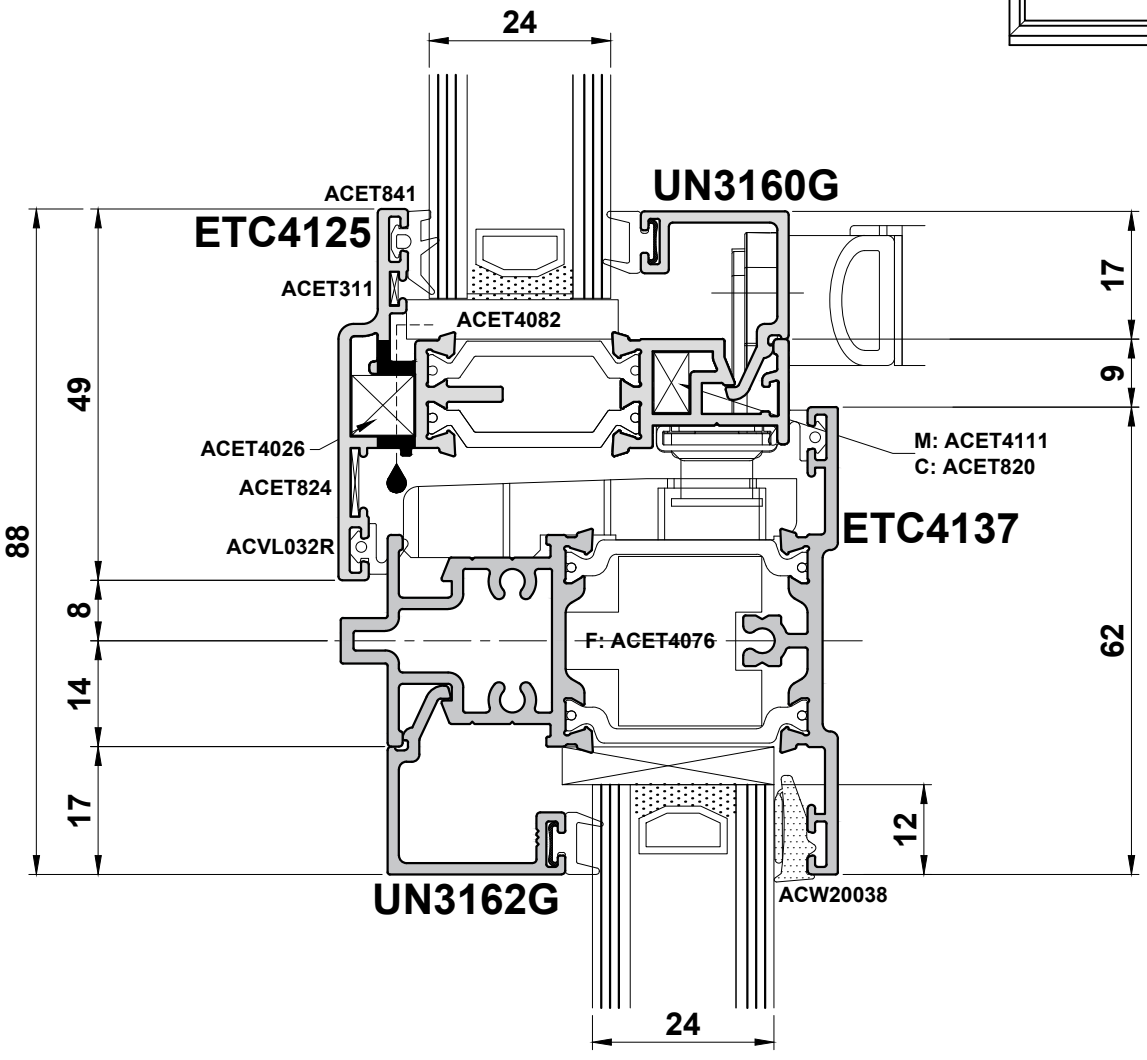




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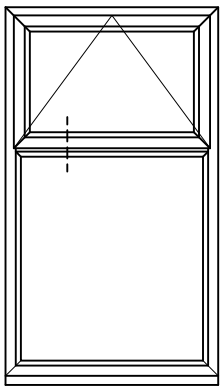
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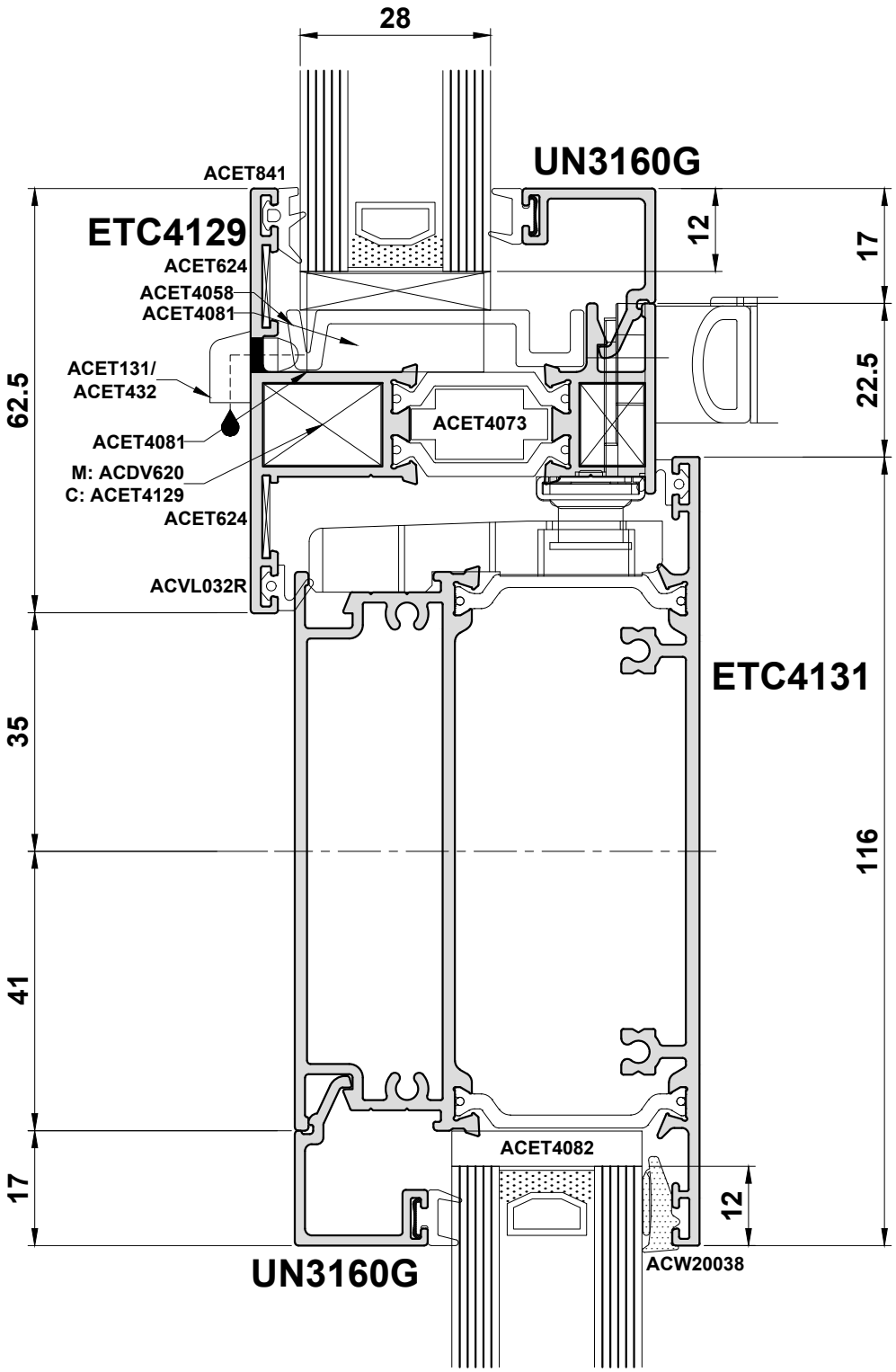




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Detail 6F

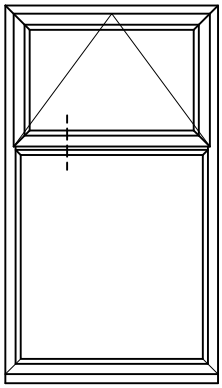


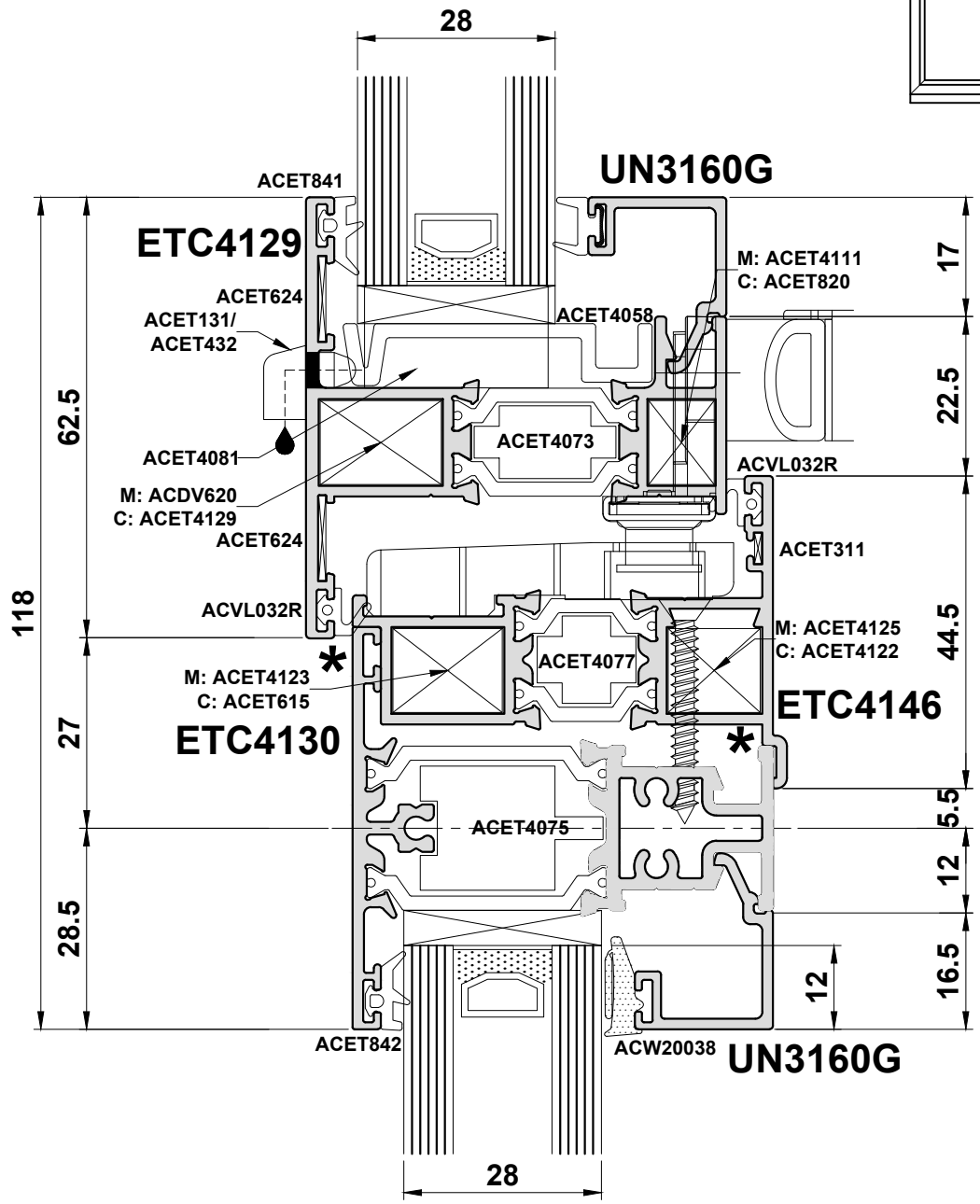


Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

Alitherm 400



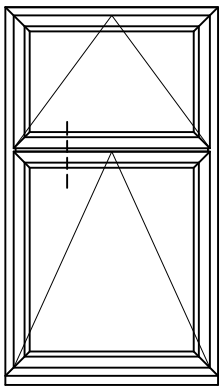


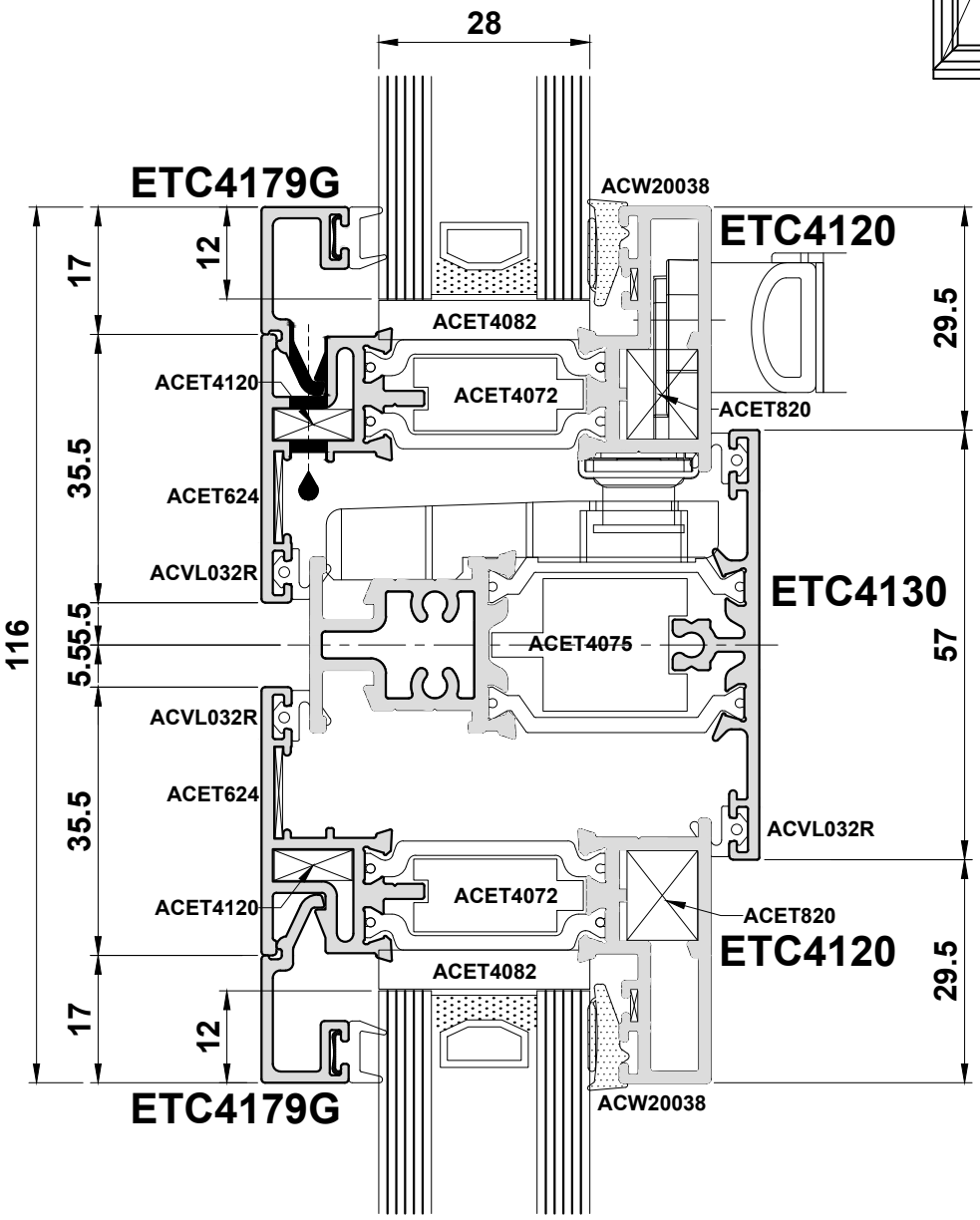
Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

Alitherm 400

Detail 7A



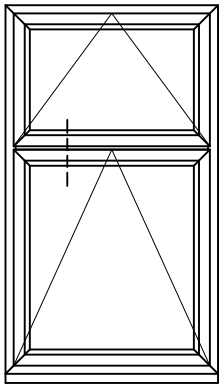


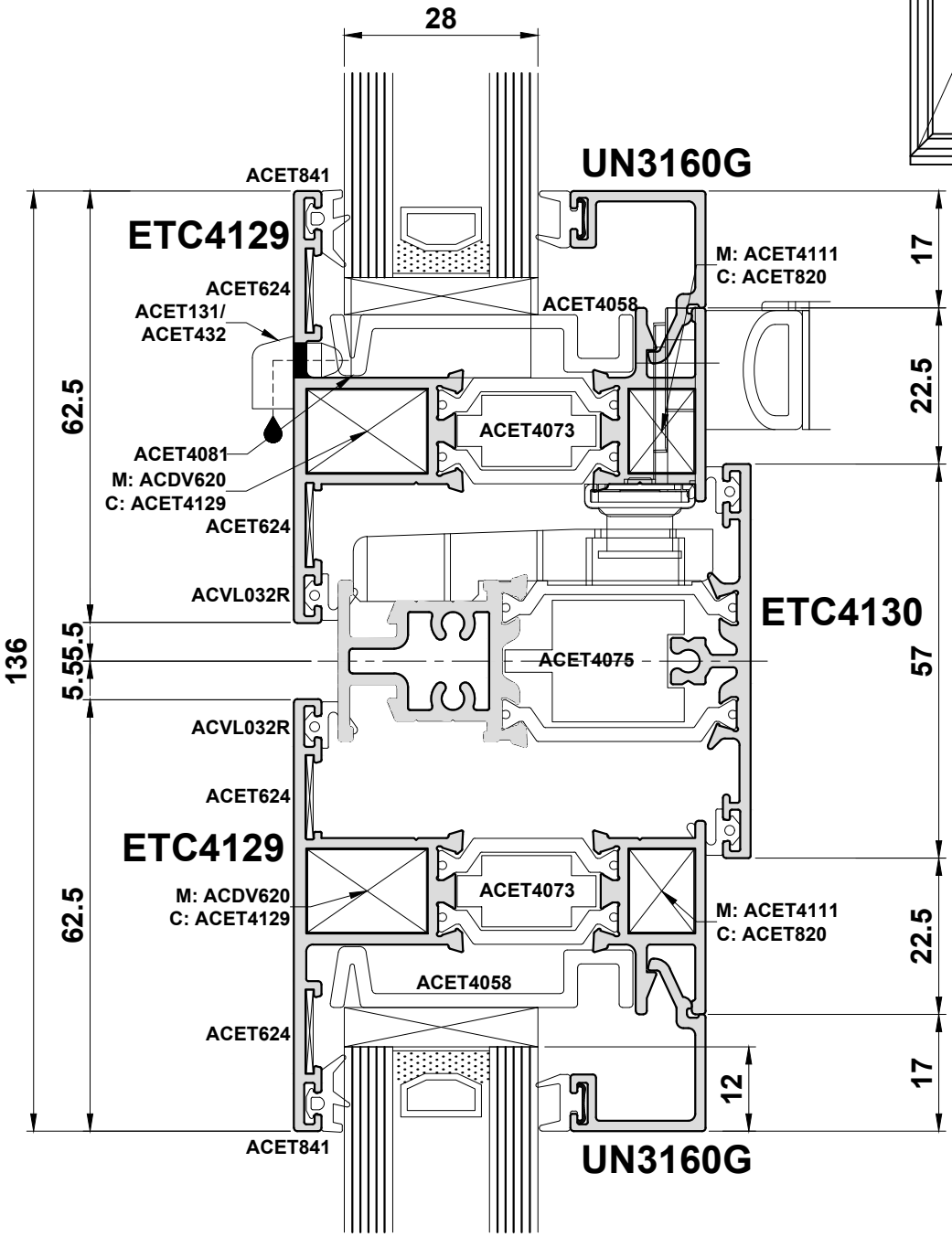
Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

ISSUED: JANUARY 2026

Detail 7B

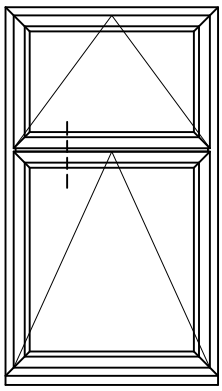


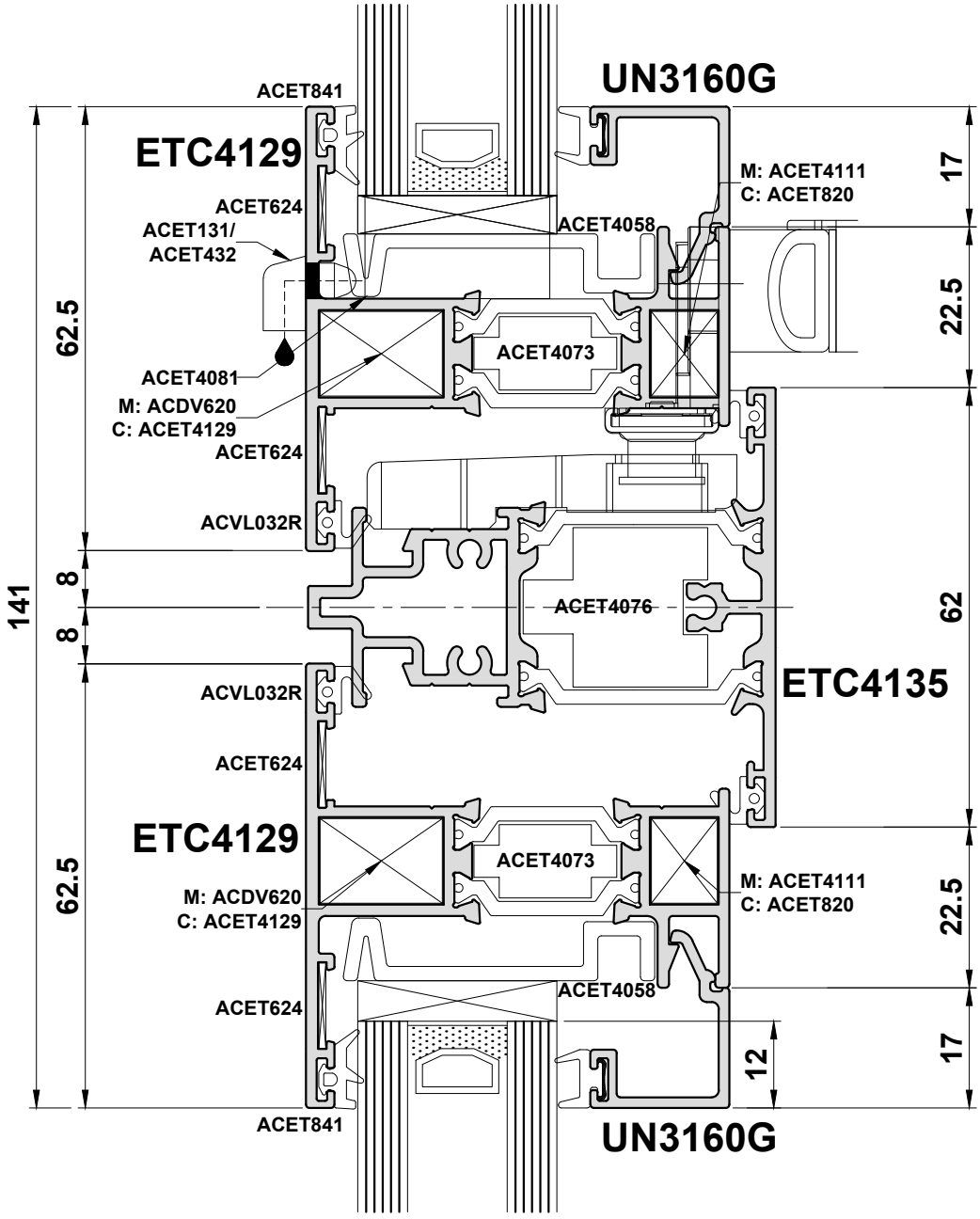


Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

Detail 7C



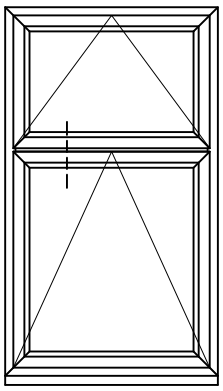


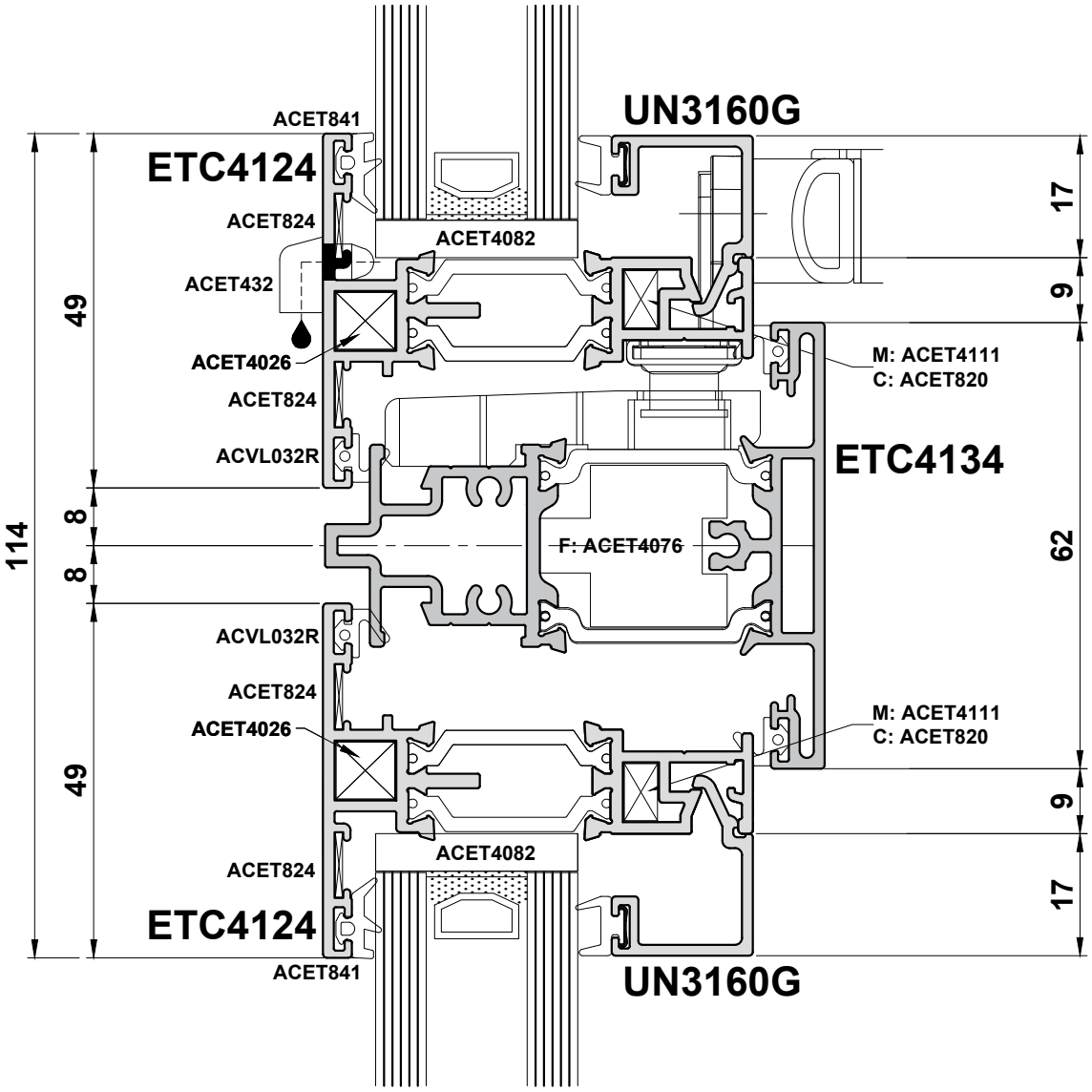
Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

ISSUED: JANUARY 2026

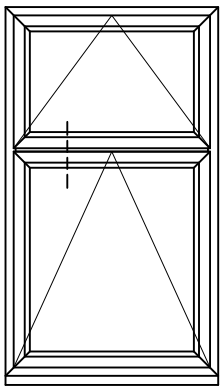
Detail 7D

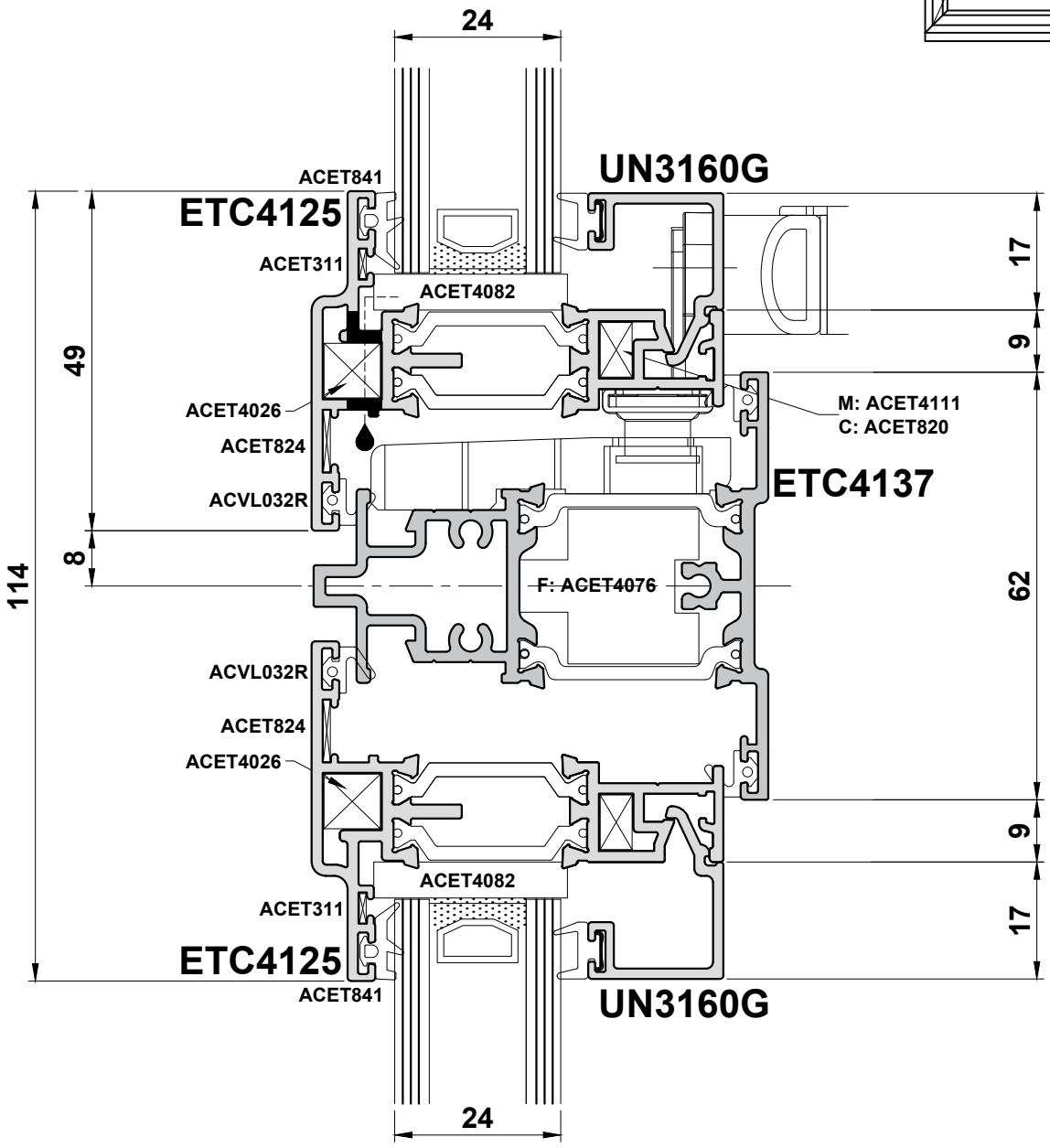




Do Not Scale From This Drawing

Detail 7E

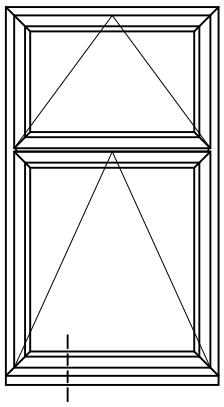


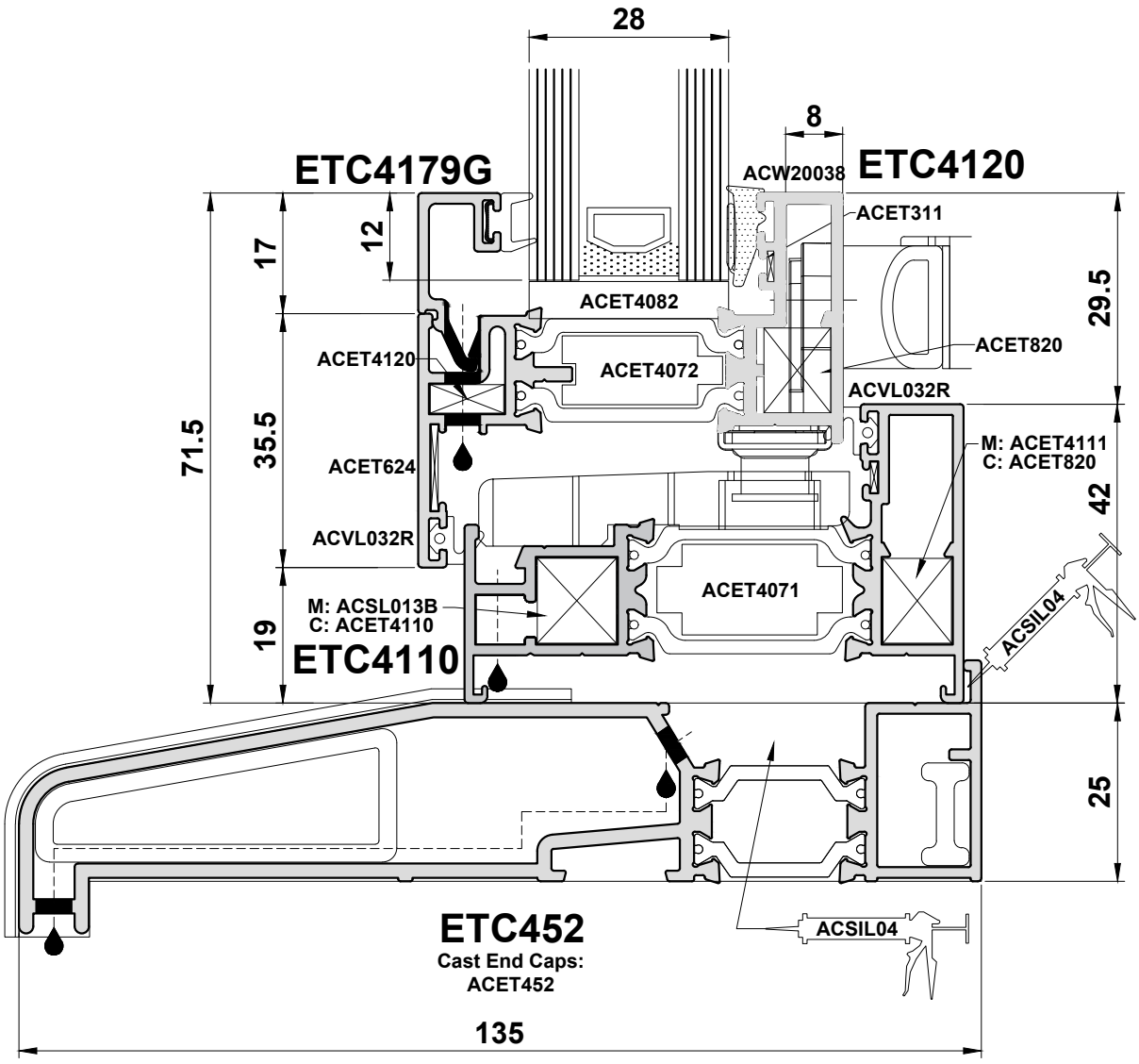


Do Not Scale From This Drawing

ISSUED: JANUARY 2026

Detail 8A

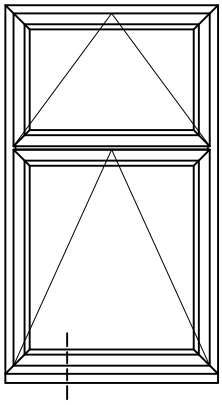


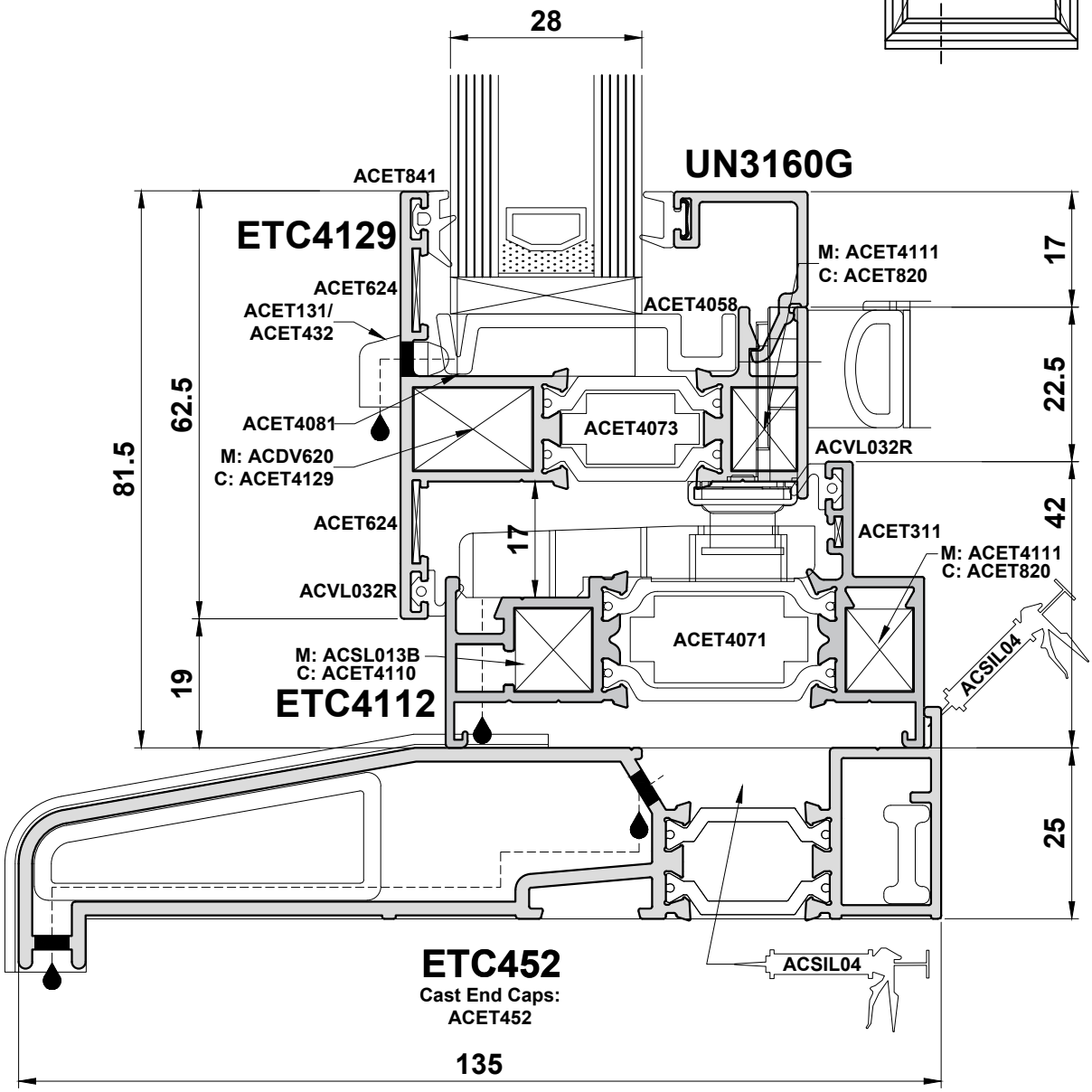


Cill end caps should be sealed to cill to prevent water egress over edge

Do Not Scale From This Drawing

Detail 8B

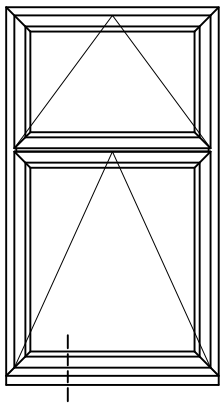


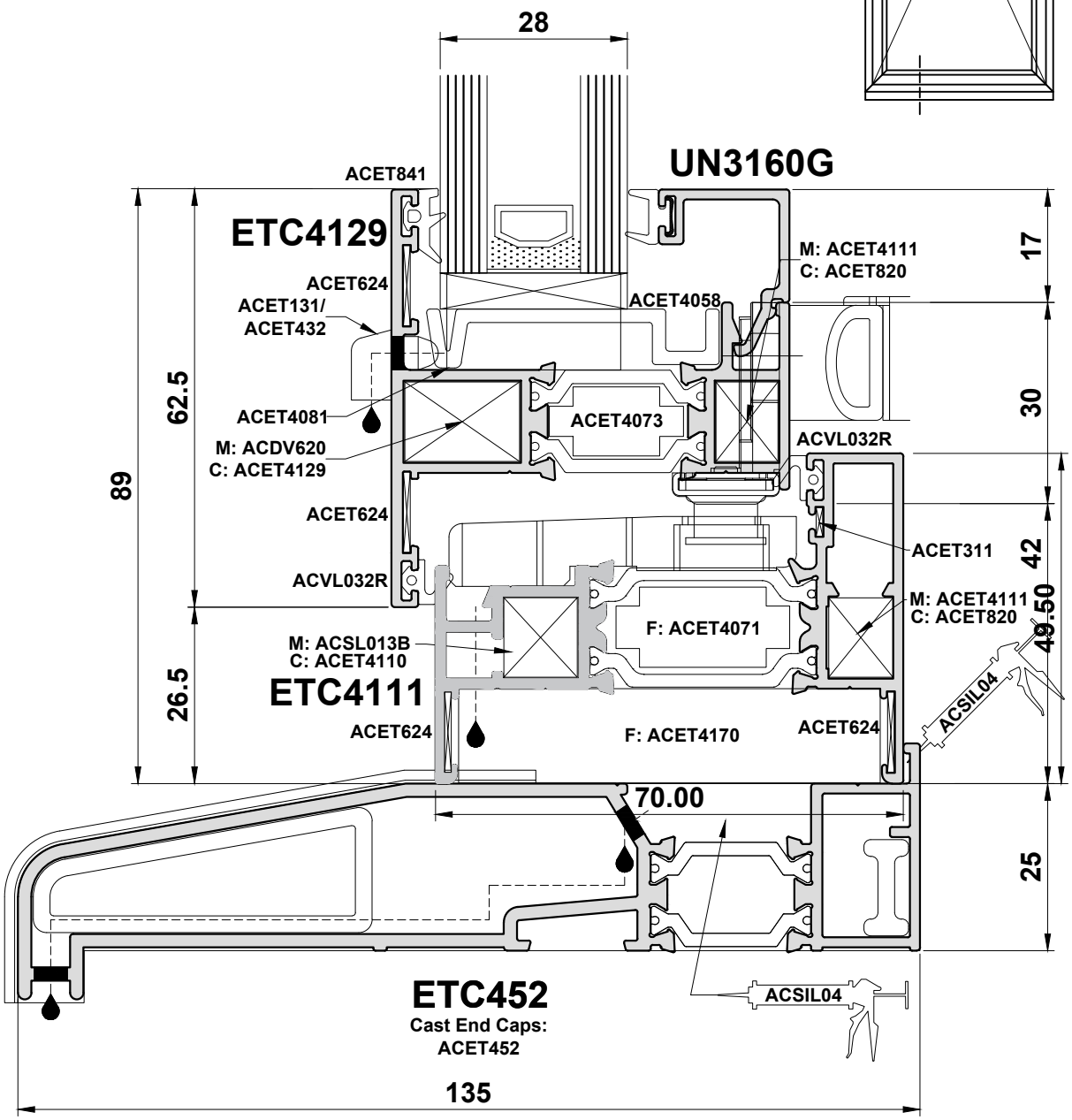


Cill end caps should be sealed to cill to prevent water egress over edge

Do Not Scale From This Drawing

Detail 8C

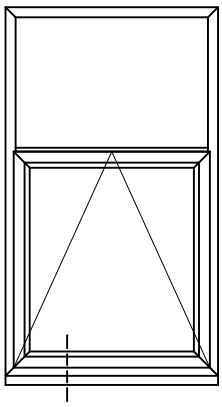


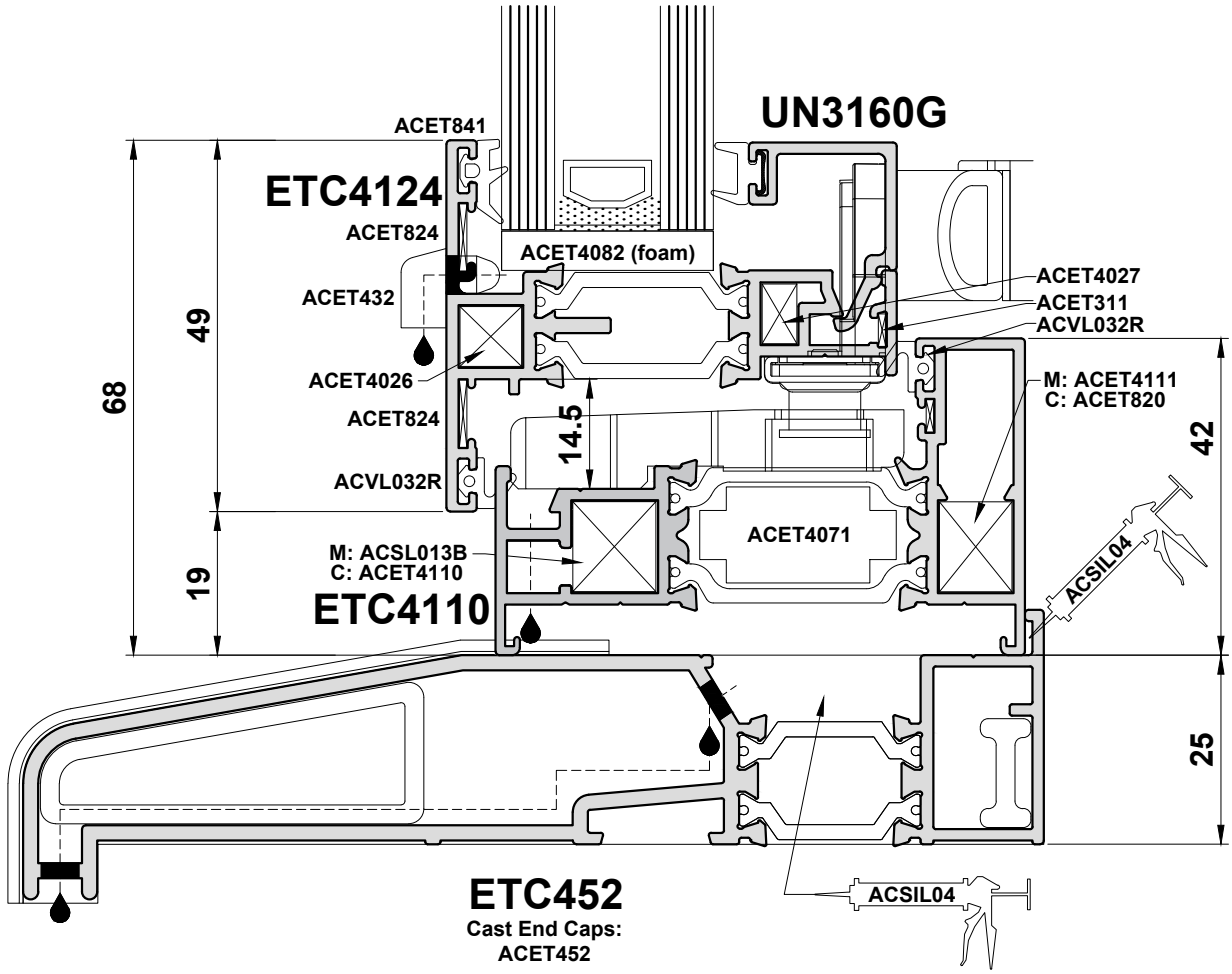


Cill end caps should be sealed to cill to prevent water egress over edge

Do Not Scale From This Drawing

Detail 8D



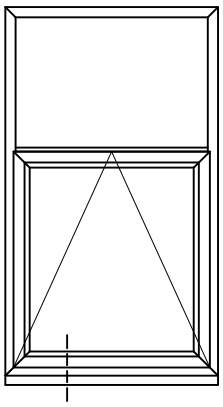


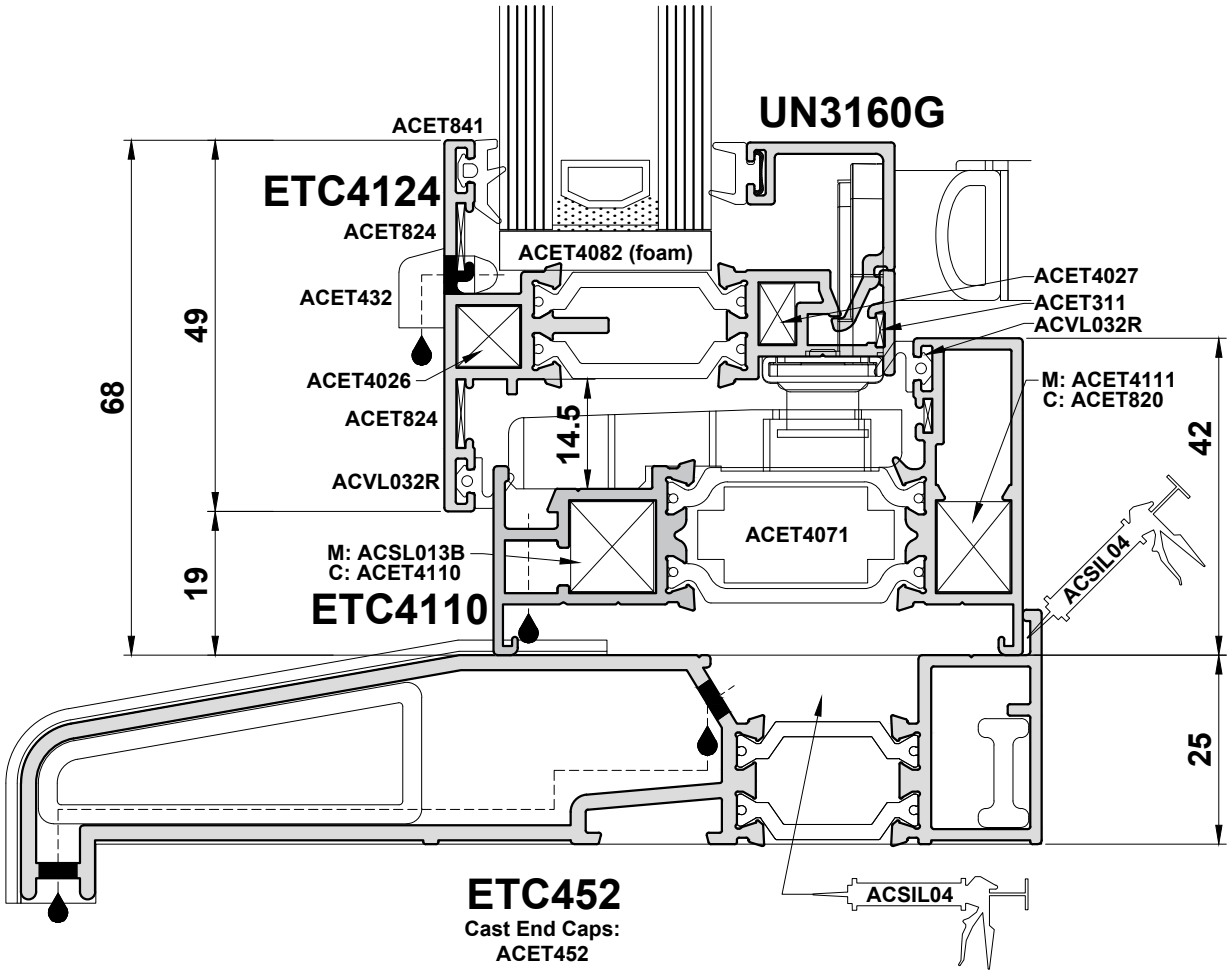
Cill end caps should be sealed to cill to prevent water egress over edge

