Main Index

Main Index

E EF

F EF

Updates

DATE	PAGE	DESCRIPTION
MAY 2017	E04	**Crimping Details**
	A06 - A08	**Updated Kitemark Information**
		New Sections added: EF021 - Sash / Vent EF022 - Sash / Vent EF966 - Square Bead EF967 - Square Bead
NOV 2017	ALL PAGES	**Updated PAS24 Details**
		New Sections / Accessories added: EF434 - Transom EF932 - Open Out Transom / Mullion EF992 - Woolpile Carrier EF993 - Low Threshold EF994 - Low Threshold Rebate EF995 - Low Threshold Adaptor Various Square Beads Various Sloped Beads Various High Security Beads Various Accessories
JUN 2018	ALL PAGES	**Fixed a number of cleats not being the correct part code.**
	E54, E55, E57, E58, E64	**Fixed cylinder length for full cylinder. Was 30/55. Should be 30/65.**
DEC 2018	Various	**Removed ACEF110A from EF030.**
	Various	**Removed ACFT Gasket Codes**
	E10	**Added EF035 & EF036 - EF019 fixing detail**
	E73	**Corrected Double Smoke Vent details.**
	Various	**Updated PAS 24 details.**
	Various	**Updated High Security Beads:** • GL504 replaced by GL1204 • GL512 replaced by GL1212 • GL512N and GL521 removed. • GL516 replaced by GL1216 • GL1220 & GL1224 added

Specification

GENERAL DESCRIPTION

Eco Futural is a versatile commercial system providing various window and door solutions, including:

- Tilt & turn windows
- Pivot windows
- Open out casement windows
- Flat open in/open out single/double doors
- Stepped open in/open out single/double residential doors.

By using the correct glass/spacer bar configurations, Eco Futural can achieve and exceed the current Approved Document L requirements.

Important Note: Corner assembly of Eco Futural is by PNEUMATIC CRIMPER ONLY. Only EF010, 011, 110, 020, 021, 910, 926, 945 and 946 may be manually crimped. See page E04 for details.

Due to the varied range of pneumatic crimpers available, Smarts Systems cannot provide the crimping knives. Please consult your crimper manufacturer or call The Technical Department for more information.

PROFILE SPECIFICATION

The window frame are constructed of aluminium alloy extrusion to BS EN 755-9 and BS EN 12020, extruded from 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 Eco Futural crimping cleats 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 small joint sealant.

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

SMART RECOMMENDED SASH DESIGN LIMITATIONS

Windows	Maximum Width (mm)	Minimum Width (mm)	Maximum Height (mm)	Minimum Height (mm)	Maximum Weight (kg)
Tilt & Turn (d)	1700 (a)(c)	402 (e)	2400 (b)(c)	500	90
Horizontal Pivot	2400	500	2000	700 (d)	180
Vertical Pivot	2000	700 (f)	2400	500	120
Top Hung Casement (g)	1440	250	2500	240	180
Side Hung Casement (g)	1000 (i)	320	1440	250	55
Doors					
Flat Door Residential (j)	1200	500	2500	-	160
Flat Door Commercial (j)	1200	500	2500	-	145 (h)
Stepped Door Residential (j)	1200	500	2500	-	160
Stepped Door Commercial (j)	1200	500	2500	-	145 (h)

Note: a) At 1700mm wide max height is 2100mm
b) At 2400mm high the max width is 1400mm
c) See page E10 for sash selection guide
d) For tilt-turn sashes, width must not exceed 1.5 x height
e) Based on Fapim gear
f) Can be 500mm if using cockspur handles
g) Based on hinge & lock selection
h) Maximum weight is reduced to 115kg when used with closer
i) Kitemark covers up to 840mm width
j) Weather tested door was fitted with central hinge

For advise on window sizes outside of the recommended design limitations, please contact the Technical Department at Smart Systems Ltd Tel: 01934 876100

Specification

Kitemark™ Certificate

No. KM 81580

BS 4873:2016 / PAS 24:2016

Hardware - Eco Futural Aluminium Alloy System
Casement Windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Securistyle Defender Stays Nico Friction Hinges	Smart Systems	ACET070	Smart Systems
Securistyle Vector Hinge Protectors	Smart Systems	ACET066	Smart Systems
ERA Lock ACEF951-956	Smart Systems	Espagnolette & Keeps ACET066	Smart Systems
ACET081/ACET165 Key Locking Handles	Smart Systems	ACET069	Smart Systems
Run-Up Blocks 4 off Per Sash	*		

*Glass retention as specified for the fixed windows.

Tilt / Turn Windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
Chrono Hinge Stays	Smart Systems	Integral Within Gearing	Smart Systems
Chrono Safe Tilt Turn Gearing	Smart Systems	Integral Within Gearing	Smart Systems
Tilt/Turn Key Locking Handles	Smart Systems	ACET069	Smart Systems
Run-Up Blocks 4 Off Per Sash	*		

*Glass retention as specified for the fixed windows.

Fixed Windows
Glass Retention: External: Glazing beads and Glaslok Securi-clip glazing clips
Internal: Glazing beads

Multilight Windows Comprising Opening Light(s) and / or Dummy Vent(s) or Fixed Light(s)
Hardware / Fixing Requirements Are As Specified For Opening, Dummy Vent And Fixed Window Types.