Do Not Scale From This Drawing

ISSUED: JANUARY 2026

Detail 8E

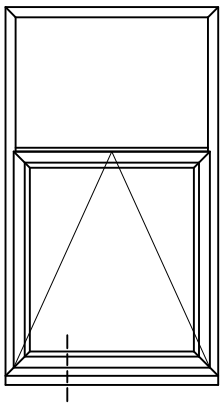


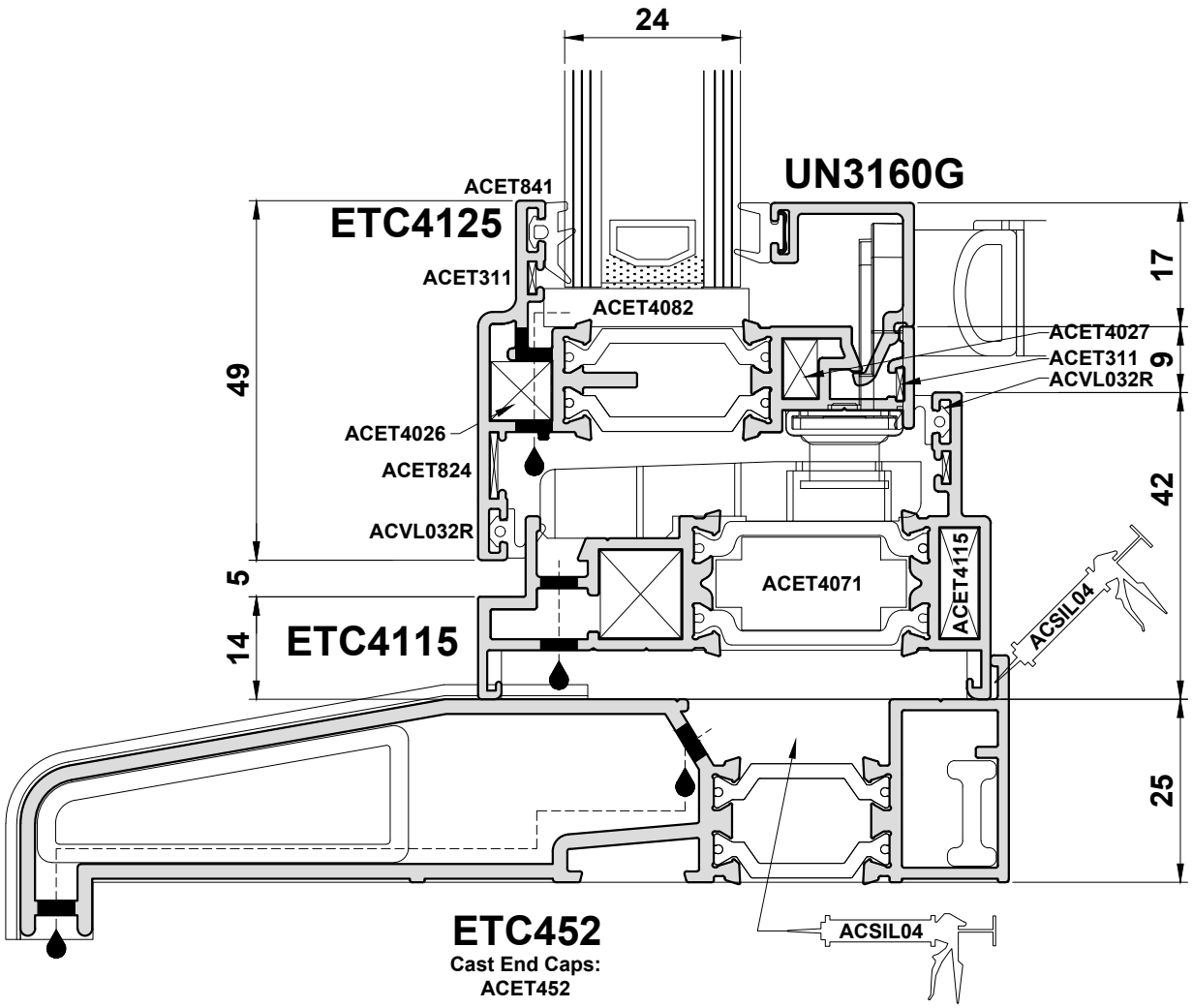


Cill end caps should be sealed to cill to prevent water egress over edge

Do Not Scale From This Drawing

Detail 8F

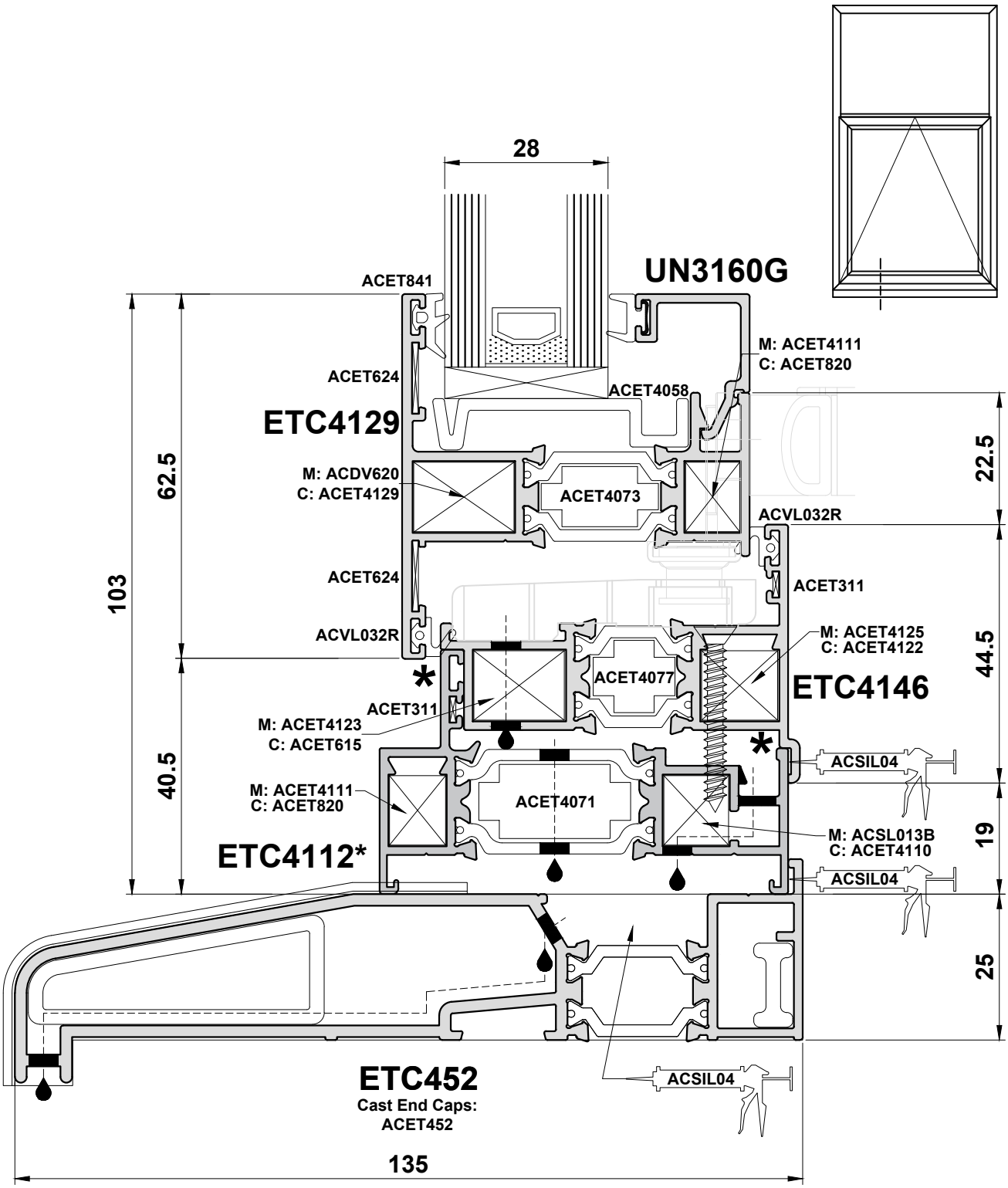




Do Not Scale From This Drawing

ISSUED: JANUARY 2026

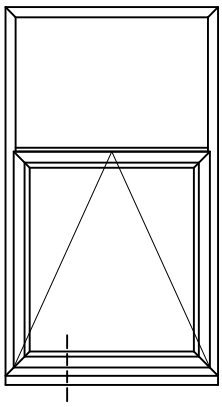
Detail 8G

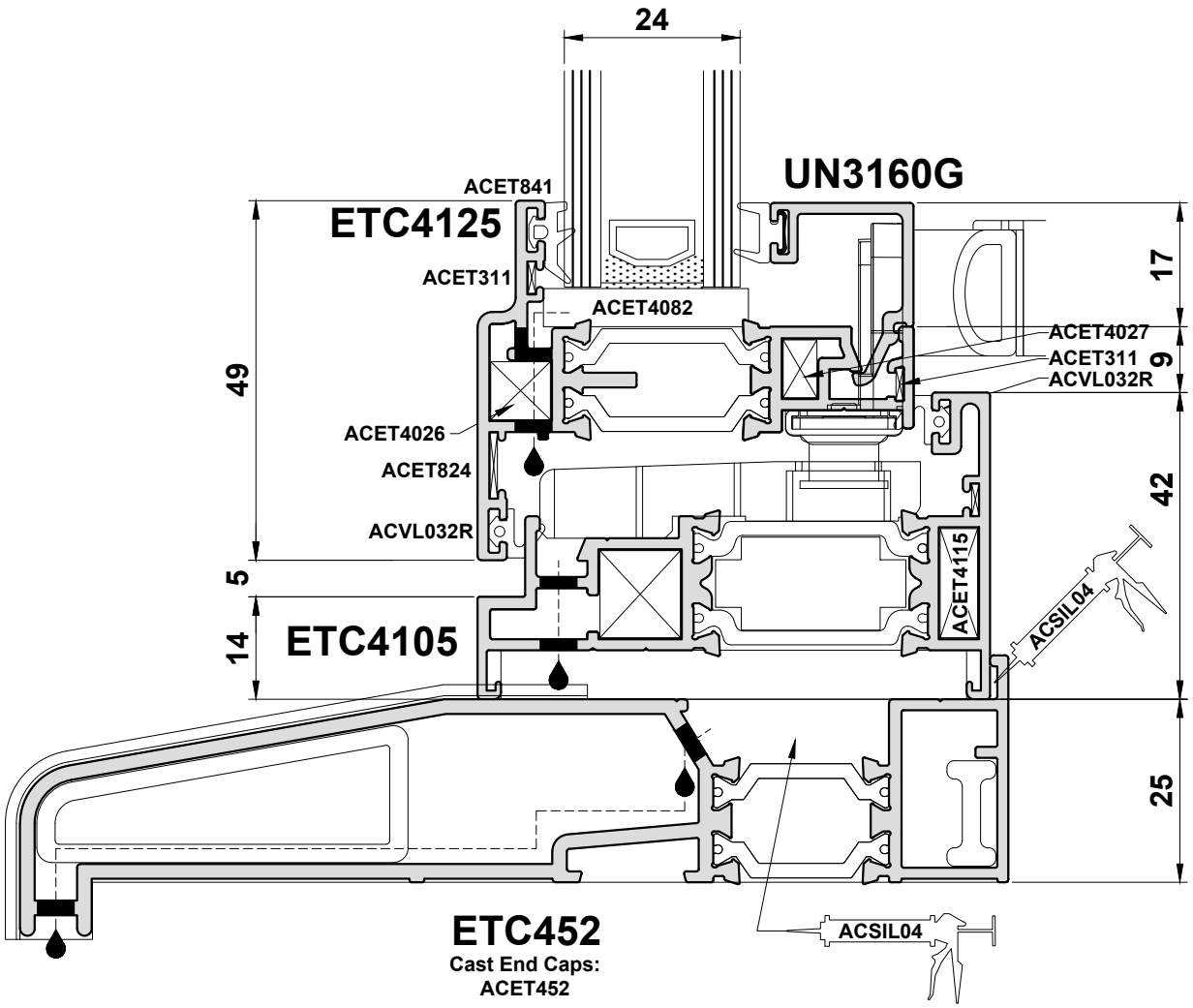


***Note: Where ETC4146 is used, concealed drainage through a cill is required. Cill end caps should be sealed to cill to prevent water egress over edge.**

Do Not Scale From This Drawing

Detail 8H

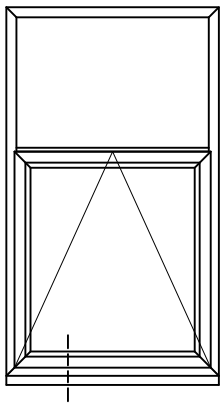


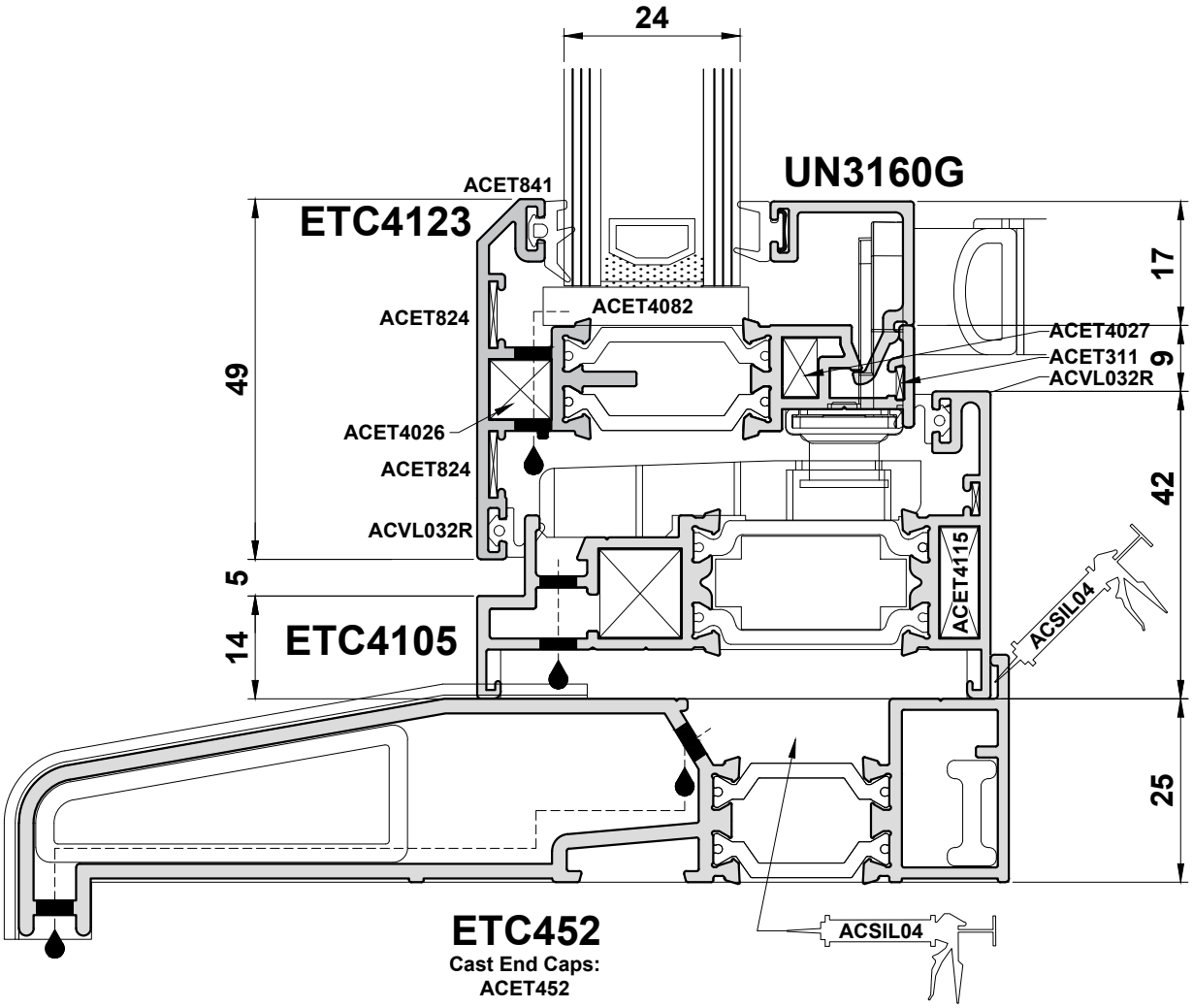


Do Not Scale From This Drawing

ISSUED: JANUARY 2026

Detail 8I

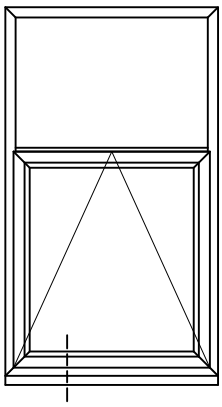


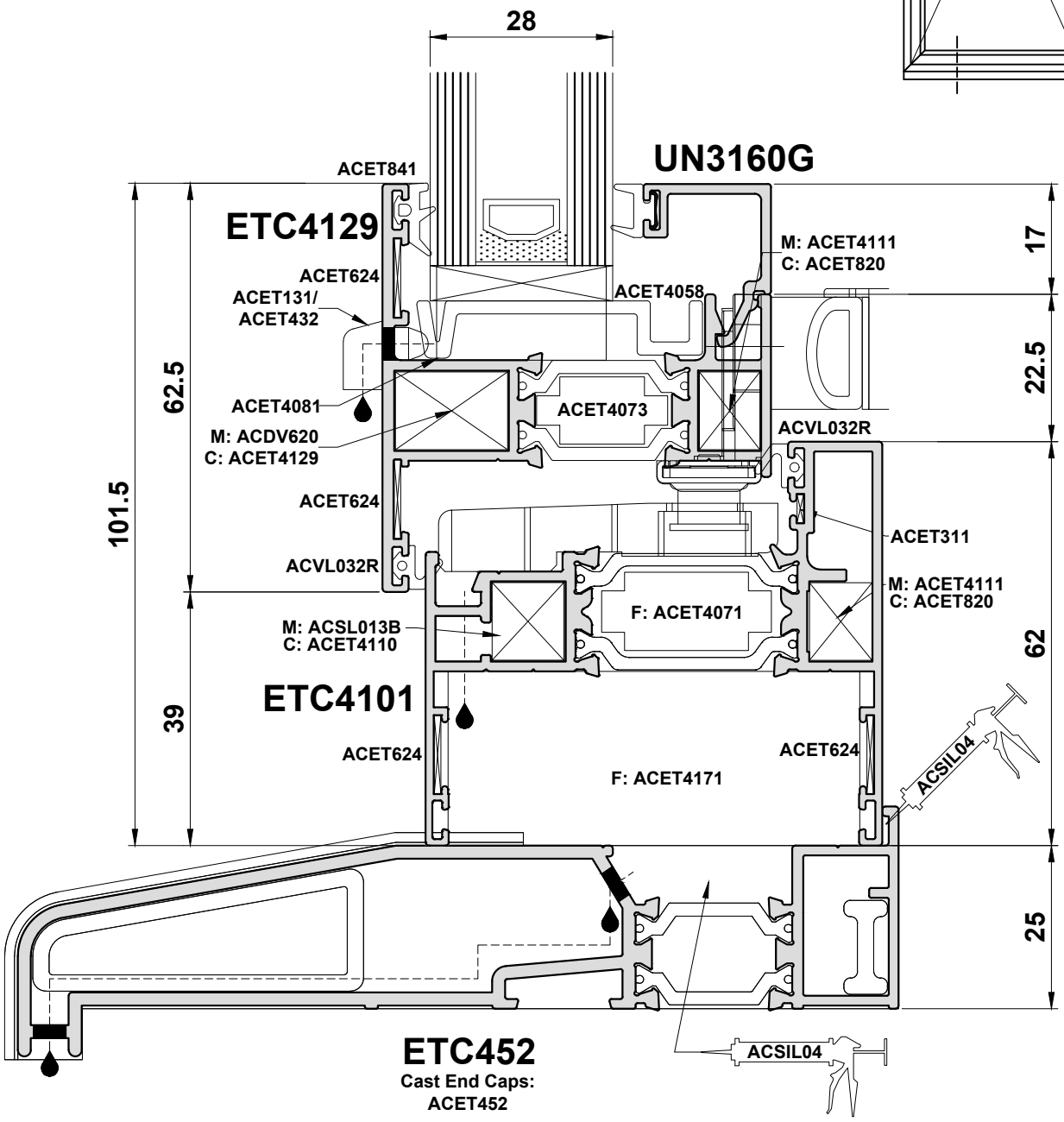


Do Not Scale From This Drawing

Alitherm 400

Detail 8J

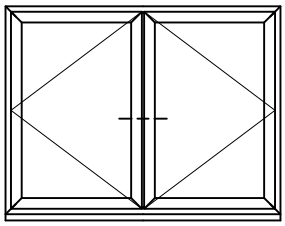


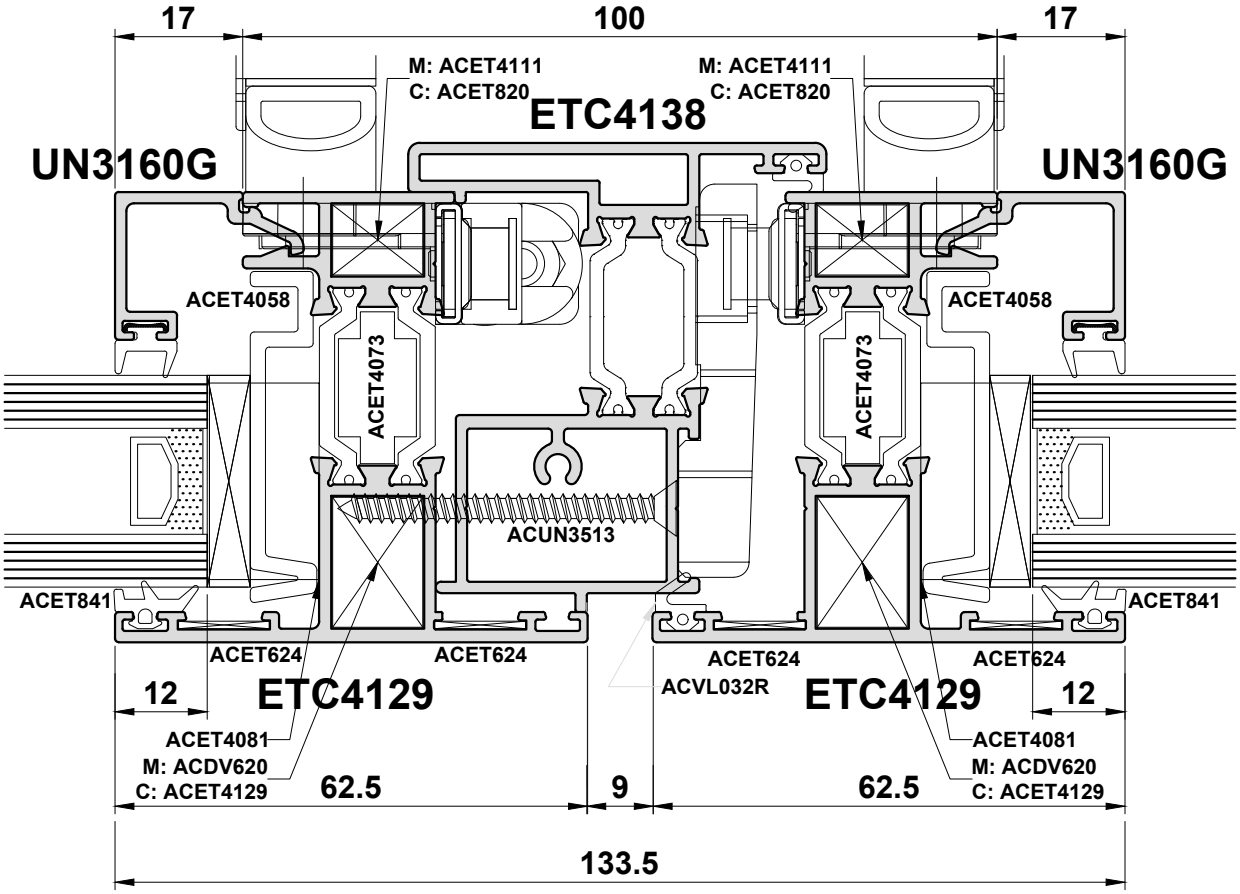


Do Not Scale From This Drawing

ISSUED: JANUARY 2026

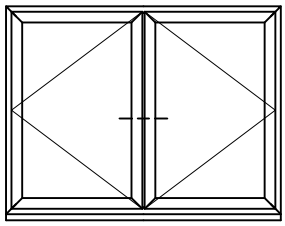
Detail 9A

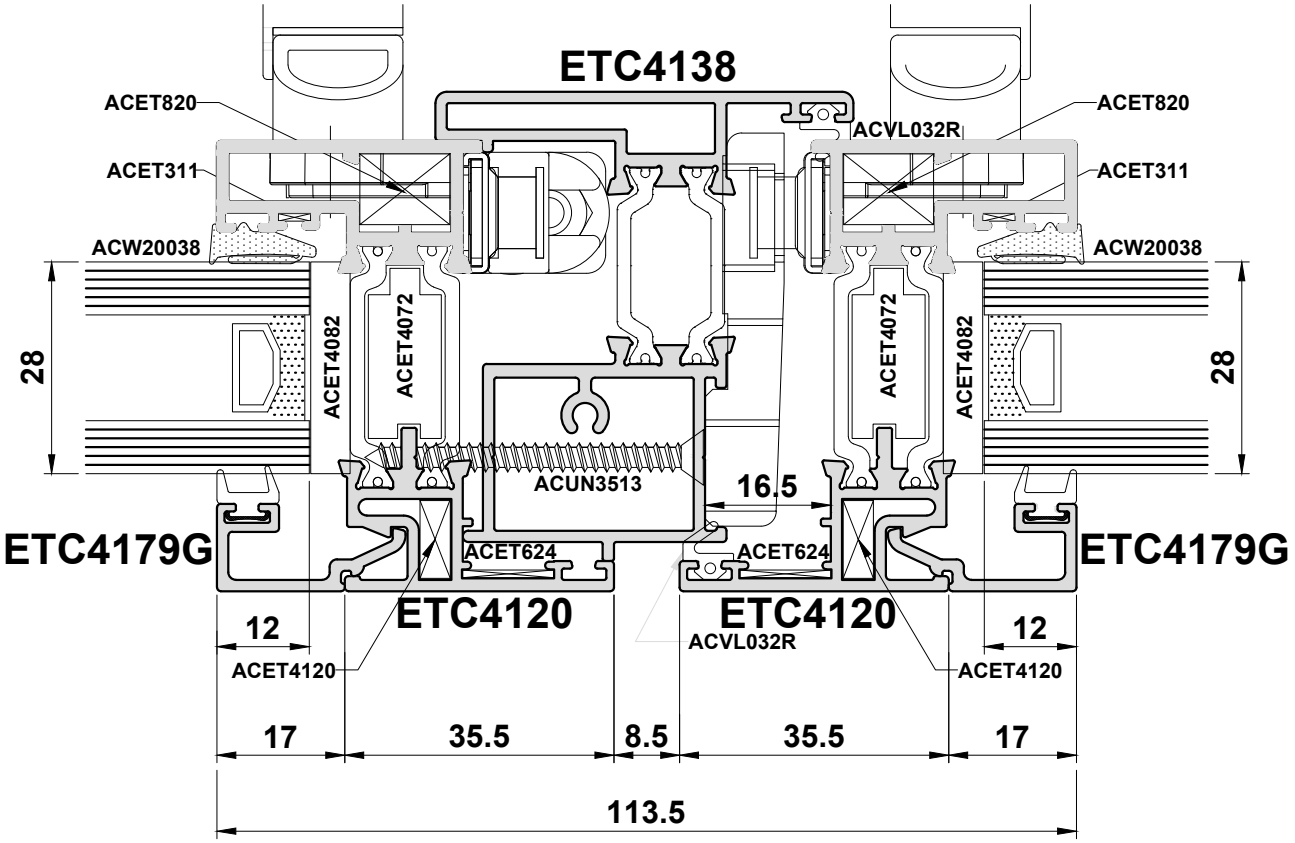




Do Not Scale From This Drawing

Detail 9B

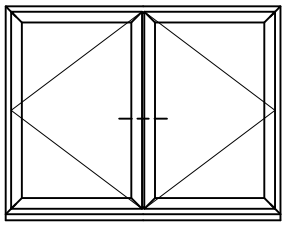


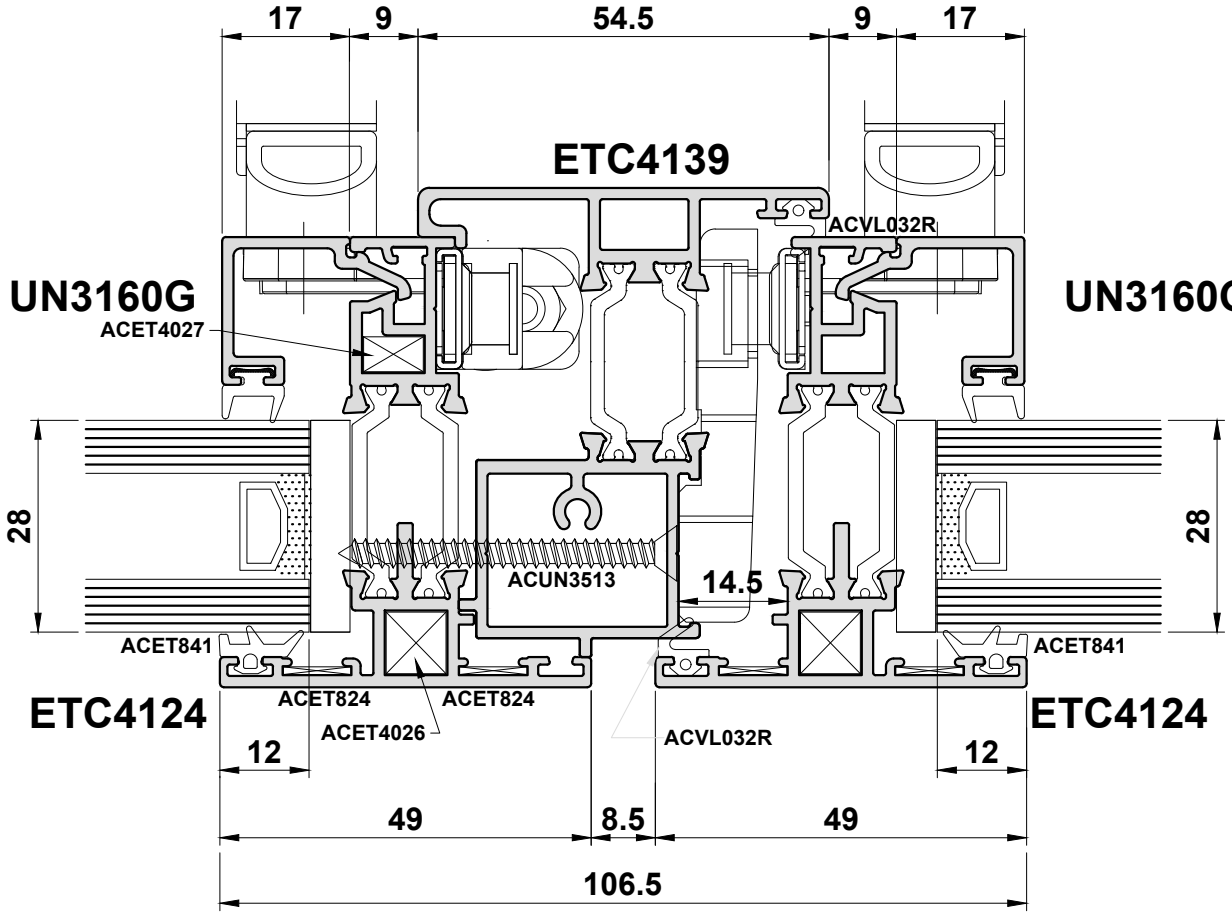


Do Not Scale From This Drawing

ISSUED: JANUARY 2026

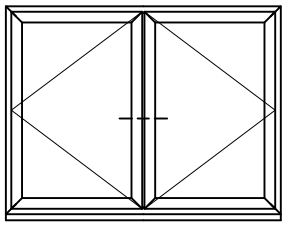
Detail 9C

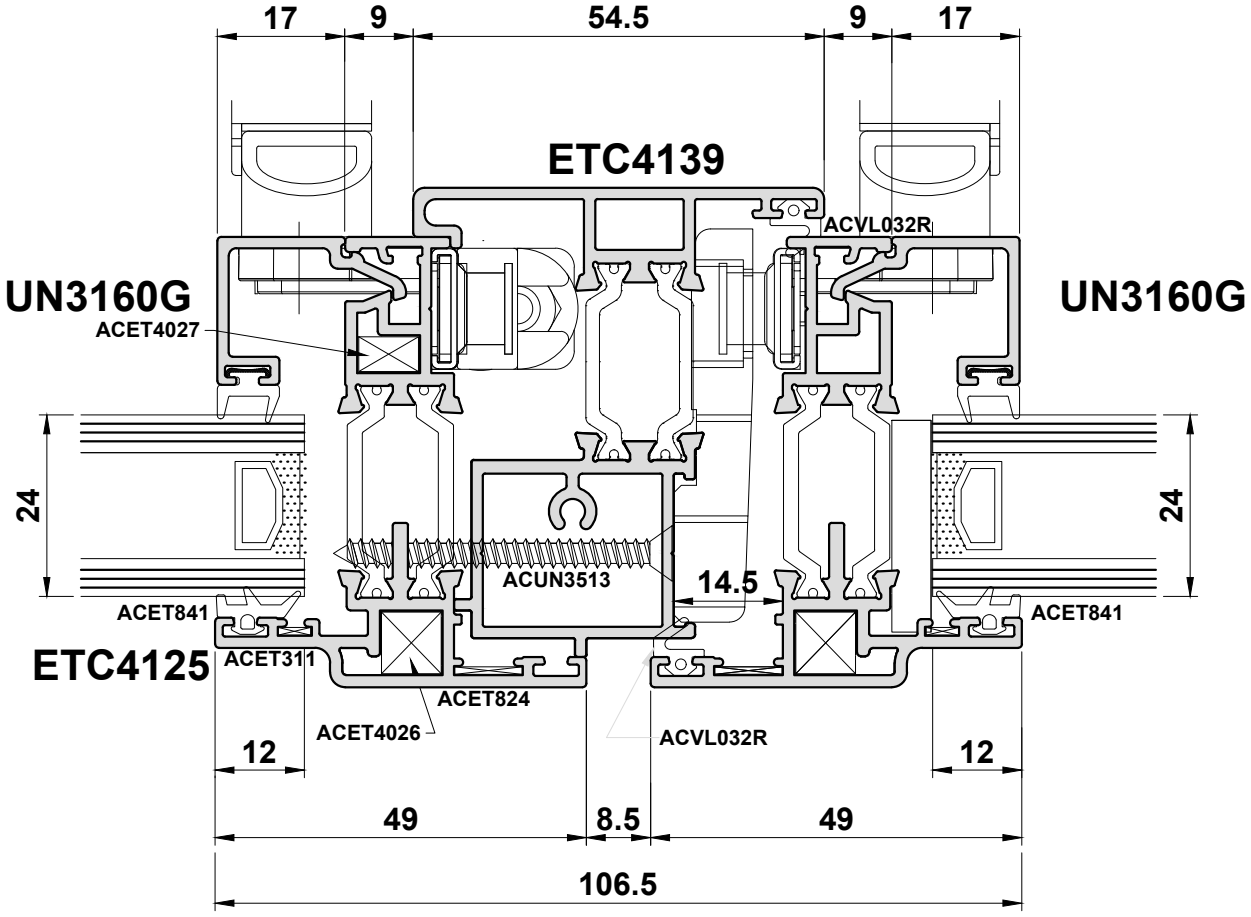




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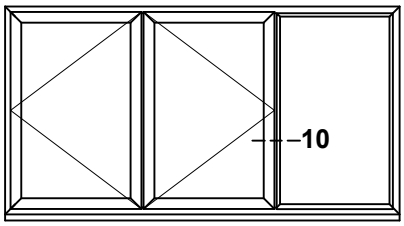
Detail 9D

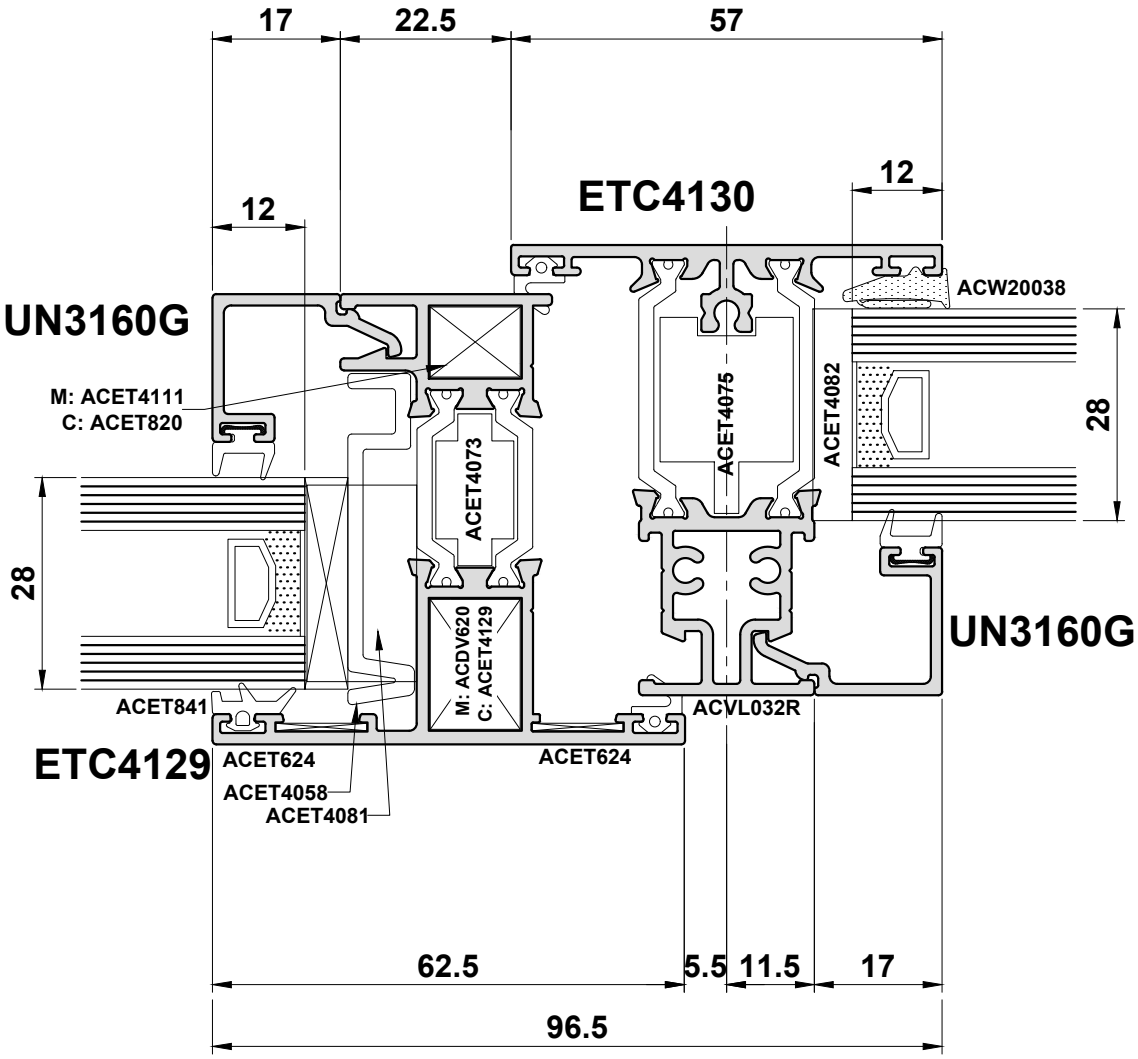




Do Not Scale From This Drawing

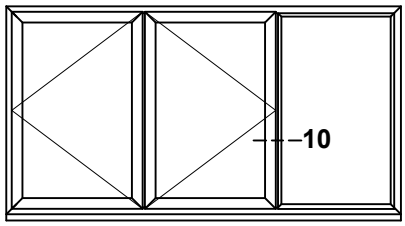
Detail 10A

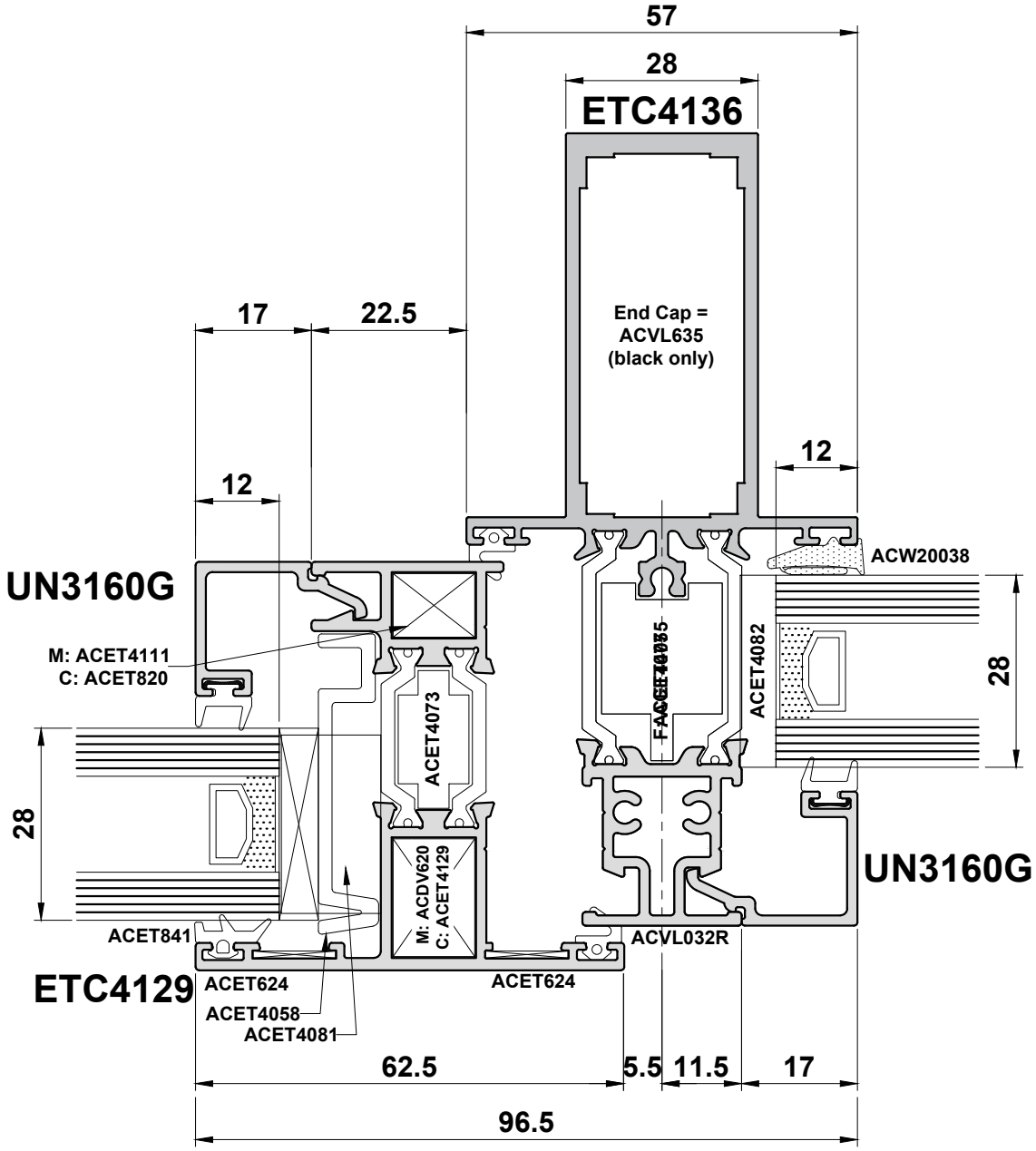




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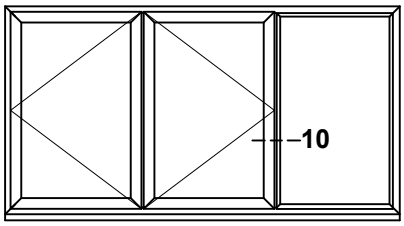
Detail 10B

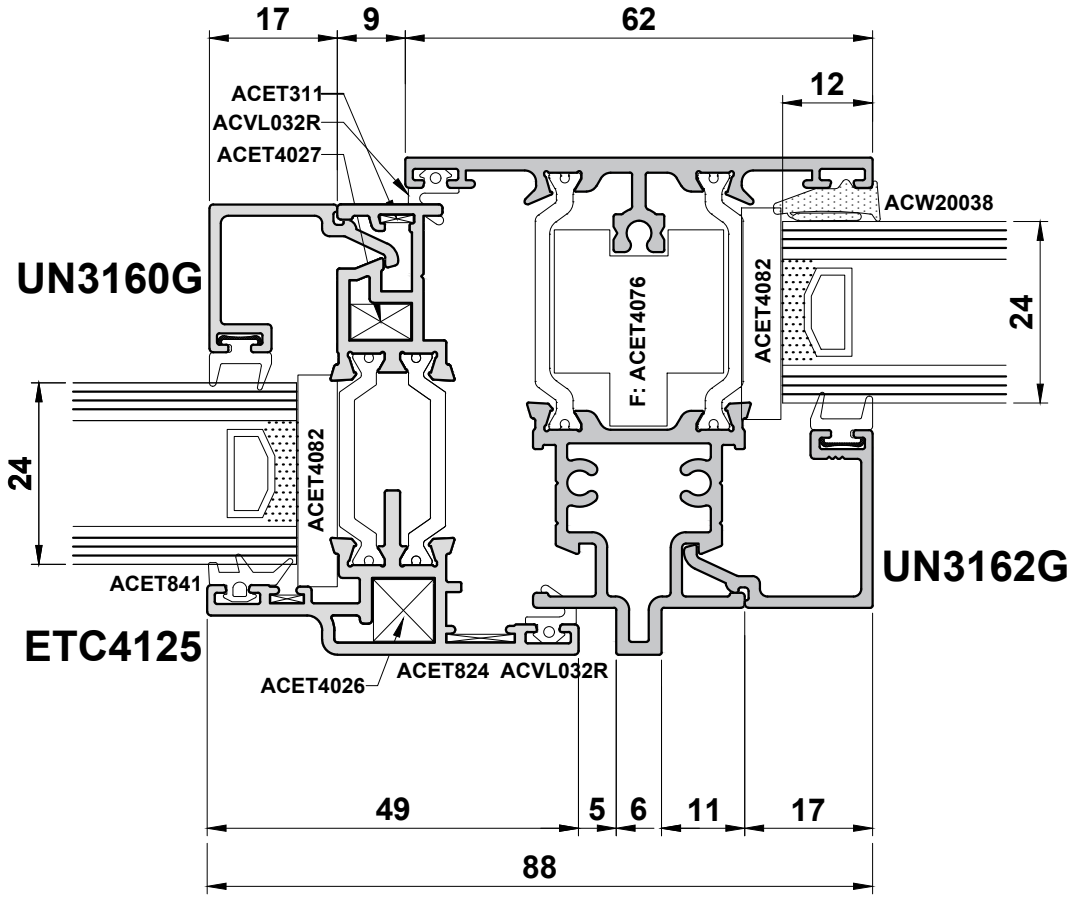




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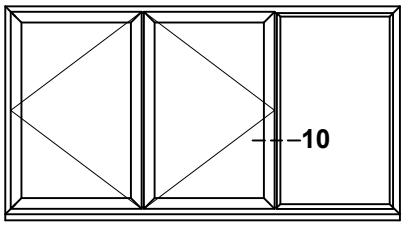
Detail 10C

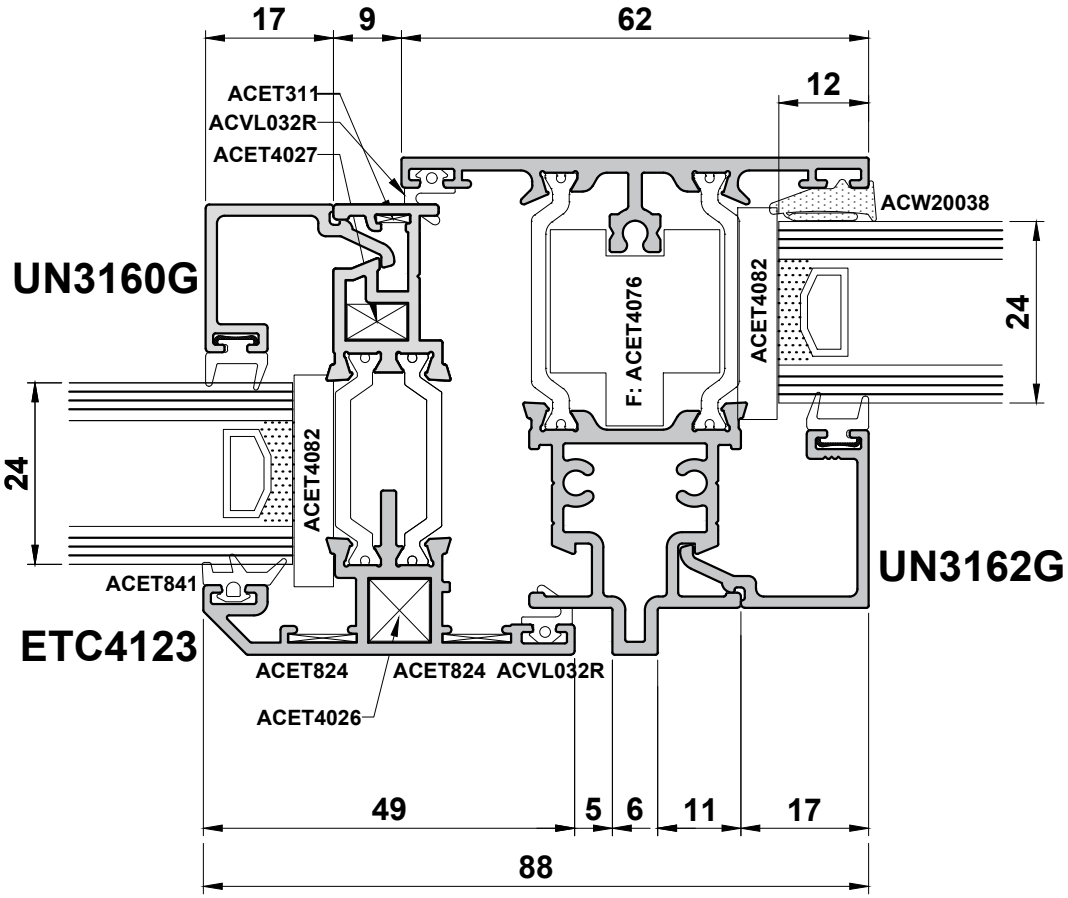




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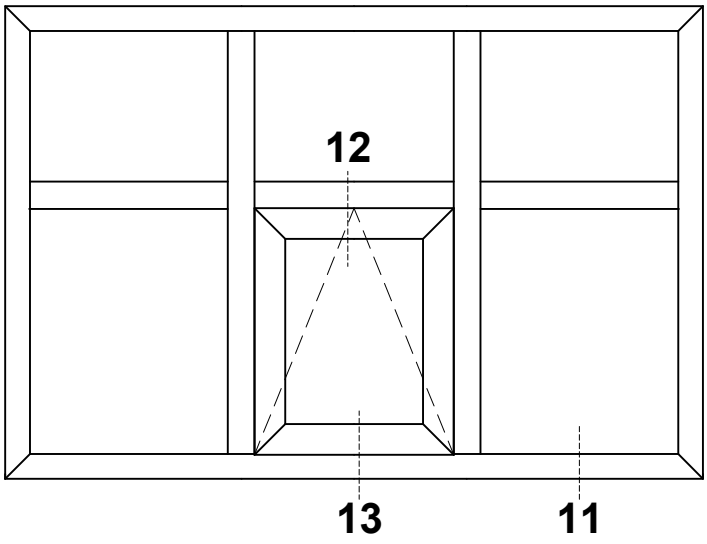
Detail 10D