Specification

Kitemark™ Certificate

No. KM 81580

BS 4873:2016 / PAS 24:2016

Size Limitations And Performance Characteristics
Eco Futural Aluminium Alloy Window System

Window Type	Width (mm) - Maximum	Height (mm) - Maximum	Area (m_2) - Maximum	Friction Stays (Up To & Incl.)	Transom / Mullion Length (mm) Inc. Frame - Maximum	Air Permeability Classification	Watertightness Classification	Resistance To Wind Classification	Exposure Category As Given In Table 1 Of BS6375-1:2009
Sash Dimensions For Windows With Approved Sash Profiles									
Projecting Top Hungs	1440	2500	-	24"	-	3	8A	A5	2000
Projecting Side Hungs	840	1440	-	16"	-	4	E1050	AE2400	2000+
Overall Dimensions For Windows With Approved Outer Frame Profiles									
Fixeds	2100	2100	4.2	-	-	3	E1050	AE	2000
Tilt / Turns	1600*	2400	-	-	-	4	E900	AE	2400
Overall Dimensions For Approved Outer Frames & Transom / Mullion Profiles									
Mulitilights ETC831 Transom / Mullion	2400	2100	3.1	-	1345	4	E1050	AE	2000

*Width Of The Tilt / Turn Sash Must Not Exceed 1½ Times The Height.

First Issued: 03/02/2005 Latest Issue: 27/09/2018

Specification

Kitemark™ Certificate

No. KM 530838

Eco Futural Aluminium Alloy Residential Door System

BS 4873:2016 / PAS 24:2016 - General and enhanced security performance requirements for door assemblies.

Profiles :	Outer Frame :	EF011/414/472/415/492/493/952/953
	Leaf :	EF023/120/424/425
	Midrail :	EF030/031/032/033/034/035/036/130
Hardware :	Locking :	ACSZ510/511/512/550/551/552
	Shootbolt :	ACGT430 with rods ACVL127
	Keep :	ACVL434
	Hinges :	ACUN450, ACMX102 + ACMX103, ACUN102 + ACUN103
	Handle :	ACFA120
	Cylinder + Cover :	ACMX01613/ACMX208 & ACSZ400
	Lock Keeps :	ACSZ650/651

Kitemark Size Limitations And Performance Characteristics

Door Type	Leaf Width (mm) - Maximum	Leaf Height (mm) - Maximum	Air Permeability Classification	Watertightness Classification	Resistance To Wind Classification	Exposure Category As Given In Table 1 Of BS6375-1:2009
Single Leaf	1000	2500	4	4A	A3	1200
Double Leaf Open In Low Theshold	1000	2500	3	4A	A3	1200
Double Leaf Open In Standard Theshold	1000	2500	4	6A	A3	1200
Double Leaf Open Out	1000	2500	4	8A	A3	1200

First Issued: 29/09/2008 Latest Issue: 27/09/2018

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 drip bars are used over all opening vents/ fixed panels (dummys).

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 ACSIL04. Into the mitred corner insert the cleat glue ACSIL013 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 small gap sealer ACSIL04. After fixing, special care should be taken to ensure any excess is cleared from painted surfaces.

VENT

Corners are formed by coating the cut faces to be joined with a suitable gap sealer ACSIL04. In the mitred corner insert the cleat glue ACSIL013 and the required corner cleats and chevrons. The 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. Care should be taken to ensure any excess sealer is removed from the surfaces.

The cutting sizes produce vent frames with a cavity of 17mm.

When fixing, the friction stays into both the outer and vent frame, care should be taken to ensure that holes are located on 'V' grooves in the aluminium extrusions.

Specification

INTERNALLY BEADED ADAPTOR FRAME

The internally beaded adaptor frame members are cut with 45° mitred ends to the overall size required, measured to the longest point of metal. Care should be taken when measuring and cutting the frame members as only nominal clearance is required when the assembled frame is fixed in the outer frame.

Corners are formed by coating the cut faces to be joined with a suitable small gap sealer ACSIL04. Into the mitred corner insert the cleat glue ACSIL013 and a corner cleat and the required corner chevrons. The small gap sealer ensures a permanent joint and guards against the ingress of moisture and joint movements. Care should be taken to ensure any excess sealer is removed from painted surfaces.

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 at 45° or 90° both ends. When using external glazing bead EF960, slide retained gasket ACET835 into section and ensure it is not stretched. 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.

N.B. It may be necessary to insert glazing beads after toeing and heeling tilt turn, side hung or door sashes.

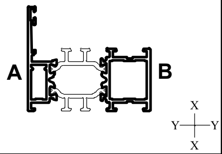
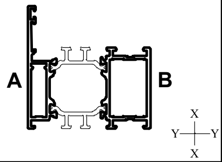
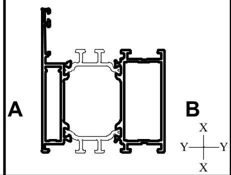
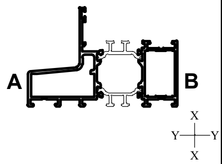
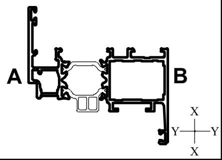
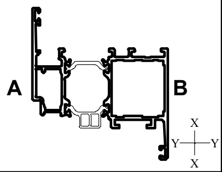
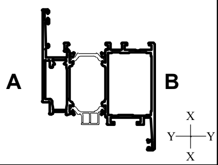
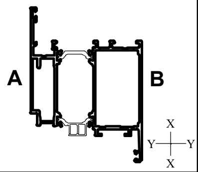
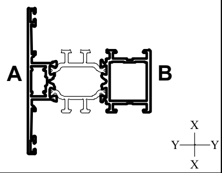
INTERNALLY BEADED GLAZING

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.
See note above with regard to 'toeing and heeling'.