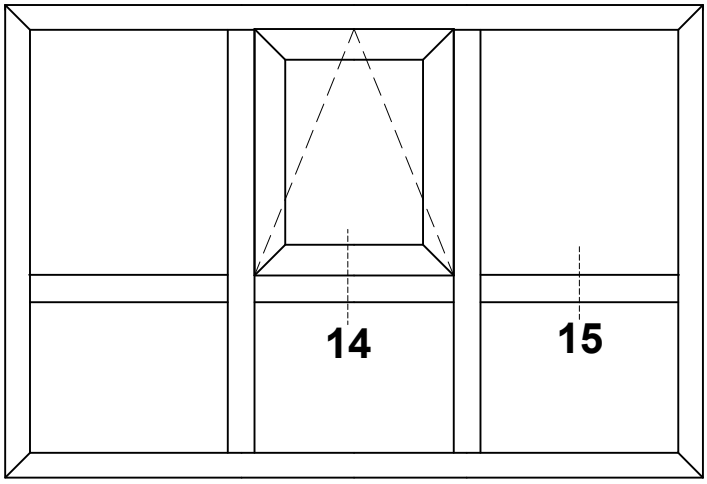




Do Not Scale From This Drawing

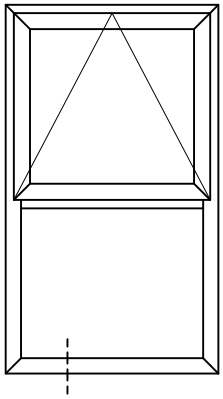
Scale Elevations - Internally Glazed

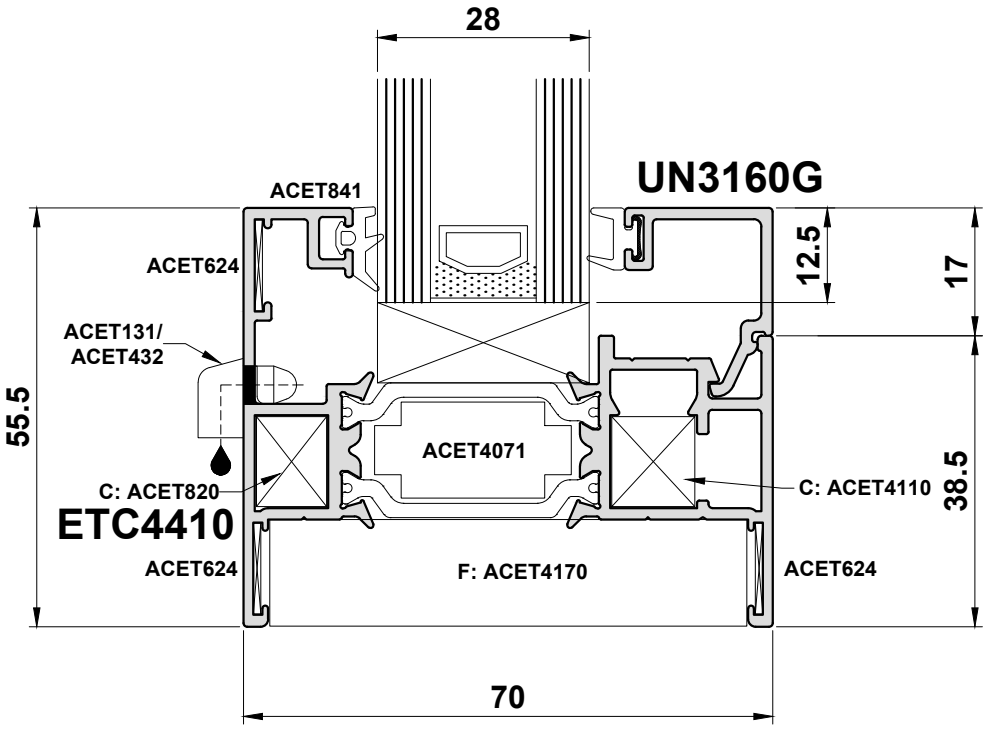




Do Not Scale From This Drawing

Detail 11

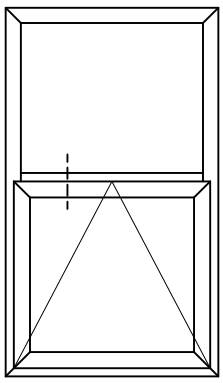


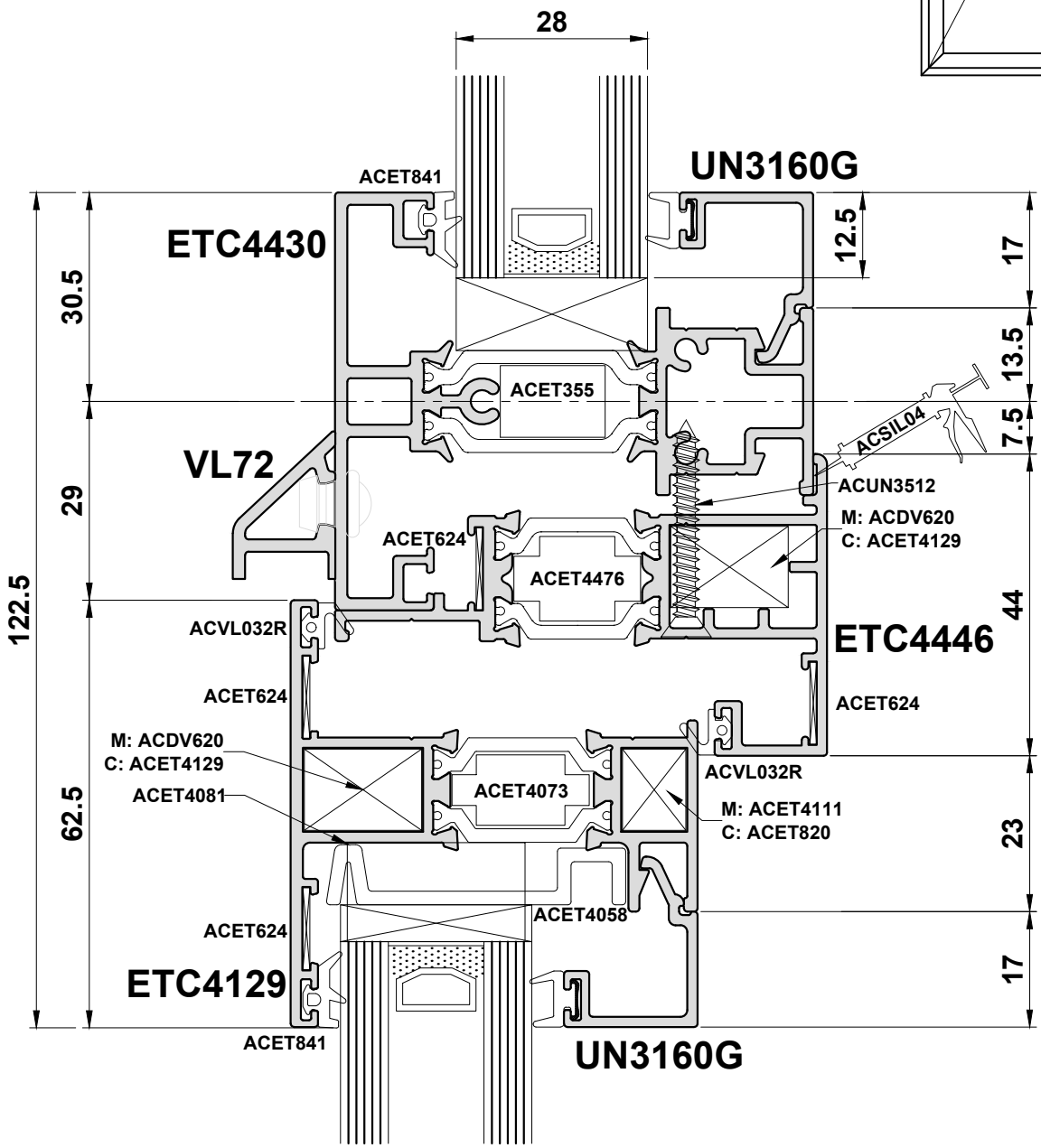


Do Not Scale From This Drawing

ISSUED: JANUARY 2026

Detail 12

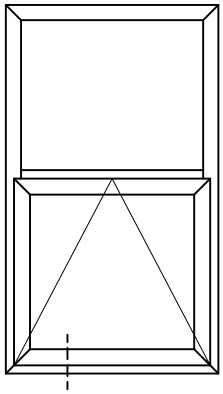


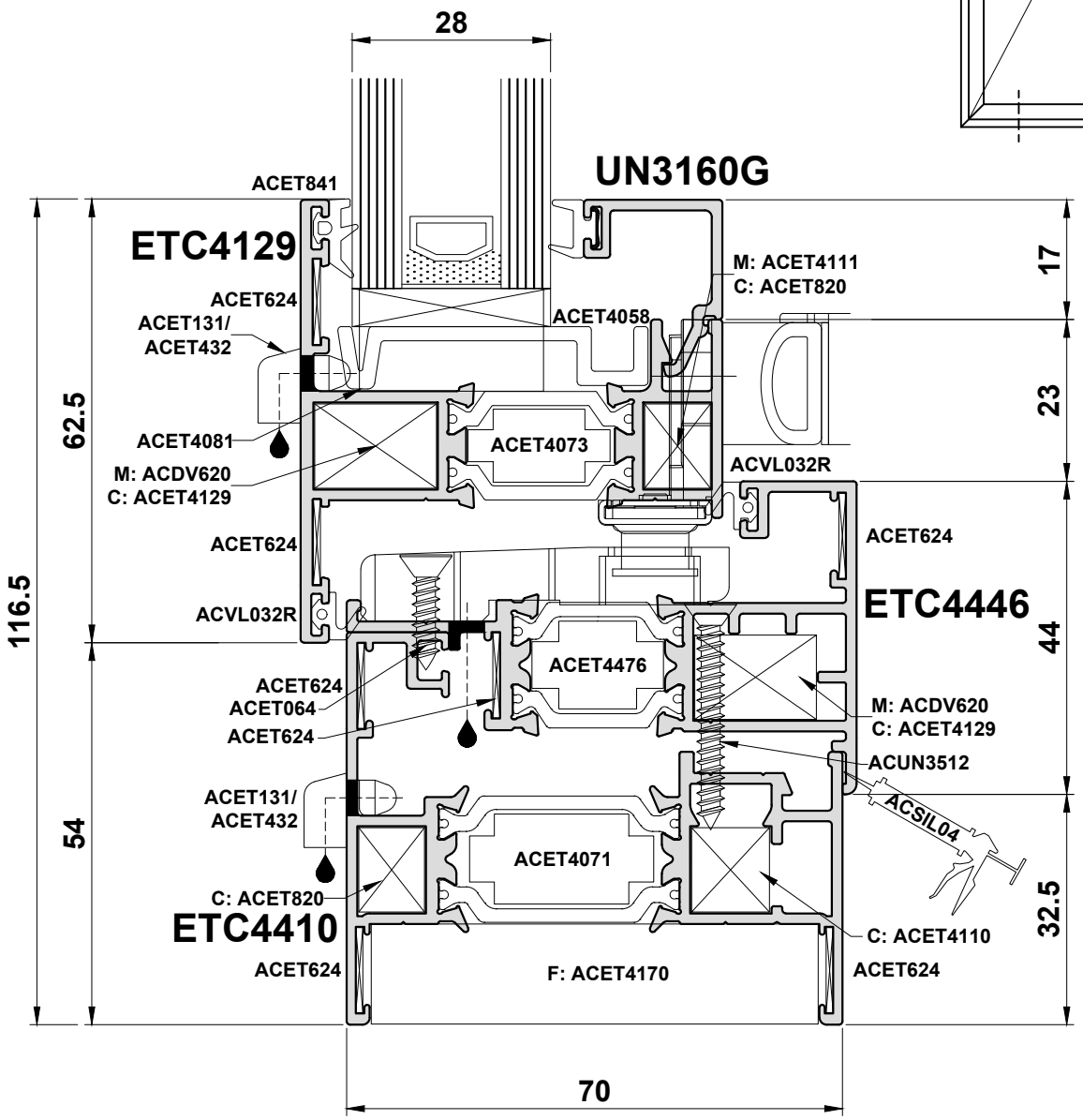


Note: Transoms will drain through the join to the outerframe.

Do Not Scale From This Drawing

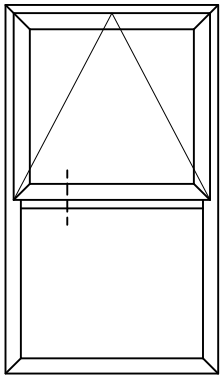
Detail 13

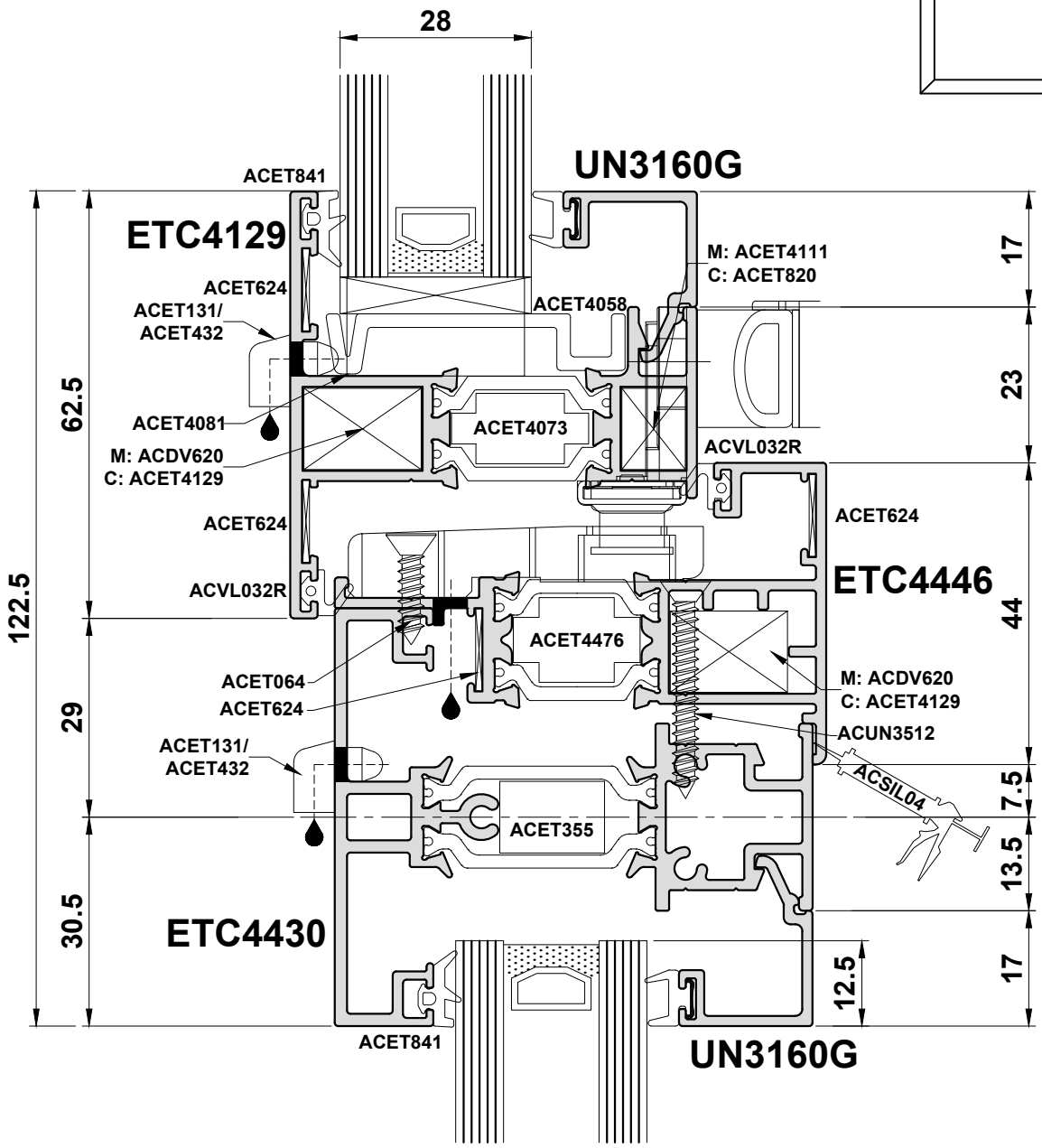




Do Not Scale From This Drawing

Detail 14

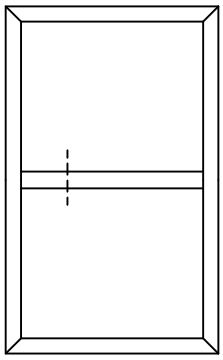


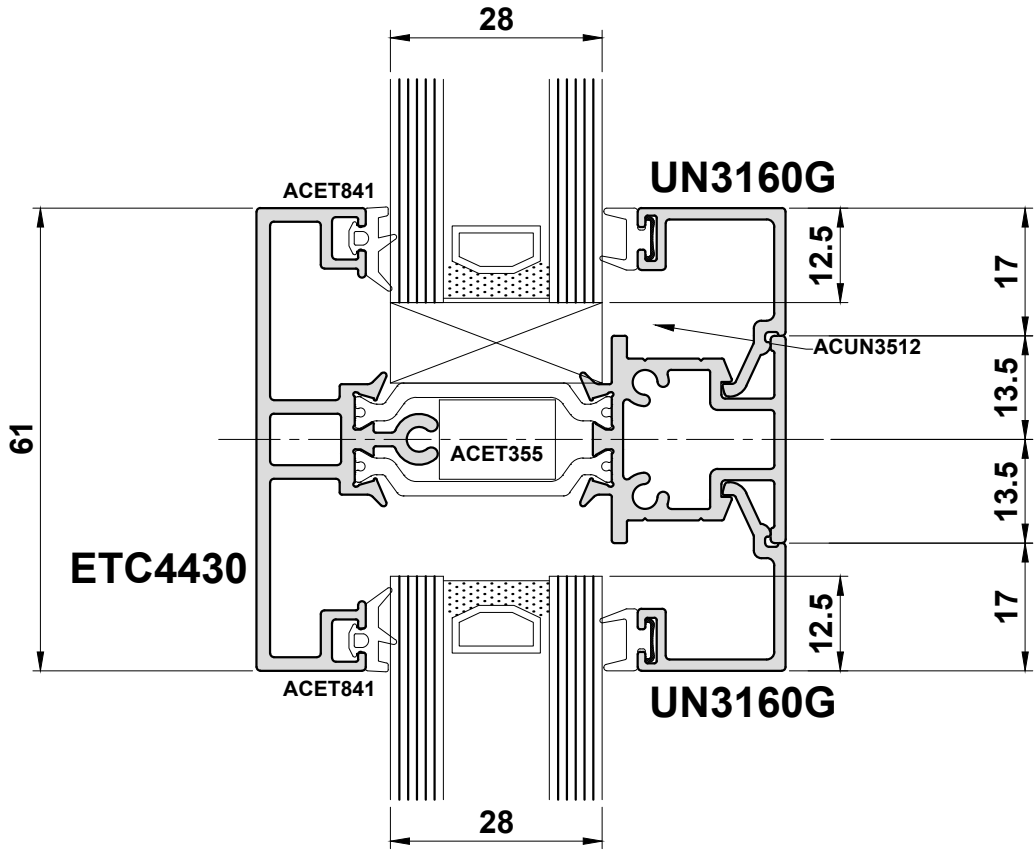


Note: Transoms will also drain through the join to the outerframe.

Do Not Scale From This Drawing

Detail 15





Note: Transoms will drain through the join to the outerframe.

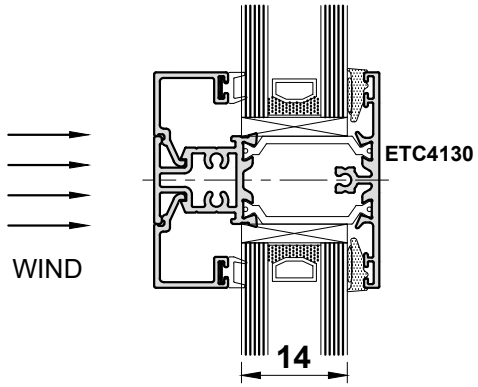
Do Not Scale From This Drawing

Section D

Statics

General Size Limitations are shown on Page A06.
Please also consider maximum limits of accessories.

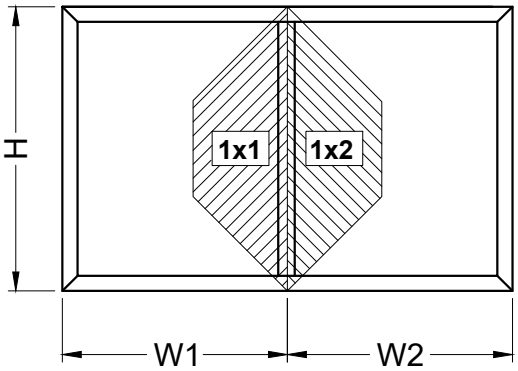
For Wind Loading Limitations, Please Contact
The Technical Department - T: 01934 833100



The position of the axes is an indication for the use and application of the moments of inertia (Ix and Iy) and the section modulus (Wx and Wy). We always choose the values of the axis perpendicular to the load to resist it.

- **To resist the wind loads we use the values Ix and Wx.**

EXAMPLE



H = 175cm

W1 = 120cm

W2 = 100cm

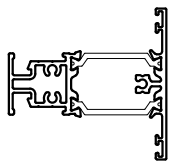
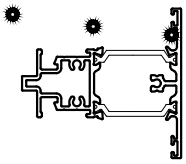
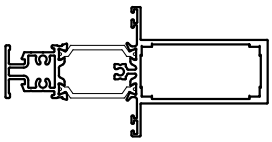
P = 1250 Pa (wind pressure)

1) Determine Ixx value for the stiles (if required) using the Specification Wizard

Ixx = 21.0 cm4

2) Determine suitability

OK

Number	Picture	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)
ETC4130		19.39 --- 5.84	4.66 --- 1.63
ETC4135		23.74 --- 6.30	6.51 --- 2.11
ETC4136		95.03 --- 15.97	9.13 --- 3.21

Section E

E ETC Construction Drawings

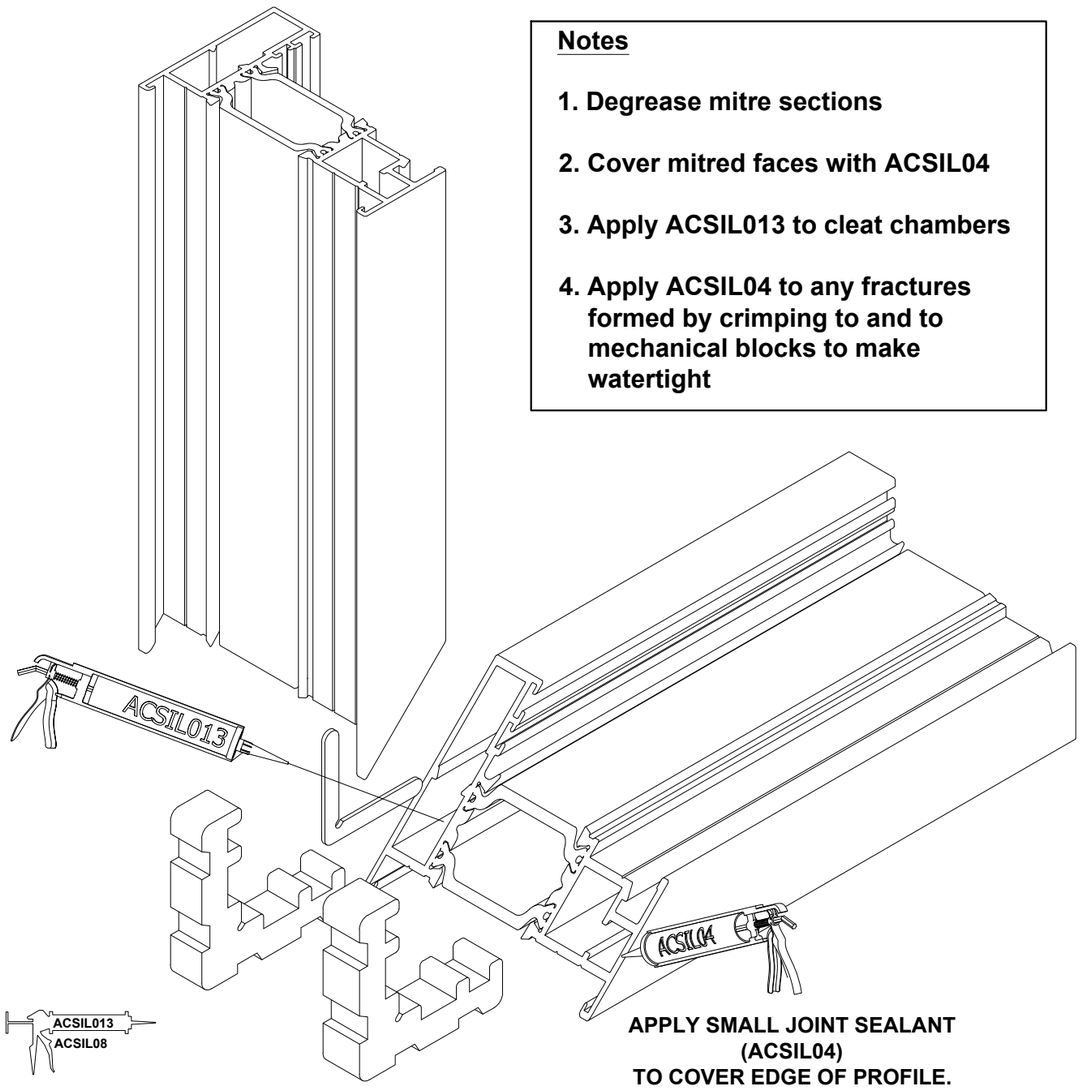
Corner Joint Details..... E03 - E05
ACET963R & ACET4950 Punch Tools..... E06
Variable angle Cleats..... E07
Bead Notching ACDV916..... E08
Drainage..... E09 - E11
Angled Sub Cill..... E12
Transom/Mullion Fixing Details..... E13 - E18
ETC4132 & ETC4133 Dummy Transoms..... E19
Friction Hinge Details..... E20 - E22
ACET4050 Hinge Details..... E23
Locking Details..... E24 - E26
French Casement Assembly..... E27 - E28
Glazing Details..... E29 - E37
Bay Pole Options..... E38 - E43
Horizontal Coupler Details..... E44
Fixing Strap Details..... E45
Trickle Vent Details..... E46

Corner Joint Details

To ensure accurate corners, we recommend the use of support blocks (by others) whilst cutting. Do NOT clamp directly onto the polyamide.

Table 1

KL Colour	Sealant Part Number
Black	ACSIL04BL
White	ACSIL04WP
Clear	ACSIL04CL
KL001	ACSIL04KL001
KL002	ACSIL04KL002
KL003	ACSIL04KL003
KL004	ACSIL04KL004
KL005	ACSIL04KL005
KL006	ACSIL04KL006
KL007	ACSIL04KL007
KL010	ACSIL04KL010
KL011	ACSIL04KL011
KL012	ACSIL04KL012
KL013	ACSIL04KL013



Notes

1. Degrease mitre sections
2. Cover mitred faces with ACSIL04
3. Apply ACSIL013 to cleat chambers
4. Apply ACSIL04 to any fractures formed by crimping to and to mechanical blocks to make watertight

APPLY CLEAT GLUE (ACSIL013) TO ALL CLEAT CHAMBERS

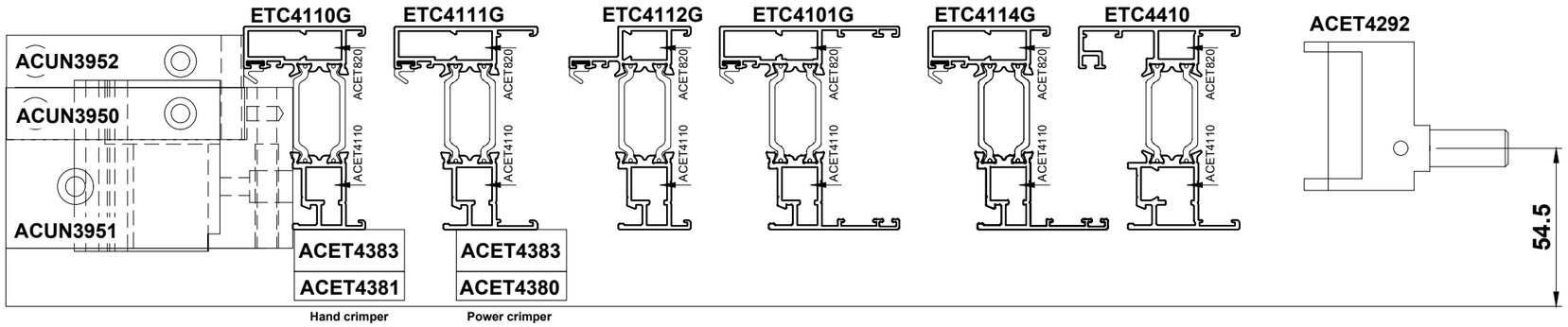
APPLY SMALL JOINT SEALANT (ACSIL04) TO COVER EDGE OF PROFILE.

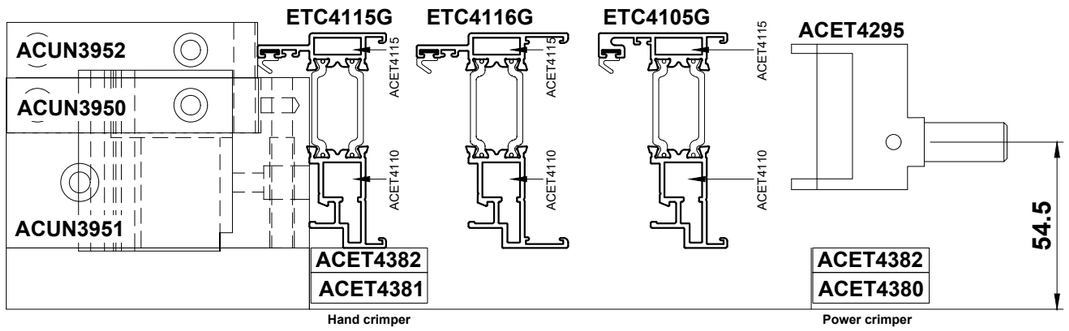
Do Not Scale From This Drawing

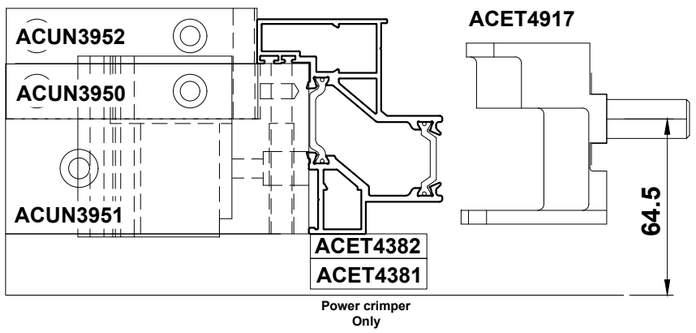
Corner Crimping

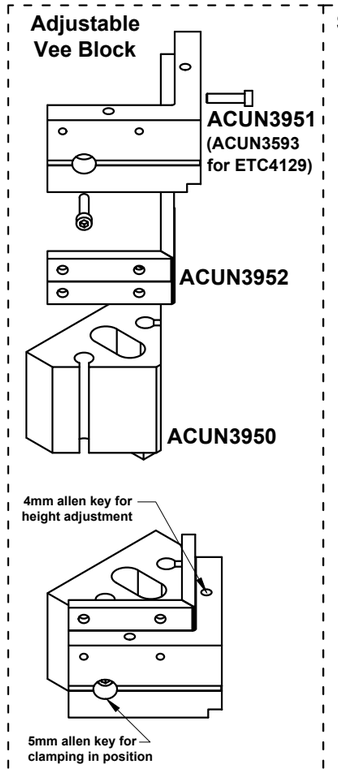
Manual Crimper = WUT024HSZA

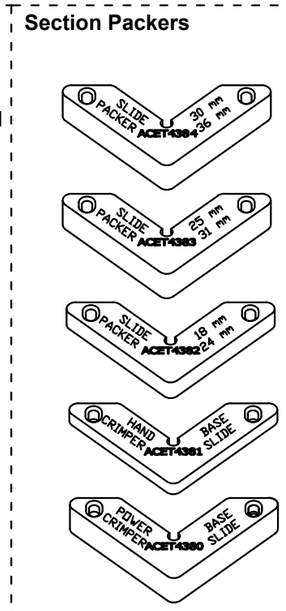
Power Crimper = ACCR100







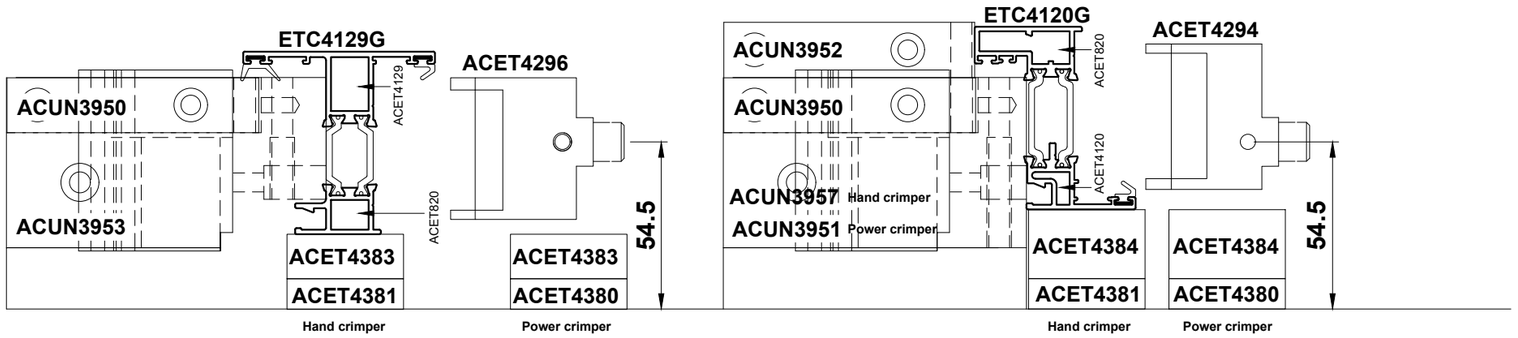


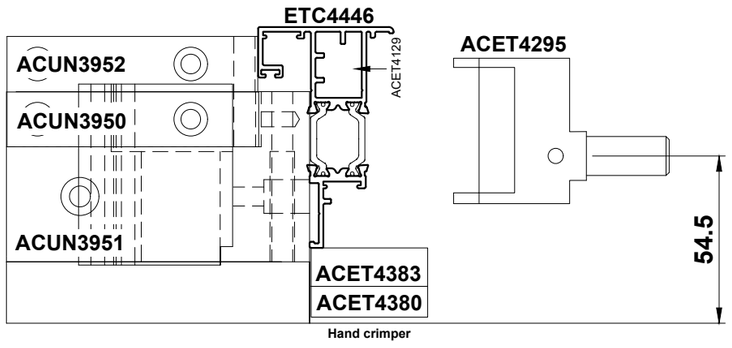


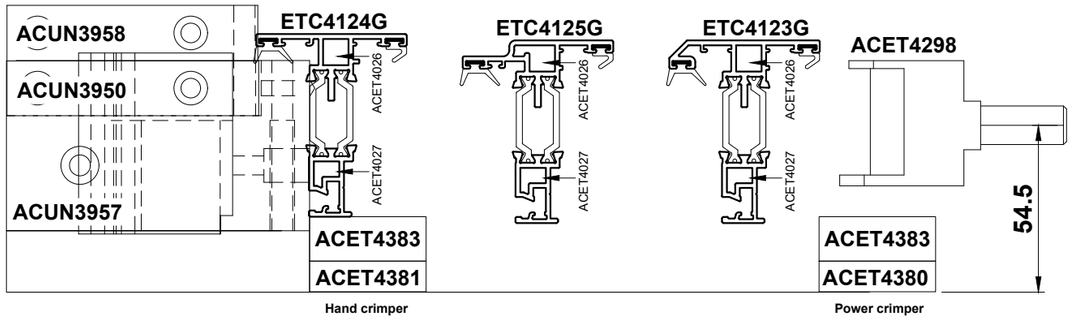
Do Not Scale From This Drawing

Corner Crimping

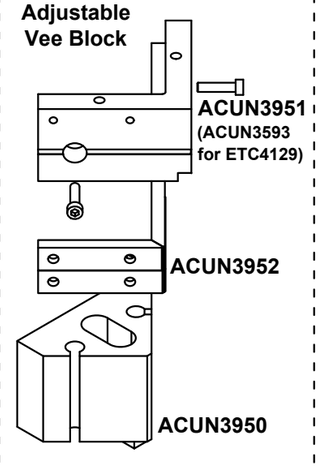
Manual Crimper = WUT024HSZA
Power Crimper = ACCR100







Adjustable Vee Block

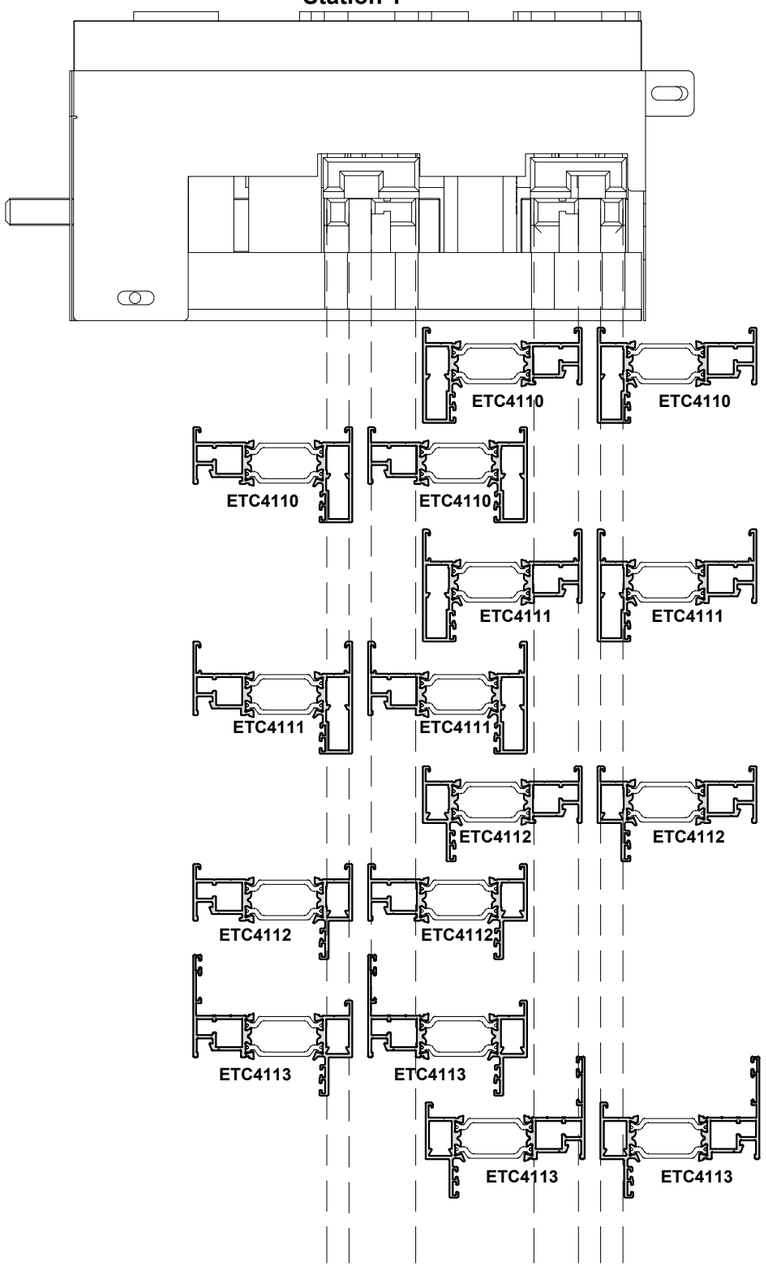


Section Packers

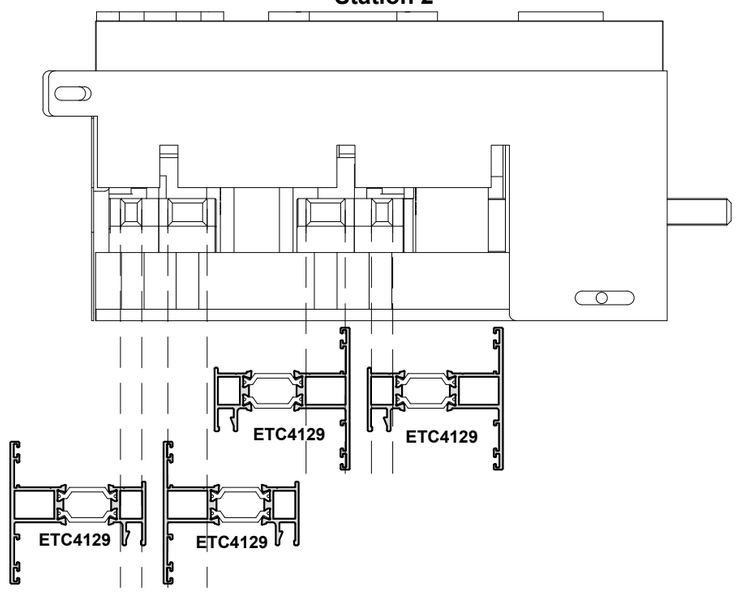
Do Not Scale From This Drawing

ACET963 & ACET4950 Punch Tool

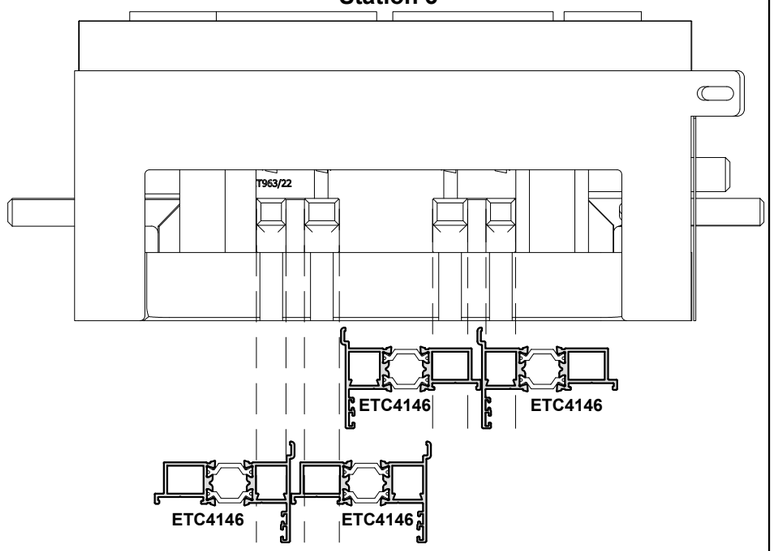
Station 1



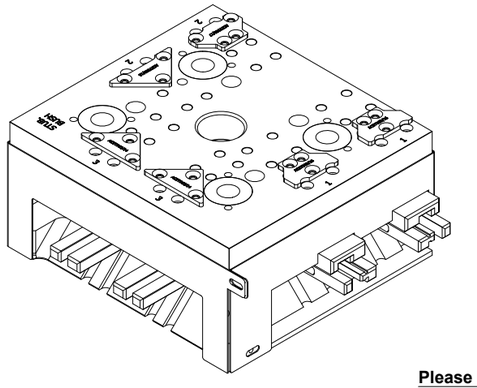
Station 2



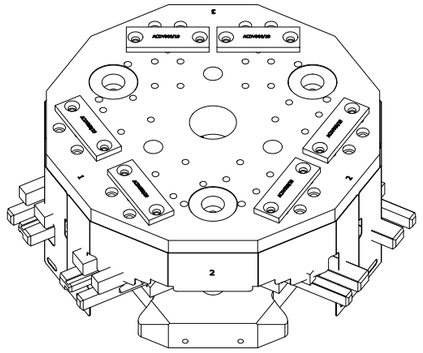
Station 3



ACET963R

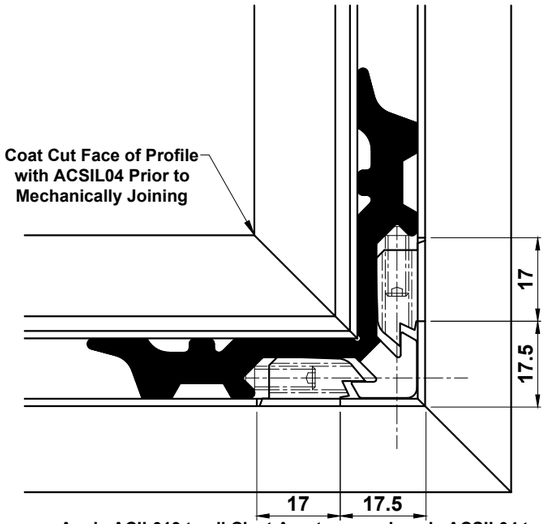


ACET4950



Please Note

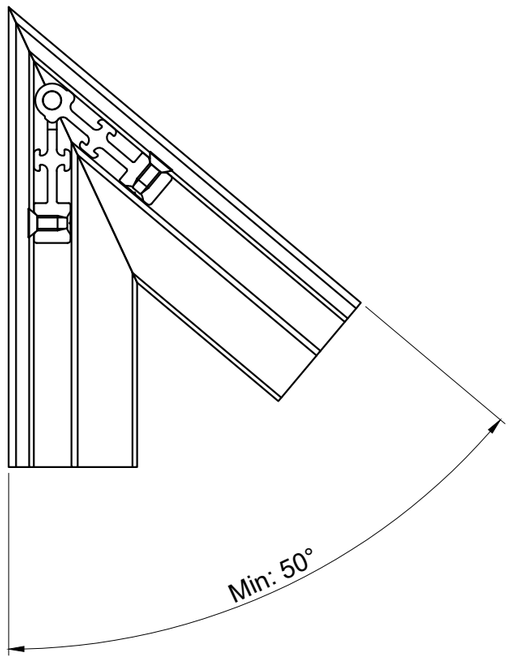
The following profiles as not compatible with ACET963R or ACET4950:
ETC4101, ETC4105, ETC4114, ETC4115, ETC4116, ETC4117, ETC4120, ETC4123, ETC4124, ETC4125, ETC4147

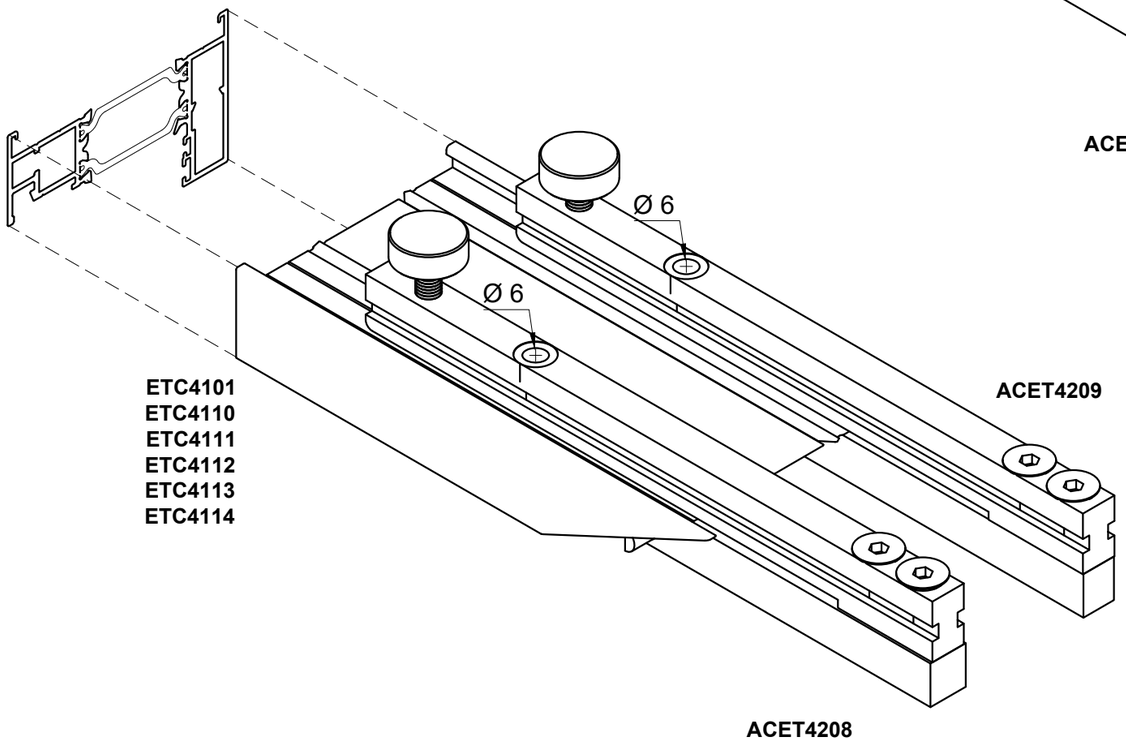


Apply ACIL013 to all Cleat Apertures and apply ACSIL04 to any fractures formed by crimping to make watertight

Do Not Scale From This Drawing

Variable Angle Cleats

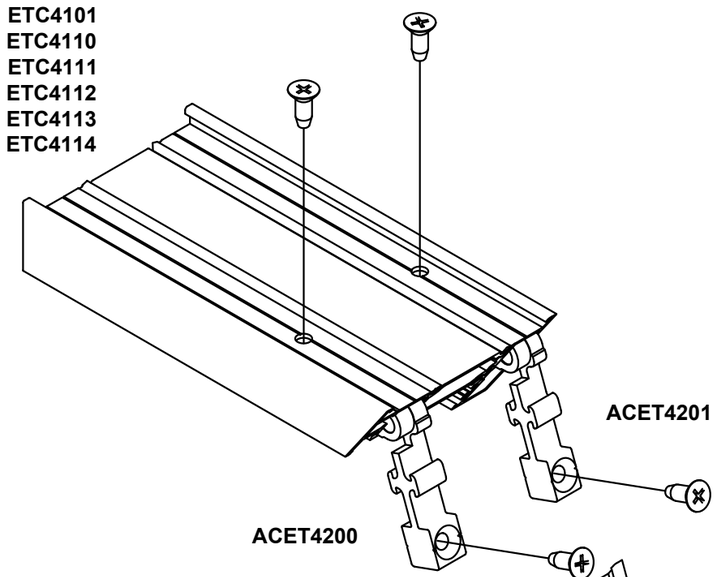




ETC4101
ETC4110
ETC4111
ETC4112
ETC4113
ETC4114

ACET4209

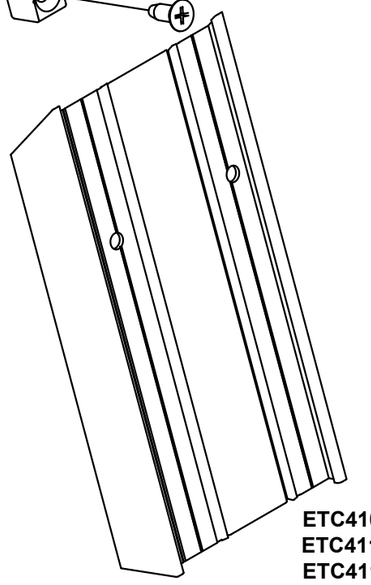
ACET4208



ETC4101
ETC4110
ETC4111
ETC4112
ETC4113
ETC4114

ACET4201

ACET4200



ETC4101
ETC4110
ETC4111
ETC4112
ETC4113
ETC4114

Do Not Scale From This Drawing

Bead Notching ACDV916

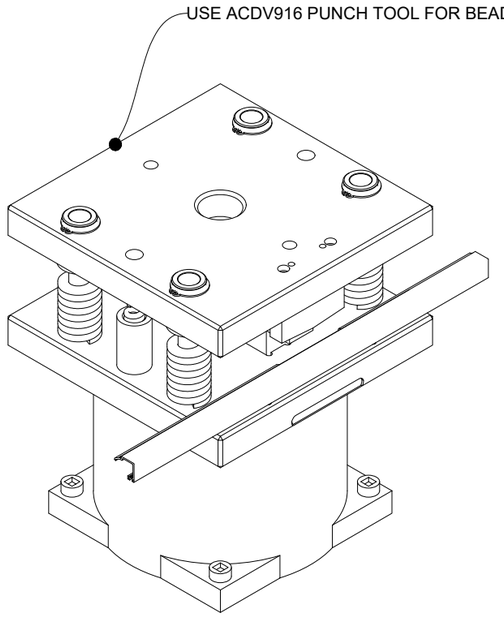
LOCK SELECTION NOTES:

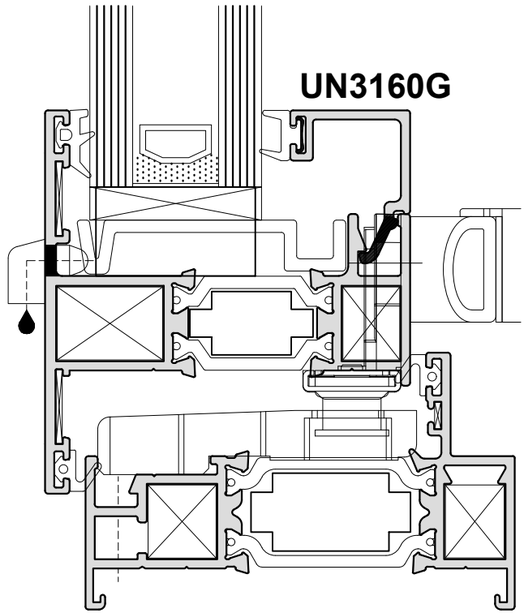
PLEASE FOLLOW TABLE ON PAGE E06 FOR LOCK SELECTION OPTIONS.