Eco Futural Window U Values

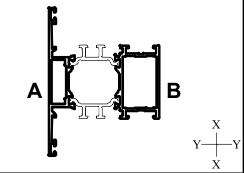
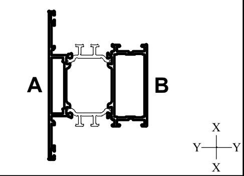
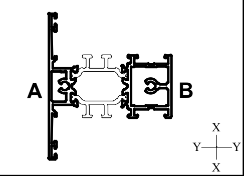
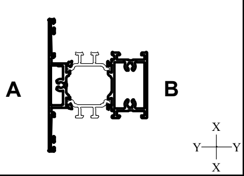
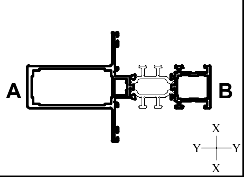
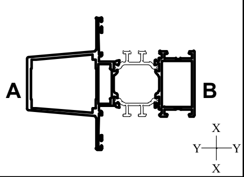
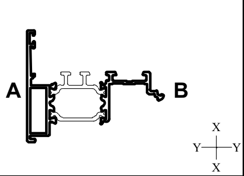
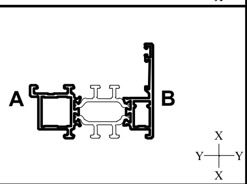
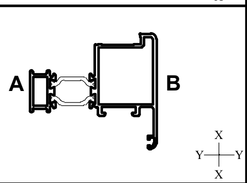
There are three levels of insulation within Eco Futural:
EF = No Foam
EF+ = Foam Insulation in Glazing Cavity
EFi+ = Foam Insulation in Glazing Cavity & in Polyamide Cavity.

Please refer to the Smart Systems' Document L White Paper for more information or contact the Technical Department.

Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
EF010		A27	434.2	92.9	25.1 — 7.1	6.95 — 1.95	6.5	1	✓	✓	✓	✓	✓
EF011		A27	452.5	112.9	29.52 — 8.4	12.53 — 3.1	6.5	1	✓	✓	✓	✓	✓
EF012		A28	458.1	134.9	21.51 — 4.67	34.14 — 11.61	6.5	1	✓	✓	✓	✓	✓
EF019		A28	542.4	187.1	62.97 — 12.3	15.24 — 3.5	6.5	1	✓	✓	✓	✓	✓
EF020		A29	466.2	112.9	38.28 — 9.7	10.42 — 2.9	6.5	1	✓	✓	✓	✓	✓
EF021		A29	481.43	137.7	17.93 — 4.28	44.01 — 12.10	6.5	1	✓	✓	✓	✓	✓
EF022		A30	500.1	153.3	52.31 — 12.6	29.85 — 6.1	6.5	1	✓	✓	✓	✓	✓
EF023		A30	519.9	171.2	55.26 — 14.6	42.41 — 8.3	6.5	1	✓	✓	✓	✓	✓
EF030		A31	497.6	118.7	28.32 — 7.44	10.93 — 2.84	6.5	1	✓	✓	✓	✓	✓

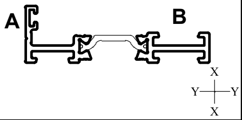
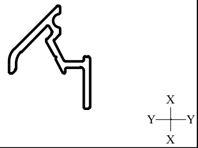
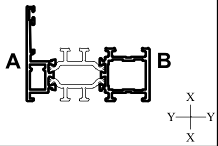
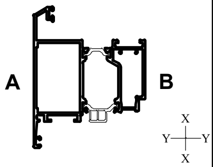
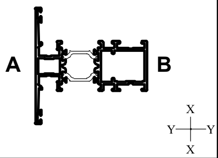
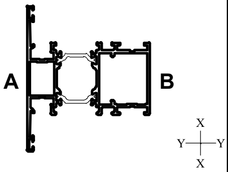
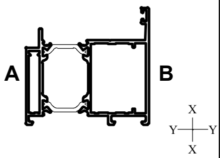
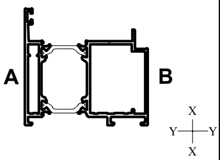
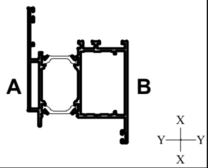
A = Outside
B = Inside

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
EF031		A31	516.4	138.7	32.15 ---- 8.64	14.81 ---- 4.09	6.5	1	✓	✓	✓	✓	✓
EF032		A32	539	160.7	36.67 ---- 9.95	28.45 ---- 5.81	6.5	1	✓	✓	✓	✓	✓
EF033		A32	500.8	118.7	32.24 ---- 8.72	10.9 ---- 2.83	6.5	1	✓	✓	✓	✓	✓
EF034		A33	520.8	138.7	36.39 ---- 9.88	18.51 ---- 4.25	6.5	1	✓	✓	✓	✓	✓
EF035		A33	596.2	219	103.36 ---- 15.95	12.79 ---- 3.55	6.5	1	✓	✓	✓	✓	✓
EF036		A34	598.3	220.6	95.69 ---- 17.21	25.44 ---- 5.85	6.5	1	✓	✓	✓	✓	✓
EF040		A34	399.2	85.24	19.98 ---- 4.21	5.91 ---- 1.77	6.5	1	✓	✓	✓	✓	✓
EF044		A36	411.5	60.93	19.61 ---- 5.24	4.6 ---- 1.42	6.5	1	✓	✓	✓	✓	✓
EF045		A36	334.6	121.1	22.64 ---- 5.63	8.74 ---- 2.61	6.5	1	✓	✓	✓	✓	✓