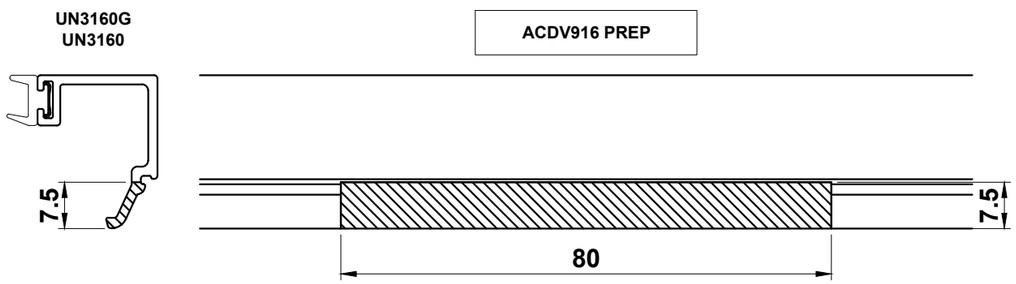
ALL SASH / LOCK COMBINATIONS REQUIRE BEAD NOTCHING.

ALL OTHER INTERMEDIATE SHOOTBOLT COMBINATIONS REQUIRE BEAD NOTCHING.

ALL LOCKS & SASHES HAVE BEEN TESTED TO PAS24:2016. PLEASE FOLLOW PAS24:2016 FABRICATION INSTRUCTIONS AND LIMITATIONS.

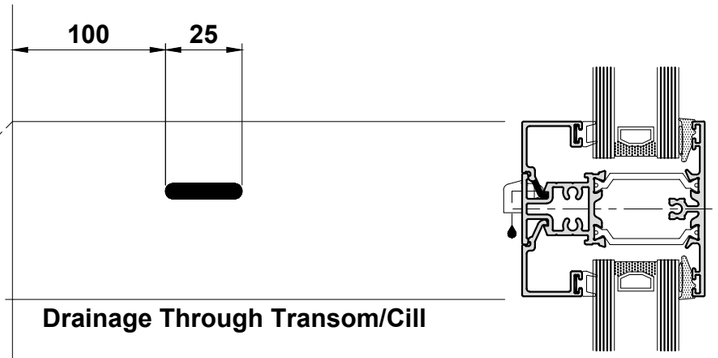






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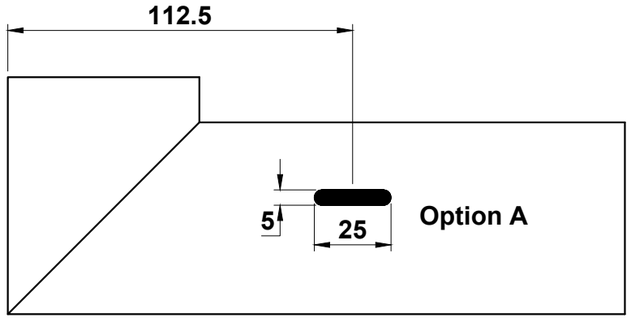
Drainage



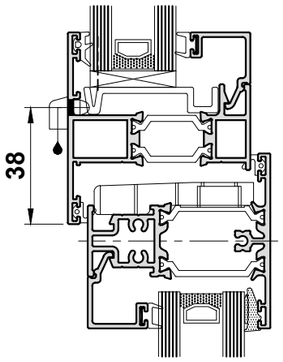
Drainage Through Transom/Cill

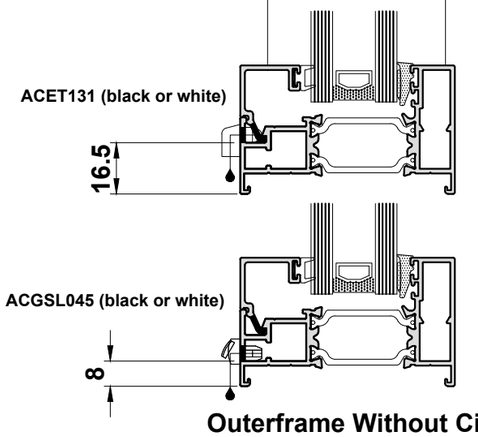
Transom Fixed Light *

* Note: Transoms will drain through the join to the outerframe.

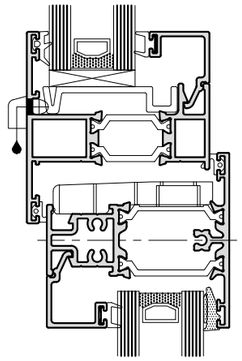


Drainage Through Vent

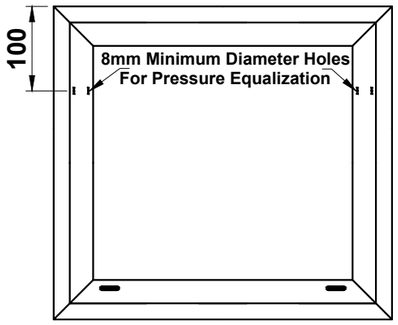


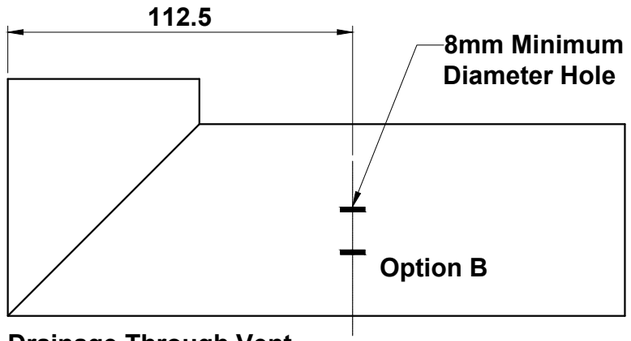


Outerframe Without Cill with opener

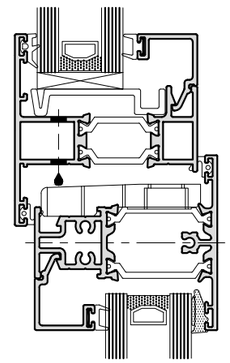


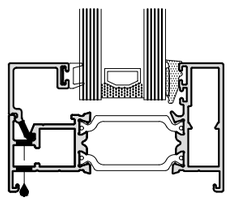
Transom With Vent *



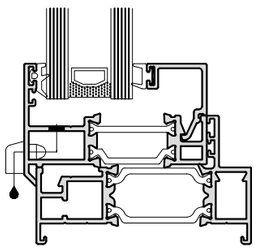


Drainage Through Vent

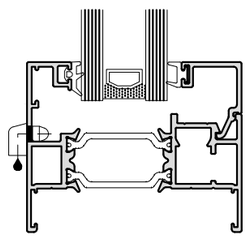




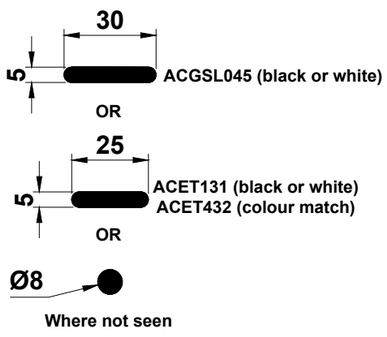
Outerframe With Cill



Outerframe with Reverse Adaptor without cill

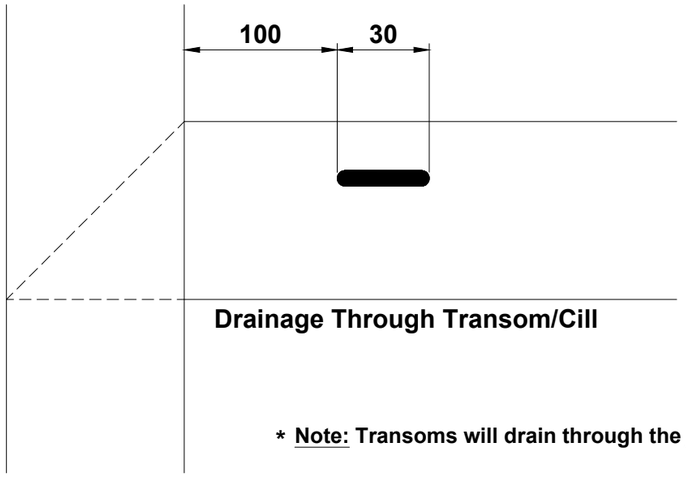


Internally Glazed Outerframe without cill

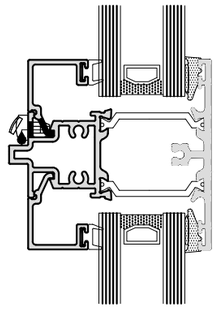


Important Note: All exposed aluminium should be coated using ACSIL014 or painted to match the frame.

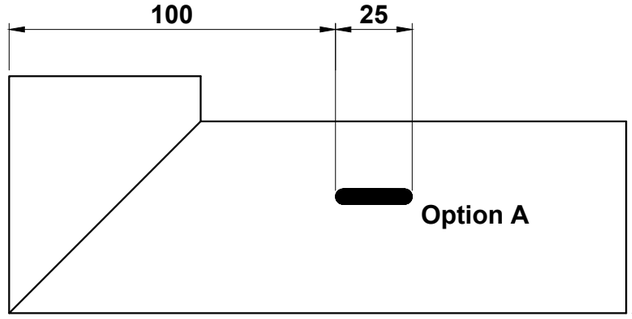
Flush Casement Drainage



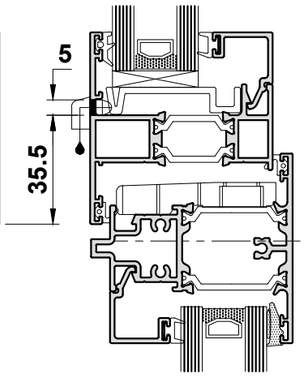
Drainage Through Transom/Cill



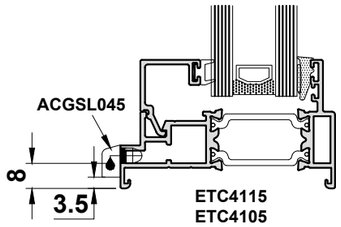
Transom Fixed Light *



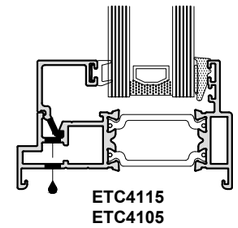
Drainage Through Vent



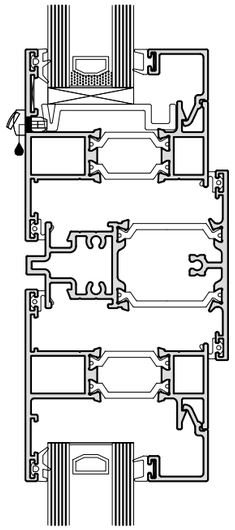
* Note: Transoms will drain through the join to the outerframe.



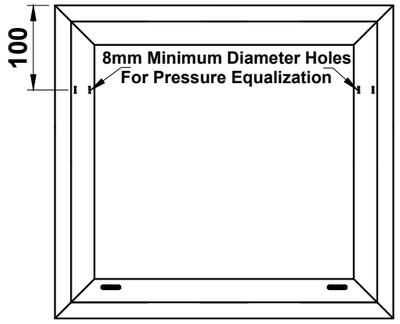
Outerframe Without Cill

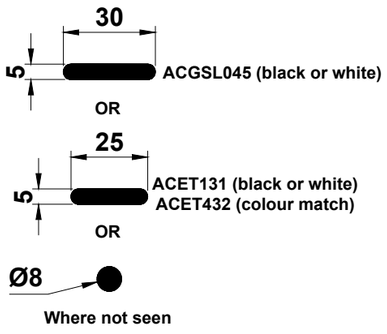


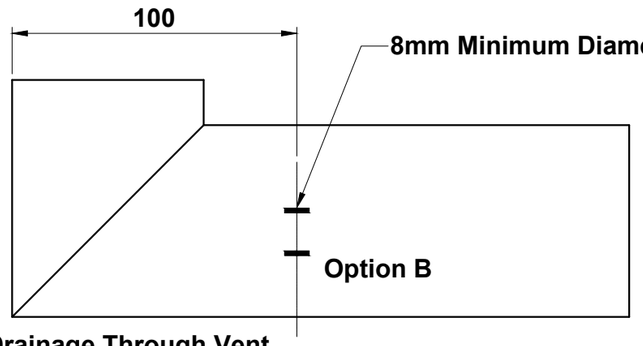
Outerframe With Cill



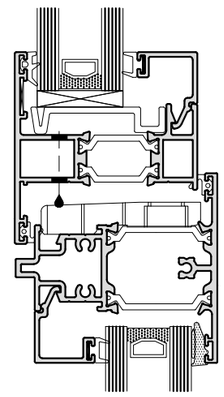
Transom With Vent*







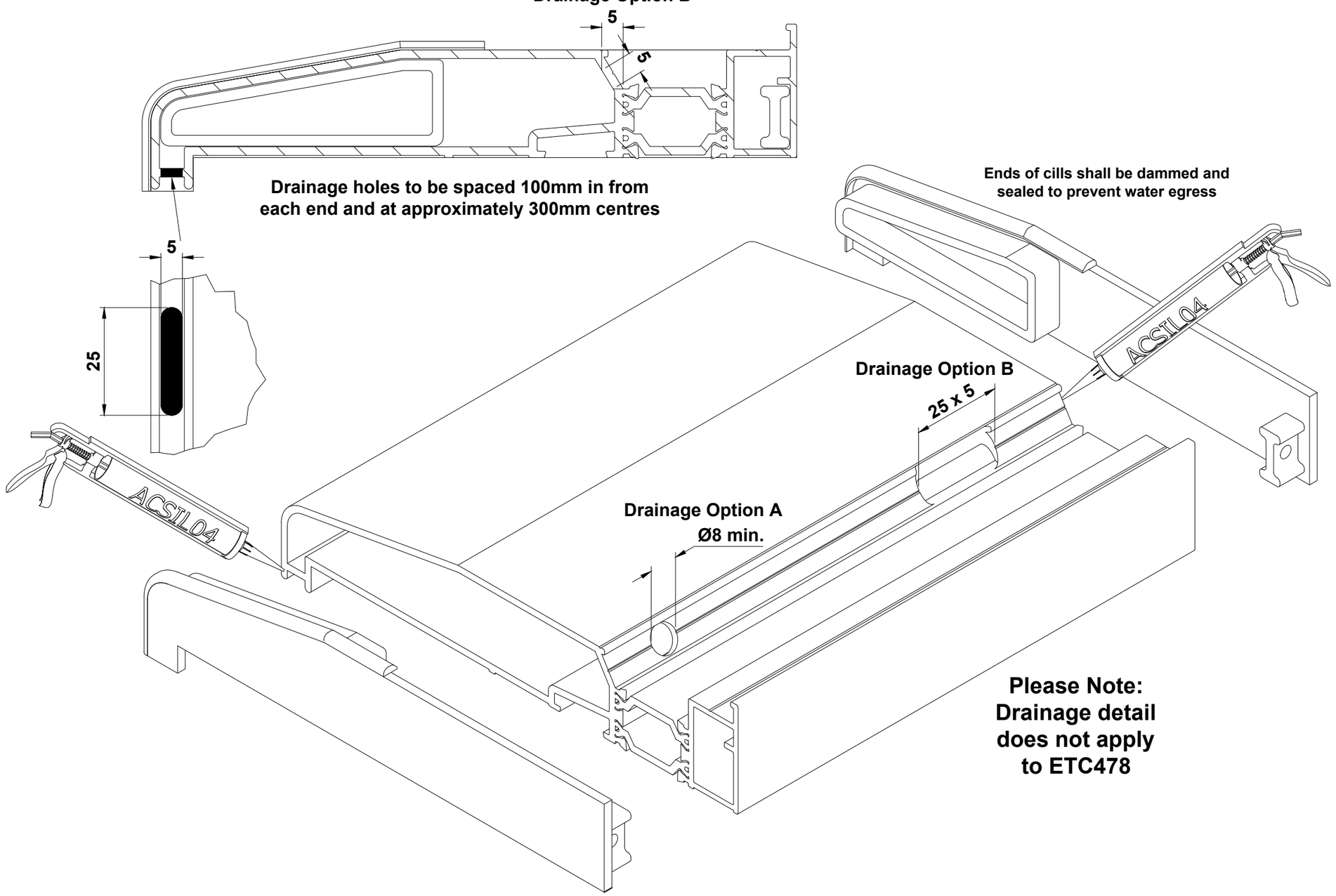
Drainage Through Vent



Important Note: All exposed aluminium should be coated using ACSIL014 or painted to match the frame.

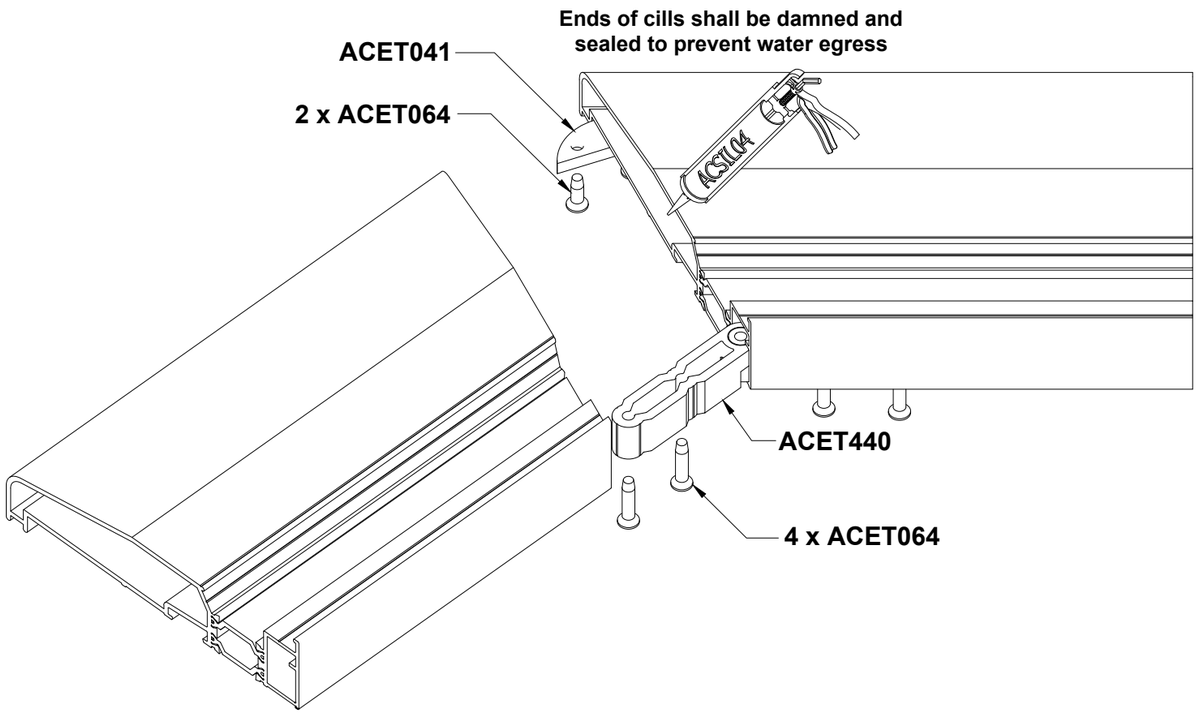
Do Not Scale From This Drawing

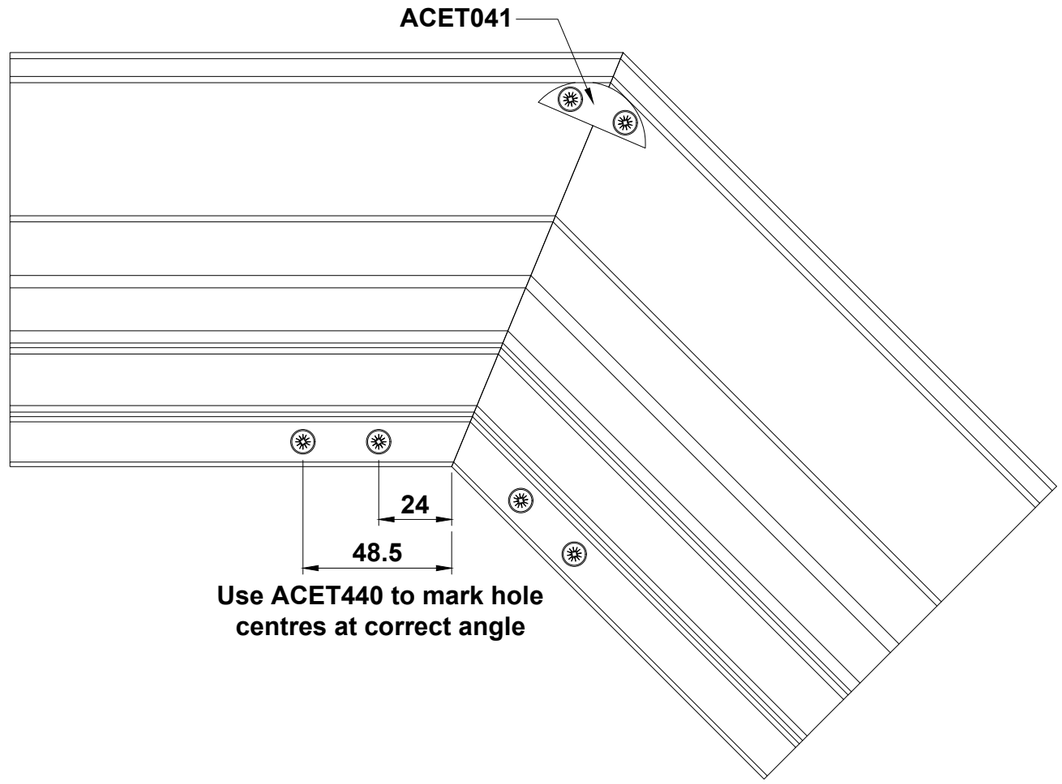
Sub Cill Drainage



Do Not Scale From This Drawing

Angled Sub Cill

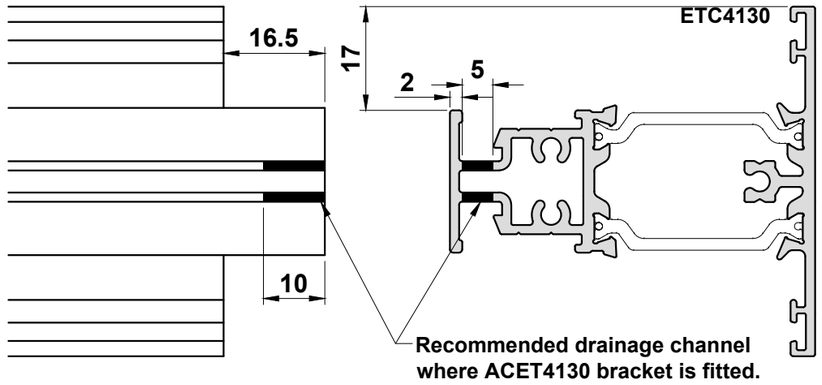


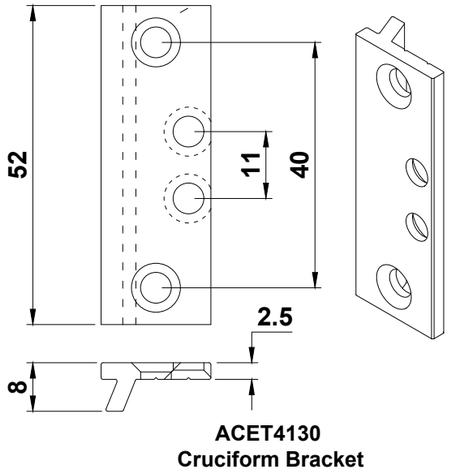


E1
E1
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E1

Do Not Scale From This Drawing

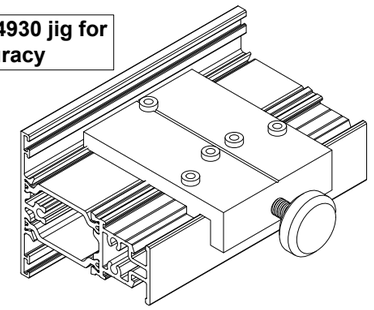
ETC4130 Mullion/Transom Detail

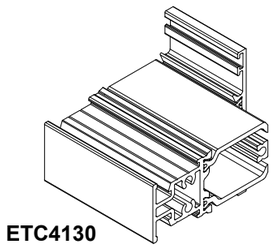




ACET4130
Cruciform Bracket

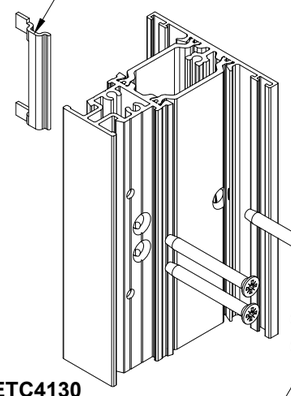
Use ACET4930 jig for accuracy



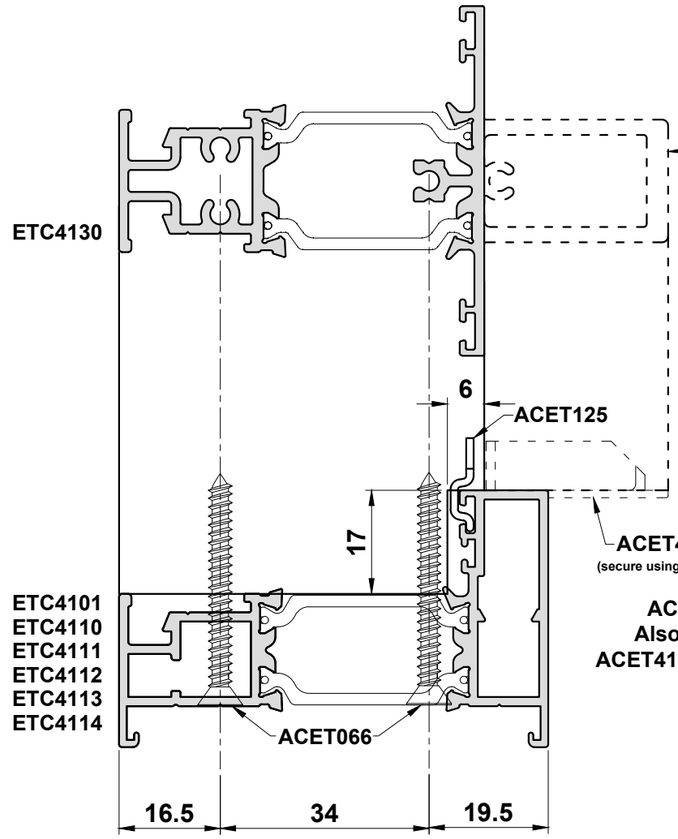


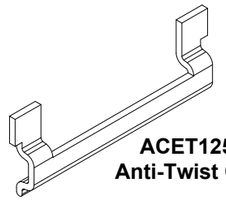
ETC4130

ACET125

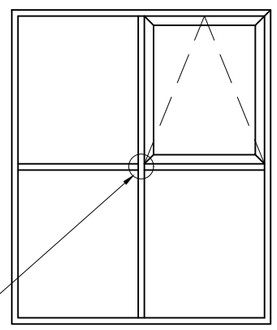


ETC4130

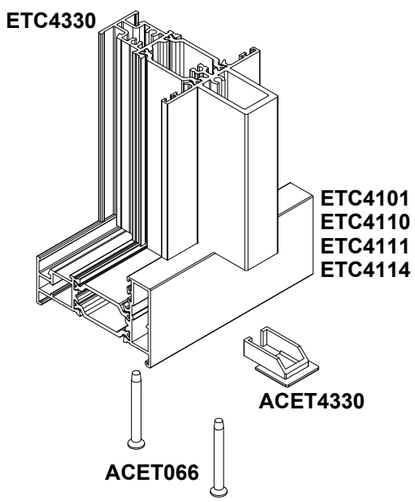




ACET125
Anti-Twist Clip

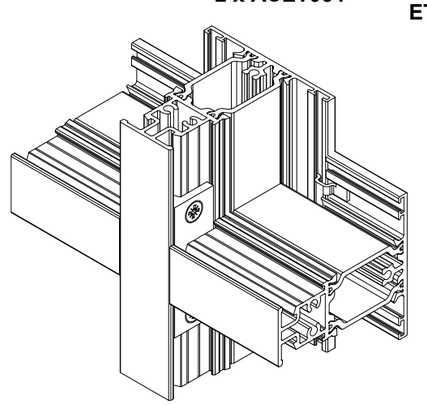


ACET4130
Also consider
ACET4131 - Page E12



Important Fabrication Note:
All joints shall be sealed using ACSIL04



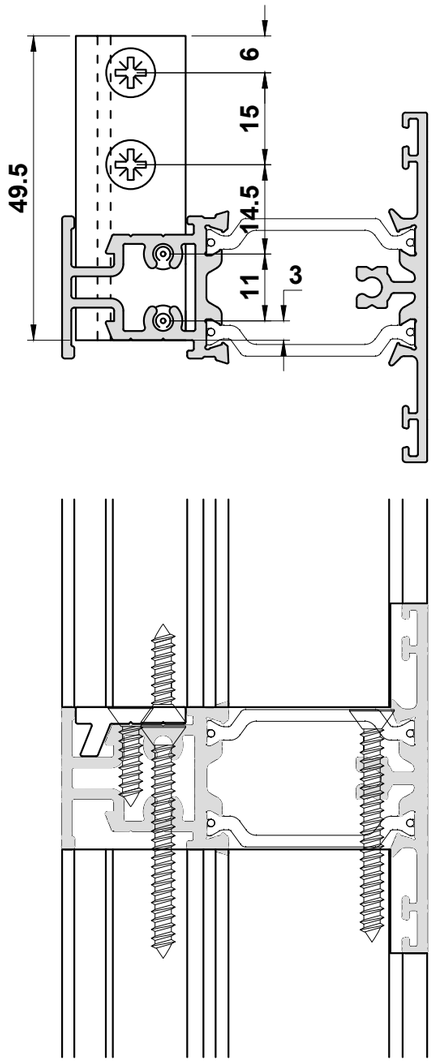


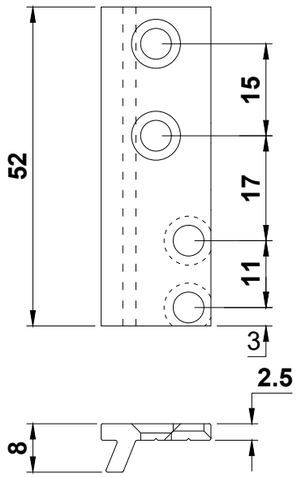
Drainage

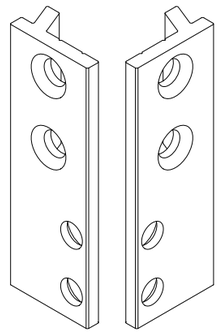
101
110
111
114

Do Not Scale From This Drawing

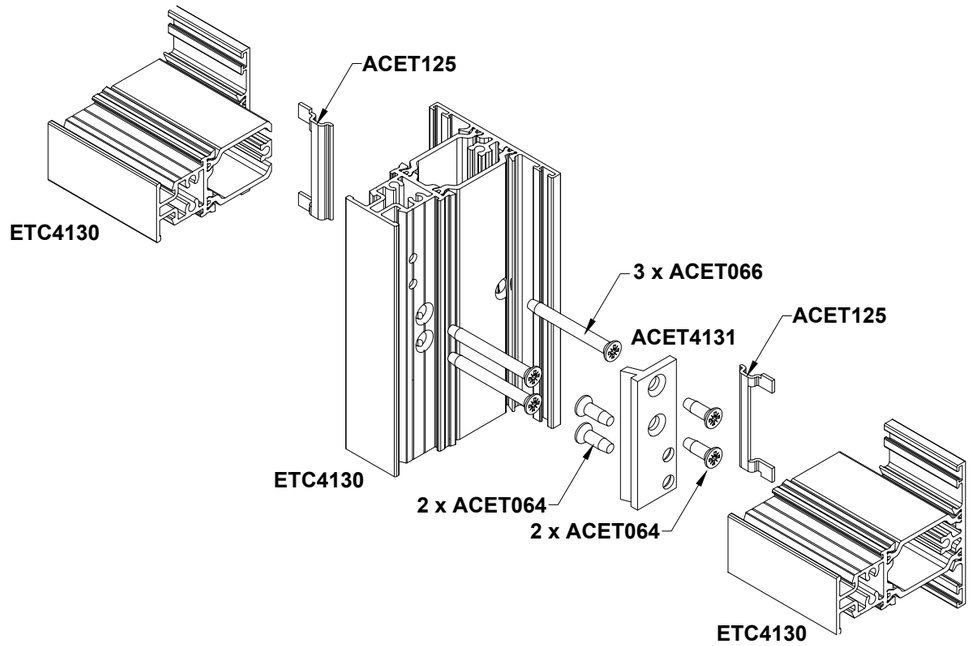
ETC4130 Mullion/Transom Detail

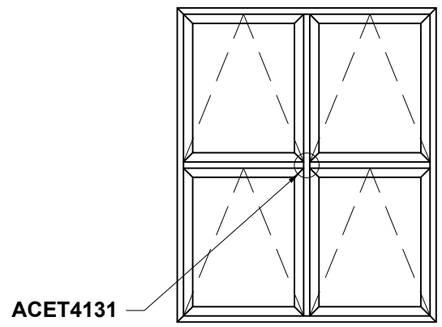


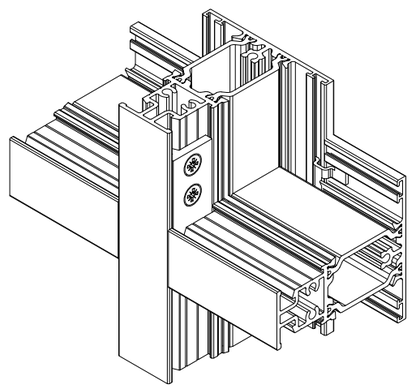




ACET4131
Cruciform Bracket (Pairs)





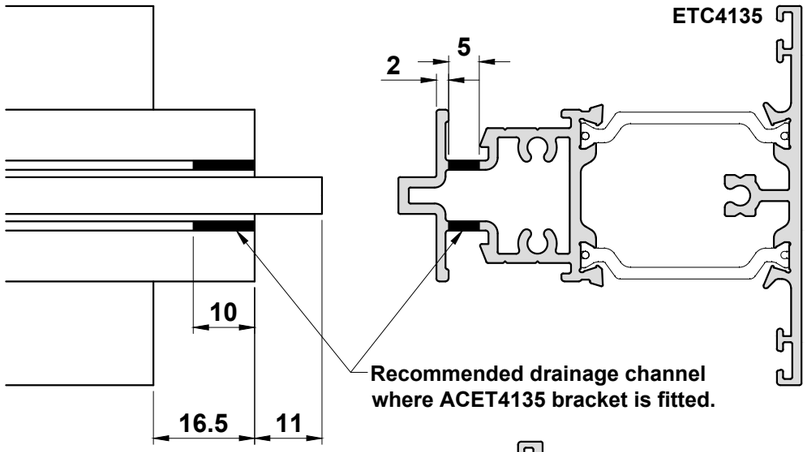


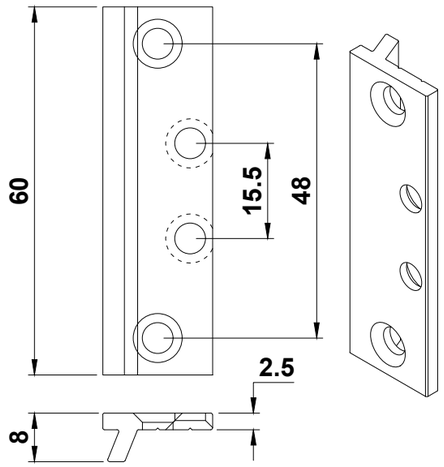
Important Fabrication Note:
All joints shall be sealed using ACSIL04



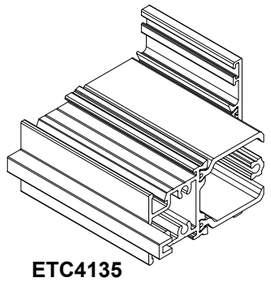
Do Not Scale From This Drawing

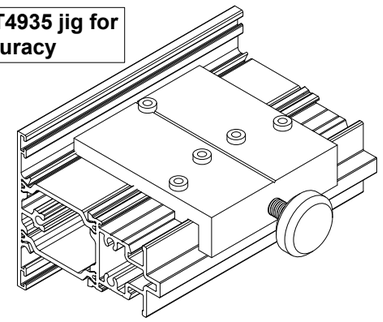
ETC4135 Mullion/Transom Detail

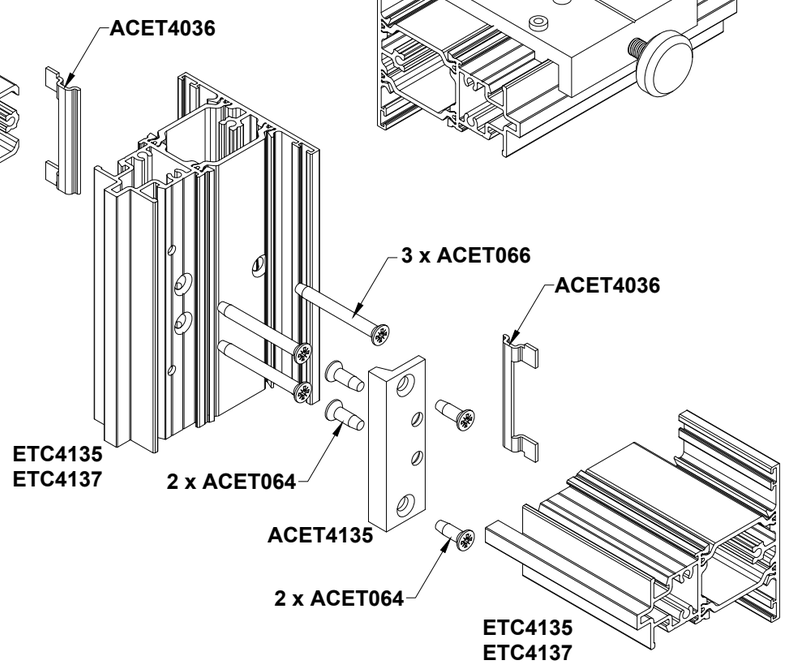


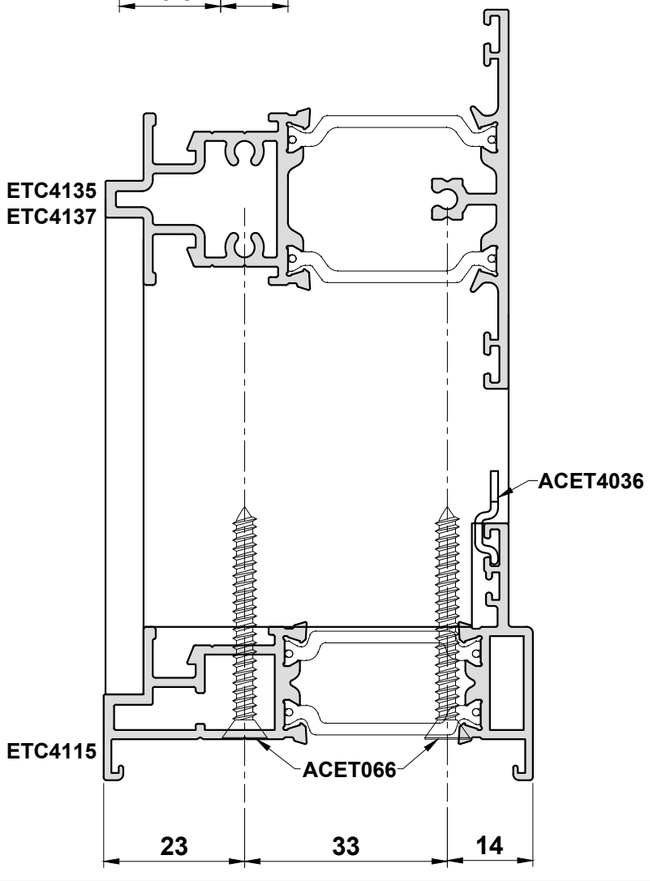


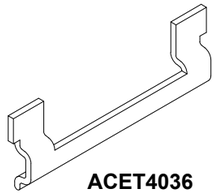
ACET4135
Cruciform Bracket



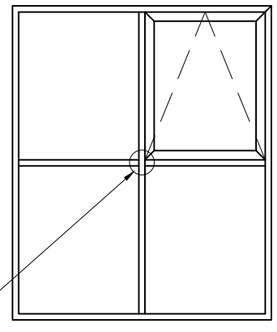


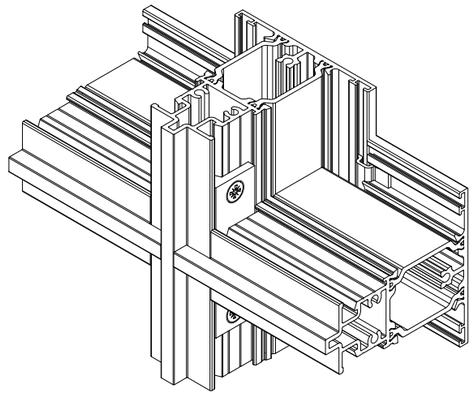




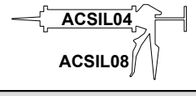


ACET4036
Anti-Twist Clip



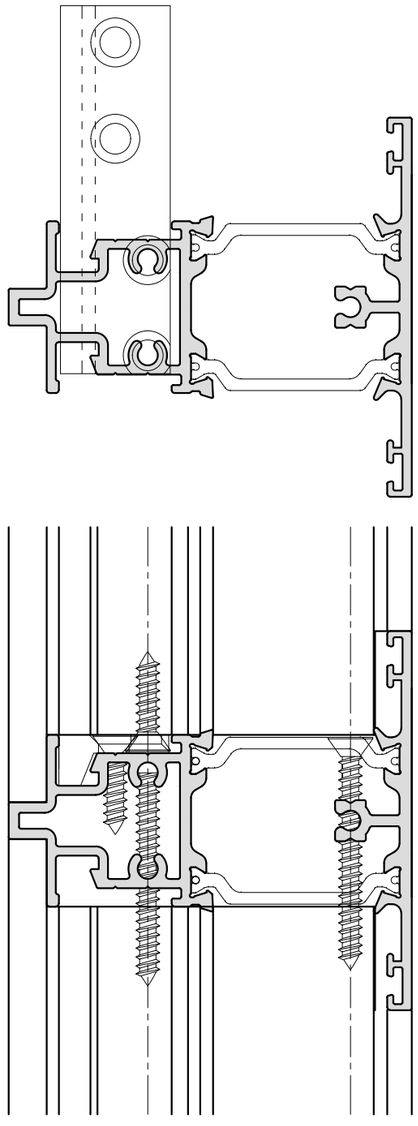


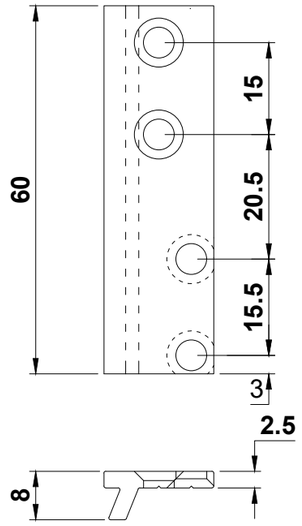
Important Fabrication Note:
All joints shall be sealed using ACSIL04

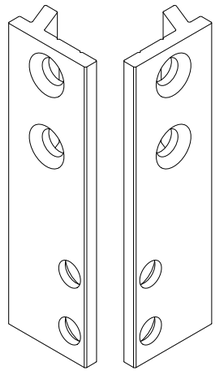


Do Not Scale From This Drawing

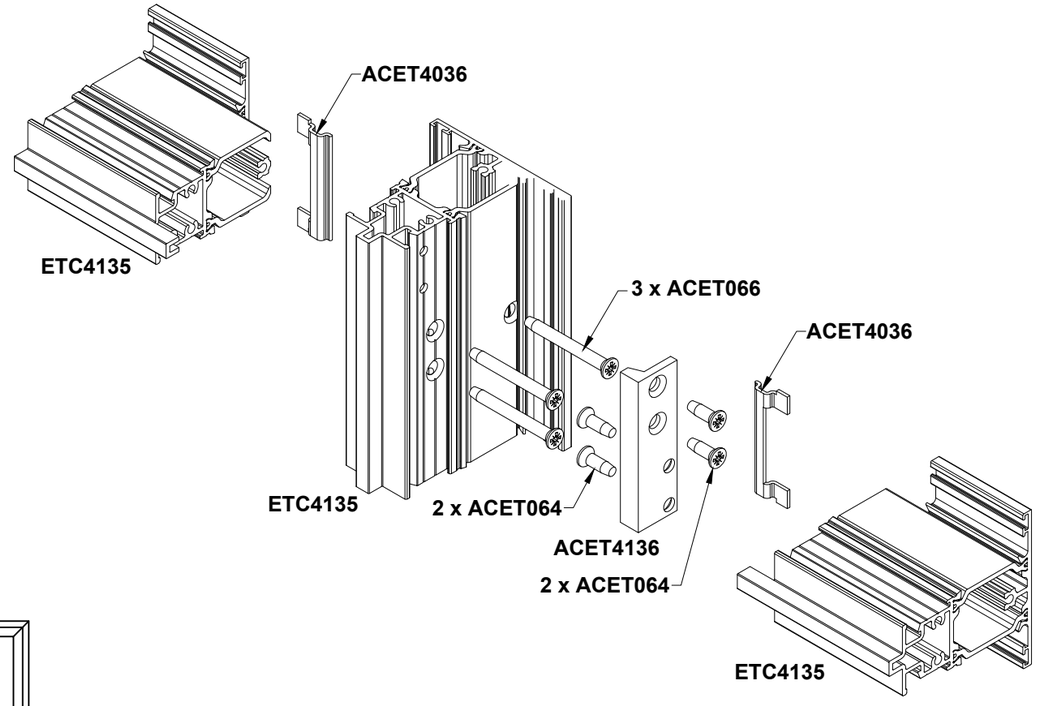
ETC4135 Mullion/Transom Detail

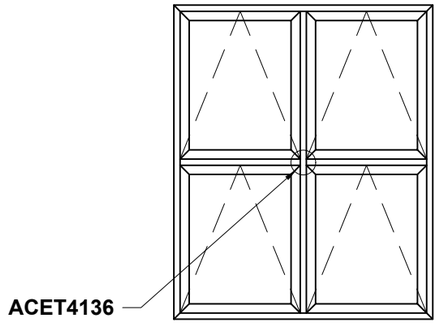


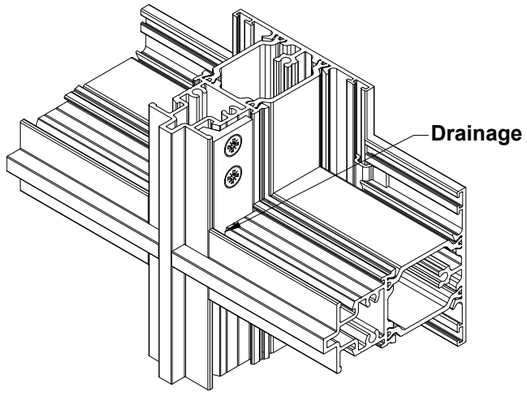




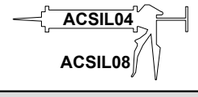
ACET4136
Cruciform Bracket (Pairs)





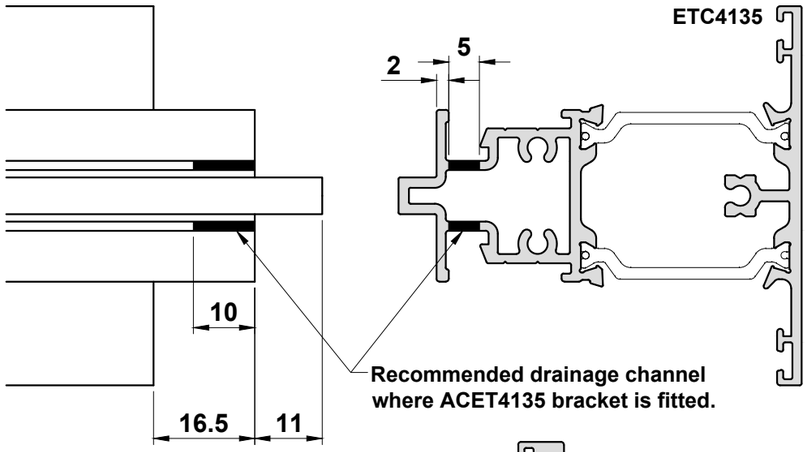


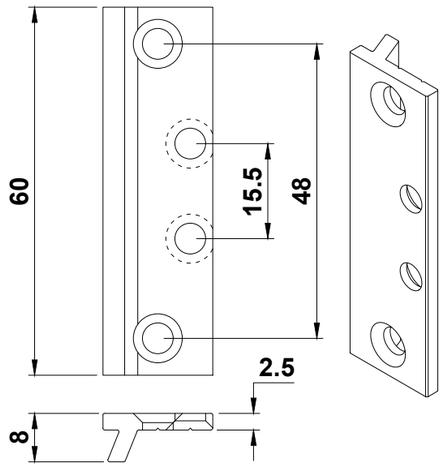
Important Fabrication Note:
All joints shall be sealed using ACSIL04