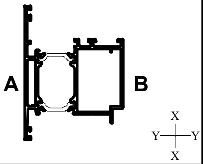
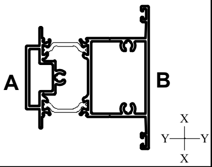
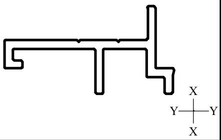
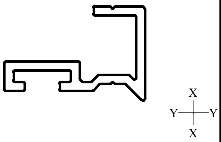
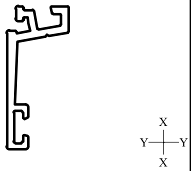
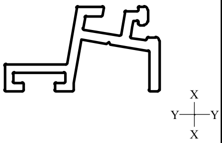
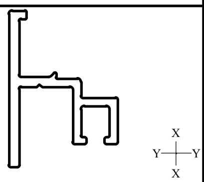
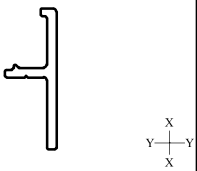
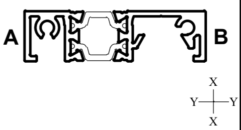
A = Outside
B = Inside

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
EF094		A37	248.5	35.43	0.39 / 0.28	1.15 / 0.39	6.5	1	✓	✓	✓	✓	✓
EF095		A37	125.9	81.14	- / -	- / -	6.5	1	✓	✓	✓	✓	
EF110		A27	422.1	82.93	22.67 / 6.42	4.96 / 1.5	6.5	1	✓	✓	✓	✓	✓
EF120		A38	480.9	158.4	48.56 / 11.27	34.45 / 7.38	6.5	1	✓	✓	✓	✓	✓
EF130		A39	510.2	118.71	39.29 / 9.09	12.57 / 3.26	6.5	1	✓	✓	✓	✓	✓
EF131		A39	529.6	138.71	44.43 / 10.35	20.99 / 4.83	6.5	1	✓	✓	✓	✓	✓
EF414		A40	348.4	124.8	28.67 / 8.72	13.76 / 3.78	7	1	✓	✓	✓	✓	✓
EF415		A40	348.4	124.8	28.22 / 7.81	13.84 / 3.82	7	1	✓	✓	✓	✓	✓
EF424		A41	450.2	160.6	34.49 / 9.98	24.37 / 5.21	7	1	✓	✓	✓	✓	✓

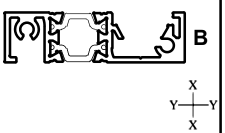
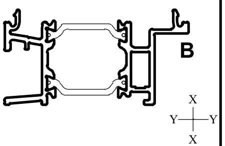
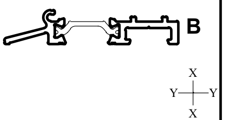
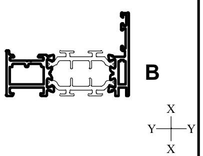
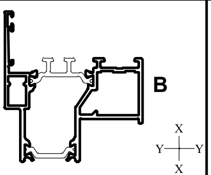
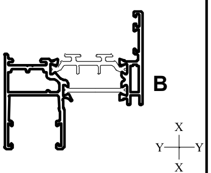
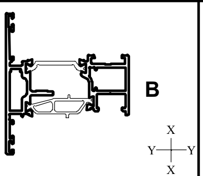
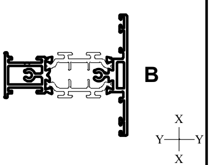
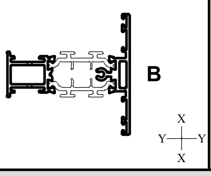
A = Outside
B = Inside

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
EF425		A41	458.2	160.6	33.16 ---- 8.74	24.3 ---- 5.2	7	1	✓	✓	✓	✓	✓
EF434		A35	354.9	177	32.18 ---- 9.33	17.49 ---- 4.64	6.5	1	✓	✓	✓	✓	✓
EF455		A42	115.2	53.52	- ---- -	- ---- -	7	1	✓	✓	✓	✓	
EF472		A43	89.15	13.02	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
EF473		A43	104.7	22.57	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
EF474		A43	109.1	9.71	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
EF475		A43	202.7	27	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
EF476		A43	128.3	23.4	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
EF492		A42	276.1	67.63	0.76 ---- 0.87	9.13 ---- 14.49	6.5	1	✓	✓	✓	✓	✓

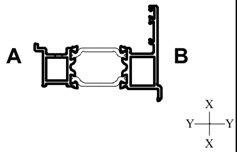
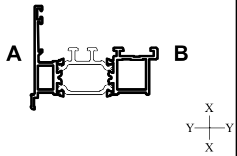
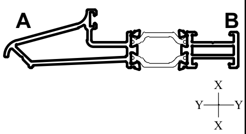
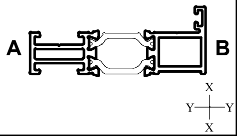
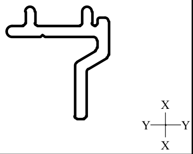
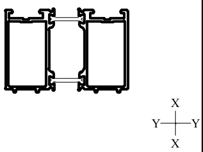
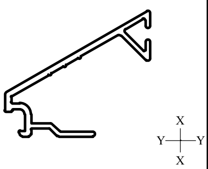
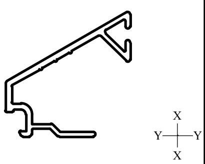
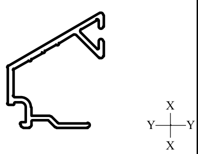
A = Outside
B = Inside

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
EF493	A  B	A42	276.1	67.63	0.88 — 1.07	9.30 — 3.68	6.5	1	✓	✓	✓	✓	✓
EF558	A  B	A44	290.8	118.85	4.45 — 2.63	15.48 — 5.18	6.5	1	✓	✓	✓	✓	✓
EF657	A  B	A44	202.2	36.9	7.84 — 2.2	0.17 — 0.23	6.5	1	✓	✓	✓	✓	✓
EF910	A  B	A45	343.5	177.9	22.19 — 6.3	3.53 — 2.4	6.5	1	✓	✓	✓	✓	✓
EF917	A  B	A46	378.8	117.5	18.20 — 4.47	25.77 — 9.44	6.5	1	✓	✓	✓	✓	✓
EF918	A  B	A46	389.7	98	8.09 — 2.37	26.29 — 8.35	6.5	1	✓	✓	✓	✓	✓
EF926	A  B	A47	442	115	29.14 — 7.47	10.39 — 2.83	6.5	1	✓	✓	✓	✓	✓
EF930	A  B	A47	389	97	26.6 — 6.93	6.11 — 1.91	6.5	1	✓	✓	✓	✓	✓
EF932	A  B	A47	389	97	25.0 — 6.26	6.10 — 1.91	6.5	1	✓	✓	✓	✓	✓

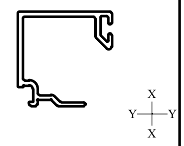
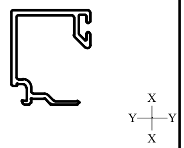
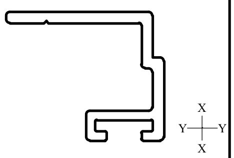
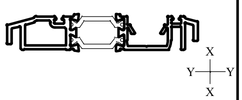
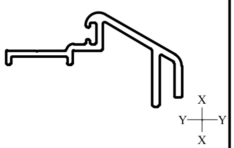
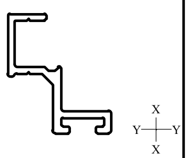
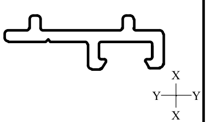
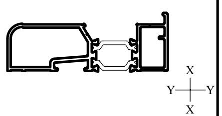
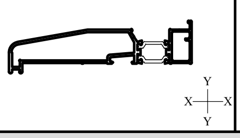
A = Outside
B = Inside

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
EF945		A48	311	115	19.17 ---- 4.88	4.10 ---- 2.02	6.5	1	✓	✓	✓	✓	✓
EF946		A48	334	68	20.95 ---- 5.53	4.91 ---- 2.28	6.5	1	✓	✓	✓	✓	✓
EF952		A49	331	65	37.78 ---- 7.41	1.36 ---- 1.45	6.5	1	✓	✓	✓	✓	✓
EF953		A49	260	45	15.15 ---- 4.38	1.01 ---- 1.08	6.5	1	✓	✓	✓	✓	✓
EF954		A49	64	15	- ---- -	- ---- -	5	1	✓	✓	✓	✓	
EF955		A50	356	85	21.38 ---- 6.62	10.65 ---- 5.02	6.5	1	✓	✓	✓	✓	✓
EF960		A50	143	38	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
EF961		A50	139	35	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
EF962		A50	134	33	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	

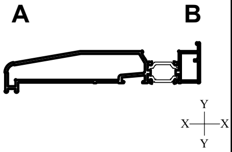
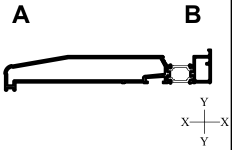
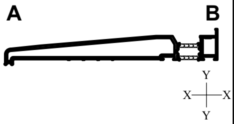
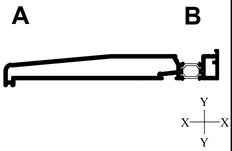
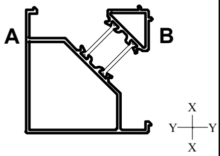
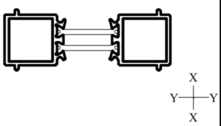
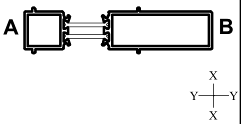
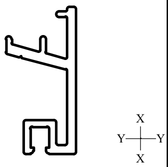
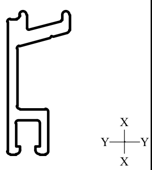
A = Outside
B = Inside

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
EF966		A50	161	55	- — -	- — -	6.5	1	✓	✓	✓	✓	
EF967		A50	153	52	- — -	- — -	6.5	1	✓	✓	✓	✓	
EF992		A51	102	14	0.27 — 0.27	0.24 — 0.37	6.5	1	✓	✓	✓	✓	
EF993		A51	308	59	0.84 — 1.01	26.48 — 6.35	6.5	1		✓			
EF994		A51	182	71	- — -	- — -	6.5	1	✓	✓	✓	✓	
EF995		A51	99	46	- — -	- — -	6.5	1	✓	✓	✓	✓	
ETC090		A60	68	40	- — -	- — -	5	1	✓	✓	✓	✓	
ETC451	A B 	A52	271	180	32.44 — 7.29	3.46 — 2.79	6.5	1	✓	✓	✓	✓	✓
ETC452	A B 	A52	414	382	122.46 — 18.03	6.01 — 3.34	6.5	1	✓	✓	✓	✓	✓