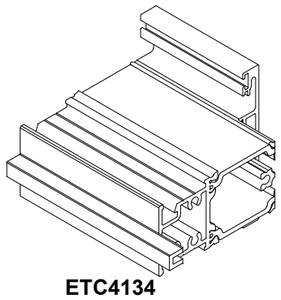
Do Not Scale From This Drawing

ETC4134 Mullion/Transom Detail

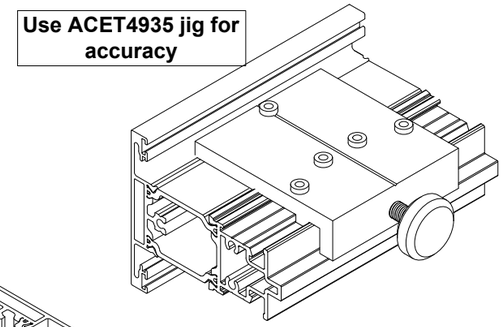


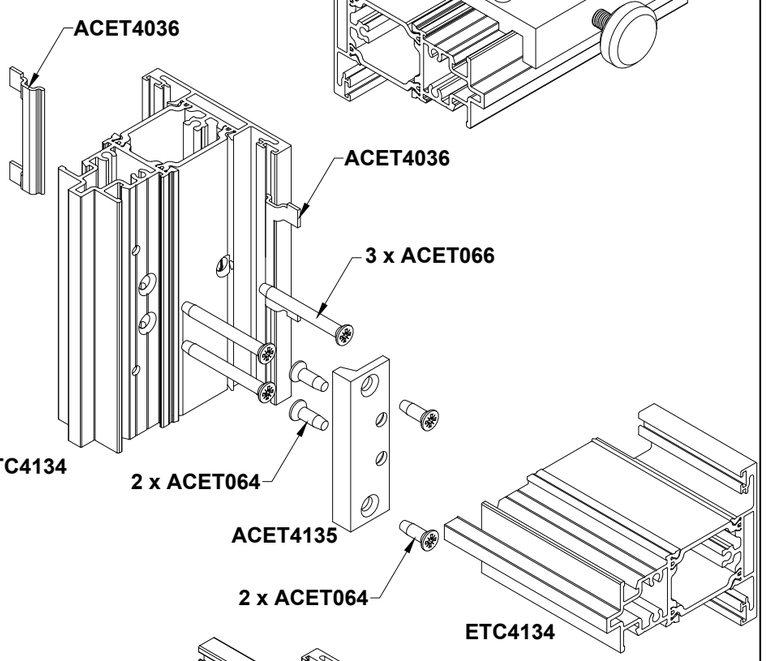


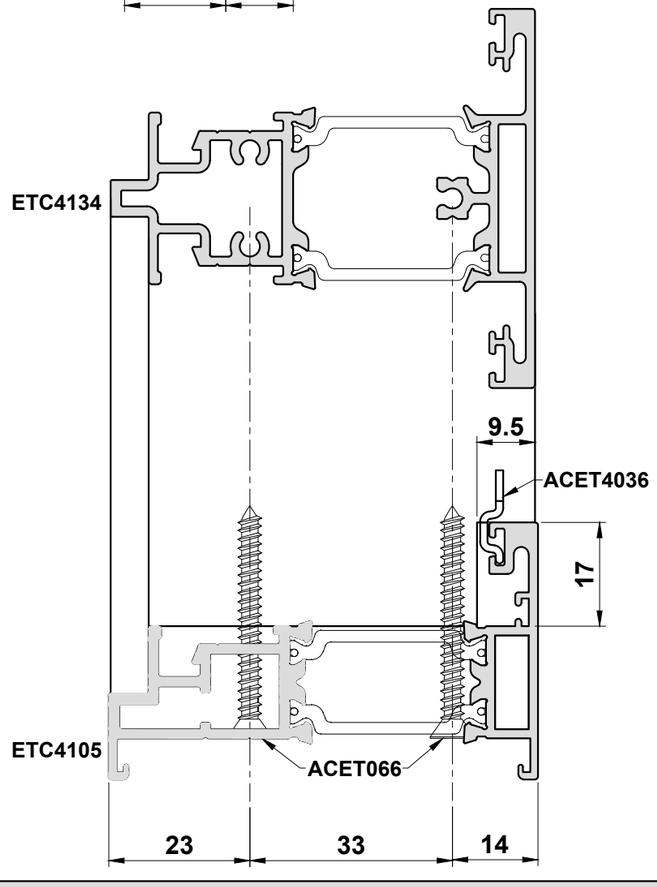
ACET4135
Cruciform Bracket

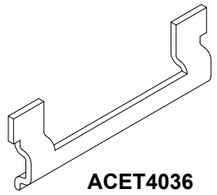


ETC4134

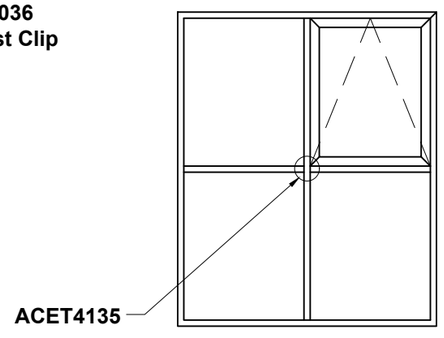


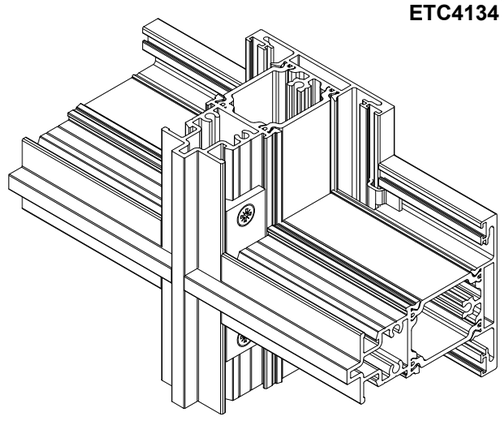




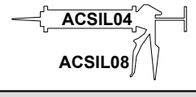


ACET4036
Anti-Twist Clip



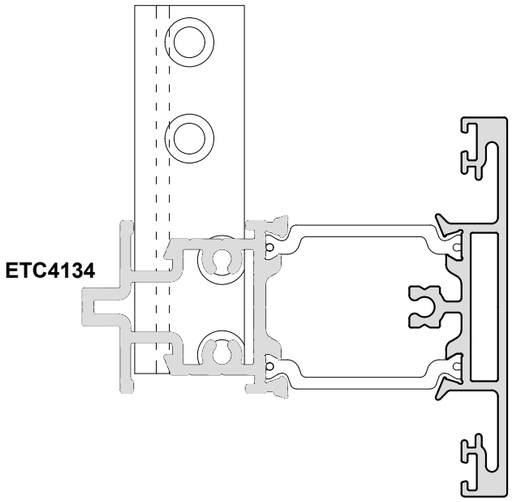


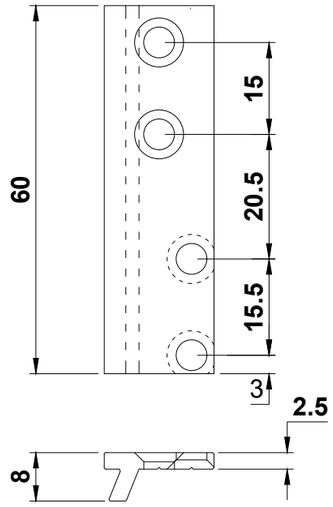
Important Fabrication Note:
All joints shall be sealed using ACSIL04

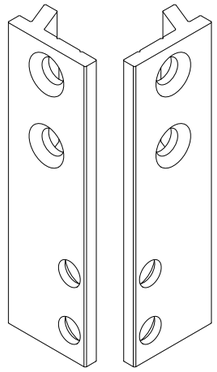


Do Not Scale From This Drawing

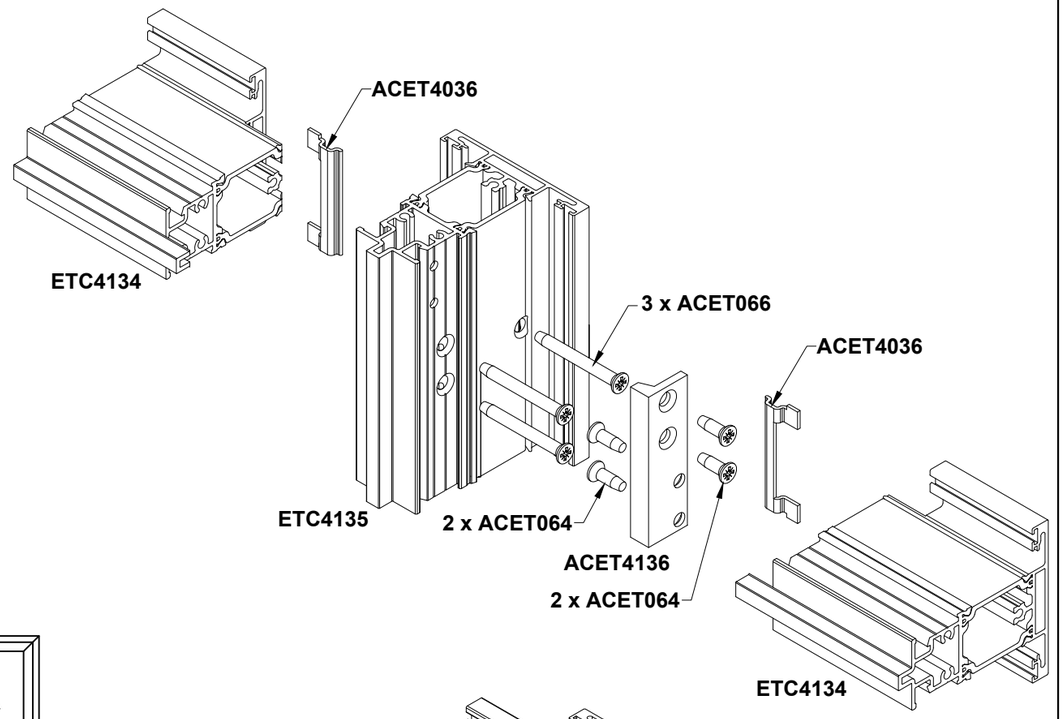
ETC4134 Mullion/Transom Detail

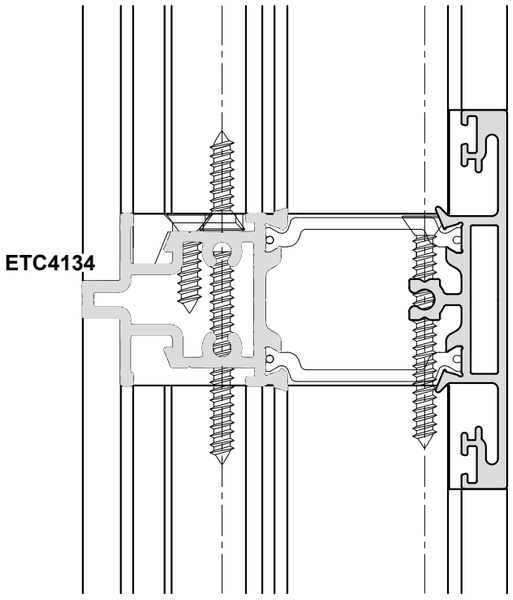


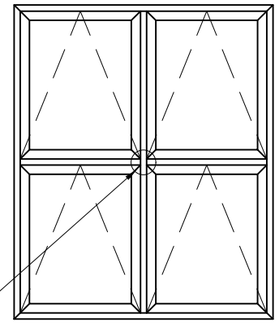


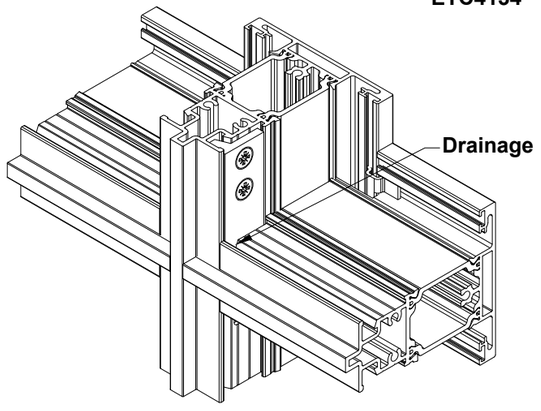


ACET4136
Cruciform Bracket (Pairs)







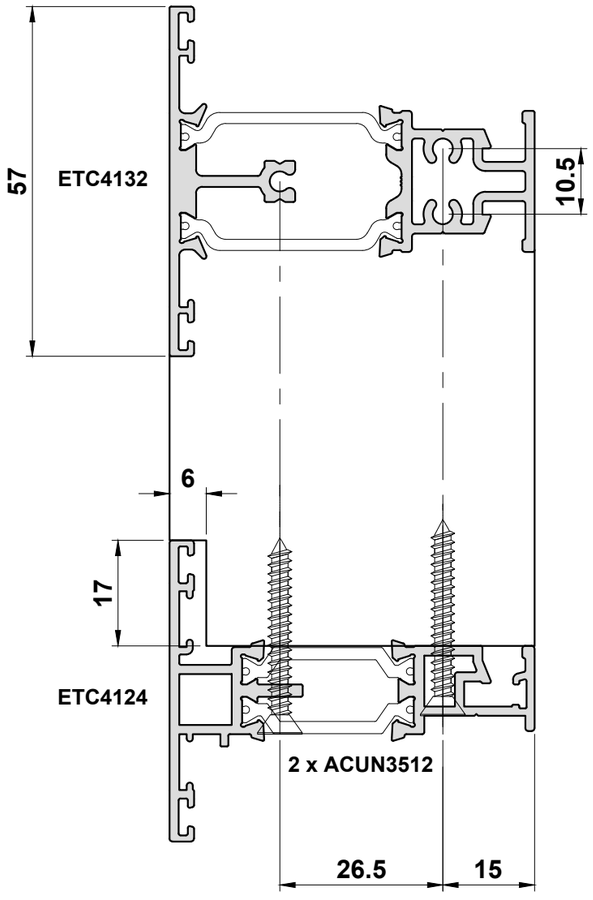


Important Fabrication Note:
All joints shall be sealed using ACSIL04



Do Not Scale From This Drawing

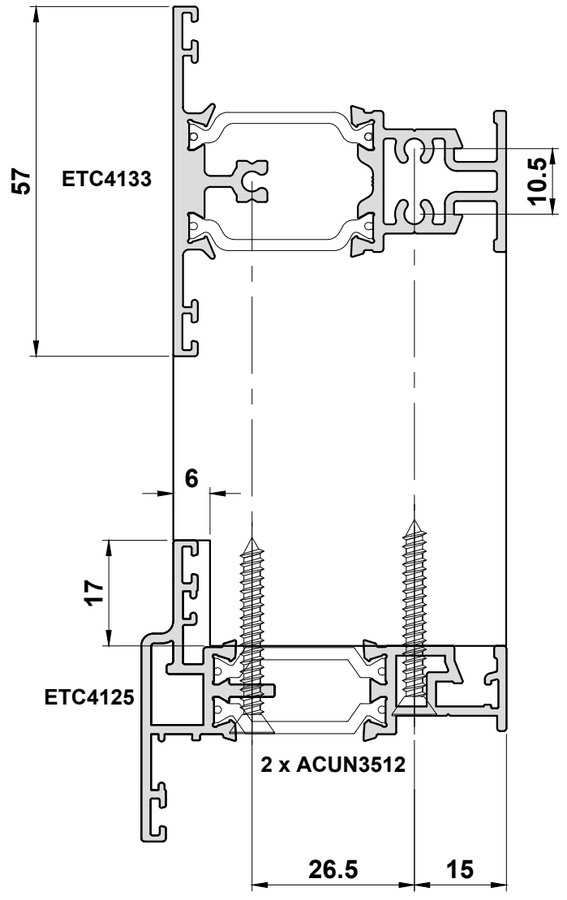
ETC4132 & ETC4133 Dummy Transoms



Note:
End mill cutters can be ordered through Smart Systems Ltd.
Please contact the Technical Department for an order form.
Standard delivery is 2-3 weeks approx.

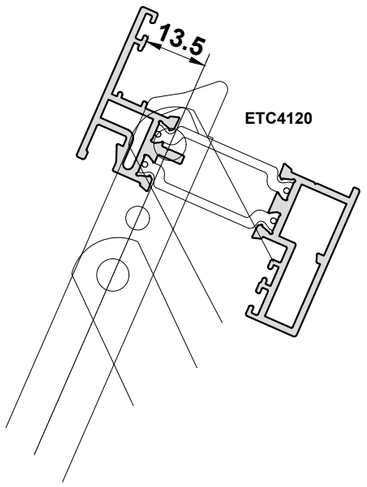
Important Fabrication Note:
All joints shall be sealed using ACSIL04

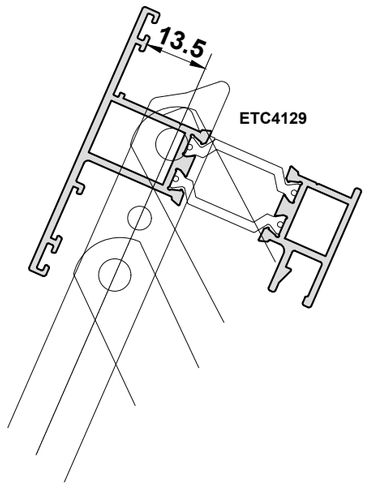


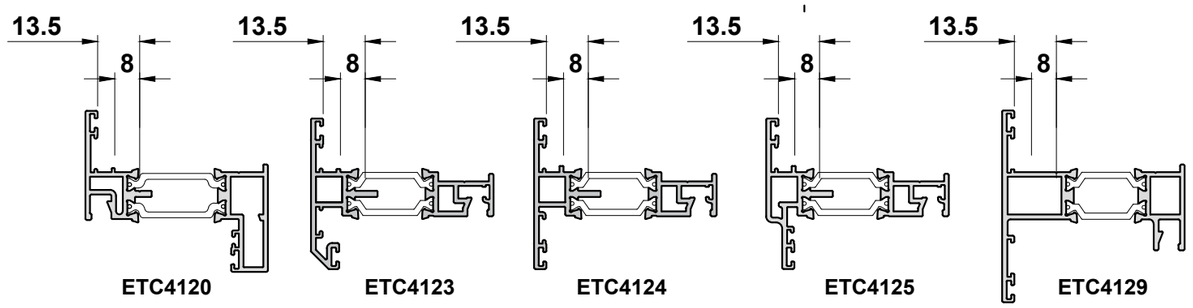


Friction Stay Details

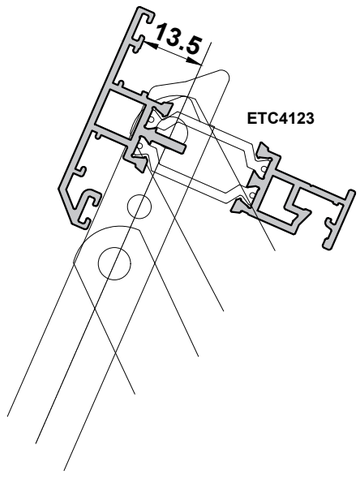
16mm Stack Stays

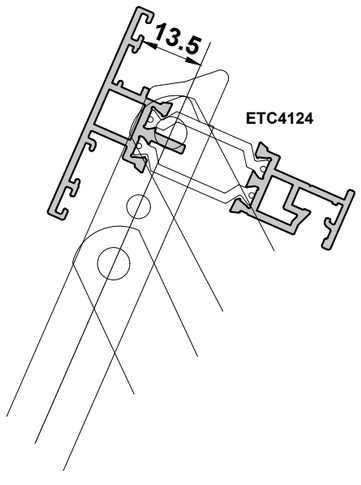


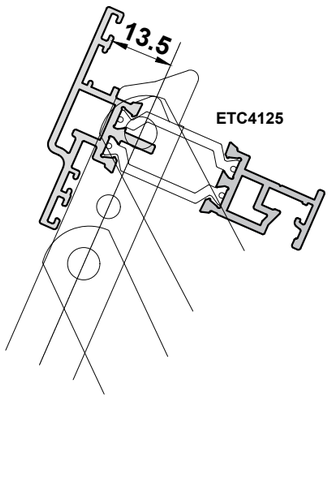




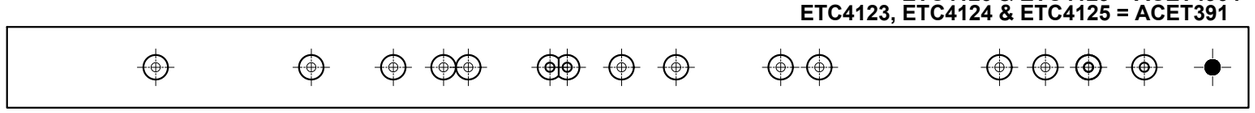
13mm Stack Stays



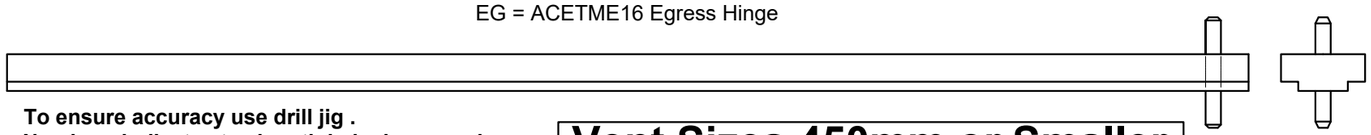




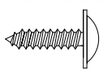
ETC4120 & ETC4129 = ACET4904
ETC4123, ETC4124 & ETC4125 = ACET391



EG = ACETME16 Egress Hinge



To ensure accuracy use drill jig .
Numbers indicate stay length in inches, numbers followed by an 'S' are used for side hung stays.



ACET070 = Recommended Screw

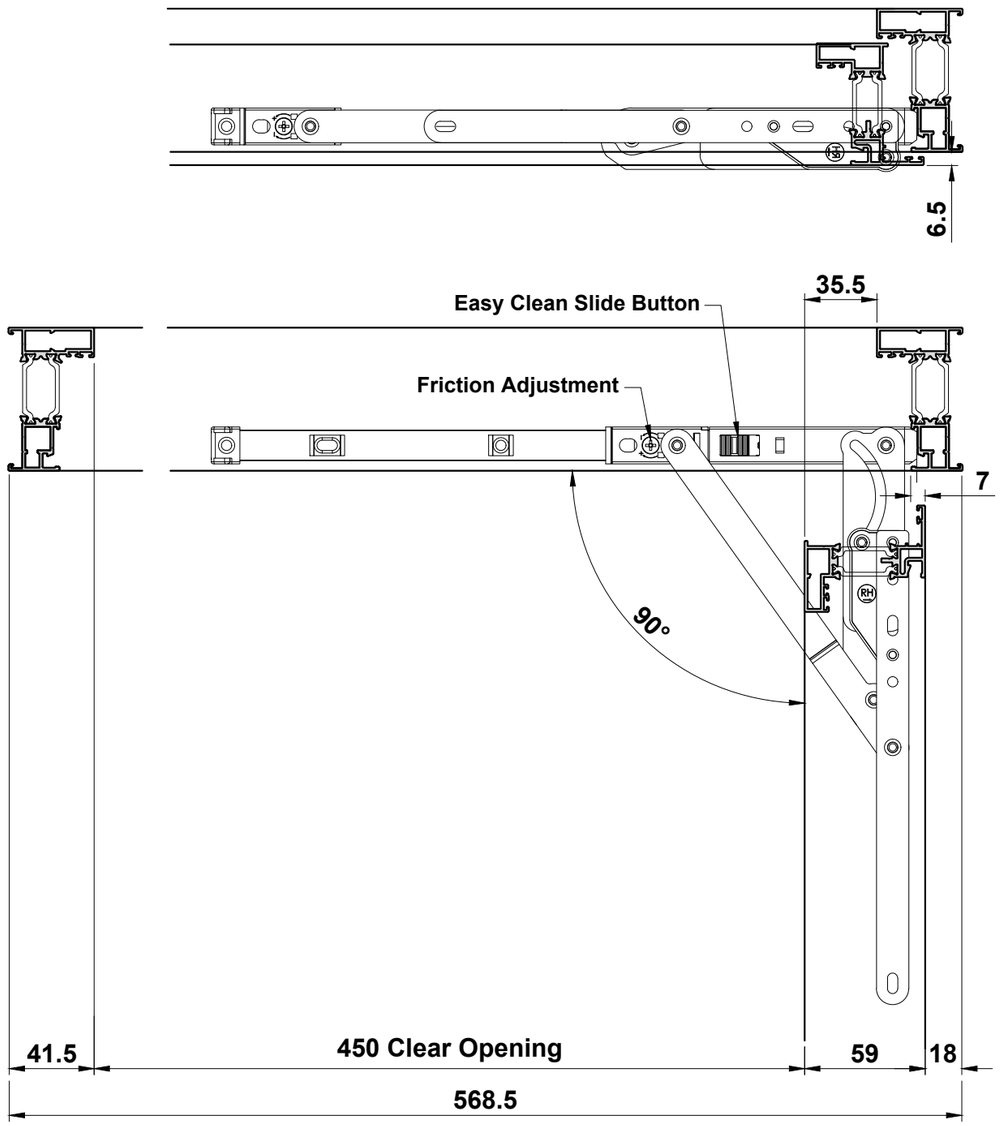
Vent Sizes 450mm or Smaller to be Reduced by 2mm

ETC4110
ETC4111
ETC4112
ETC4113
ETC4115
ETC4117

Do Not Scale From This Drawing

Egress Hinge Details

Example Opening Detail

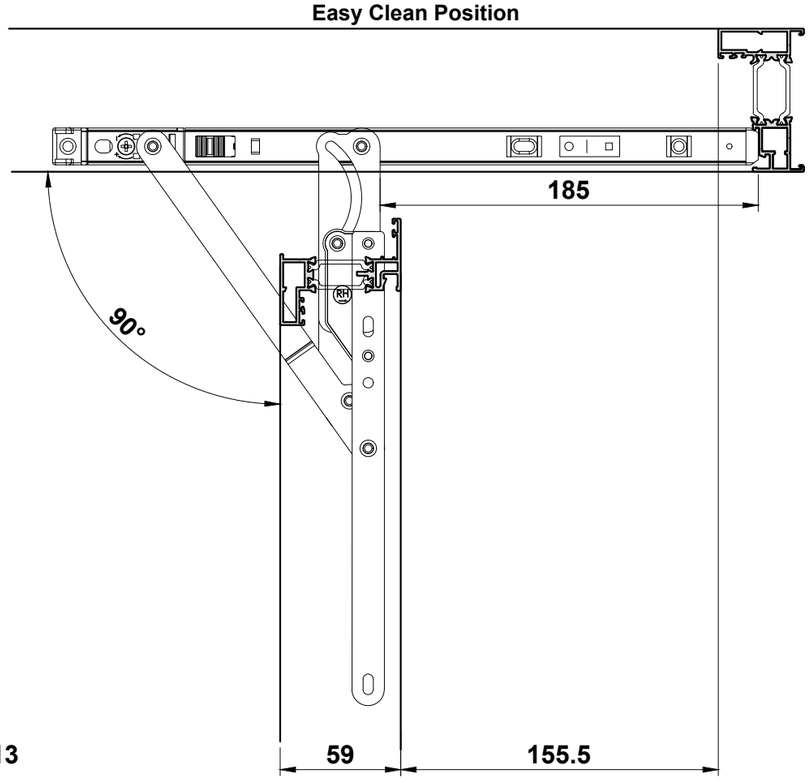


For further information regarding clear openings, please see the Smart Systems' White Paper Document B

The benefits of these hinges are:

- True 90° opening angle
- Achieves minimum fire escape requirement on smaller windows
- Can be moved into easy clean position, with automatic reset on closing
- Superior carrying weight (40kg max)
- The 345mm length replaces the current 305mm & 406mm hinges
- Tested to BS EN1670 and exceeded Grade 5 for ultimate corrosion resistance
- Tested to EN1191 over 25,000 cycles under 40kg.

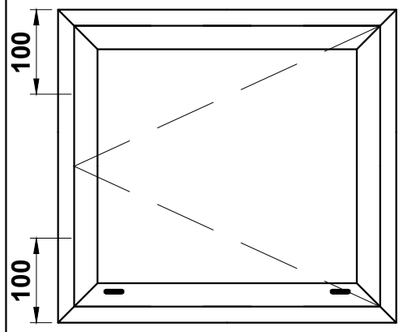
Easy Clean Position



ACETME16 & ACETME13 Egress Hinges

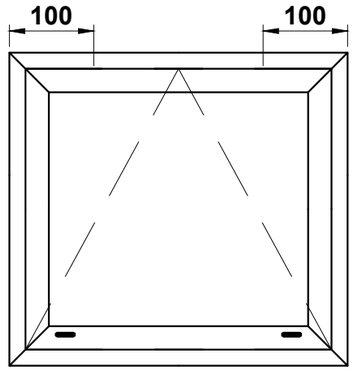
Side Hung	Sashes	Jig	Max. Vent Weight (kgs)	Width Minimum	Width Maximum	Typical Height
ACETME13	ETC4124 & ETC4125	ACETME93	40	365	865	-
ACETME16	ETC4120 & ETC4129	ACETME96				

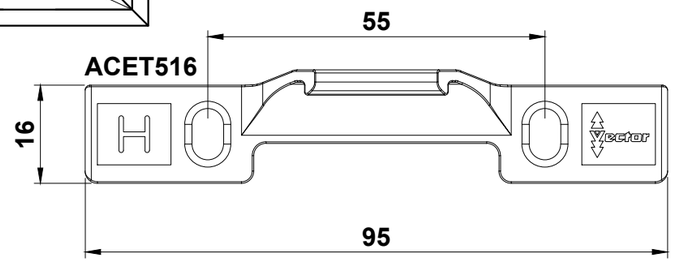
Security Hinge Protectors & Pull-In Blocks

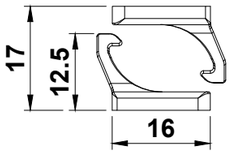


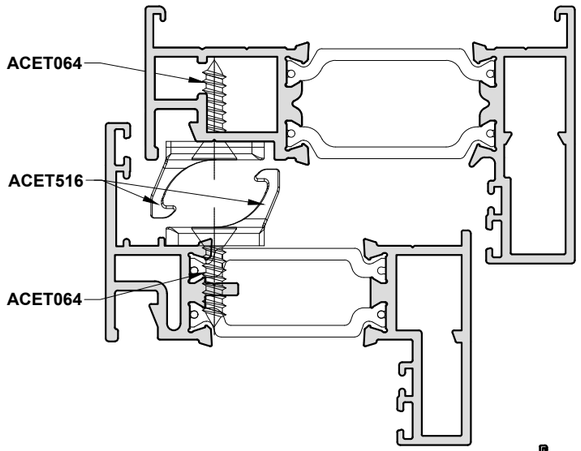
Please Note:

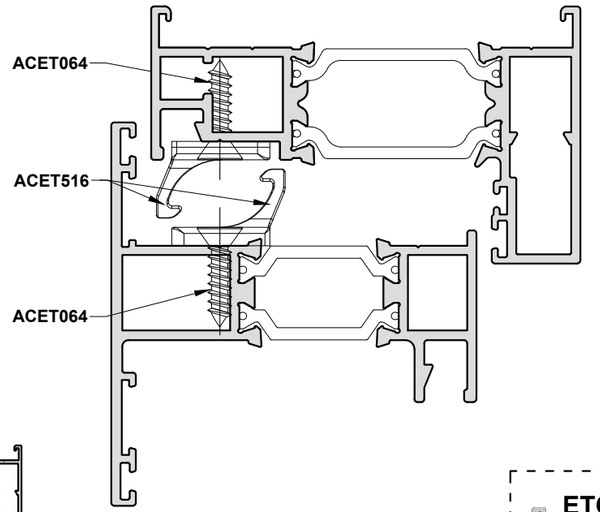
- 2 pairs per opening vent to be fitted to hinged side of window
- Each pair must be fitted with the hook centre within 100mm of each hinge



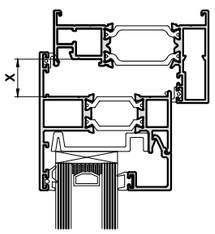


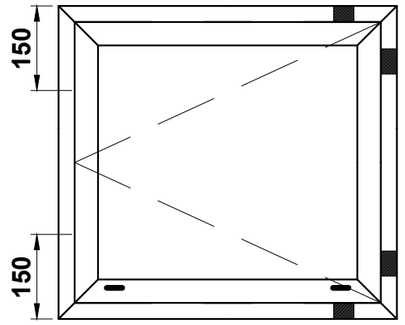


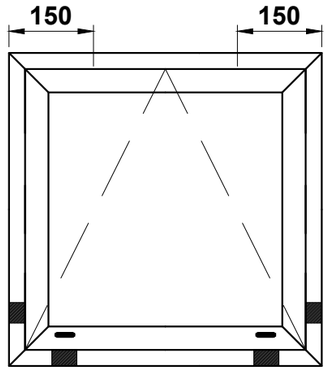




Pull In Block		
Sash	**Pull In Block**	**'X'**
ETC4120	ACET652	17
ETC4124	ACET352	14.5
ETC4129	ACET652	17



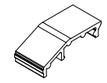




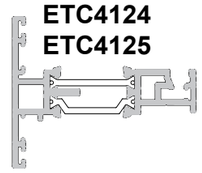
Please Note:

- 2 pairs per opening vent to be fitted to hinged side of window
- Each pair must be fitted with the wedge centre within 150mm of each hinge and in the centre of the window when sash height or width is greater than 800mm.
- When used with ACET516 and security takes priority, intall ACET652 centre within 200mm of hinge.

ACET4180

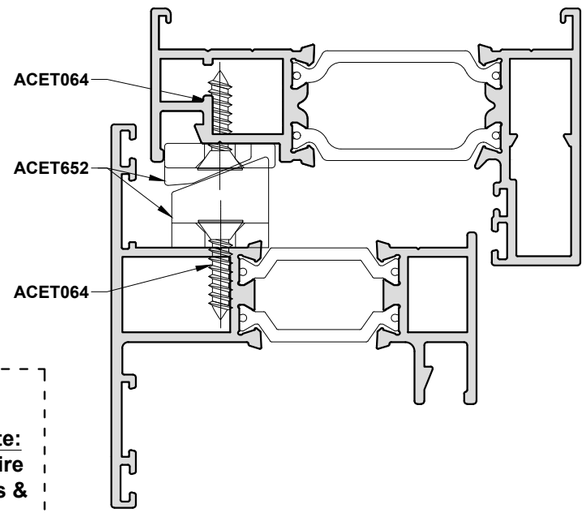


Please note that for fitting each sash, we recommend using 4 x ACET4180, as shown in the images above.



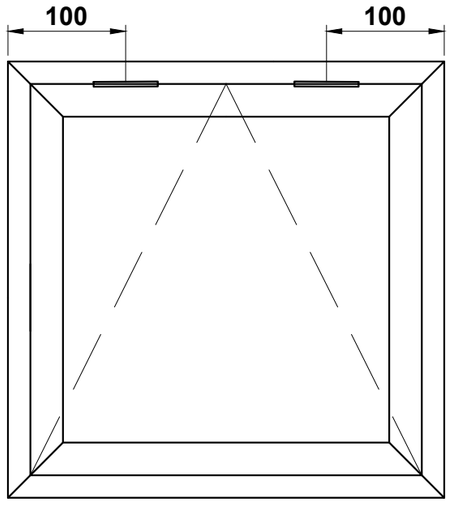
ETC4124
ETC4125

Important Fabrication Note:
ETC4124 & ETC4125 require ACET513 Hinge Protectors & ACET352 Pull-In Blocks.

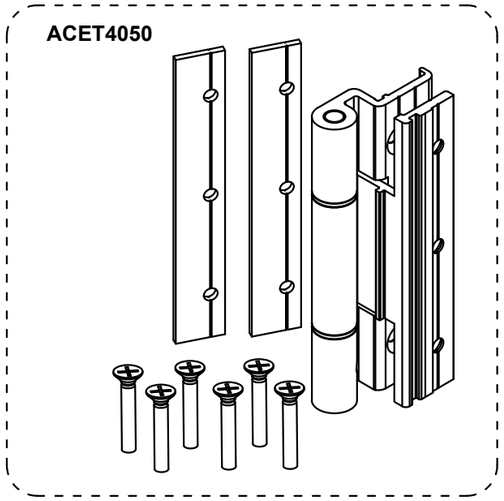


Do Not Scale From This Drawing

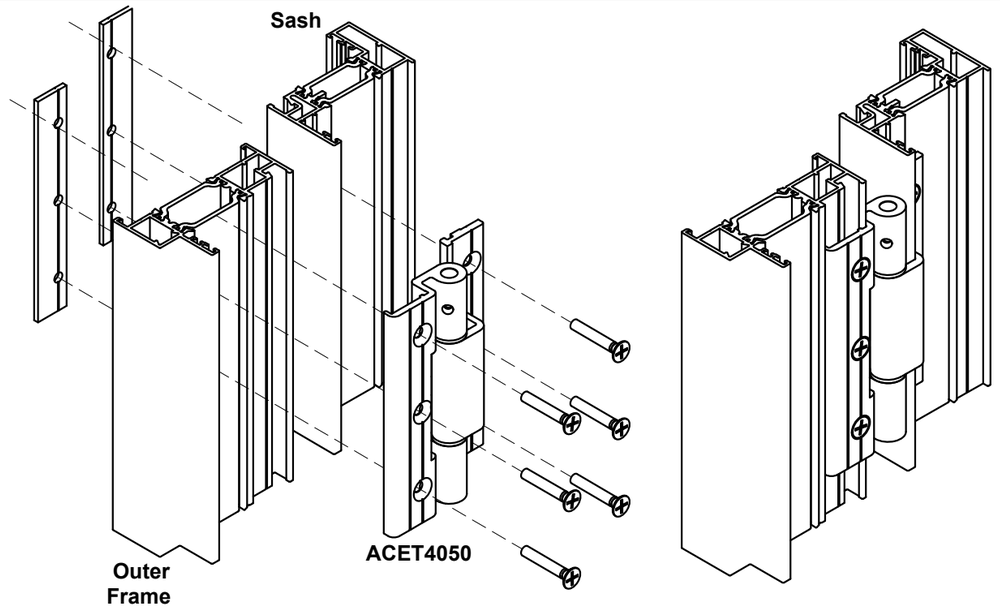
ACET4050 Hinge Details

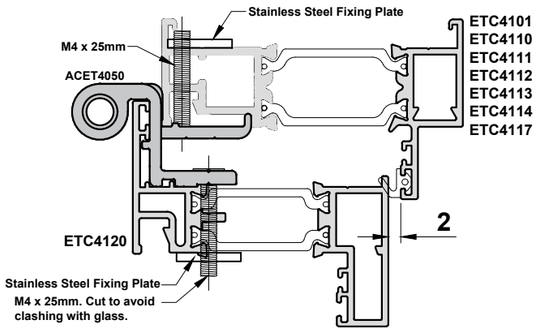


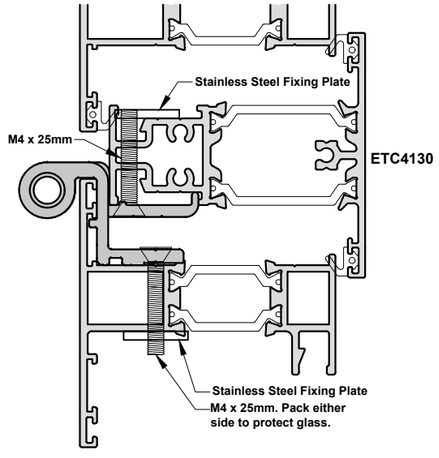
Please note: ACET4050 Butt Hinge is not covered by the Kitemark.

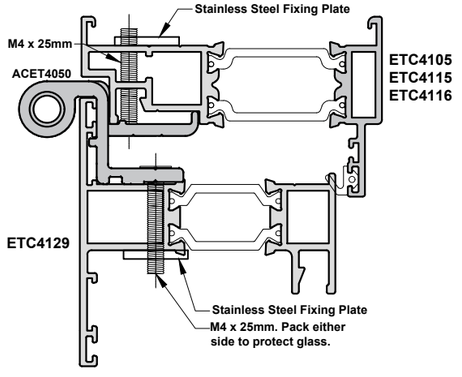


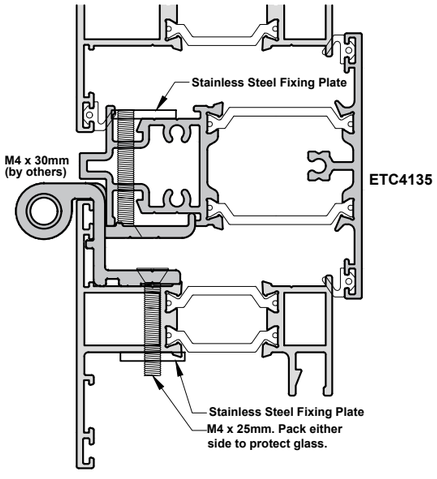
Top Hung Max. 50kg
Side Hung Max. 40kg





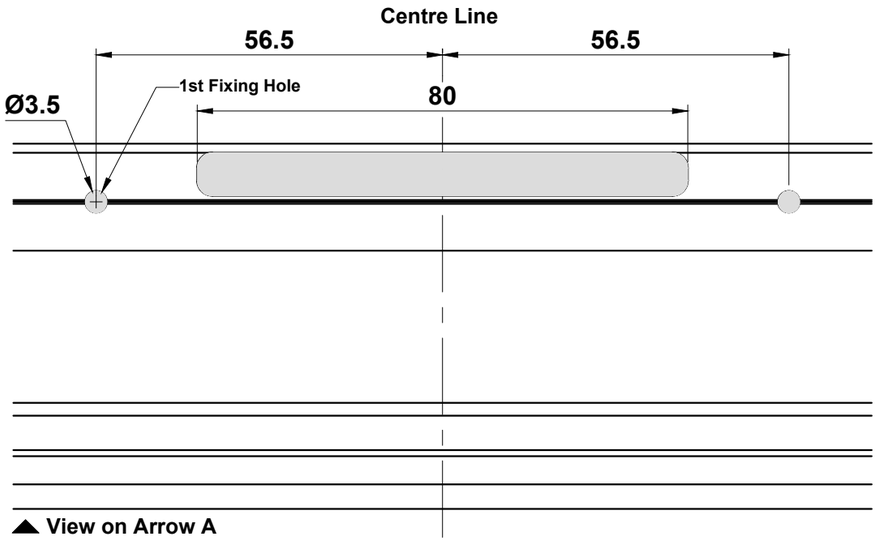


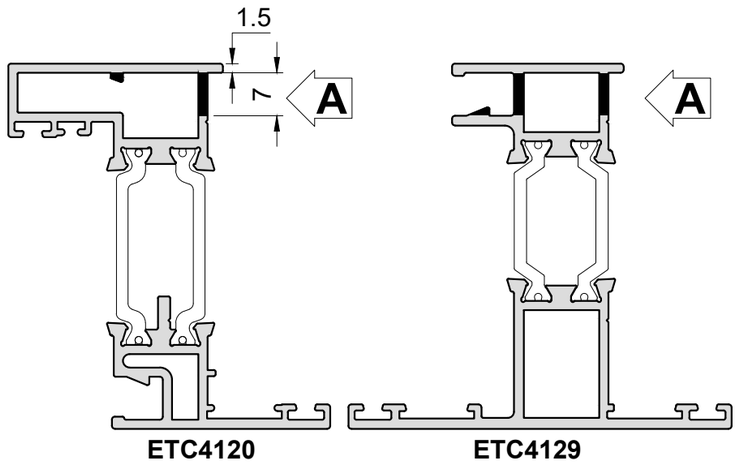


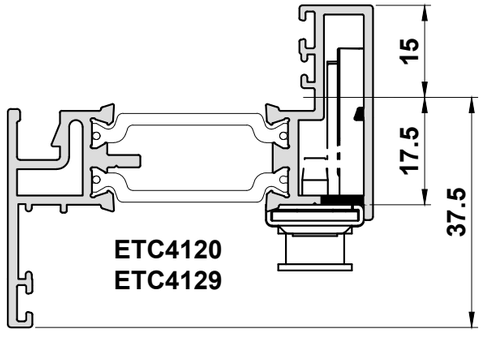


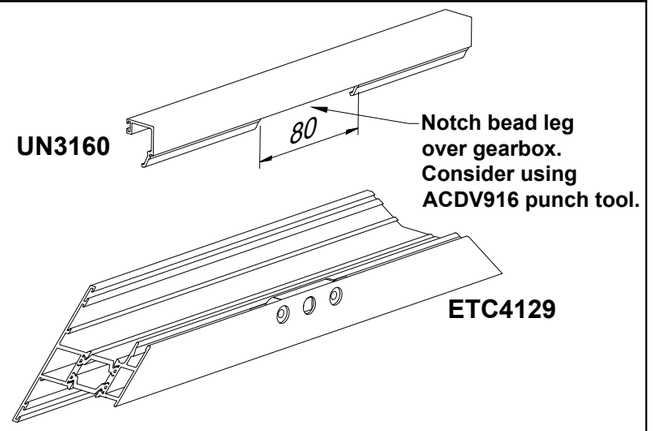
Important note:
ACET4050 Butt Hinge is not compatible with ETC4124 & ETC4125

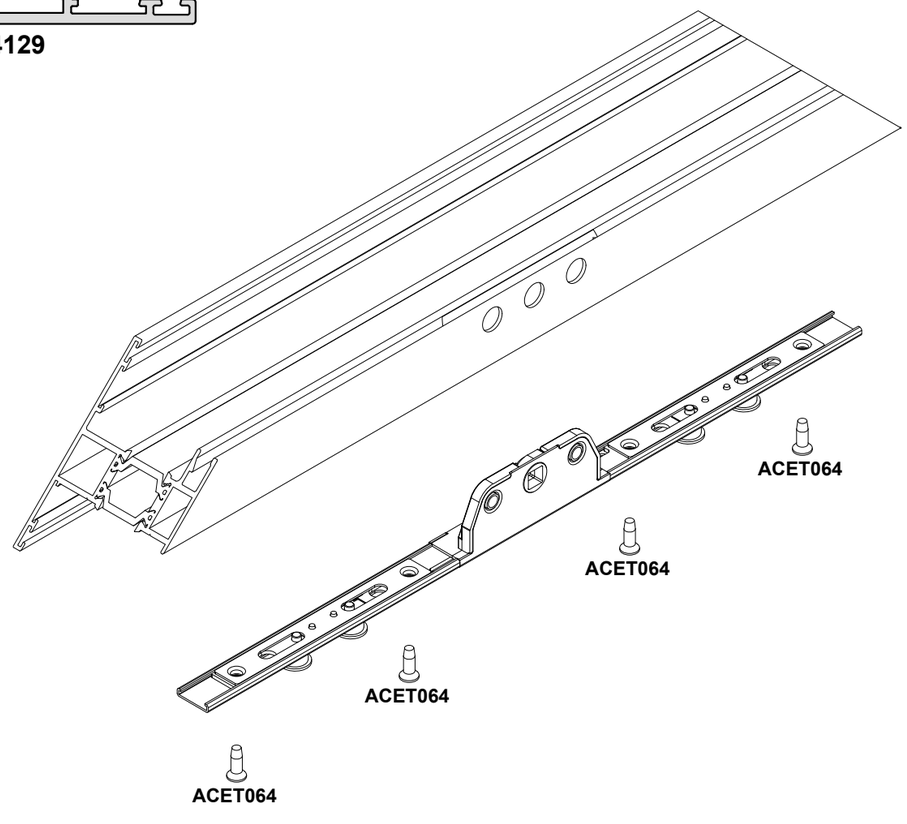
Espag Locking Prep Detail





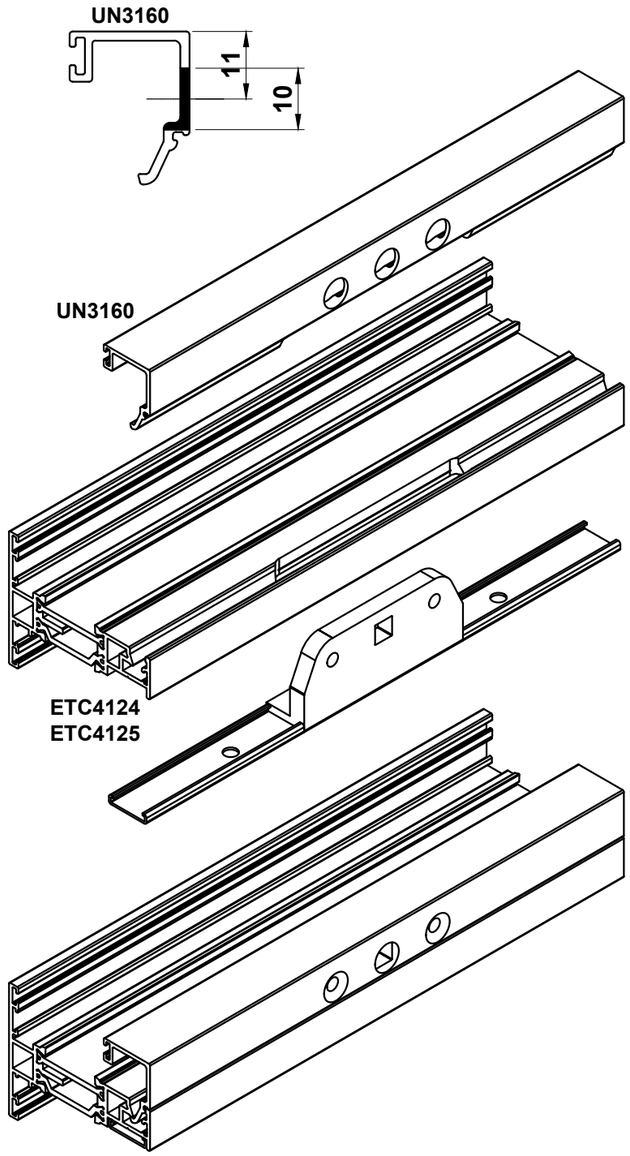


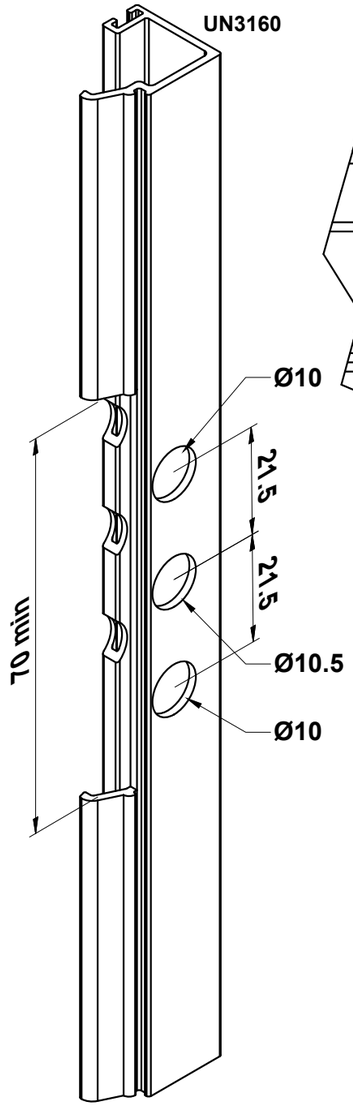




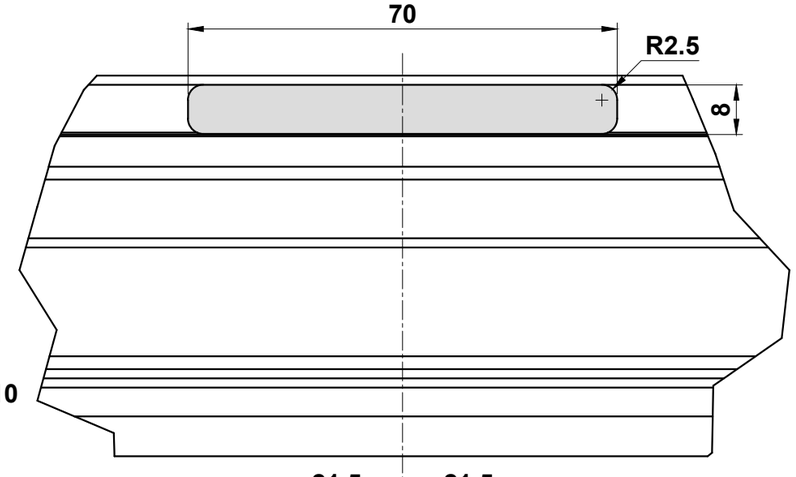
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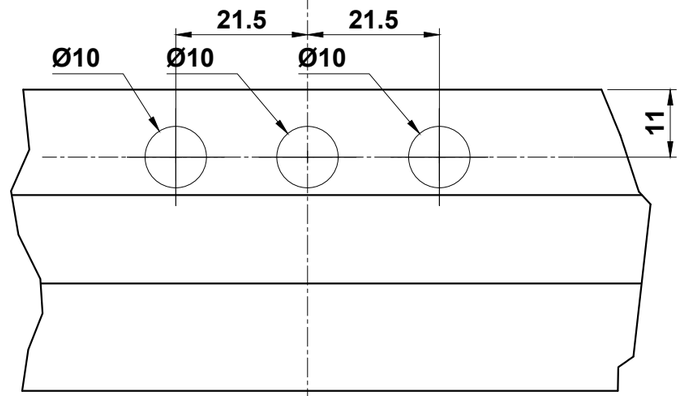
Lock & Handle Machining





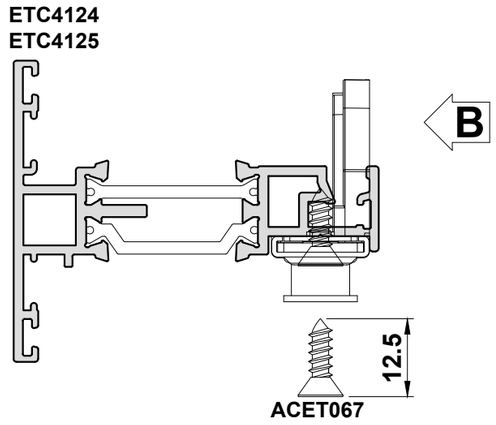
View on Arrow A

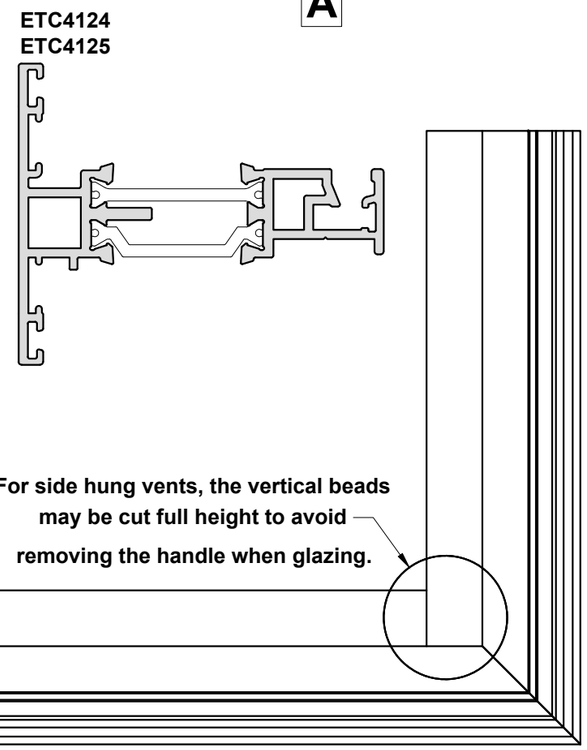




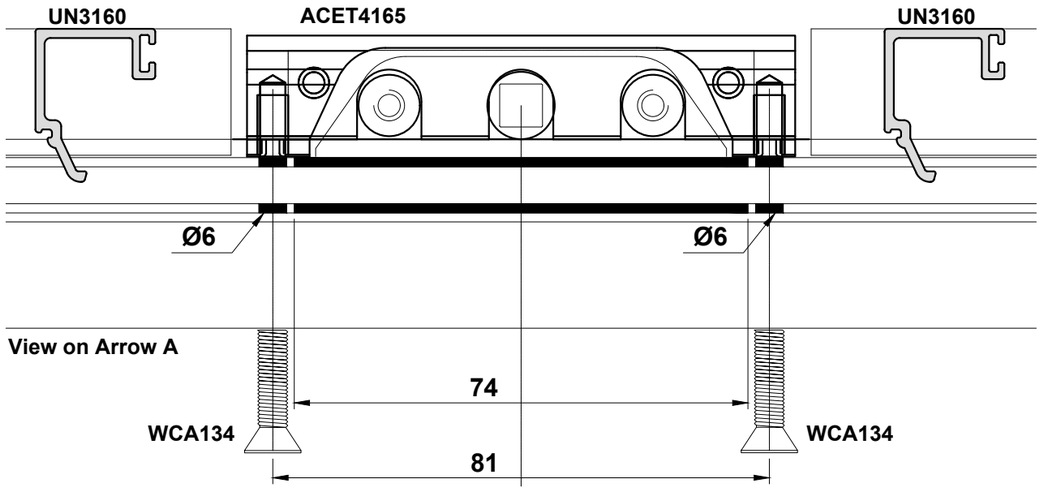
View on Arrow B

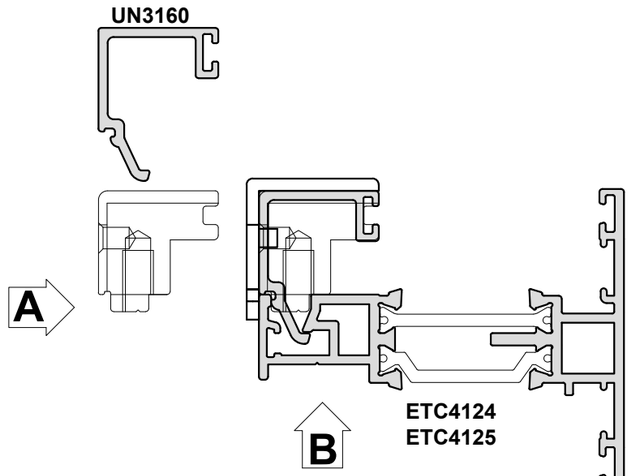
Centre Line

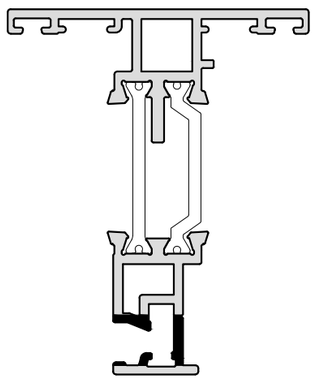




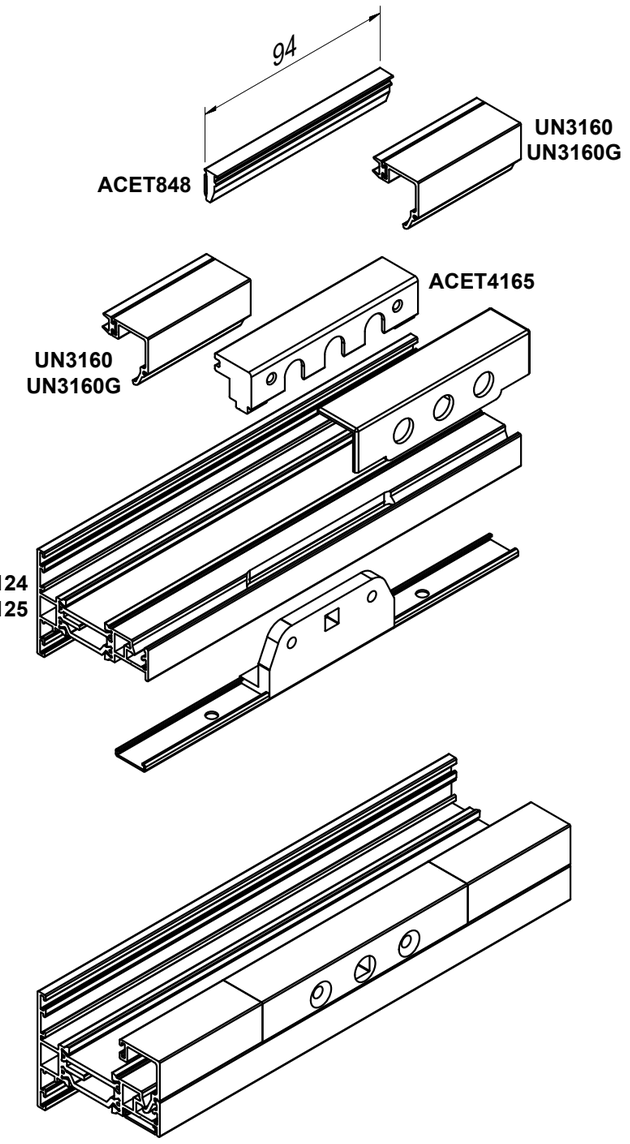
Lock & Handle Machining

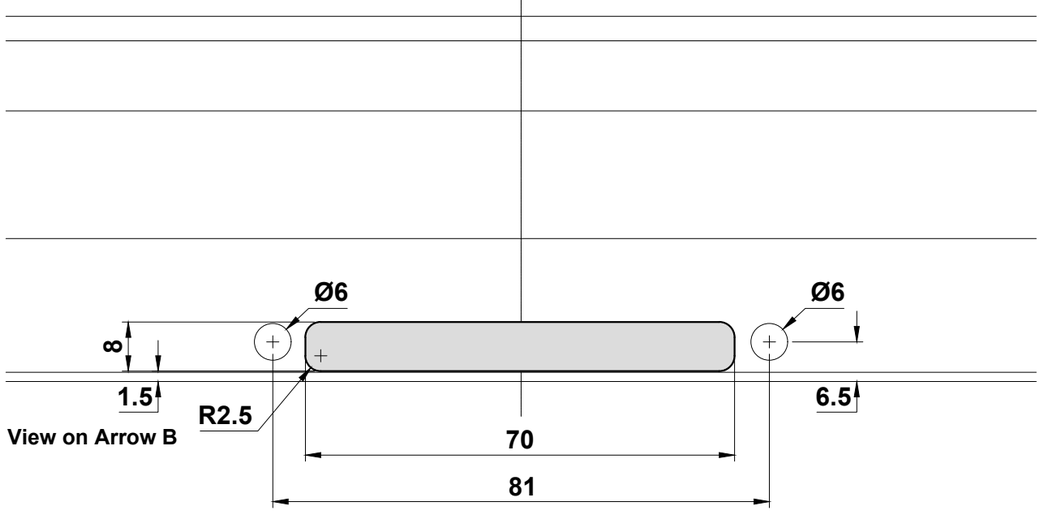






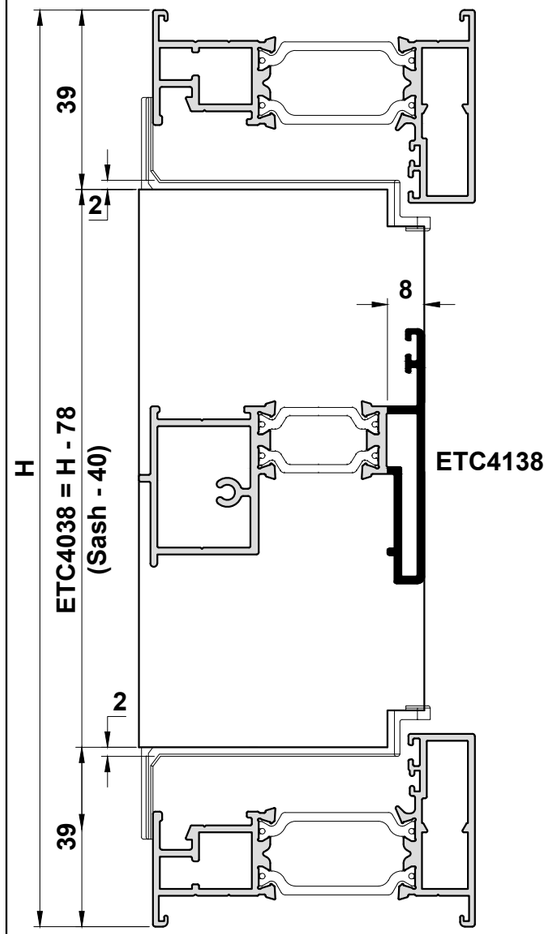
When using UN3160G, use
ACET848 at handle block

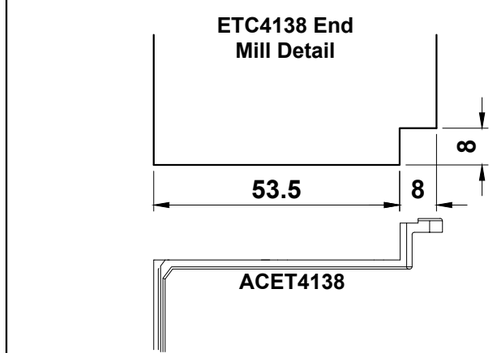


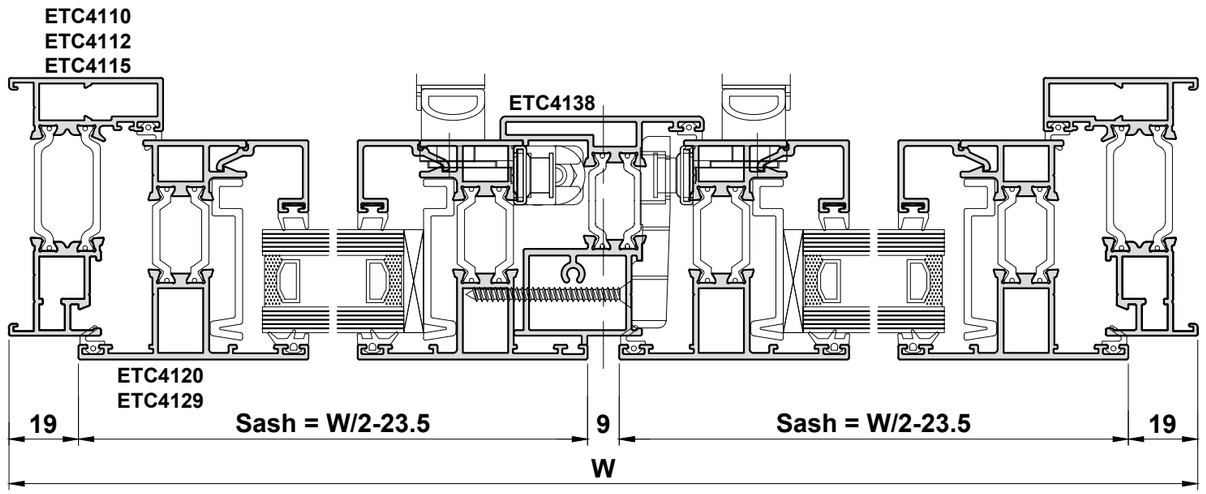


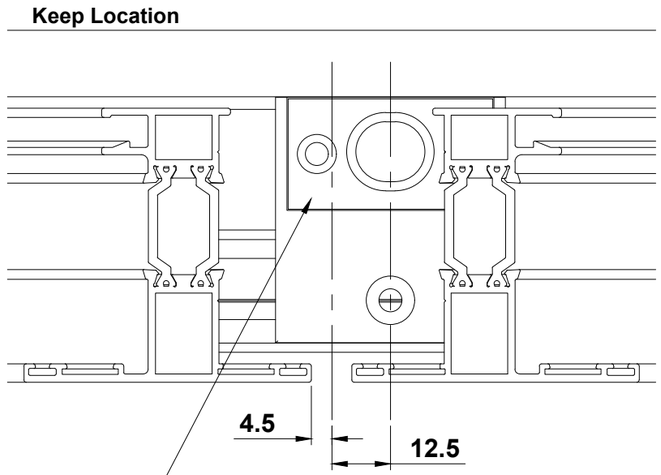
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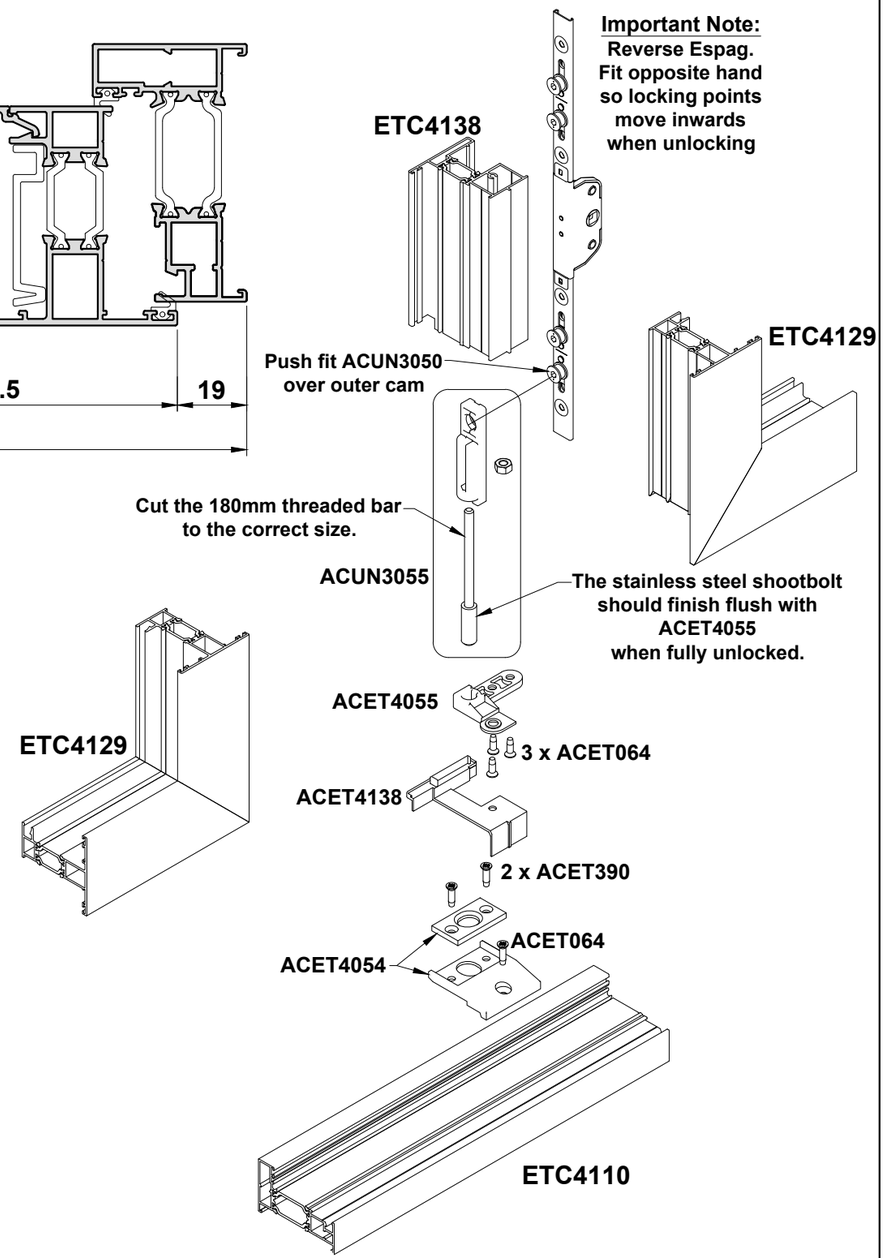
French Casement Assembly





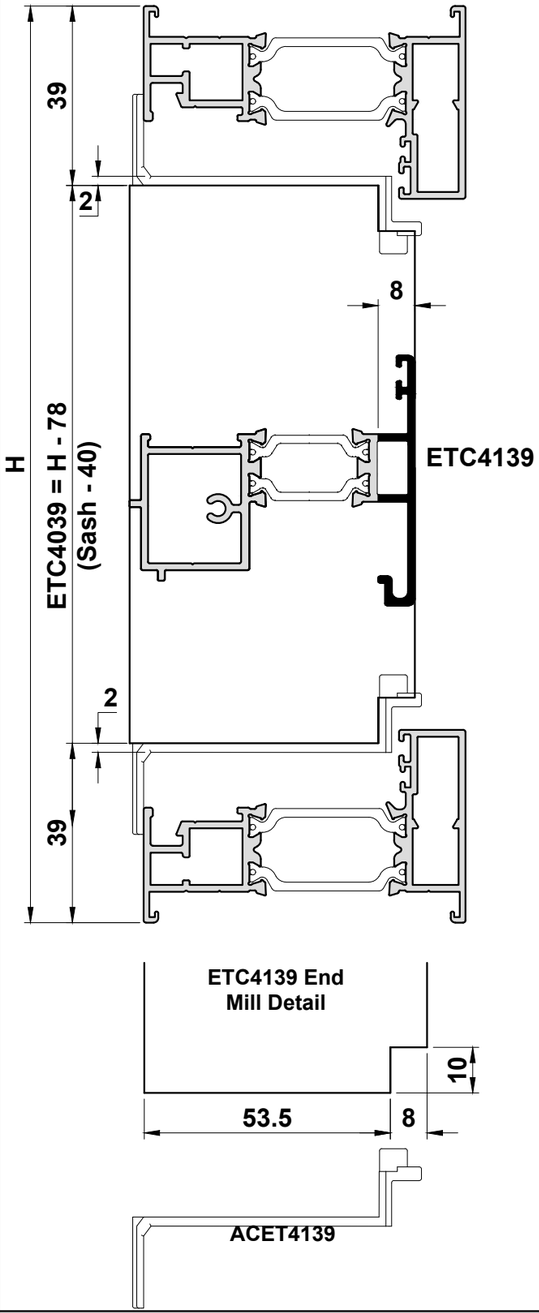


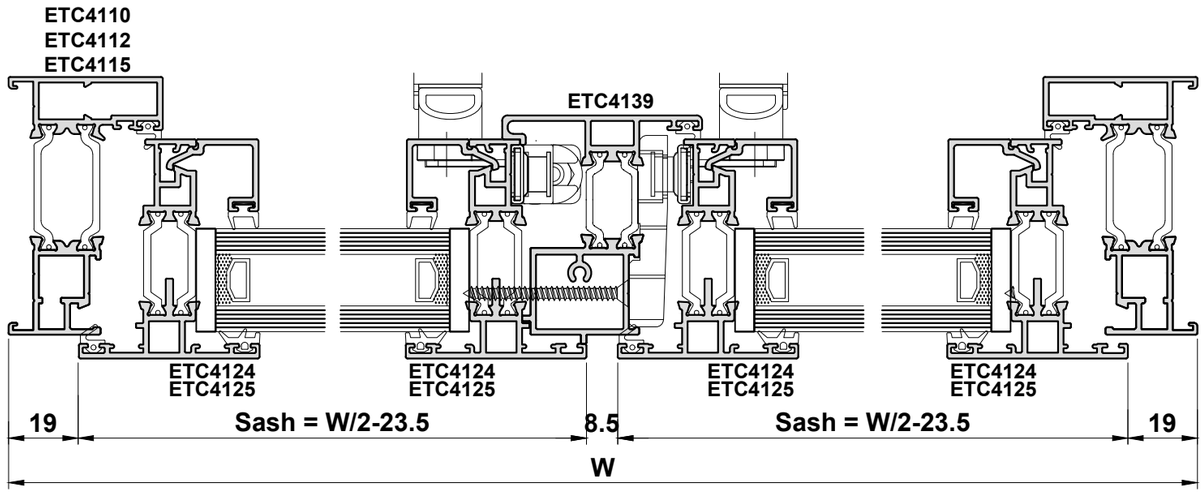


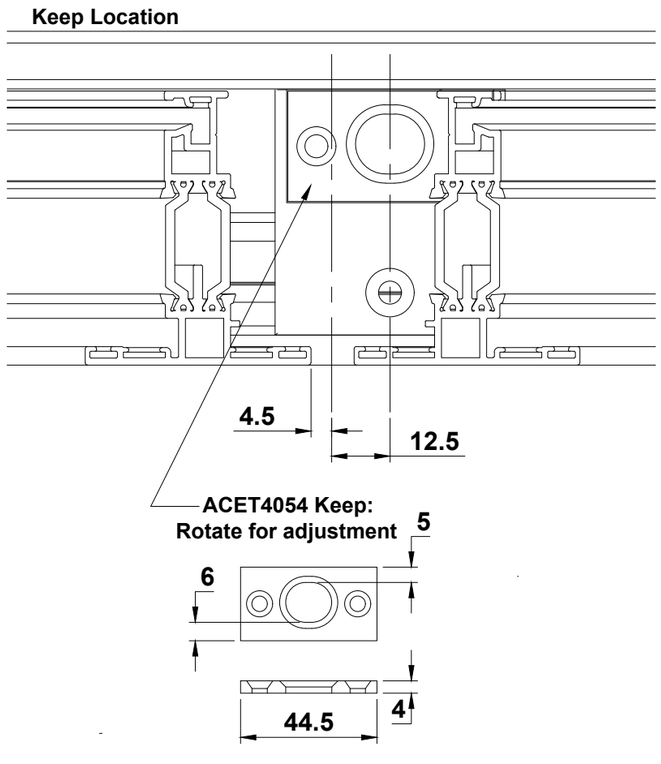


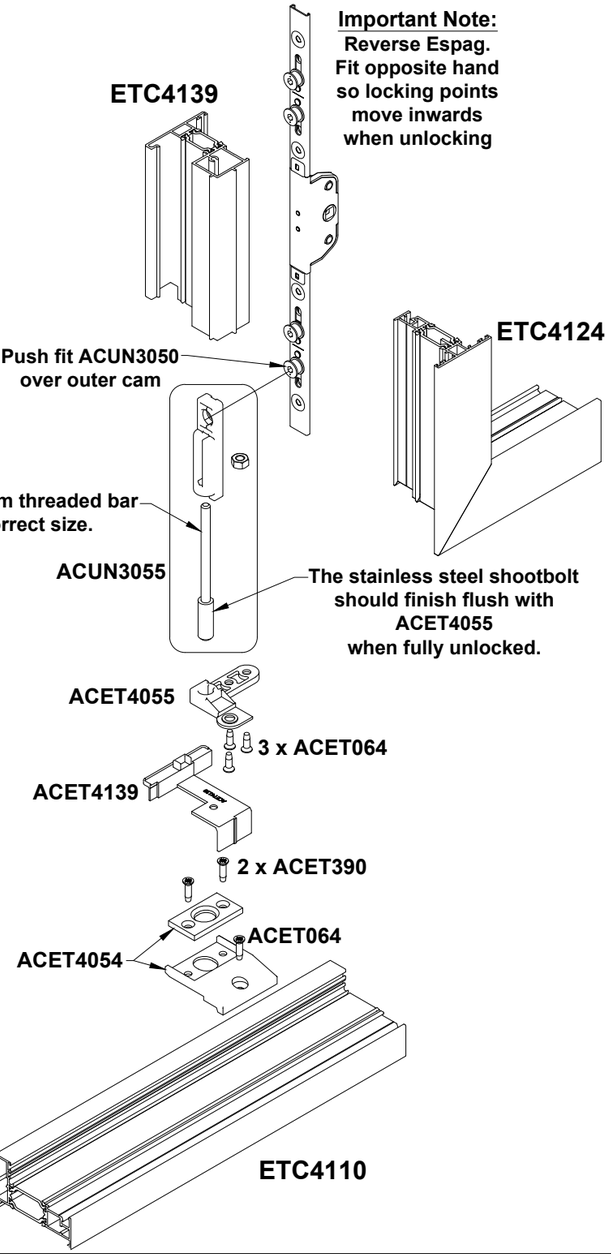
Do Not Scale From This Drawing

French Casement Assembly





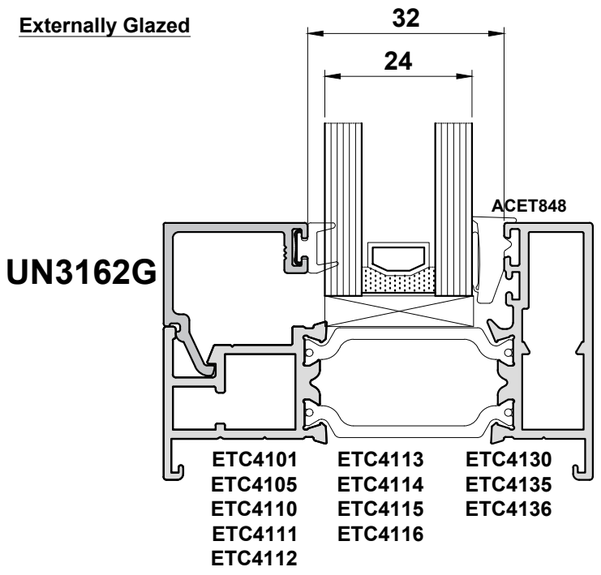


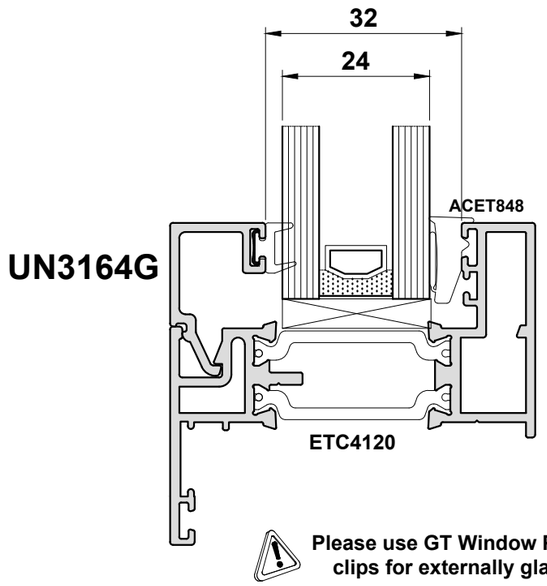


Do Not Scale From This Drawing

Glazing Chart

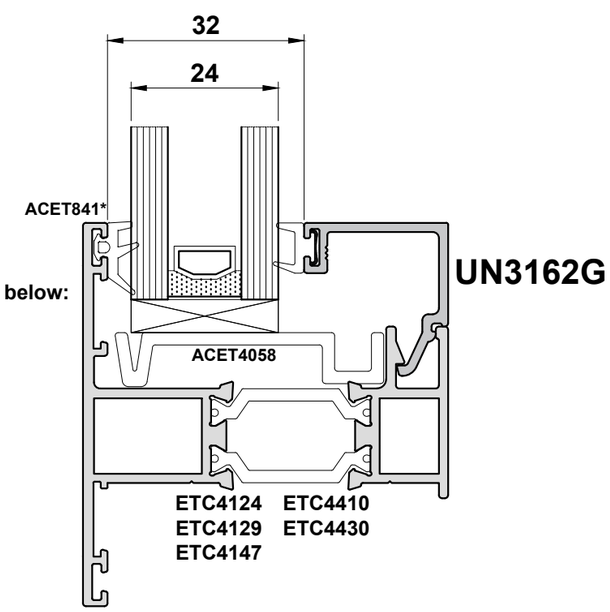
Externally Glazed



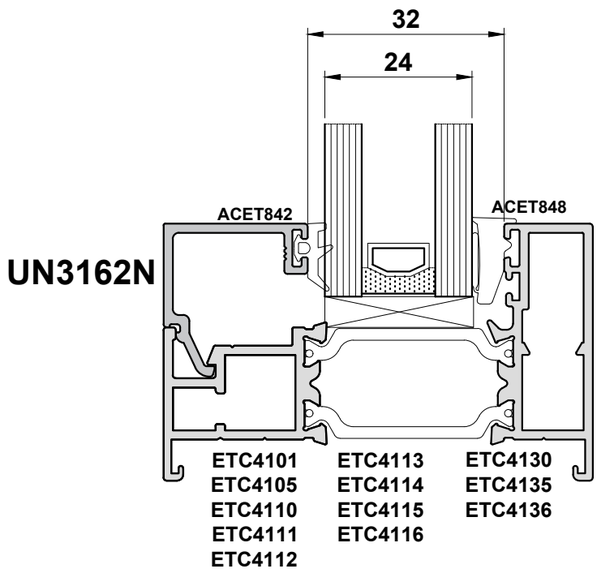


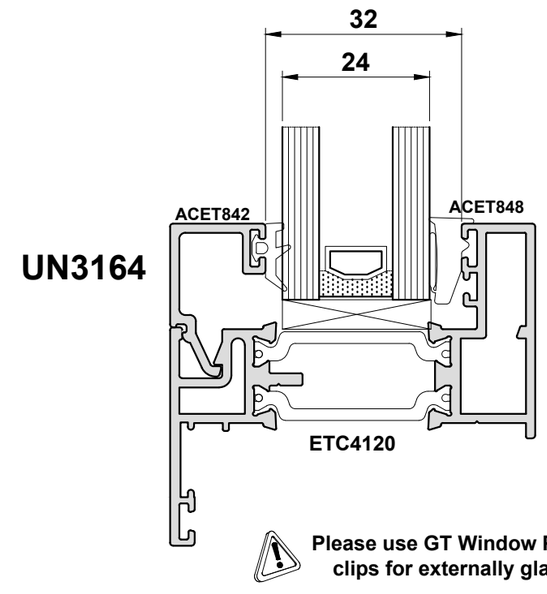
Please use GT Window Products glass clips for externally glazed profiles.

Internally Glazed



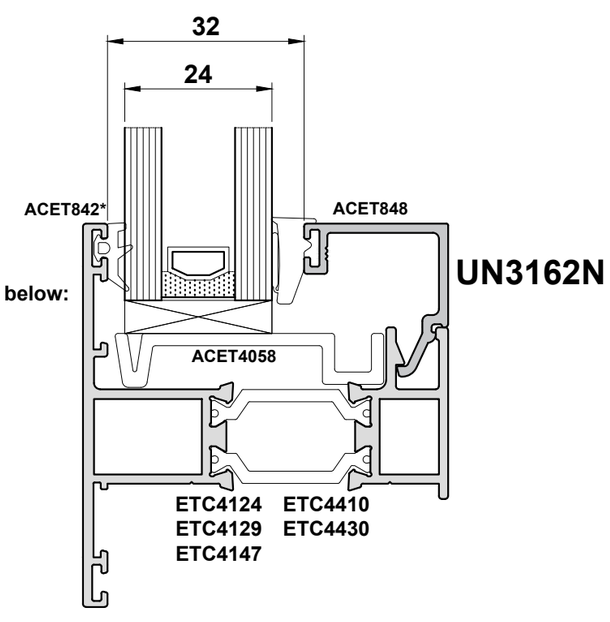
* ACET841 not required for the below:
- ETC4124G
- ETC4129G





Please use GT Window Products glass clips for externally glazed profiles.

Internally Glazed



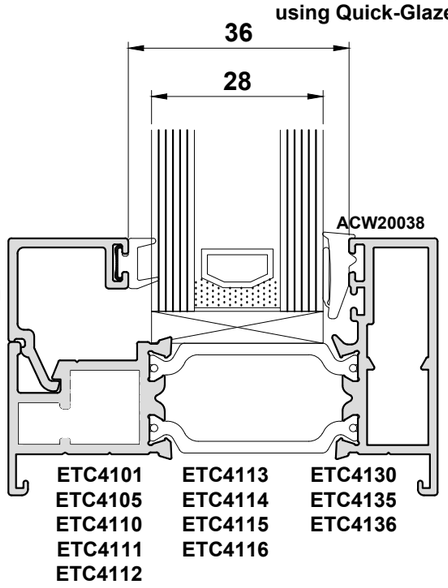
* ACET842 not required for the below:
- ETC4124G
- ETC4129G

Glazing Chart

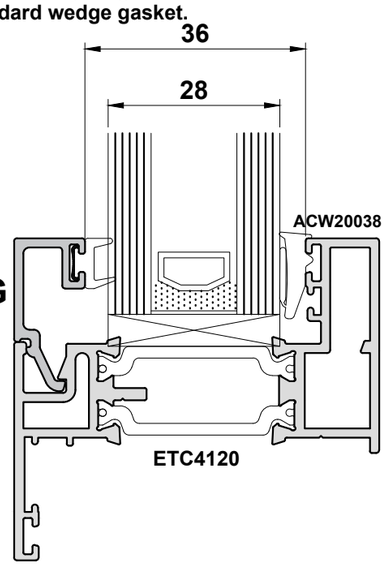
Externally Glazed

Externally glazed Alitherm 400 sections may be glazed using Quick-Glaze beads with a standard wedge gasket.

UN3160G



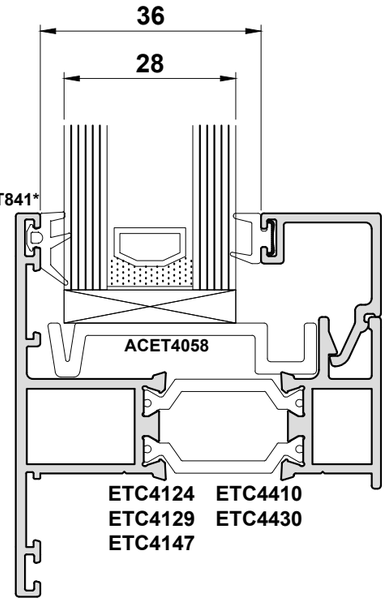
ETC4179G



Please use GT Window Products glass clips for externally glazed profiles.

Internally Glazed

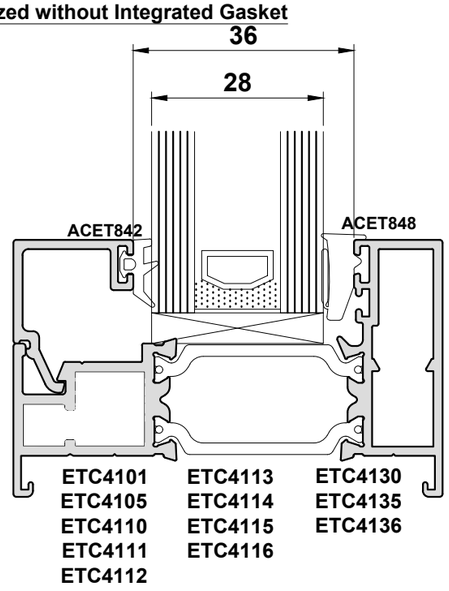
*** ACET841 not required for the below:**
- **ETC4124G**
- **ETC4129G**



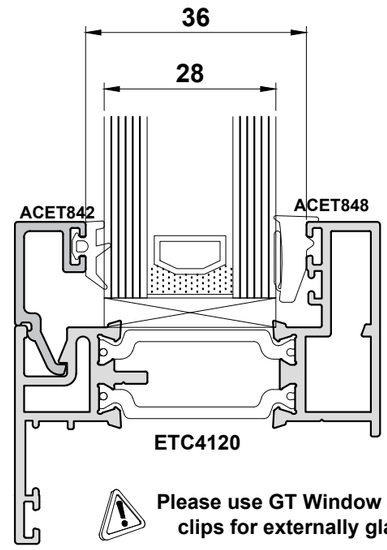
UN3160G

Externally Glazed without Integrated Gasket

UN3160



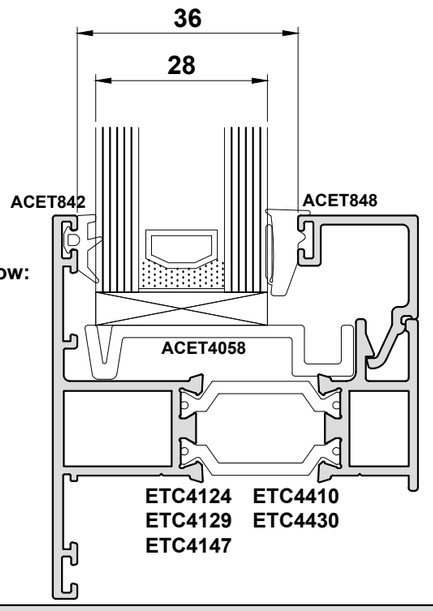
ETC4179



Please use GT Window Products glass clips for externally glazed profiles.

Internally Glazed

*** ACET842 not required for the below:**
- **ETC4124G**
- **ETC4129G**

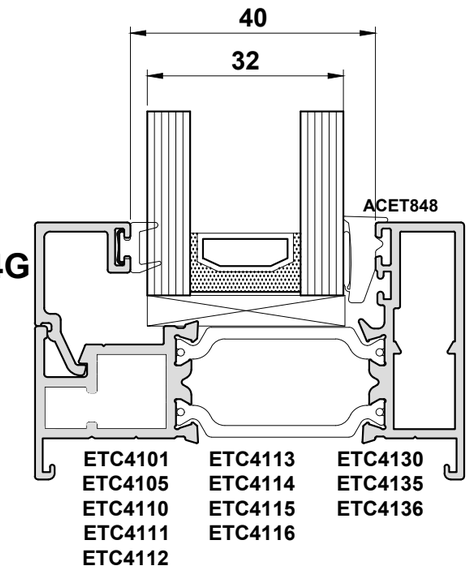


UN3160

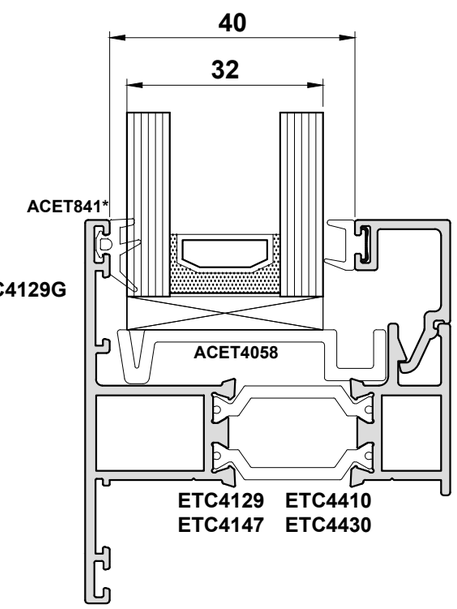
Do Not Scale From This Drawing

Quick-Glaze Bead Glass Adjuster

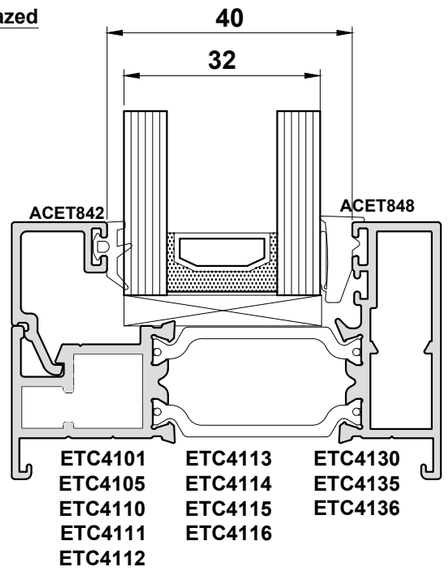
Externally Glazed

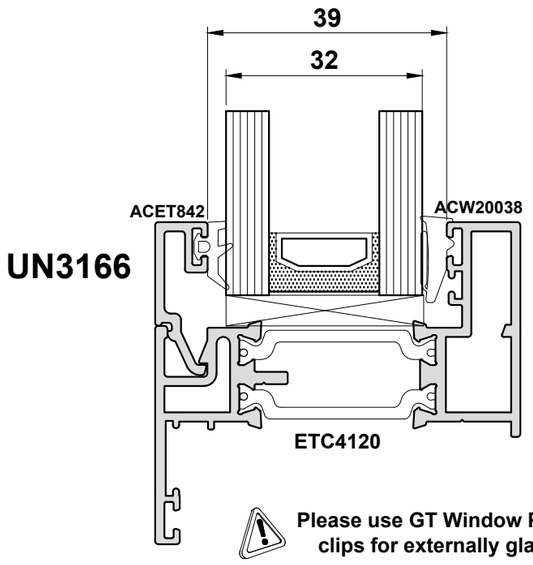


Internally Glazed



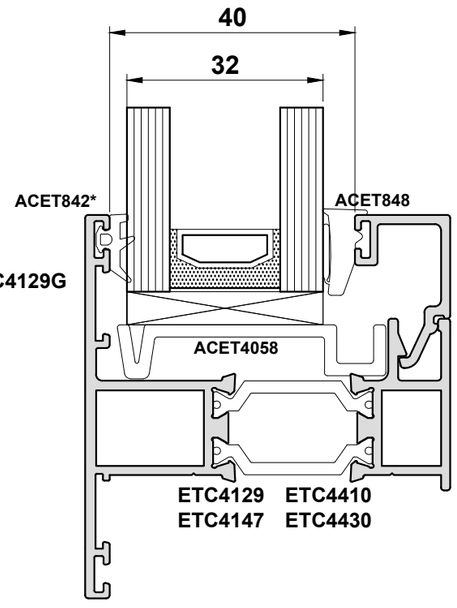
Externally Glazed





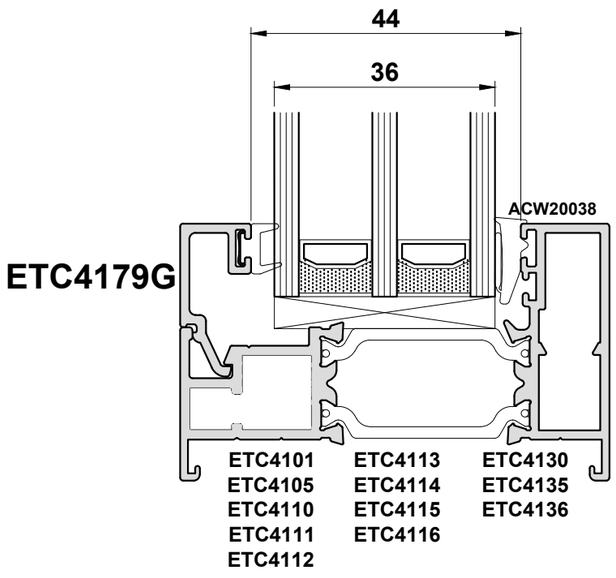
Please use GT Window Products glass clips for externally glazed profiles.

Internally Glazed



Externally Glazed

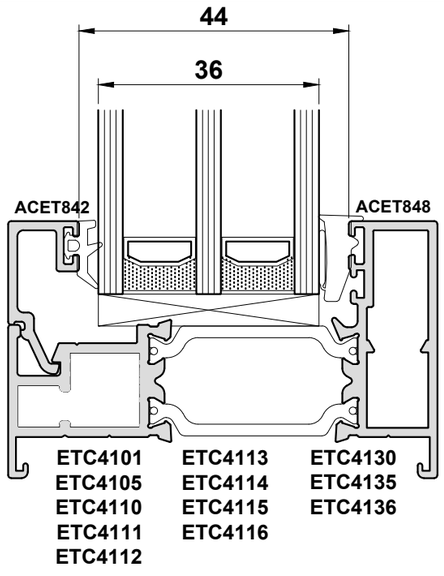
Externally glazed Alitherm 400 sections may be glazed using Quick-Glaze beads with a standard wedge gasket.



ETC4101 ETC4113 ETC4130
ETC4105 ETC4114 ETC4135
ETC4110 ETC4115 ETC4136
ETC4111 ETC4116
ETC4112

Please use GT Window Products glass clips for externally glazed profiles.

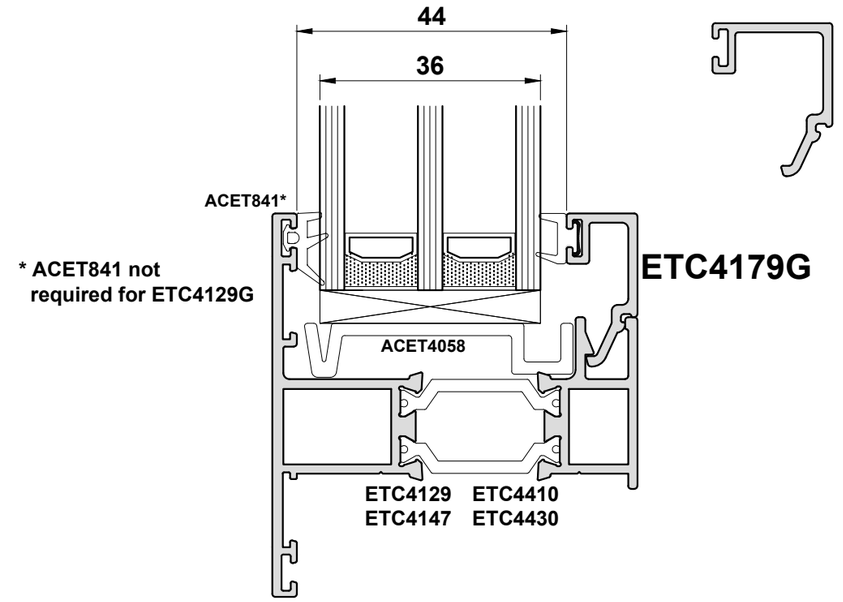
Externally Glazed without Integrated Gasket



ETC4101 ETC4113 ETC4130
ETC4105 ETC4114 ETC4135
ETC4110 ETC4115 ETC4136
ETC4111 ETC4116
ETC4112

Please use GT Window Products glass clips for externally glazed profiles.

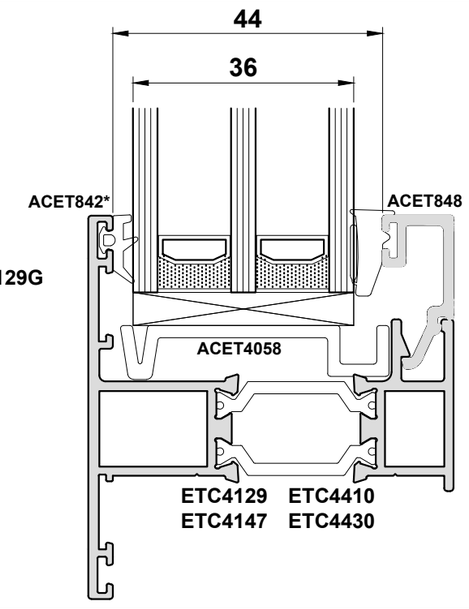
Internally Glazed



*** ACET841 not required for ETC4129G**

ETC4129 ETC4410
ETC4147 ETC4430

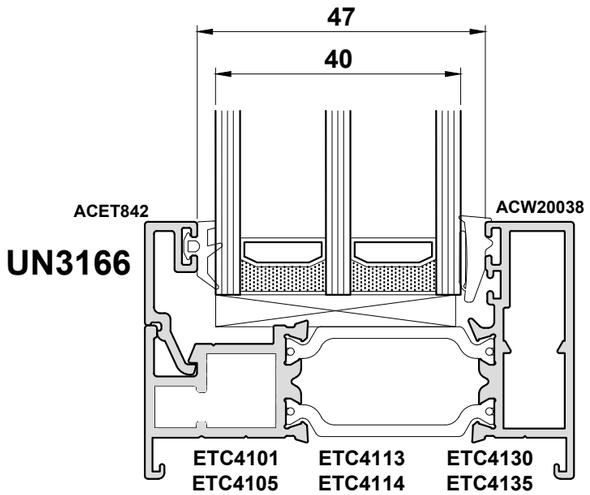
Internally Glazed



*** ACET842 not required for ETC4129G**

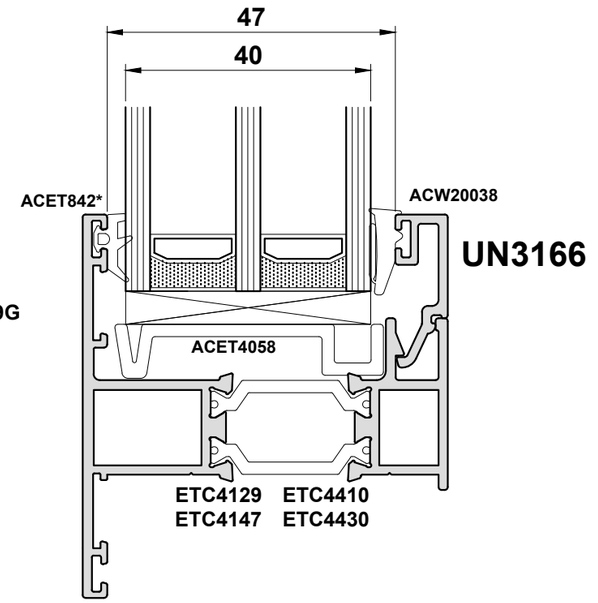
ETC4129 ETC4410
ETC4147 ETC4430

Externally Glazed without Integrated Gasket



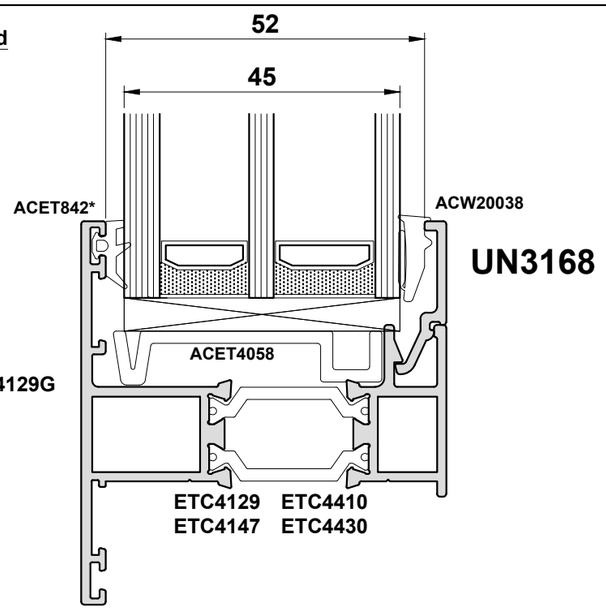
Please use GT Window Products glass clips for externally glazed profiles.