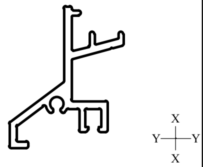
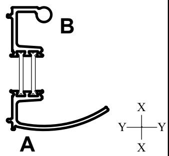
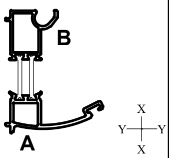
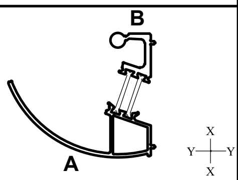
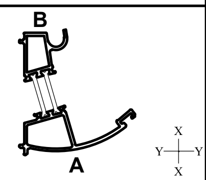
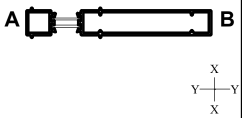
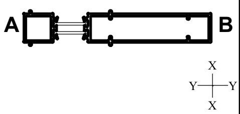
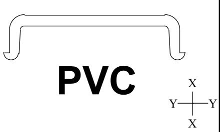
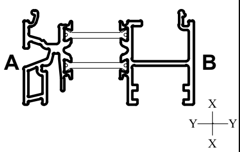
A = Outside
B = Inside

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
ETC457		A52	444	412	163.27 — 21.60	6.79 — 3.73	6.5	1	✓	✓	✓	✓	✓
ETC458		A53	524	492	313.62 — 32.63	8.87 — 4.79	6.5	1	✓	✓	✓	✓	✓
ETC477		A53	752	408	1591.6 ----- 105.33	26.84 ----- 12.84	6.5	1	✓	✓	✓	✓	✓
ETC479		A53	594	559	501.64 — 44.04	9.72 — 5.34	6.5	1	✓	✓	✓	✓	✓
FT050		A54	368.1	129.8	28.24 ---- 8.32	28.29 ---- 8.32	6.5	1	✓	✓	✓	✓	✓
FT053		A55	213.3	41.14	15.25 ---- 4.69	1.67 ---- 1.39	6.5	1	✓	✓	✓	✓	✓
FT054		A55	281.3	95.6	43.3 ---- 8.58	2.65 ---- 2.2	6.5	1	✓	✓	✓	✓	✓
FT055		A54	151.9	33.1	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
FT056		A54	98.1	24.5	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	

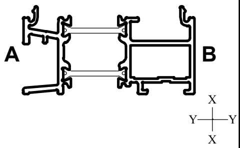
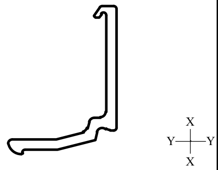
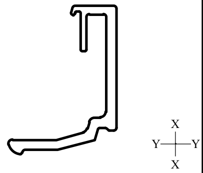
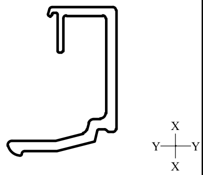
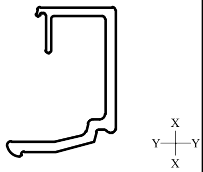
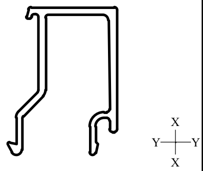
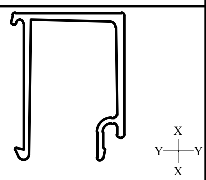
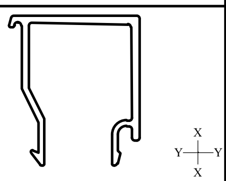
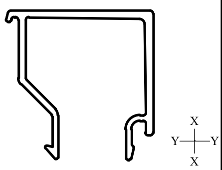
A = Outside
B = Inside

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
FT057		A54	193	44	- — -	- — -	6.5	1	✓	✓	✓	✓	
FT151		A56	331.5	80	22.53 — 6.58	6.12 — 1.59	6.5	1	✓	✓	✓	✓	✓
FT152		A56	309.6	63	16.49 — 4.42	6.07 — 1.77	6.5	1	✓	✓	✓	✓	✓
FT153		A56	390.4	119	24.64 — 7.14	22.60 — 4.23	6.5	1	✓	✓	✓	✓	✓
FT154		A56	330.2	75	17.91 — 4.66	10.46 — 2.58	6.5	1	✓	✓	✓	✓	✓
FT155		A55	383.5	217.9	135.1 — 17.7	4.16 — 3.46	6.5	1	✓	✓	✓	✓	✓
FT156		A55	343.5	177.9	91.3 — 13.85	3.59 — 2.99	6.5	1	✓	✓	✓	✓	✓
FT422		A57	64.8	-	- — -	- — -	6.5	1	✓				
FT458		A57	411.7	83	24.77 — 6.74	3.72 — 1.87	6.5	1	✓	✓	✓	✓	✓

A = Outside
B = Inside

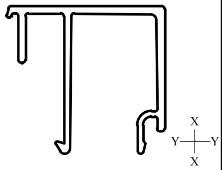
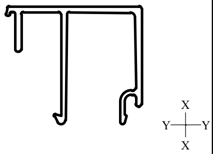
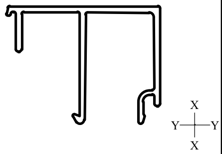
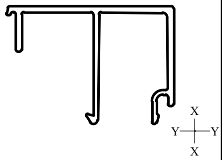
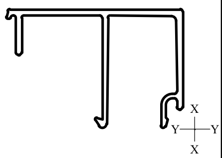
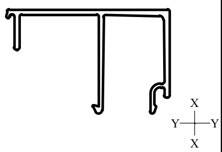
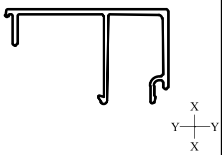
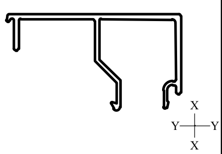
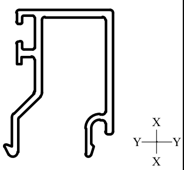
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
M = Dual Colour

Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
FT557		A57	332.2	93	18.425 ---- 5.54	3.36 ---- 1.88	6.5	1	✓	✓	✓	✓	✓
GL004		A58	88.6	24.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL008		A58	109.4	29.4	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL012		A58	117.4	33.4	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL014		A58	121.3	35.4	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL016		A58	146.7	37.3	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL020		A58	151.7	41.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL023		A58	160.2	44.3	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL026		A58	169.2	47.3	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	

A = Outside
B = Inside

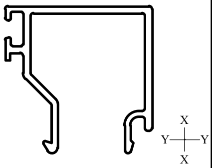
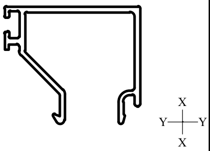
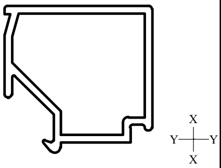
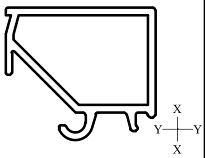
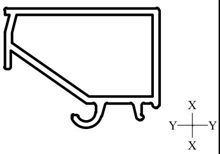
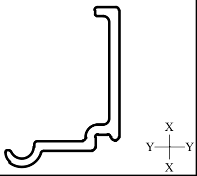
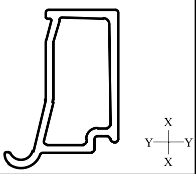
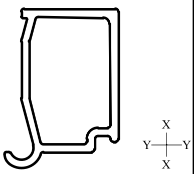
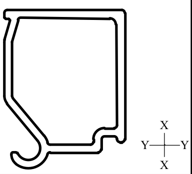
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
M = Dual Colour

ISSUED: DECEMBER 2018

Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
GL028		A58	183.8	49.2	- — -	- — -	6.5	1	✓	✓	✓	✓	
GL030		A58	187.8	51.2	- — -	- — -	6.5	1	✓	✓	✓	✓	
GL034		A58	195.8	55.3	- — -	- — -	6.5	1	✓	✓	✓	✓	
GL037		A58	201.8	58.3	- — -	- — -	6.5	1	✓	✓	✓	✓	
GL039		A58	205.8	60.3	- — -	- — -	6.5	1	✓	✓	✓	✓	
GL041		A58	209.8	62.3	- — -	- — -	6.5	1	✓	✓	✓	✓	
GL045		A59	217.8	65.3	- — -	- — -	6.5	1	✓	✓	✓	✓	
GL048		A59	229.9	68.3	- — -	- — -	6.5	1	✓	✓	✓	✓	
GL117		A59	161.9	38.6	- — -	- — -	6.5	1	✓	✓	✓	✓	

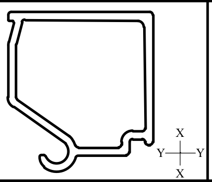
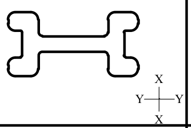
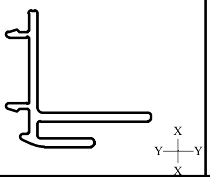
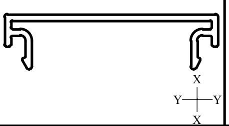
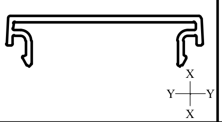
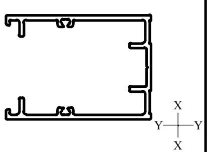
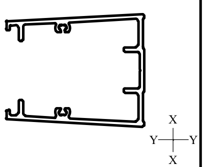
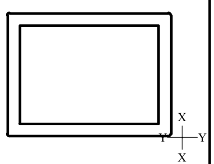
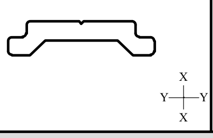
A = Outside
B = Inside

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
GL126		A59	180.7	47.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL130		A59	191.8	51.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL526		A59	111.2	47.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL530		A59	131.2	51.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL534		A59	137.3	55.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL1204		A59	91.7	26.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL1212		A59	88.3	34.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL1216		A59	92.3	38.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
GL1220		A59	98	42.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	

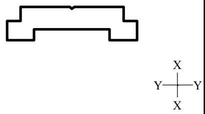
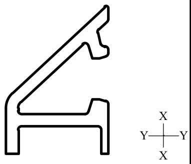
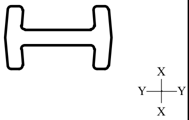
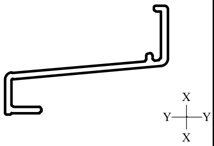
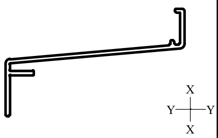
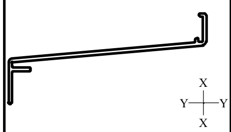
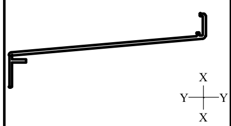
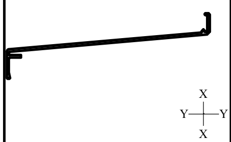
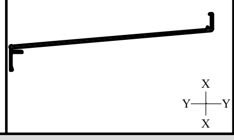
A = Outside
B = Inside