Internally Glazed



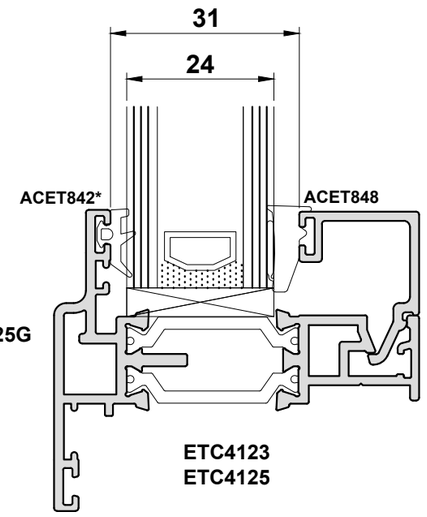
*** ACET842 not required ETC4129G**

Internally Glazed



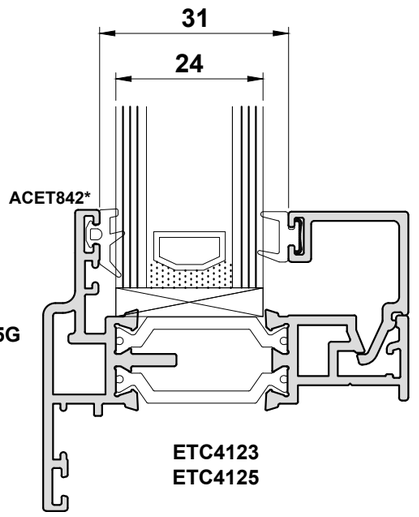
*** ACET842 not required for ETC4129G**

Internally Glazed



UN3160

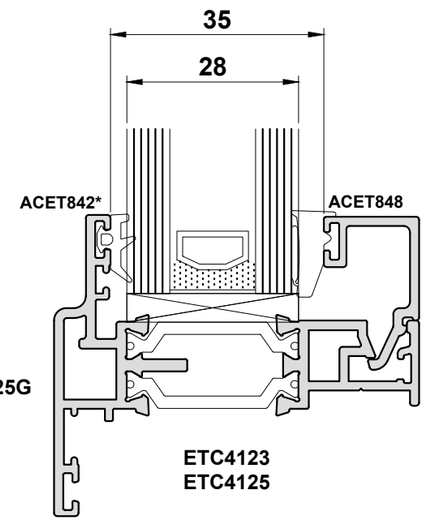
* ACET842 not required for ETC4125G



UN3160G

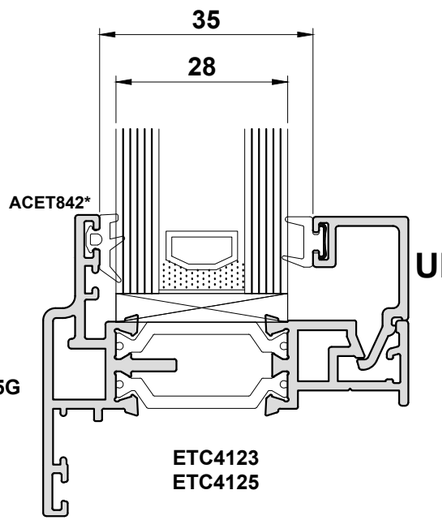
* ACET842 not required for ETC4125G

Internally Glazed



UN3164

* ACET842 not required for ETC4125G



UN3164G

* ACET842 not required for ETC4125G

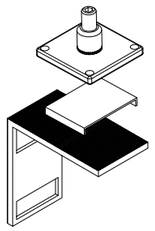
Important Note:
The handle must be fitted through UN3164 bead - see page E22

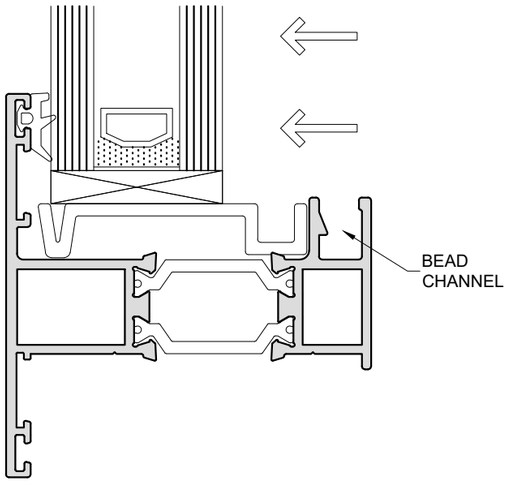
Quick-Glaze Bead Installation

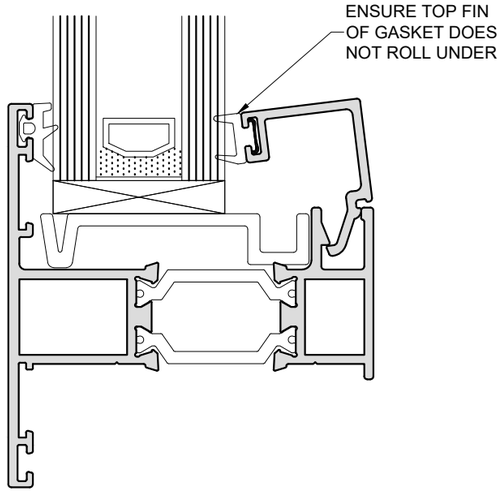
QUICK-GLAZE BEAD INSTALLATION

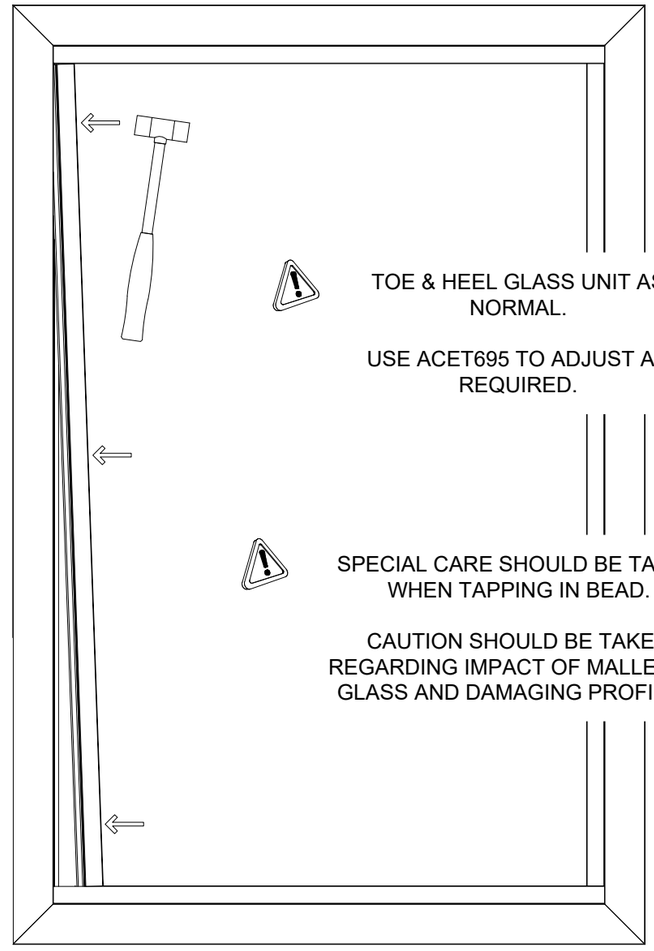
1. INSTALL GLASS UNIT, ENSURING IT HAS BEEN PUSHED FORWARD TO ENGAGE COMPRESSION OF E GASKET.
2. BEGINNING WITH HORIZONTAL BEADS, LOCATE BEAD IN CLIP CHANNEL OF SASH AS SHOWN. INTEGRATED GASKET MAY REST AGAINST GLASS UNIT.
3. APPLY FIRM PRESSURE TO THE BEAD TO HOLD IN POSITION. THIS MAY CAUSE THE BEAD TO FULLY LOCK INTO POSITION.
4. USING A NYLON MALLET, TAP BEAD INTO CHANNEL WORKING FROM ONE END TO THE OTHER. PLEASE TAKE CARE AT THIS STAGE TO AVOID DAMAGE TO BOTH THE GLAZING UNIT AND THE BEAD.
5. REPEAT STEPS 2 - 4 TO INSTALL VERTICAL BEADS.

WE STRONGLY RECOMMEND INSTALLING ACET695 GLASS ADJUSTERS WHEN USING QUICK-GLAZE BEADS. THIS WILL REMOVE THE NEED TO REMOVE BEADS IN ORDER TO ADJUST GLASS POSITION.









Quick-Glaze Bead Removal

KEEP INTEGRATED GASKET

QUICK-GLAZE BEAD REMOVAL

1. STARTING ON VERTICAL BEADS, APPLY PRESSURE TO BEAD IN DIRECTION SHOWN IN ORDER TO CREATE SMALL GAP BETWEEN SASH AND BEAD.
2. GENTLY INSERT DE-GLAZING TOOL TAKING PARTICULAR CARE AS NOT TO DAMAGE PAINT FINISH.
3. SLOWLY PRISE THE BEAD UP AND AWAY FROM THE SASH.
4. THE BEAD SHOULD NOW BE EASILY REMOVABLE FROM QUICK-GLAZE BEAD CHANNEL IN SASH

BEAD AND INTEGRATED GASKET CAN BE REUSED.

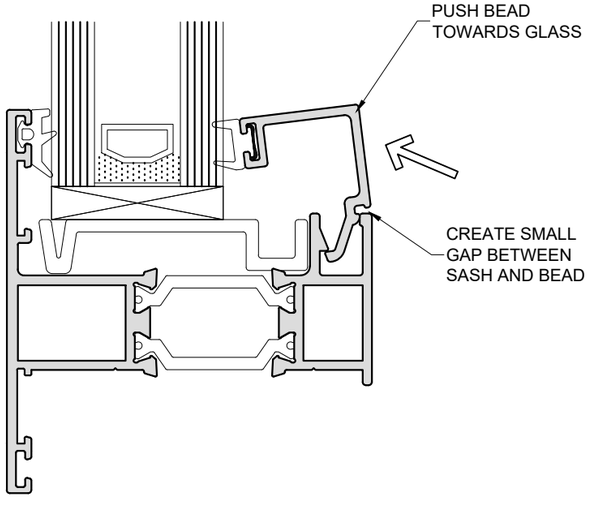
OR

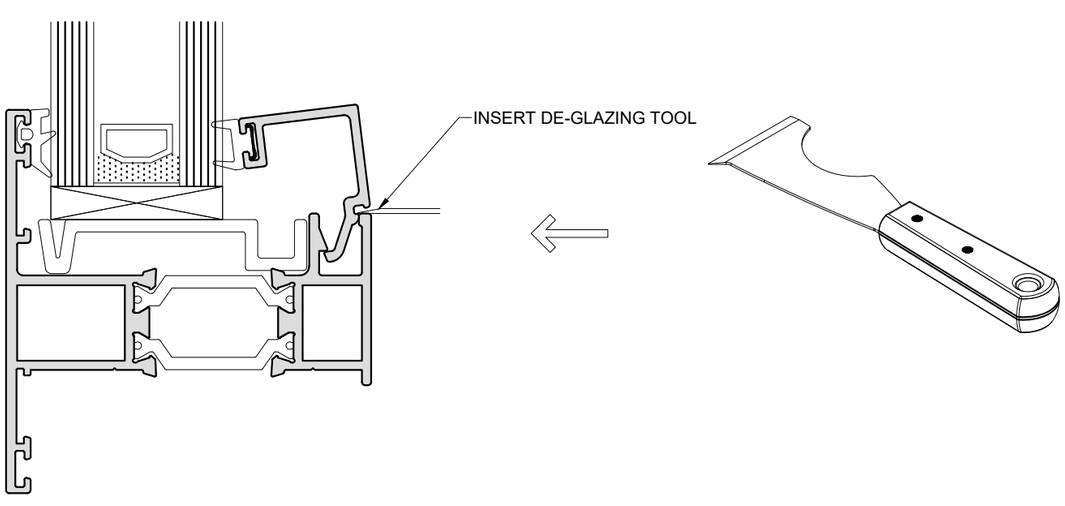
REPLACE INTEGRATED GASKET

QUICK-GLAZE BEAD REMOVAL

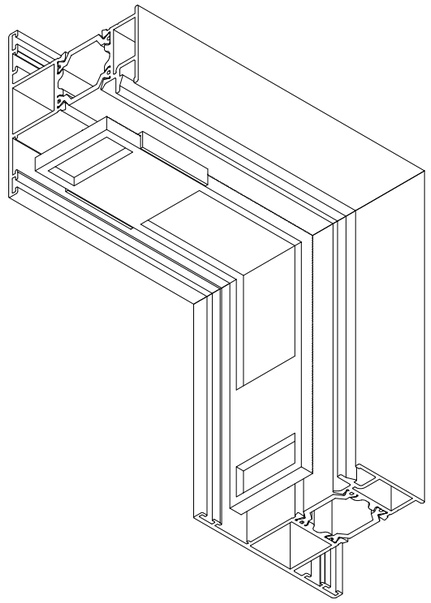
1. USING SMALL FLAT HEADED SCREWDRIVER OR SIMILAR, WEDGE TIP BETWEEN CO EXTRUDED GASKET AND ALUMINIUM.
2. IN A LEVERING MOTION, PRISE THE GASKET AWAY FROM THE ALUMINIUM. PARTICULAR CARE SHOULD BE TAKEN NOT TO DAMAGE THE GLASS UNIT AND ALUMINIUM.
3. COMPLETE THIS AT SEVERAL LOCATIONS ALONG THE LENGTH OF THE BEAD.
4. REMOVE GASKET AND DISCARD. THIS GASKET CAN NO LONGER BE USED.
5. THE BEAD SHOULD NOW BE EASILY REMOVABLE FROM TAP IN BEAD CHANNEL IN SASH

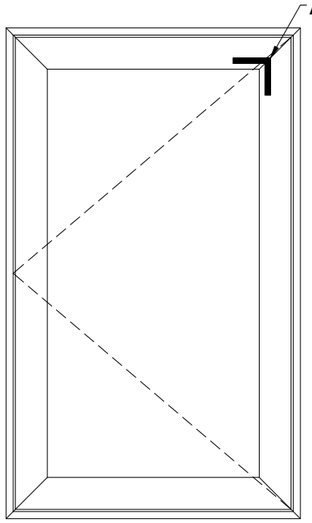
PLEASE SEE GLAZING CHART FOR REPLACEMENT GASKET CODES.

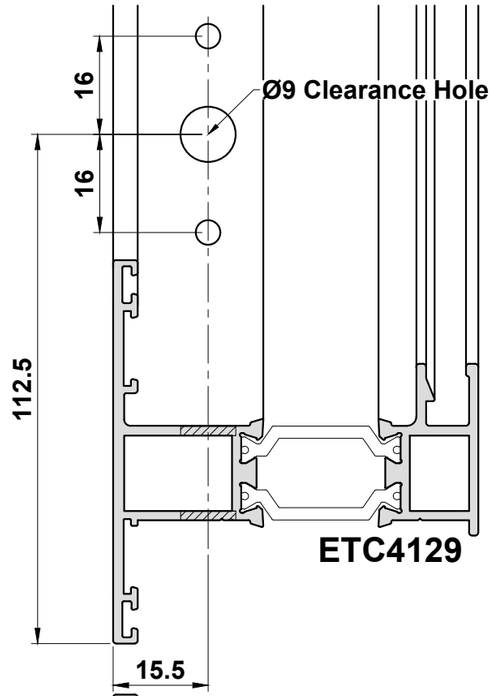


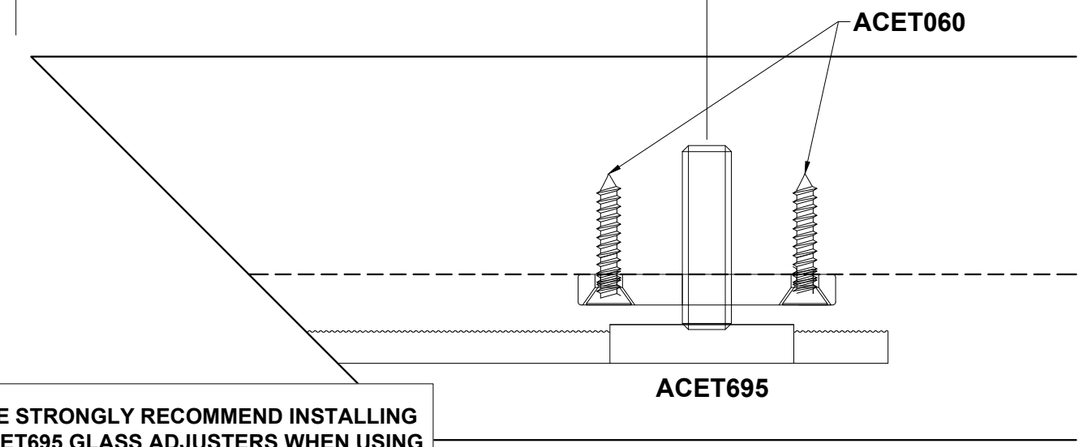


Quick-Glaze Bead Glass Adjuster

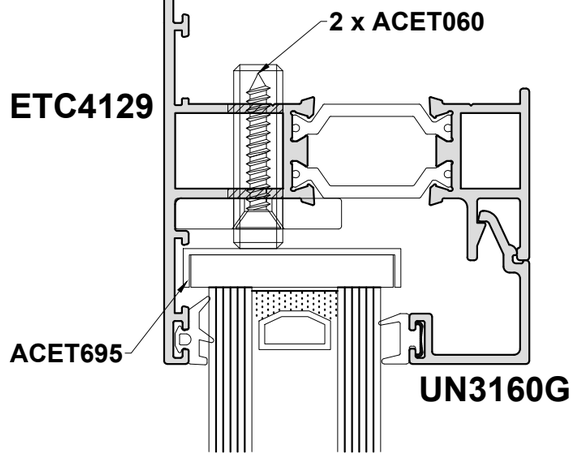




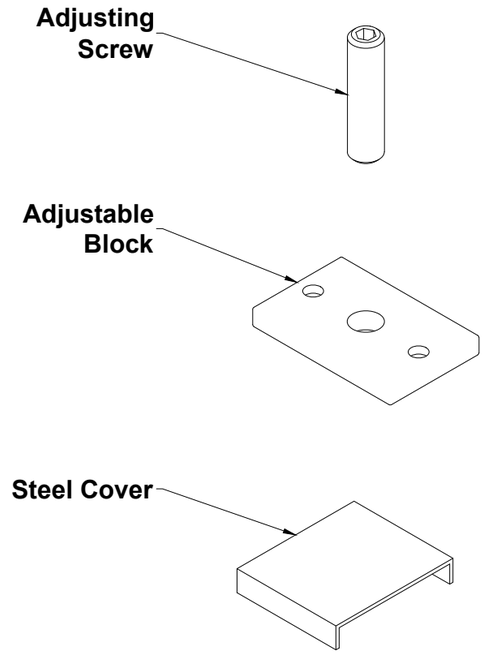


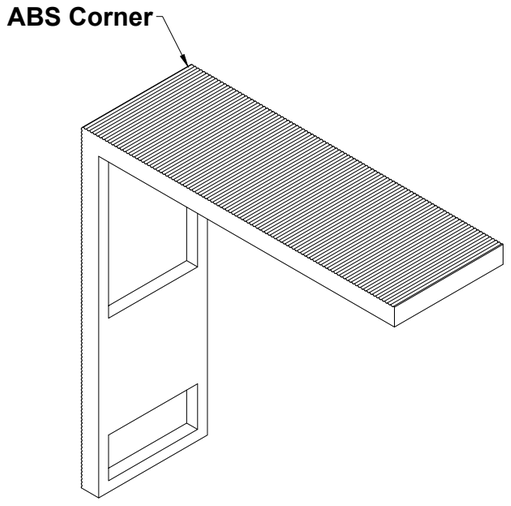


WE STRONGLY RECOMMEND INSTALLING ACET695 GLASS ADJUSTERS WHEN USING QUICK-GLAZE BEADS. THIS WILL REMOVE THE NEED TO REMOVE BEADS IN ORDER TO ADJUST GLASS POSITION.



ACET695 Kit Includes:

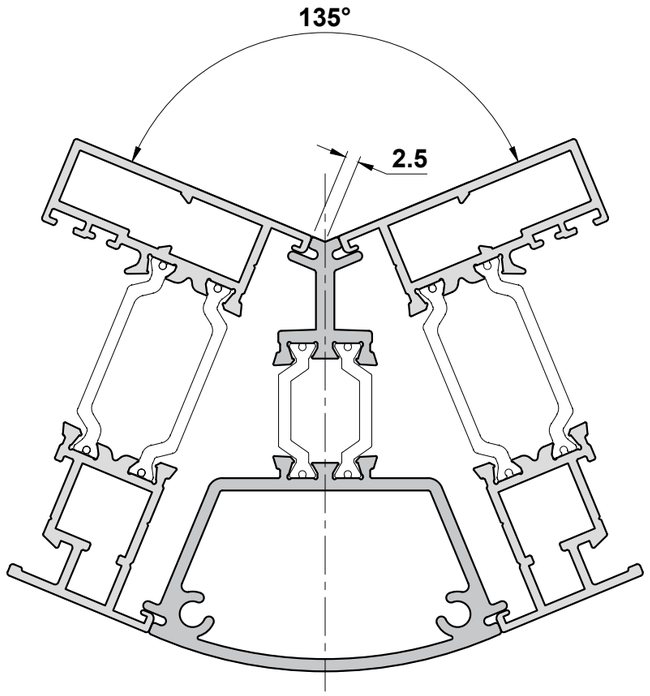




Fixed Bay Pole Angle / Deduction

Sections

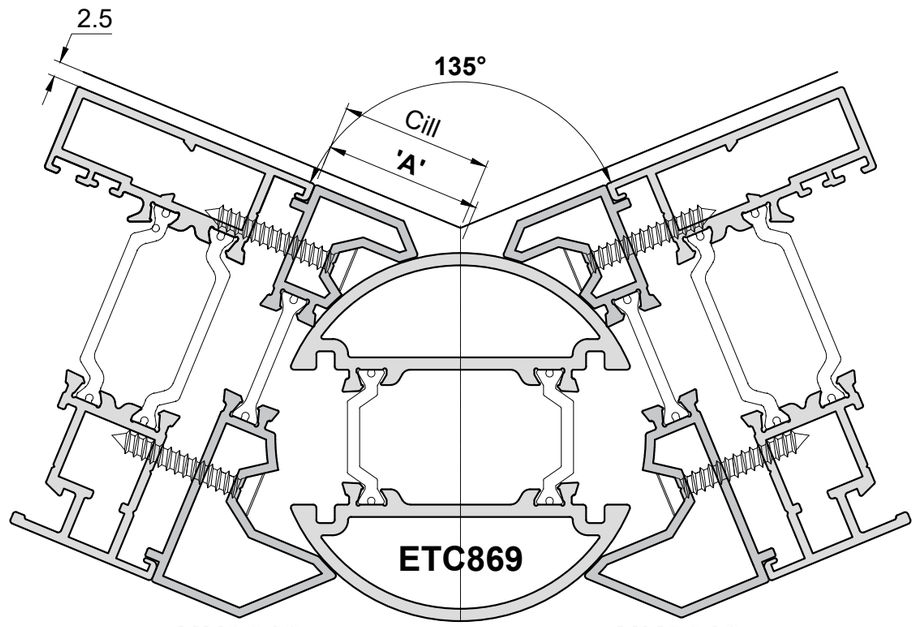
ETC4110
ETC4111
ETC4112
ETC4115



UN3011

Sections

ETC4110
ETC4111
ETC4112
ETC4115



UN3012 **UN3012**

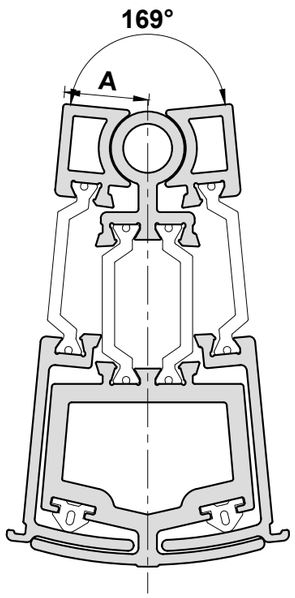


Important Note:
All joints must be adequately sealed using ACSIL04

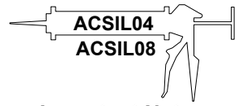
ANGLE	DEDUCTION 'A'	INT. CILL DEDUCTION
180°	37.5	37.5
175°	36	36
170°	35	35
165°	33.5	33.5
160°	32.5	32
155°	31	30.5
150°	30	29
145°	28.5	27.5
140°	27	26
135°	25.5	24.5

'A' & Cill deductions are the same at angles 180°-165°

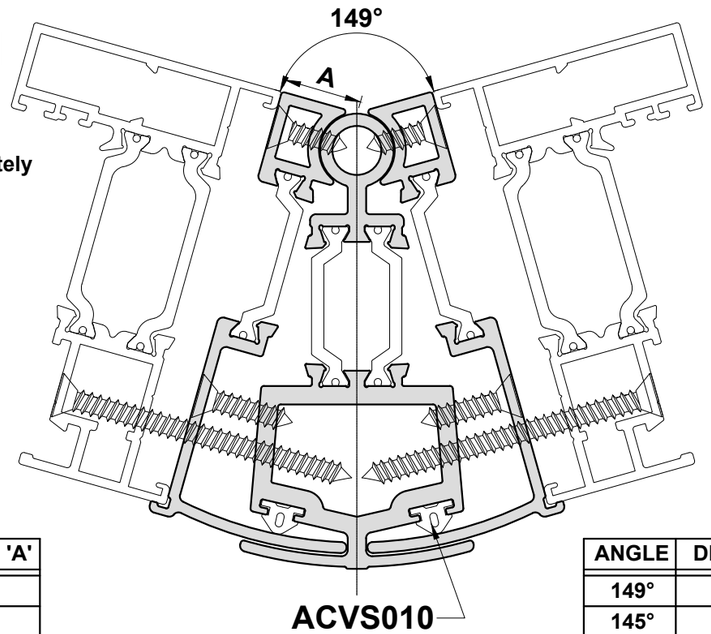
70mm Outer Frame Bay Pole Angles/Deductions



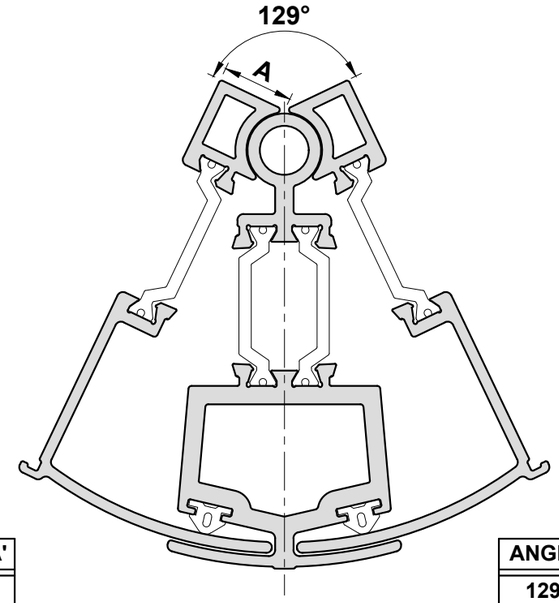
ANGLE	DEDUCTION 'A'
169°	14
165°	13.5
160°	13.6
155°	13
150°	13



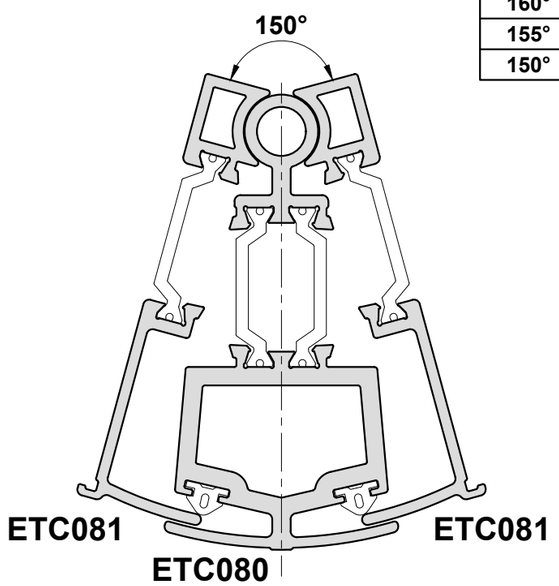
Important Note:
All joints must be adequately sealed using ACSIL04

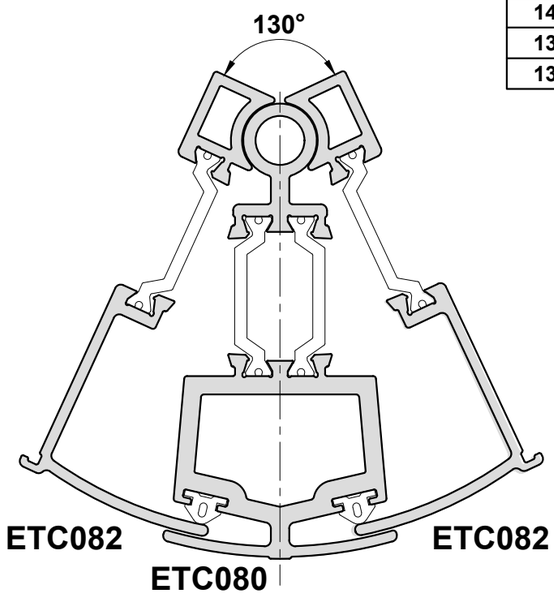


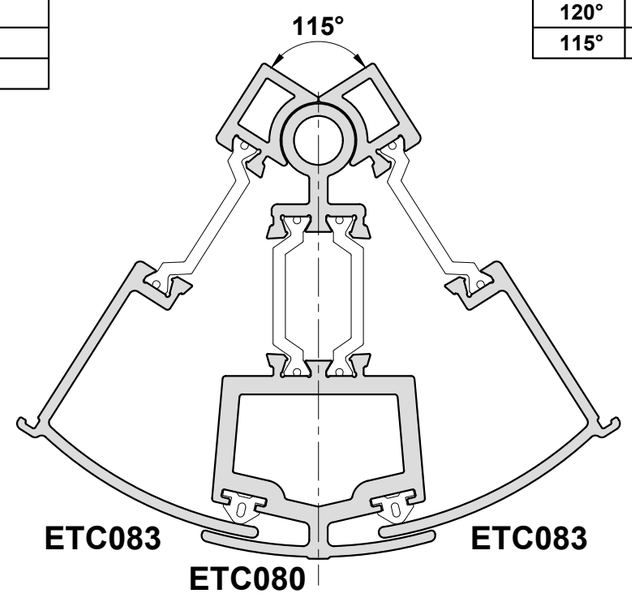
ANGLE	DEDUCTION 'A'
149°	12.5
145°	12.5
140°	12
135°	12
130°	11.5



ANGLE	DEDUCTION 'A'
129°	11.5
125°	11.5
120°	11
115°	10.5





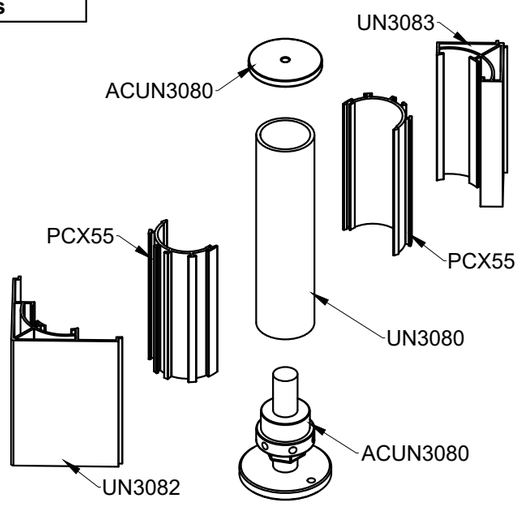


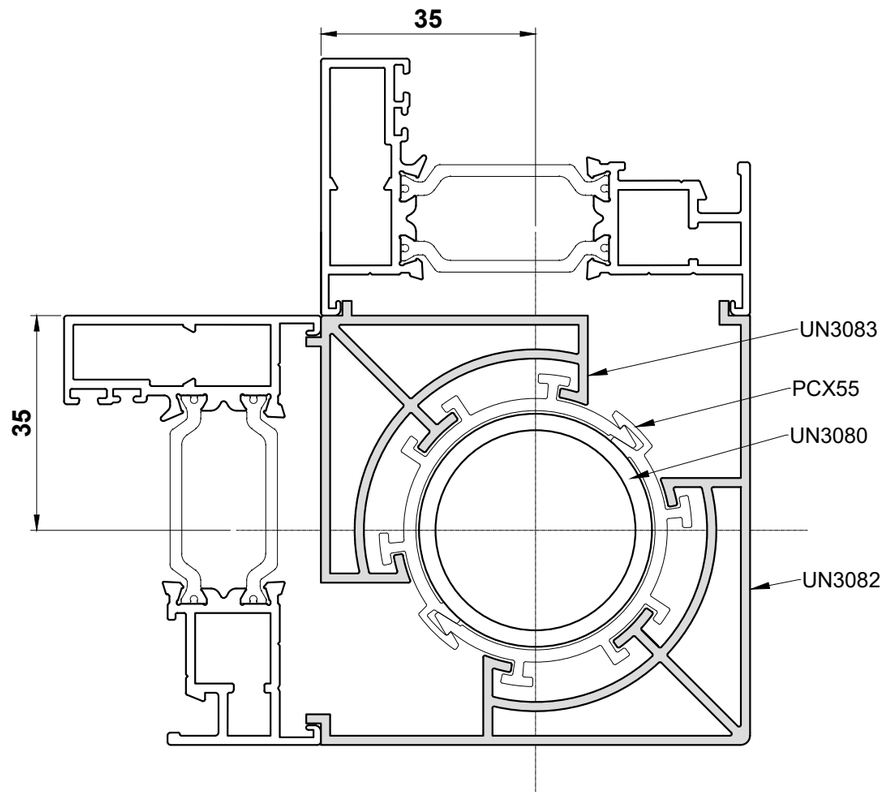
90° Jackable Bay Pole

Note: Installation to comply with relevant building regulations and British standards :-

- **BS8213-4 Code of Practice for the survey and installation of window and external doorsets.**
- **Approved document A structure.**
- **Approved document C resistance to the passage of moisture.**

Height (mm)	Load Bearing
1000	Capped at 2 Tonnes
1250	1.5 Tonnes
1500	1.1 Tonnes
1750	0.8 Tonnes
2000	0.6 Tonnes
2250	0.5 Tonnes
2500	0.4 Tonnes

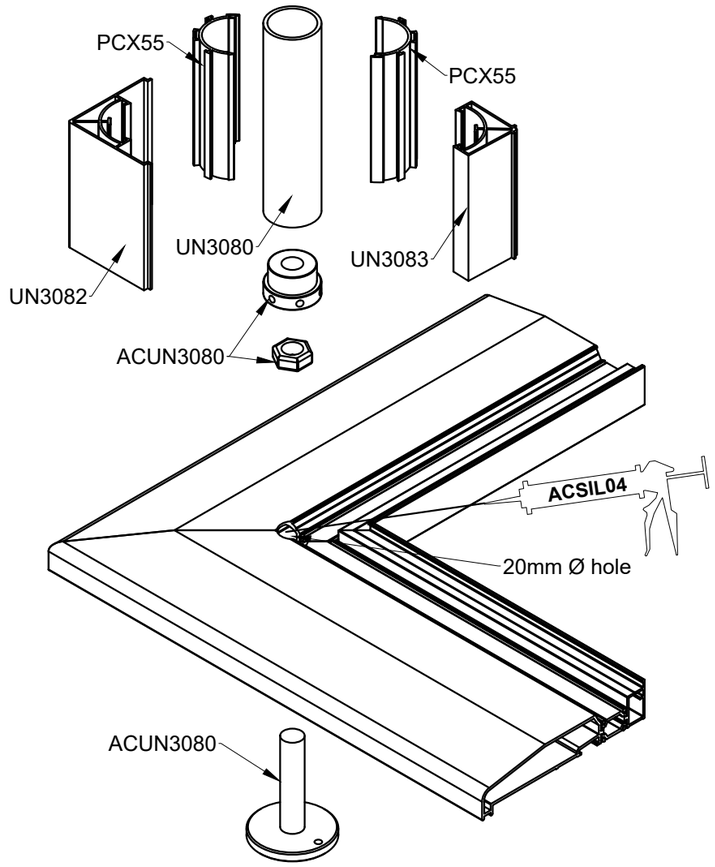






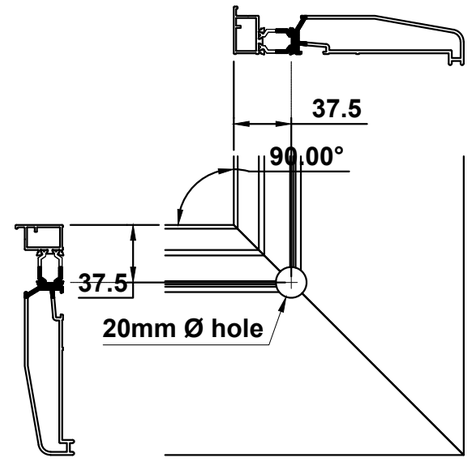
Important Note:
All joints must be adequately sealed using ACSIL04

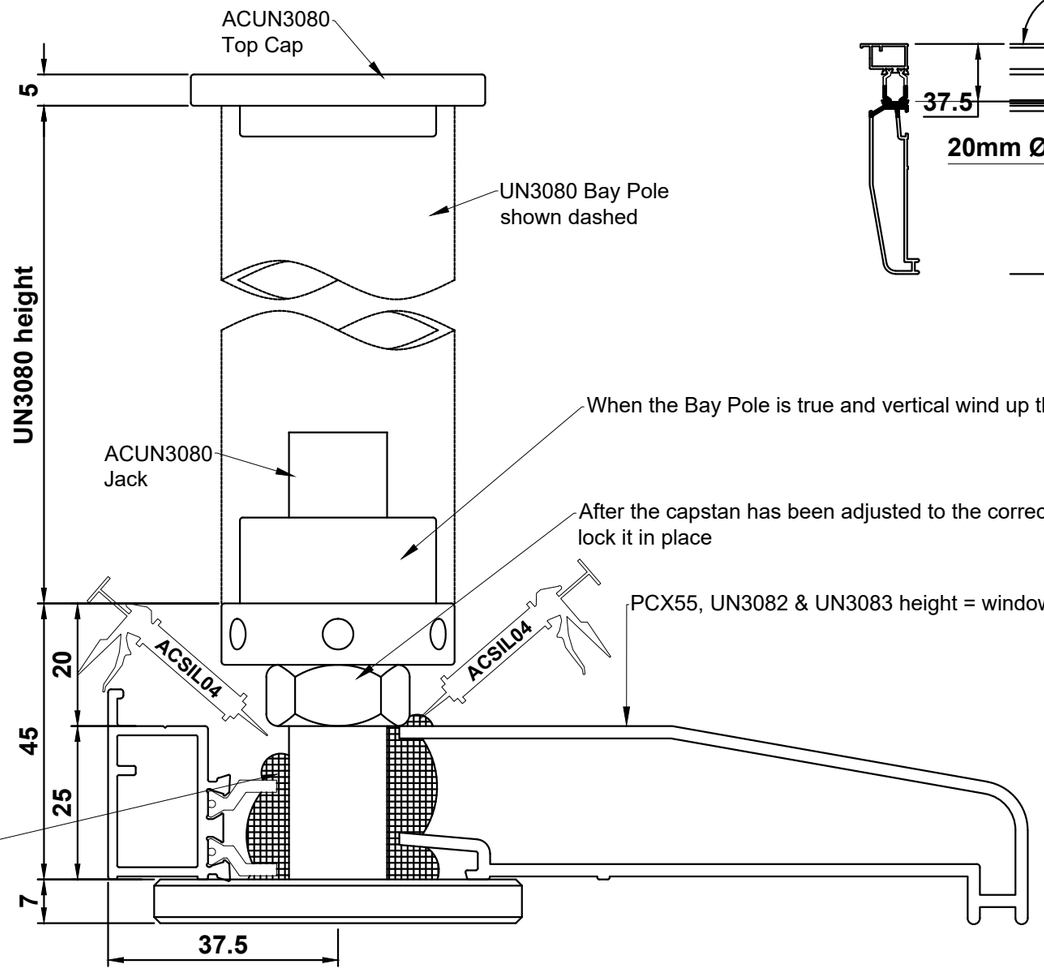
90° Jackable Bay Pole



Note: Installation to comply with relevant building regulations and British standards :-

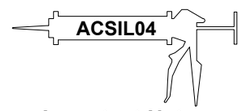
- **BS8213-4 Code of Practice for the survey and installation of window and external doorsets.**
- **Approved document A structure.**
- **Approved document C resistance to the passage of moisture.**





Fully seal between the jack and sub cill with ACSIL04 so that water is not able to track through the 20mm hole.

When the cill does not form a complete water barrier then damp proof course should be used.
See approved document C section 5.9



Important Note:
All joints must be adequately sealed using ACSIL04

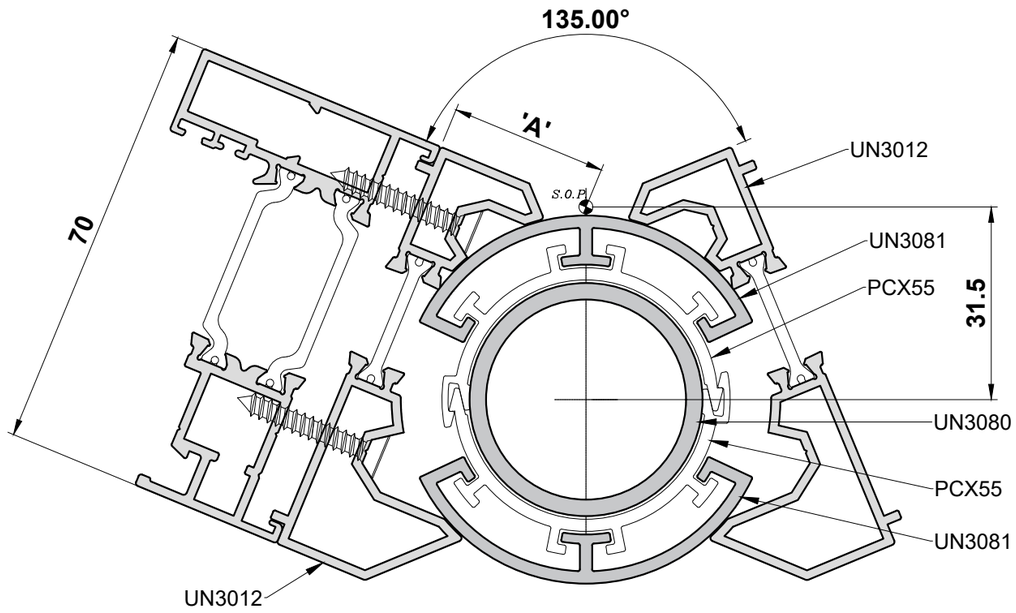
Remove old mortar under the jack so that the 60mm base rests on a sound and level surface. When required use spreader plate under the jack and above the top cap.

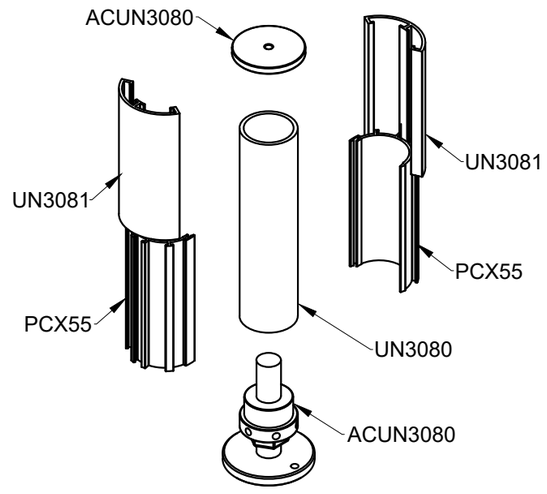
Variable Angle Jackable Bay Pole

Note: Installation to comply with relevant building regulations and British standards :-

- **BS8213-4 Code of Practice for the survey and installation of window and external doorsets.**
- **Approved document A structure.**
- **Approved document C resistance to the passage of moisture.**

Height (mm)	Load Bearing
1000	Capped at 2 Tonnes
1250	1.5 Tonnes
1500	1.1 Tonnes
1750	0.8 Tonnes
2000	0.6 Tonnes
2250	0.5 Tonnes
2500	0.4 Tonnes

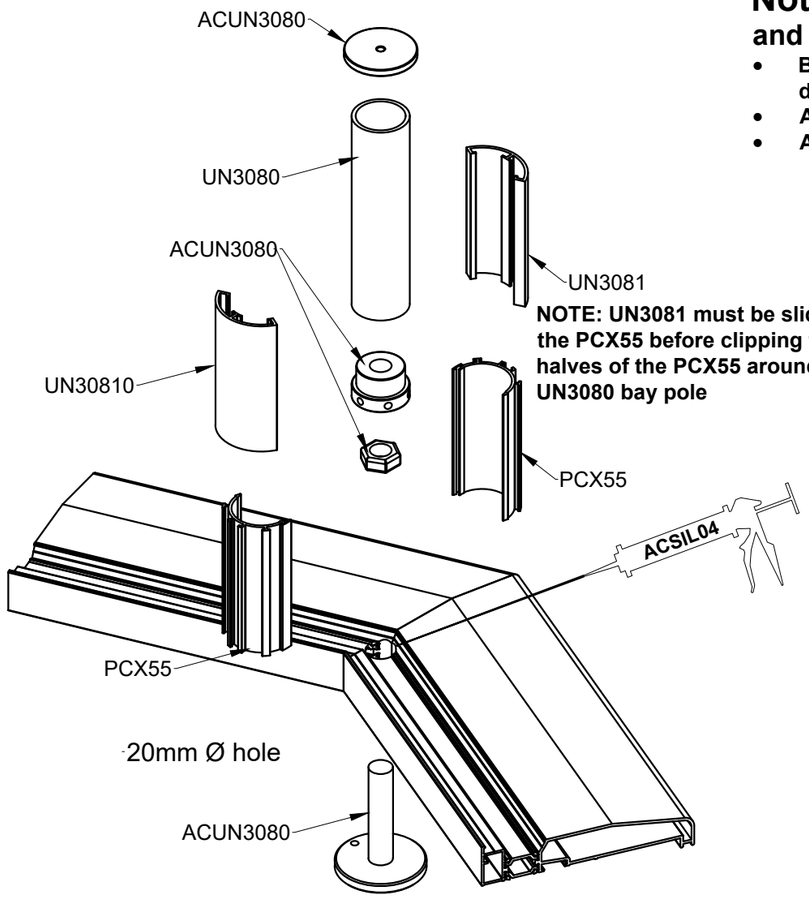




Important Note:
All joints must be adequately sealed using ACSIL04

ANGLE	DEDUCTION 'A'
180°	37.5
175°	36
170°	35
165°	33.5
160°	32.5
155°	31
150°	30
145°	28.5
140°	27
135°	25.5
130°	24
125°	23
120°	21
115°	19.5
110°	18

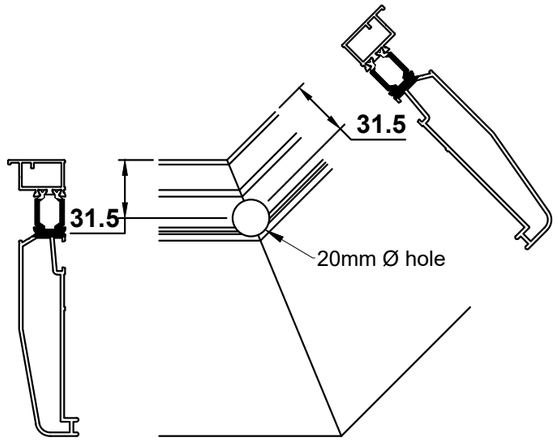
Variable Angle Jackable Bay Pole



Note: Installation to comply with relevant building regulations and British standards :-

- **BS8213-4 Code of Practice for the survey and installation of window and external doorsets.**
- **Approved document A structure.**
- **Approved document C resistance to the passage of moisture.**

NOTE: UN3081 must be slid into the PCX55 before clipping the two halves of the PCX55 around the UN3080 bay pole

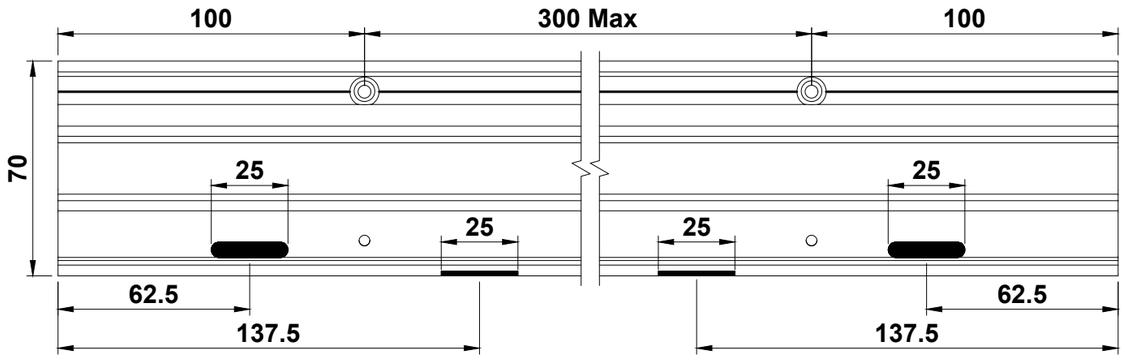


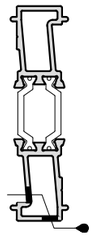
Fully seal between the jack and sub cill with ACSIL04 so that water is not able to track through the 20mm hole.

When the cill does not form a complete water barrier then damp proof course should be used.
See approved document C section 5.9

Remove old mortar under the jack so that the 60mm base rests on a sound and level surface. When required use spreader plate under the jack and above the top cap.

Important Note:
All joints must be adequately sealed using ACSIL04

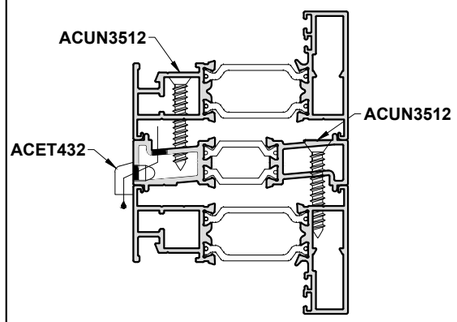




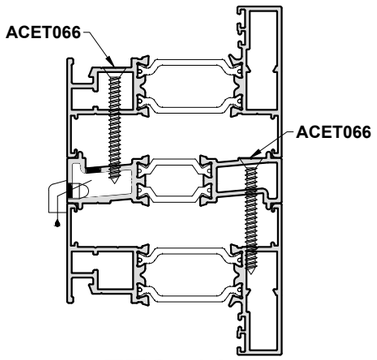
UN3000

Important Note: Seal all joints to UN3000 using ACSIL04.

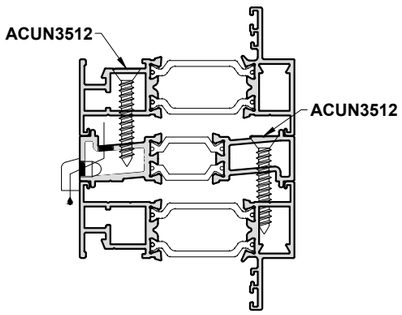




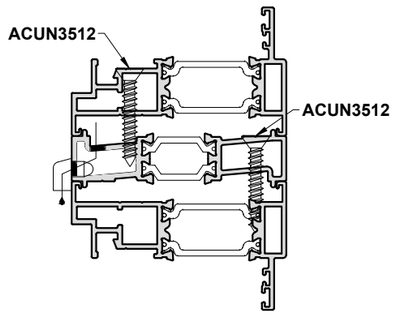
ETC4110



ETC4111
ETC4116

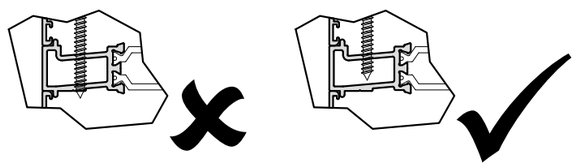


ETC4112



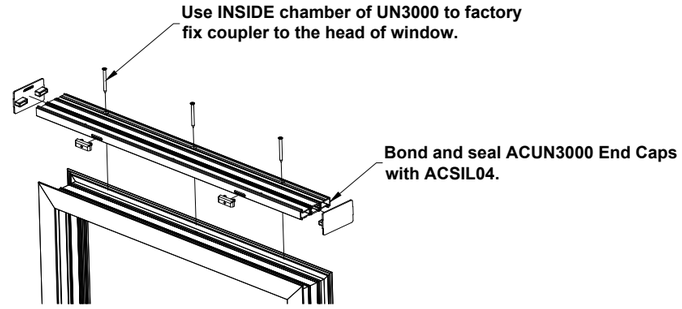
ETC4115

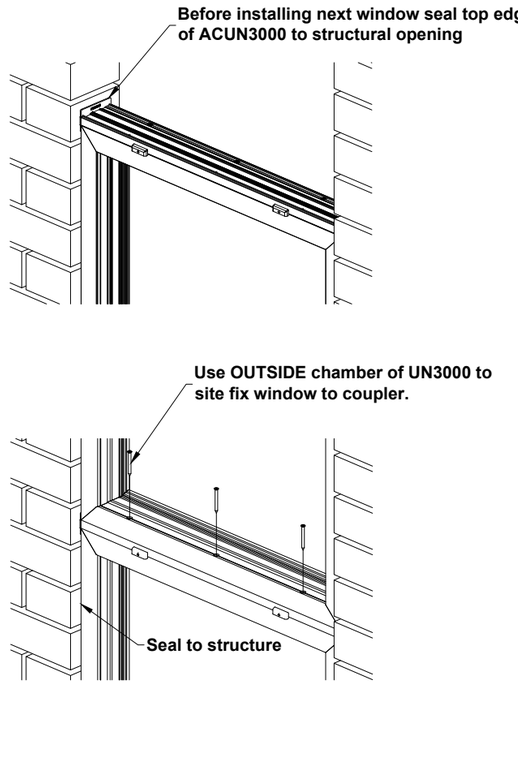
Important Note: Do not screw through drainage channel.



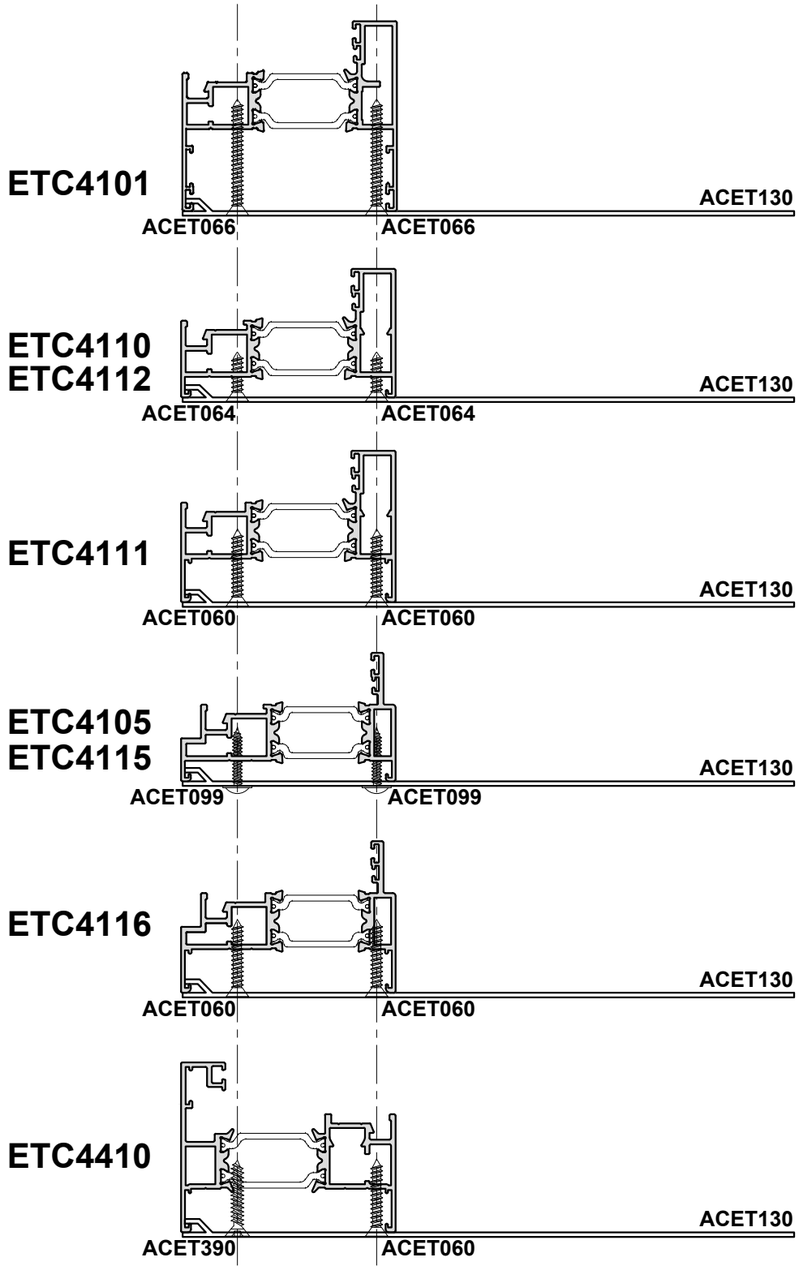
Zone Drainage of Jamb Cavity

CWCT Built up wall guidance recommends drainage of Jamb Cavity



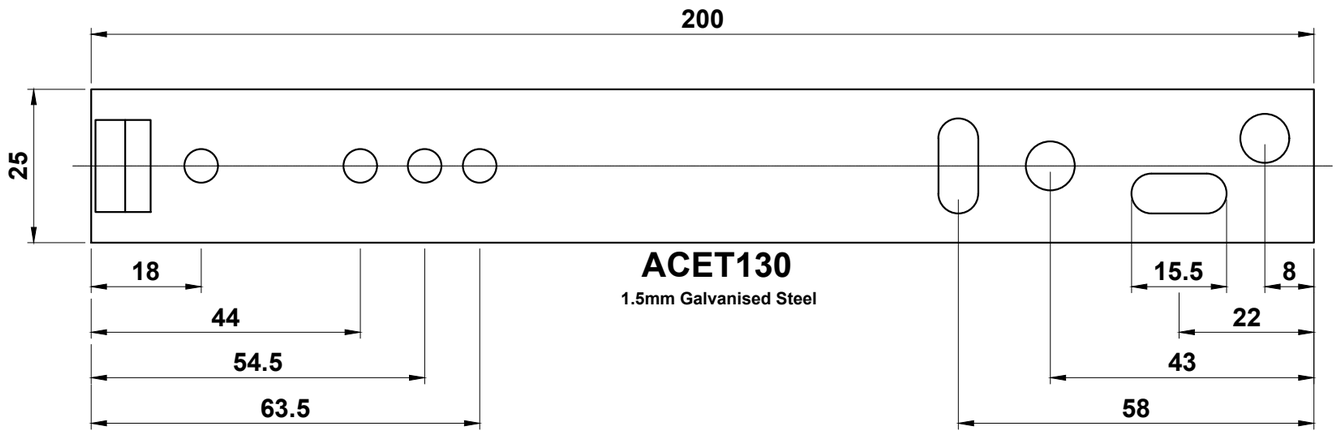


Fixing Strap Details

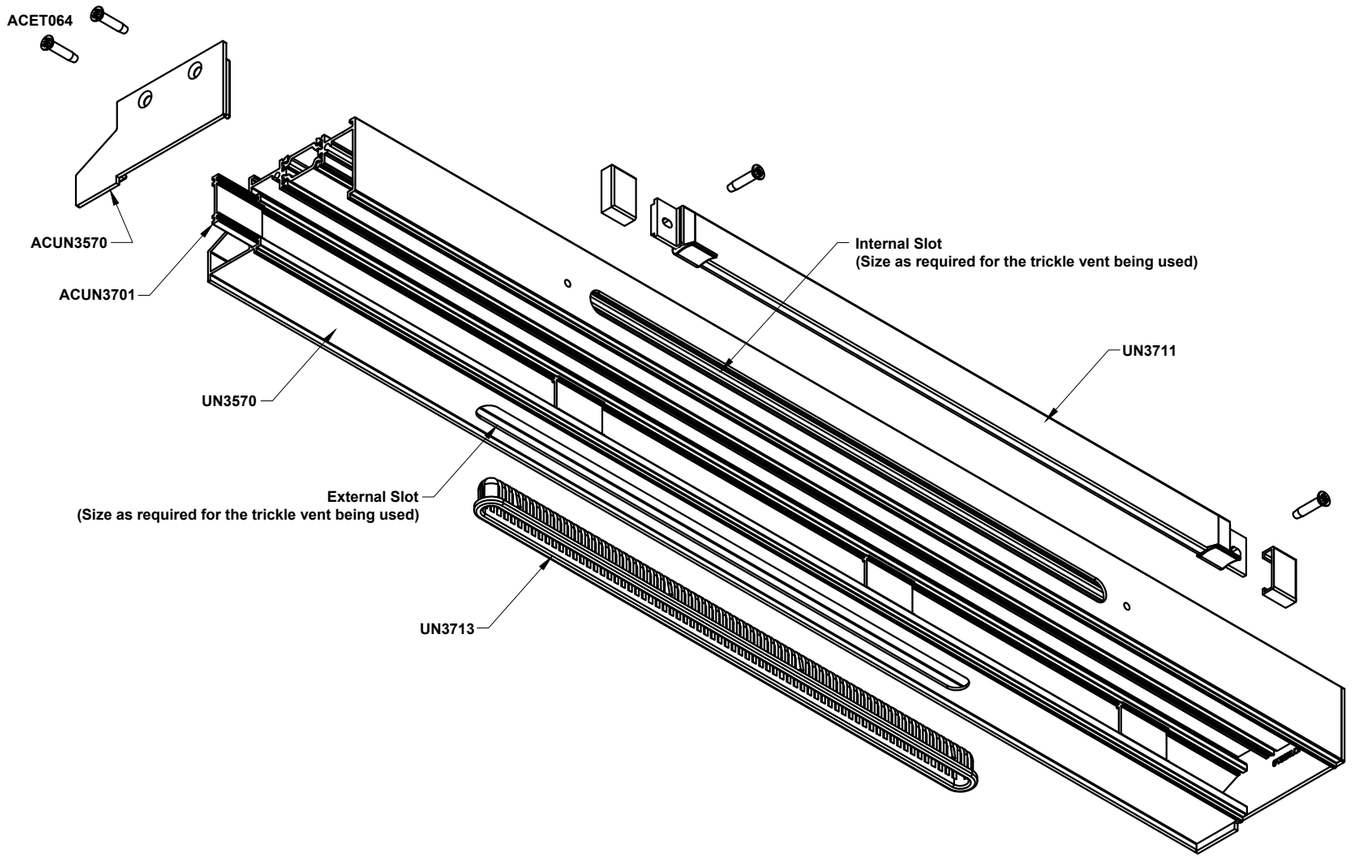


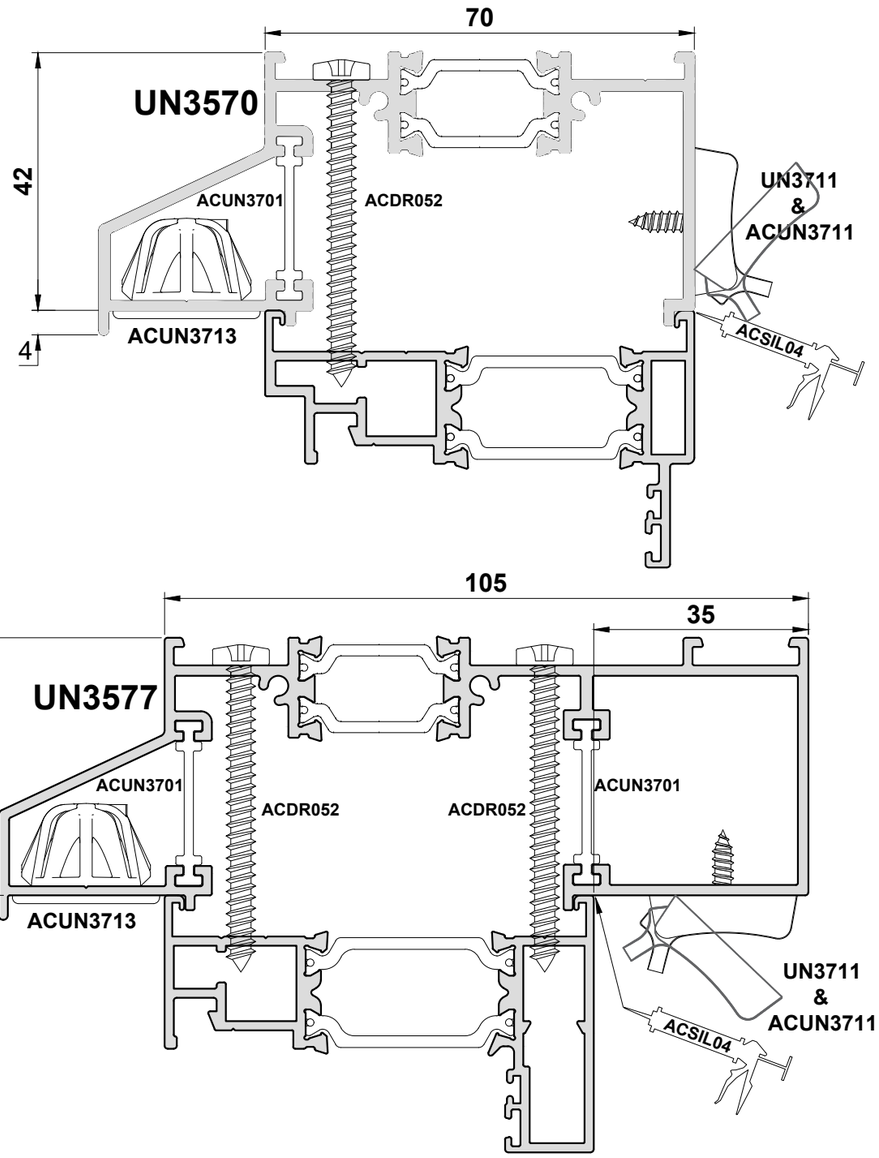
NOTE:

Fixing straps should be spaced a minimum of 150mm in from each end & at a maximum of 300mm apart.



UN3570 & UN3577





UN3711 with Push in Flyscreen
Equivalent area as per BS 13141-1:2019 = 3026mm²
Length = 400mm
Internal Slot Size = 340mm X 13mm
External Slot Size = 235mm X 16mm

UN3711 with Push in Flyscreen
Equivalent area as per BS 13141-1:2019 = 6132mm²
Length = 600mm
Internal Slot Size = 2 X (275mm X 13mm) + (10mm land)
External Slot Size = 2 X (235mm X 16mm) + (10mm land)

Section F

F | ETC Sawing Tables ..... F03 - F12

Section F

Cutting Information

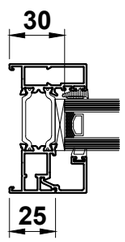
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ②	① ①	① ① ①	① ② ①	① ② ①	① ② ①	① ② ①	① ①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W - 50		W - 50	W - 50	W - 50		OF to ℄M - 36.5	W - 50		OF to ℄M - 36.5	℄M to ℄M - 23	W - 50	OF to ℄M - 36.5	W - 50
	Mullions							H - 50	H - 50	OF to ℄T - 36.5	H - 50	H - 50	H - 50	OF to ℄T - 36.5	H - 50	
Vent (1)	Horizontal Members			W - 38	W - 38	W - 38	W - 38	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	W - 38
	Vertical Members			H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	℄T to ℄T - 11	H - 38	H - 38	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5
	Glass Width			W - 138	W - 138	W - 138	W - 138	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	W - 138
	Glass Height			W - 138	OF to ℄T - 124.5	OF to ℄T - 124.5	℄T to ℄T - 111	H - 138	H - 138	OF to ℄T - 124.5	H - 138	OF to ℄T - 124.5	H - 138	OF to ℄T - 124.5	OF to ℄T - 124.5	OF to ℄T - 124.5
Vent (2)	Horizontal Members					W - 38			OF to ℄M - 24.5			OF to ℄M - 24.5	℄M to ℄M - 11	℄M to ℄M - 11	OF to ℄M - 24.5	
	Vertical Members					OF to ℄T - 24.5			OF to ℄T - 24.5			OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5	
	Glass Width					W-138			OF to ℄M - 124.5			OF to ℄M - 124.5	℄M to ℄M - 111	℄M to ℄M - 111	OF to ℄M - 124.5	
	Glass Height					OF to ℄T - 124.5			OF to ℄T - 124.5			OF to ℄T - 124.5	OF to ℄T - 124.5	OF to ℄T - 124.5	OF to ℄T - 124.5	
Fixed Pane (1)	Glass Width	W - 60	W - 60		W - 60		W - 60	OF to ℄M - 46.5	OF to ℄M - 46.5	W - 60	℄M to ℄M - 33	℄M to ℄M - 33	℄M to ℄M - 33	W - 60	OF to ℄M - 46.5	W - 60
	Glass Height	H - 60	OF to ℄T - 46.5		OF to ℄T - 46.5		OF to ℄T - 46.5	H - 60	OF to ℄T - 46.5	OF to ℄T - 46.5	H - 60	H - 60	OF to ℄T - 46.5	OF to ℄T - 46.5	H - 60	OF to ℄T - 46.5

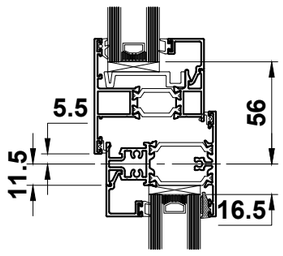
Legend

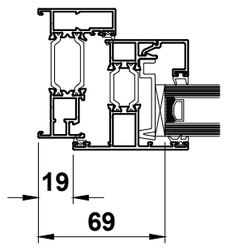
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4110, ETC4112
Sash:	ETC4129
Fixed Light:	Beaded
Transom/Mullion:	ETC4130







Do Not Scale From This Drawing

Cutting Information

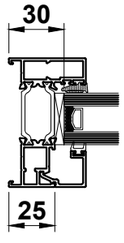
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ②	① ①	① ①	① ① ①	① ① ①	① ② ①	① ①	①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W - 50		W - 50	W - 50	W - 50		OF to ℄M - 36.5	W - 50		OF to ℄M - 36.5	℄M to ℄M - 23	W - 50	OF to ℄M - 36.5	W - 50
	Mullions							H - 50	H - 50	OF to ℄T - 36.5	H - 50	H - 50	H - 50	OF to ℄T - 36.5	H - 50	
Vent (1)	Horizontal Members			W - 38	W - 38	W - 38	W - 38	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	W - 38
	Vertical Members			H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	℄T to ℄T - 11	H - 38	H - 38	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5
	Glass Width			W - 118	W - 118	W - 118	W - 118	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	W - 118
	Glass Height			H - 118	OF to ℄T - 104.5	OF to ℄T - 104.5	OF to ℄T - 104.5	H - 118	H - 118	OF to ℄T - 104.5	H - 118	OF to ℄T - 104.5	H - 118	OF to ℄T - 104.5	OF to ℄T - 104.5	OF to ℄T - 104.5
Vent (2)	Horizontal Members					W - 38			OF to ℄M - 24.5			OF to ℄M - 24.5	℄M to ℄M - 11	℄M to ℄M - 11	OF to ℄M - 24.5	
	Vertical Members					OF to ℄T - 24.5			OF to ℄T - 24.5			OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5	
	Glass Width					OF to ℄M - 104.5			OF to ℄M - 104.5			OF to ℄M - 104.5	℄M to ℄M - 91	℄M to ℄M - 91	OF to ℄M - 104.5	
	Glass Height					OF to ℄T - 104.5			OF to ℄T - 104.5			OF to ℄T - 104.5	OF to ℄T - 104.5	OF to ℄T - 104.5	OF to ℄T - 104.5	
Fixed Pane (1)	Glass Width	W - 60	W - 60		W - 60		W - 60	OF to ℄M - 46.5	OF to ℄M - 46.5	W - 60	℄M to ℄M - 33	℄M to ℄M - 33	℄M to ℄M - 33	W - 60	OF to ℄M - 46.5	W - 60
	Glass Height	H - 60	OF to ℄T - 46.5		OF to ℄T - 46.5		OF to ℄T - 46.5	H - 60	OF to ℄T - 46.5	OF to ℄T - 46.5	H - 60	H - 60	OF to ℄T - 46.5	OF to ℄T - 46.5	H - 60	OF to ℄T - 46.5

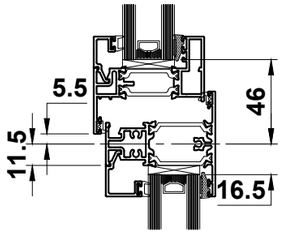
Legend

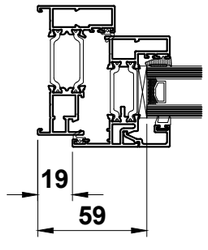
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4110, ETC4112
Sash:	ETC4120
Fixed Light:	Beaded
Transom/Mullion:	ETC4130







Do Not Scale From This Drawing

Cutting Information

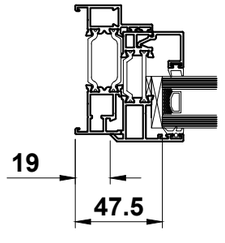
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ②	① ①	① ① ①	① ① ①	① ② ①	① ② ①	① ① ②	①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W - 50		W - 50	W - 50	W - 50		OF to ℄M - 36.5	W - 50		OF to ℄M - 36.5	℄M to ℄M - 23	W - 50	OF to ℄M - 36.5	W - 50
	Mullions							H - 50	H - 50	OF to ℄T - 36.5	H - 50	H - 50	H - 50	OF to ℄T - 36.5	H - 50	
Vent (1)	Horizontal Members			W - 38	W - 38	W - 38	W - 38	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	W - 38
	Vertical Members			H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	℄T to ℄T - 11	H - 38	H - 38	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5
	Glass Width			W - 138	W - 138	W - 138	W - 138	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	OF to ℄M - 124.5	W - 138
	Glass Height			W - 138	OF to ℄T - 124.5	OF to ℄T - 124.5	OF to ℄T - 124.5	H - 138	H - 138	OF to ℄T - 124.5	H - 138	OF to ℄T - 124.5	H - 138	OF to ℄T - 124.5	OF to ℄T - 124.5	OF to ℄T - 124.5
Vent (2)	Horizontal Members					W - 38			OF to ℄M - 24.5			OF to ℄M - 24.5	℄M to ℄M - 11	℄M to ℄M - 11	OF to ℄M - 24.5	
	Vertical Members					OF to ℄T - 24.5			OF to ℄T - 24.5			OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5	
	Glass Width					W - 138			OF to ℄M - 124.5			OF to ℄M - 124.5	℄M to ℄M - 111	℄M to ℄M - 111	OF to ℄M - 124.5	
	Glass Height					OF to ℄T - 124.5			OF to ℄T - 124.5			OF to ℄T - 124.5	OF to ℄T - 124.5	OF to ℄T - 124.5	OF to ℄T - 124.5	
Fixed Pane (1)	Horizontal Members	W - 38	W - 38		W - 38		W - 38	OF to ℄M - 24.5	OF to ℄T - 24.5	W - 38	℄M to ℄M - 11	℄M to ℄M - 11	℄M to ℄M - 11	W - 38	℄M to ℄M - 24.5	W - 38
	Vertical Members	H - 38	OF to ℄T - 24.5		OF to ℄T - 24.5		OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	H - 38	H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5
	Glass Width	W - 95	W - 95		W - 95		W - 95	OF to ℄M - 81.5	OF to ℄M - 81.5	W - 95	℄M to ℄M - 68	℄M to ℄M - 68	℄M to ℄M - 68	W - 95	OF to ℄M - 81.5	W - 95
	Glass Height	H - 95	OF to ℄T - 81.5		OF to ℄T - 81.5		OF to ℄T - 81.5	H - 95	OF to ℄T - 81.5	OF to ℄T - 81.5	H - 95	H - 95	OF to ℄T - 81.5	OF to ℄T - 81.5	H - 95	OF to ℄T - 81.5

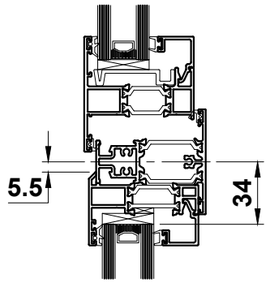
Legend

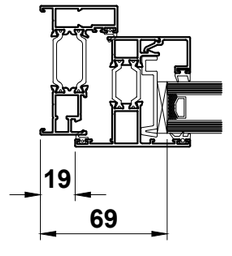
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4110, ETC4112
Sash:	ETC4129
Fixed Light:	ETC4147
Transom/Mullion:	ETC4130







Do Not Scale From This Drawing

Cutting Information

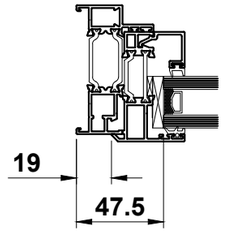
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ② / ①	① ① / ①	① / ① ①	① ① / ② ① ②	① ② / ① ①	① ② ① / ①	① / ② ①	① / ①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W - 50		W - 50	W - 50	W - 50		OF to ℄M - 36.5	W - 50		OF to ℄M - 36.5	℄M to ℄M - 23	W - 50	OF to ℄M - 36.5	W - 50
	Mullions							H - 50	H - 50	OF to ℄T - 36.5	H - 50	H - 50	H - 50	OF to ℄T - 36.5	H - 50	
Vent (1)	Horizontal Members			W - 38	W - 38	W - 38	W - 38	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	OF to ℄M - 24.5	W - 38
	Vertical Members			H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	℄T to ℄T - 11	H - 38	H - 38	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5
	Glass Width			W - 118	W - 118	W - 118	W - 118	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	OF to ℄M - 104.5	W - 118
	Glass Height			H - 118	OF to ℄T - 104.5	OF to ℄T - 104.5	℄T to ℄T - 93	H - 118	H - 118	OF to ℄T - 104.5	H - 118	OF to ℄T - 104.5	H - 118	OF to ℄T - 104.5	OF to ℄T - 104.5	OF to ℄T - 104.5
Vent (2)	Horizontal Members					W - 38			OF to ℄M - 24.5			OF to ℄M - 24.5	℄M to ℄M - 11	℄M to ℄M - 11	OF to ℄M - 24.5	
	Vertical Members					OF to ℄T - 24.5			OF to ℄T - 24.5			OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5	OF to ℄T - 24.5	
	Glass Width					W - 118			OF to ℄M - 104.5			OF to ℄M - 104.5	℄M to ℄M - 91	℄M to ℄M - 91	℄M to ℄M - 104.5	
	Glass Height					OF to ℄T - 104.5			OF to ℄T - 104.5			OF to ℄T - 104.5	OF to ℄T - 104.5	OF to ℄T - 104.5	OF to ℄T - 104.5	
Fixed Pane (1)	Horizontal Members	W - 38	W - 38		W - 38		W - 38	OF to ℄M - 24.5	OF to ℄M - 24.5	W - 38	℄M to ℄M - 11	℄M to ℄M - 11	℄M to ℄M - 11	W - 38	℄M to ℄M - 24.5	W - 38
	Vertical Members	H - 38	OF to ℄T - 24.5		OF to ℄T - 24.5		OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	H - 38	H - 38	OF to ℄T - 24.5	OF to ℄T - 24.5	H - 38	OF to ℄T - 24.5
	Glass Width	W - 95	W - 95		W - 95		W - 95	OF to ℄M - 81.5	OF to ℄M - 81.5	W - 95	℄M to ℄M - 68	℄M to ℄M - 68	℄M to ℄M - 68	W - 95	OF to ℄M - 81.5	W - 95
	Glass Height	H - 95	OF to ℄T - 81.5		OF to ℄T - 81.5		OF to ℄T - 81.5	H - 95	OF to ℄T - 81.5	OF to ℄T - 81.5	H - 95	H - 95	OF to ℄T - 81.5	OF to ℄T - 81.5	H - 95	OF to ℄T - 81.5

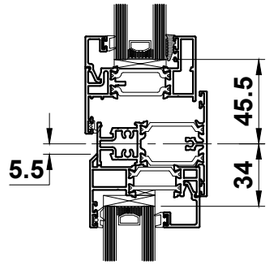
Legend

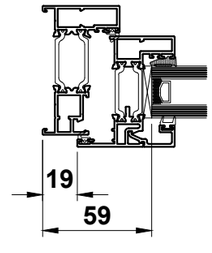
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4110, ETC4112
Sash:	ETC4120
Fixed Light:	ETC4147
Transom/Mullion:	ETC4130







Do Not Scale From This Drawing

Alitherm 400

Cutting Information

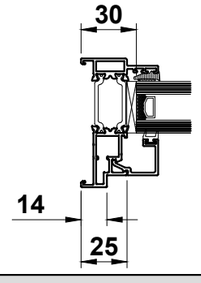
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ② / ①	① ① / ①	① ①	① ① ①	① ② ①	① ② ①	① ① / ②	①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W - 28		W - 28	W - 28	W - 28		OF to ℄M - 17	W - 28		OF to ℄M - 17	℄M to ℄M - 6	W - 28	OF to ℄M - 17	W - 28
	Mullions							H - 28	H - 28	OF to ℄T - 17	H - 28	H - 28	H - 28	OF to ℄T - 17	H - 28	
Vent (1)	Horizontal Members			W - 38	W - 38	W - 38	W - 38	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	W - 38
	Vertical Members			H - 38	OF to ℄T - 27	OF to ℄T - 27	℄T to ℄T - 16	H - 38	H - 38	OF to ℄T - 27	H - 38	OF to ℄T - 27	H - 38	OF to ℄T - 27	OF to ℄T - 27	OF to ℄T - 27
	Glass Width			W - 138	W - 138	W - 138	W - 138	OF to ℄M - 127	OF to ℄M - 127	OF to ℄M - 127	OF to ℄M - 127	OF to ℄M - 127	OF to ℄M - 127	OF to ℄M - 127	OF to ℄M - 127	W - 138
	Glass Height			H - 138	OF to ℄T - 127	OF to ℄T - 127	OF to ℄T - 127	H - 138	H - 138	OF to ℄T - 127	H - 138	OF to ℄T - 127	H - 138	OF to ℄T - 127	OF to ℄T - 127	OF to ℄T - 127
Vent (2)	Horizontal Members					W - 38			OF to ℄M - 27			OF to ℄M - 27	℄M to ℄M - 16	℄M to ℄M - 16	OF to ℄M - 27	
	Vertical Members					OF to ℄T - 27			OF to ℄T - 27			OF to ℄T - 27	OF to ℄T - 27	OF to ℄T - 27	OF to ℄T - 27	
	Glass Width					W - 138			OF to ℄M - 127			OF to ℄M - 127	℄M to ℄M - 116	℄M to ℄M - 116	OF to ℄M - 127	
	Glass Height					OF to ℄T - 127			OF to ℄T - 127			OF to ℄T - 127	OF to ℄T - 127	OF to ℄T - 127	OF to ℄T - 127	
Fixed Pane (1)	Glass Width	W - 60	W - 60		W - 60		W - 60	OF to ℄M - 49	OF to ℄M - 49	W - 60	℄M to ℄M - 38	℄M to ℄M - 38	℄M to ℄M - 38	W - 60	OF to ℄M - 49	W - 60
	Glass Height	H - 60	OF to ℄T - 49		OF to ℄T - 49		OF to ℄T - 49	H - 60	OF to ℄T - 49	OF to ℄T - 49	H - 60	H - 60	OF to ℄T - 49	OF to ℄T - 49	H - 60	OF to ℄T - 49

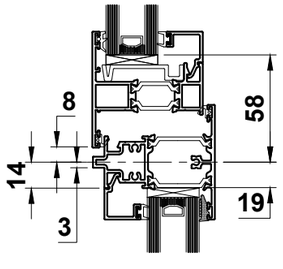
Legend

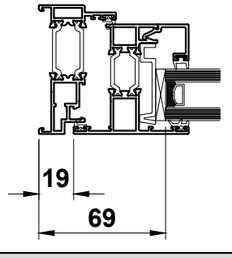
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4115
Sash:	ETC4129
Fixed Light:	Beaded
Transom/Mullion:	ETC4135







Do Not Scale From This Drawing

Alitherm 400

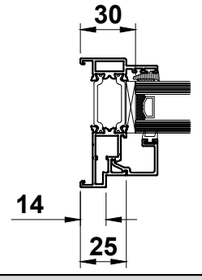
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ② / ①	① ① / ①	① / ① ①	① ① / ② ① ②	① ② ① / ① ①	① ② ① / ①	① / ② ①	①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W - 28		W - 28	W - 28	W - 28		OF to ℄M - 17	W - 28		OF to ℄M - 17	℄M to ℄M - 6	W - 28	OF to ℄M - 17	W - 28
	Mullions							H - 28	H - 28	OF to ℄T - 17	H - 28	H - 28	H - 28	OF to ℄T - 17	H - 28	
Vent (1)	Horizontal Members			W - 38	W - 38	W - 38	W - 38	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	OF to ℄M - 27	W - 38
	Vertical Members			H - 38	OF to ℄T - 27	OF to ℄T - 27	℄T to ℄T - 16	H - 38	H - 38	OF to ℄T - 27	H - 38	OF to ℄T - 27	H - 38	OF to ℄T - 27	OF to ℄T - 27	OF to ℄T - 27
	Glass Width			W - 113	W - 113	W - 113	W - 113	OF to ℄M - 102	OF to ℄M - 102	OF to ℄M - 102	OF to ℄M - 102	OF to ℄M - 102	OF to ℄M - 102	OF to ℄M - 102	OF to ℄M - 102	W - 113
	Glass Height			H - 113	OF to ℄T - 102	OF to ℄T - 102	OF to ℄T - 102	H - 113	H - 113	OF to ℄T - 102	H - 113	OF to ℄T - 102	H - 113	OF to ℄T - 102	OF to ℄T - 102	OF to ℄T - 102
Vent (2)	Horizontal Members					W - 38			OF to ℄M - 27			OF to ℄M - 27	℄M to ℄M - 16	℄M to ℄M - 16	OF to ℄M - 27	
	Vertical Members					OF to ℄T - 27			OF to ℄T - 27			OF to ℄T - 27	OF to ℄T - 27	OF to ℄T - 27	OF to ℄T - 27	
	Glass Width					W - 113			OF to ℄M - 102			OF to ℄M - 102	℄M to ℄M - 102	℄M to ℄M - 102	OF to ℄M - 102	
	Glass Height					OF to ℄T - 102			OF to ℄T - 102			OF to ℄T - 102	OF to ℄T - 102	OF to ℄T - 102	OF to ℄T - 102	
Fixed Pane (1)	Glass Width	W - 60	W - 60		W - 60		W - 60	OF to ℄M - 49	OF to ℄M - 49	W - 60	℄M to ℄M - 38	℄M to ℄M - 38	℄M to ℄M - 38	W - 60	OF to ℄M - 49	W - 60
	Glass Height	H - 60	OF to ℄T - 49		OF to ℄T - 49		OF to ℄T - 49	H - 60	OF to ℄T - 49	OF to ℄T - 49	H - 60	H - 60	OF to ℄T - 49	OF to ℄T - 49	H - 60	OF to ℄T - 49

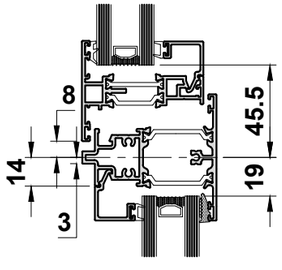
Legend

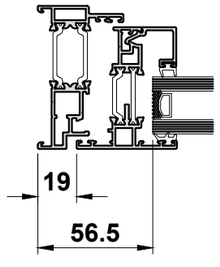
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4115
Sash:	ETC4124
Fixed Light:	Beaded
Transom/Mullion:	ETC4135







Do Not Scale From This Drawing

Alitherm 400

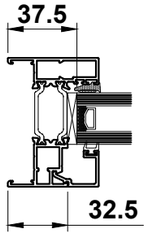
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ② / ①	① ① / ①	① ① ①	① ① ① ①	① ① ①	① ① ① ①	① / ①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W - 65		W - 65	W - 65	W - 65		OF to ℄M - 44	W - 65		OF to ℄M - 44	℄M to ℄M - 23	W - 65	OF to ℄M - 44	W - 65
	Mullions							H - 65	H - 65	OF to ℄T - 44	H - 65	H - 65	H - 65	OF to ℄T - 44	H - 65	
Vent (1)	Horizontal Members			W - 53	W - 53	W - 53	W - 53	OF to ℄M - 32	OF to ℄M - 32	OF to ℄M - 32	OF to ℄M - 32	OF to ℄M - 32	OF to ℄M - 32	OF to ℄M - 32	OF to ℄M - 32	W - 53
	Vertical Members			H - 53	OF to ℄T - 32	OF to ℄T - 32	℄T to ℄T - 11	H - 53	H - 53	OF to ℄T - 32	H - 53	OF to ℄T - 32	H - 53	OF to ℄T - 32	OF to ℄T - 32	OF to ℄T - 32
	Glass Width			W - 127	W - 127	W - 127	W - 127	OF to ℄M - 106	OF to ℄M - 106	OF to ℄M - 106	OF to ℄M - 106	OF to ℄M - 106	OF to ℄M - 106	OF to ℄M - 106	OF to ℄M - 106	W - 127
	Glass Height			H - 127	OF to ℄T - 106	OF to ℄T - 106	OF to ℄T - 106	H - 127	H - 127	OF to ℄T - 106	H - 127	OF to ℄T - 106	H - 127	OF to ℄T - 106	OF to ℄T - 106	OF to ℄T - 106
Vent (2)	Horizontal Members					W - 53			OF to ℄M - 32			OF to ℄M - 32	℄M to ℄M - 11	℄M to ℄M - 11	OF to ℄M - 32	
	Vertical Members					OF to ℄T - 32			OF to ℄T - 32			OF to ℄T - 32	OF to ℄T - 32	OF to ℄T - 32	OF to ℄T - 32	
	Glass Width					W - 127			OF to ℄M - 106			OF to ℄M - 106	℄M to ℄M - 86	℄M to ℄M - 86	OF to ℄M - 106	
	Glass Height					OF to ℄T - 106			OF to ℄T - 106			OF to ℄T - 106	OF to ℄T - 106	OF to ℄T - 106	OF to ℄T - 106	
Fixed Pane (1)	Glass Width	W - 75	W - 75		W - 75		W - 75	OF to ℄M - 54	OF to ℄M - 54	W - 75	℄M to ℄M - 33	℄M to ℄M - 33	℄M to ℄M - 33	W - 75	OF to ℄M - 54	W - 75
	Glass Height	H - 75	OF to ℄T - 54		OF to ℄T - 54		OF to ℄T - 54	H - 75	OF to ℄T - 54	OF to ℄T - 54	H - 75	H - 75	OF to ℄T - 54	OF to ℄T - 54	H - 75	OF to ℄T - 54

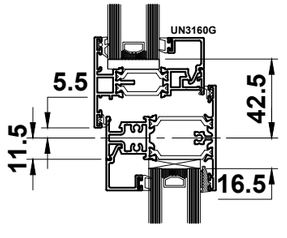
Legend

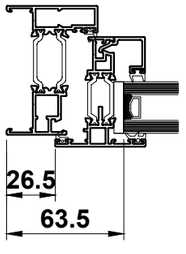
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4111
Sash:	ETC4124, ETC4125
Fixed Light:	Beaded
Transom/Mullion:	ETC4130







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Alitherm 400

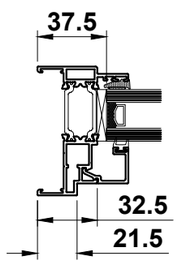
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ② / ①	① ① / ①	① ①	① ① / ② ① ②	① ② ① / ① ①	① ② ① / ①	① / ② ①	① / ①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W - 43		W - 43	W - 43	W - 43		OF to ℄M - 24.5	W - 43		OF to ℄M - 24.5	℄M to ℄M - 6	W - 43	OF to ℄M - 24.5	W - 43
	Mullions							H - 43	H - 43	OF to ℄T - 24.5	H - 43	H - 43	H - 43	OF to ℄T - 24.5	H - 43	
Vent (1)	Horizontal Members			W - 53	W - 53	W - 53	W - 53	OF to ℄M - 34.5	OF to ℄M - 34.5	OF to ℄M - 34.5	OF to ℄M - 34.5	OF to ℄M - 34.5	OF to ℄M - 34.5	OF to ℄M - 34.5	OF to ℄M - 34.5	W - 53
	Vertical Members			H - 53	OF to ℄T - 34.5	OF to ℄T - 34.5	℄T to ℄T - 16	H - 53	H - 53	OF to ℄T - 34.5	H - 53	OF to ℄T - 34.5	H - 53	OF to ℄T - 34.5	OF to ℄T - 34.5	OF to ℄T - 34.5
	Glass Width			W - 127	W - 127	W - 127	W - 127	OF to ℄M - 108.5	OF to ℄M - 108.5	OF to ℄M - 108.5	OF to ℄M - 108.5	OF to ℄M - 108.5	OF to ℄M - 108.5	OF to ℄M - 108.5	OF to ℄M - 108.5	W - 127
	Glass Height			H - 127	OF to ℄T - 108.5	OF to ℄T - 108.5	OF to ℄T - 108.5	H - 127	H - 127	OF to ℄T - 108.5	H - 127	OF to ℄T - 108.5	H - 127	OF to ℄T - 108.5	OF to ℄T - 108.5	OF to ℄T - 108.5
Vent (2)	Horizontal Members					W - 53			OF to ℄M - 34.5			OF to ℄M - 34.5	℄M to ℄M - 16	℄M to ℄M - 16	OF to ℄M - 34.5	
	Vertical Members					OF to ℄T - 34.5			OF to ℄T - 34.5			OF to ℄T - 34.5	OF to ℄T - 34.5	OF to ℄T - 34.5	OF to ℄T - 34.5	
	Glass Width					W - 127			OF to ℄M - 108.5			OF to ℄M - 108.5	℄M to ℄M - 91	℄M to ℄M - 91	OF to ℄M - 108.5	
	Glass Height					OF to ℄T - 108.5			OF to ℄T - 108.5			OF to ℄T - 108.5	OF to ℄T - 108.5	OF to ℄T - 108.5	OF to ℄T - 108.5	
Fixed Pane (1)	Glass Width	W - 75	W - 75		W - 75		W - 75	OF to ℄M - 56.5	OF to ℄M - 56.5	W - 75	℄M to ℄M - 38	℄M to ℄M - 38	℄M to ℄M - 38	W - 75	OF to ℄M - 56.5	W - 75
	Glass Height	H - 75	OF to ℄T - 56.5		OF to ℄T - 56.5		OF to ℄T - 56.5	H - 75	OF to ℄T - 56.5	OF to ℄T - 56.5	H - 75	H - 75	OF to ℄T - 56.5	OF to ℄T - 56.5	H - 75	OF to ℄T - 56.5

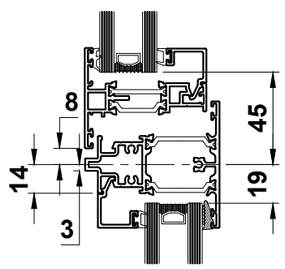
Legend

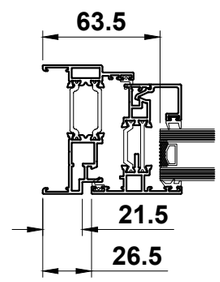
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4116
Sash:	ETC4124, ETC4125
Fixed Light:	Beaded
Transom/Mullion:	ETC4135







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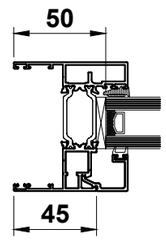
PART DESCRIPTIONS / TYPICAL STYLES		①	① / ①	①	① / ①	① / ②	① / ① / ①	① ①	① ② / ①	① ① / ①	① / ① ①	① ① / ② ① ②	① ② / ① ①	① ② ① / ①	① / ② ①	① / ①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W-90		W-90	W-90	W-90		O/F to CLM-56.5	W-90		O/F to CLM-56.5	CLMto CLM-23	W-90	O/F to CLM-56.5	W-90
	Mullions							H-90	H-90	O/F to CLT-56.5	H-90	H-90	H-90	O/F to CLT-39	H-90	
Vent (1)	Horizontal Members			W-78	W-78	W-78	W-78	O/F to CLM-44.5	O/F to CLM-44.5	O/F to CLM-44.5	O/F to CLM-44.5	O/F to CLM-44.5	O/F to CLM-44.5	O/F to CLT-44.5	O/F to CLM-44.5	W-78
	Vertical Members			H-78	O/F to CLT-44.5	O/F to CLT-44.5	CLT to CLT-11	H-78	H-78	O/F to CLT-44.5	H-78	O/F to CLT-44.5	H-78	O/F to CLT-44.5	O/F to CLT-44.5	O/F to CLT-44.5
	Glass Width					W-78			O/F to CLM-44.5			O/F to CLT-44.5	CLM to CLM-11	CLM to CLM-11	O/F to CLM-44.5	
	Glass Height					O/F to CLT-44.5			O/F to CLT-44.5			O/F to CLT-44.5	O/F to CLT-44.5	O/F to CLT-44.5	O/F to CLT-44.5	
Vent (2)	Horizontal Members			W-178	W-178	W-178	W-178	O/F to CLM-144.5	O/F to CLM-144.5	O/F to CLM-144.5	O/F to CLM-144.5	O/F to CLM-144.5	O/F to CLM-144.5	O/F to CLM-144.5	O/F to CLM-144.5	W-178
	Vertical Members			H-178	O/F to CLT-144.5	O/F to CLT-144.5	O/F to CLT-144.5	H-178	H-178	O/F to CLT-144.5	H-178	O/F to CLT-144.5	H-178	O/F to CLT-144.5	O/F to CLT-144.5	O/F to CLT-144.5
	Glass Width					W-178			O/F to CLM-144.5			O/F to CLM-144.5	CLM to CLM-111	CLM to CLM-111	CLM to CLM-111	
	Glass Height					O/F to CLT-144.5			O/F to CLT-144.5			O/F to CLT-144.5	O/F to CLT-144.5	O/F to CLT-144.5	O/F to CLT-144.5	
Fixed Pane (1)	Glass Width	W-100	W-100		W-100		W-100	O/F to CLM -66.5	O/F to CLM -66.5	W-100	CLM to CLM -33	CLM to CLM -33	CLM to CLM -33	W-100	O/F to CLM -66.5	W-100
	Glass Height	H-100	O/F to CLT -66.5		O/F to CLT -66.5		O/F to CLT -66.5	H-100	O/F to CLT -66.5	O/F to CLT -66.5	H-100	H-100	O/F to CLT -66.5	O/F to CLT -66.5	H-100	O/F to CLT -66.5

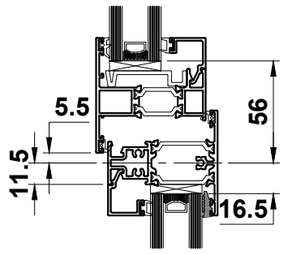
Legend

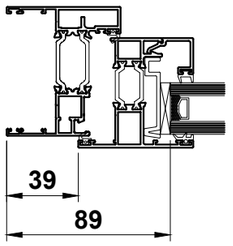
W	=	Outer Frame Width (Longest Leg)
H	=	Outer Frame Height (Longest Leg)
℄T	=	Centre Line of Transom
℄M	=	Centre Line of Mullion
OF	=	Edge of Outer Frame (Longest Leg)

Sections

Outer Frame:	ETC4101
Sash:	ETC4129
Fixed Light:	Beaded
Transom/Mullion:	ETC4130







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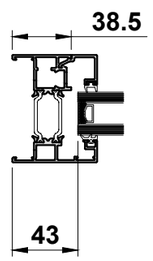
PART DESCRIPTIONS / TYPICAL STYLES		①	① ①	①	① ①	① ②	① ① ①	① ①	① ② ①	① ① ①	① ①	① ① ② ①	① ② ① ①	① ② ① ①	① ① ②	① ①
Outer Frame	Head & Cill	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
	Jambs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
	Transoms		W-77		W-77	W-77	W-77		O/F to CLM-52	W-77		O/F to CLM-52	CLMto CLM-27	W-77	O/F to CLM-52	W-77
	Mullions							H-77	H-77	O/F to CLT-52	H-77	H-77	H-77	O/F to CLT-36.5	H-77	
Vent (1)	Horizontal Components			W-108	W-108	W-108	W-108	O/F to CLM-83	O/F to CLM-83	O/F to CLM-83	O/F to CLM-83	O/F to CLM-83	O/F to CLM-83	O/F to CLT-83	O/F to CLM-83	W-108
	Vertical Components			H-108	O/F to CLT-83	O/F to CLT-83	CLT to CLT-58	H-108	H-108	O/F to CLT-83	H-108	O/F to CLT-83	H-108	O/F to CLT-83	O/F to CLT-83	O/F to CLT-83
Vent (2)	Horizontal Components					W-108			O/F to CLM-83			O/F to CLM-83	CLM to CLM-58	CLM to CLM-58	O/F to CLM-83	
	Vertical Components					O/F to CLT-83			O/F to CLT-83			O/F to CLT-83	O/F to CLT-83	O/F to CLT-83	O/F to CLT-83	
Vent (1)	Glass Width			W-208	W-208	W-208	W-208	O/F to CLM-183	O/F to CLM-183	O/F to CLM-183	O/F to CLM-183	O/F to CLM-183	O/F to CLM-183	O/F to CLM-183	O/F to CLM-183	W-208
	Glass Height			H-208	O/F to CLT-183	O/F to CLT-183	O/F to CLT-183	H-208	H-208	O/F to CLT-183	H-208	O/F to CLT-183	H-208	O/F to CLT-183	O/F to CLT-183	O/F to CLT-183
Vent (2)	Glass Width					O/F to CLM-183			O/F to CLM-183			O/F to CLM-183	CLM to CLM-158	CLM to CLM-158	CLM to CLM-158	
	Glass Height					O/F to CLT-183			O/F to CLT-183			O/F to CLT-183	O/F to CLT-183	O/F to CLT-183	O/F to CLT-183	
	Reverse Adaptor Width	W-65	W-65		W-65		W-65	O/F to CLM -40	O/F to CLM -40	W-38	O/F to CLM -40	CLM to CLM -15	CLM to CLM -15	W-65	CLM to CLM -15	W-65
"Fixed Pane (1)"	Reverse Adaptor Height	H-65	O/F to CLT -40		O/F to CLT -40		O/F to CLT -40	H-65	O/F to CLT -40	O/F to CLT -40	H-65	H-65	O/F to CLT -40	O/F to CLT -40	H-65	O/F to CLT -40
	Glass Width	W-0	W-0		W-0		W-0	O/F to CLM -5.5	O/F to CLM -5.5	W-0	CLM to CLM -11	CLM to CLM -11	CLM to CLM -11	W-0	O/F to CLM -5.5	W-0
	Glass Height	H-0	O/F to CLT -5.5		O/F to CLT -5.5		O/F to CLT -5.5	H-0	O/F to CLT -5.5	O/F to CLT -5.5	H-0	H-0	O/F to CLT -5.5	O/F to CLT -5.5	H-0	O/F to CLT -5.5

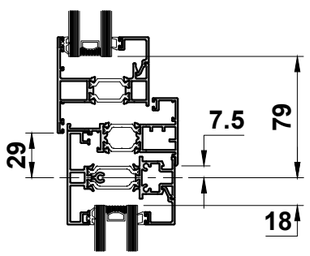
Legend

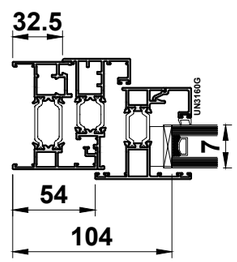
W	=	**Outer Frame Width (Longest Leg)**
H	=	**Outer Frame Height (Longest Leg)**
℄T	=	**Centre Line of Transom**
℄M	=	**Centre Line of Mullion**
OF	=	**Edge of Outer Frame (Longest Leg)**

Sections

Outer Frame:	**ETC4410**
Sash:	**ETC4129**
Fixed Light:	**ETC4446**
Transom/Mullion:	**ETC4430**







Do Not Scale From This Drawing