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
GL1224		A59	105	46.6	- / -	- / -	6.5	1	✓	✓	✓	✓	
UN150		A60	64.9	65.5	- / -	- / -	6.5	1	✓	✓	✓	✓	
UN381		A60	126.2	14.62	- / -	- / -	6.5	1	✓	✓	✓	✓	
UN500		A61	137.3	-	- / -	- / -	6.5	1	✓	✓	✓	✓	
UN501		A61	135.9	45	- / -	- / -	6.5	1	✓	✓	✓	✓	
UN510		A61	374.5	113	12.2 / 3.8	9.5 / 4.8	6.5	1	✓	✓	✓	✓	
UN511		A61	394.4	113.1	12.9 / 4.0	11.6 / 5.1	6.5	1	✓	✓	✓	✓	
UTL080		A61	139.2	139.2	8.2 / 4.1	5.1 / 3.4	6.5	1	✓				
VL59		A62	48	-	- / -	- / -	6	1		✓			

A = Outside
B = Inside

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

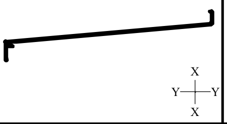
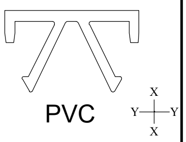
Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
VL60		A62	46	-	- ---- -	- ---- -	6	1		✓		✓	
VL72		A62	99.5	30.6	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
VL75		A62	54	54	- ---- -	- ---- -	6.5	1	✓				
VL479		A63	162.9	83.0	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
VL480		A63	251.6	115.0	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
VL481		A63	311.8	147.0	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
VL482		A63	365.3	180.1	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
VL483		A63	425.5	209.7	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
VL484		A63	493.4	243.0	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	

A = Outside
B = Inside

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

Eco Futural

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
VL486		A63	600.5	300.5	- ---- -	- ---- -	6.5	1	✓	✓	✓	✓	
VR023A	 PVC	A62	89	-	- ---- -	- ---- -	6.5	1	✓				

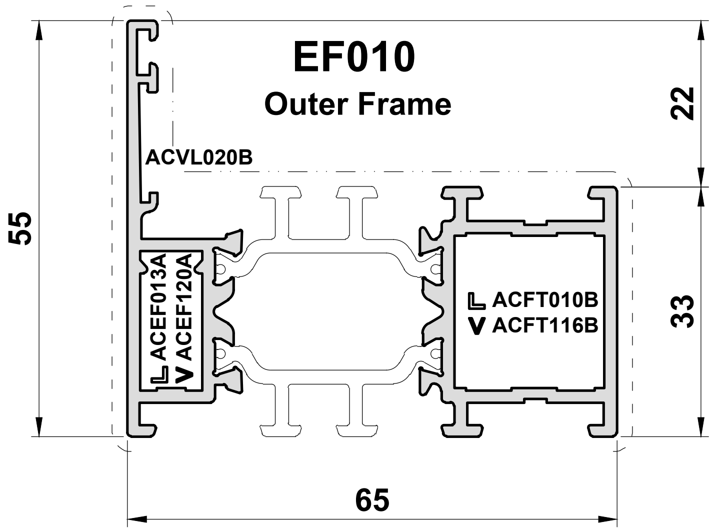
A = Outside
B = Inside

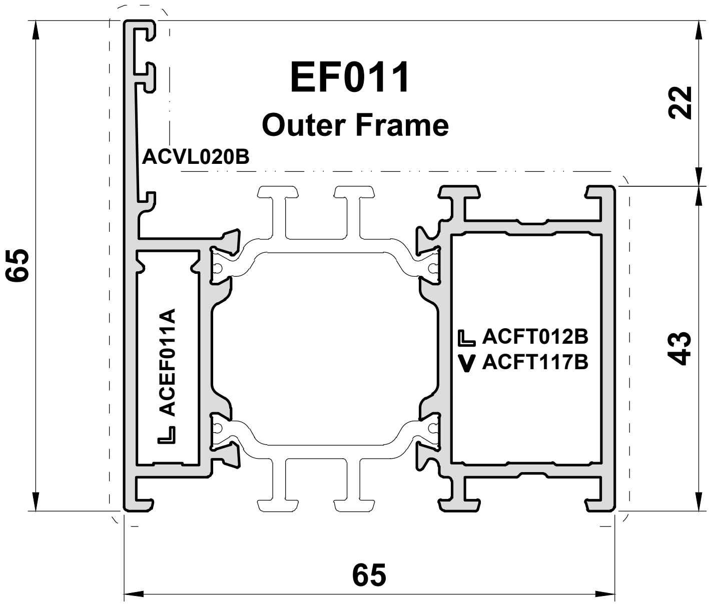
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
M = Dual Colour

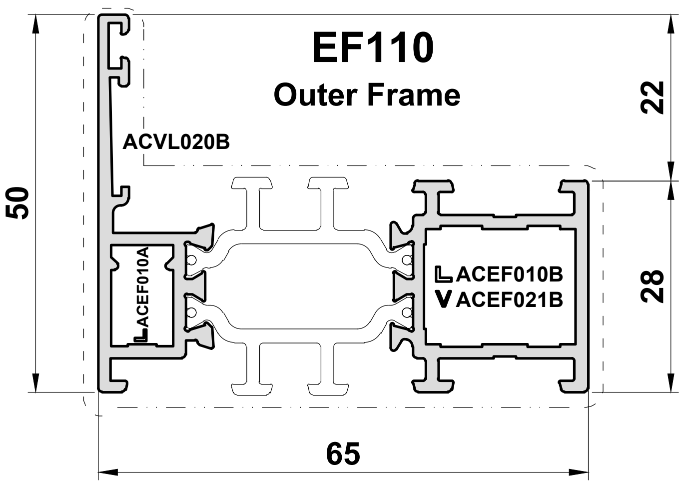
This page is intentionally left blank

Primary Visible Side

Secondary Visible Side

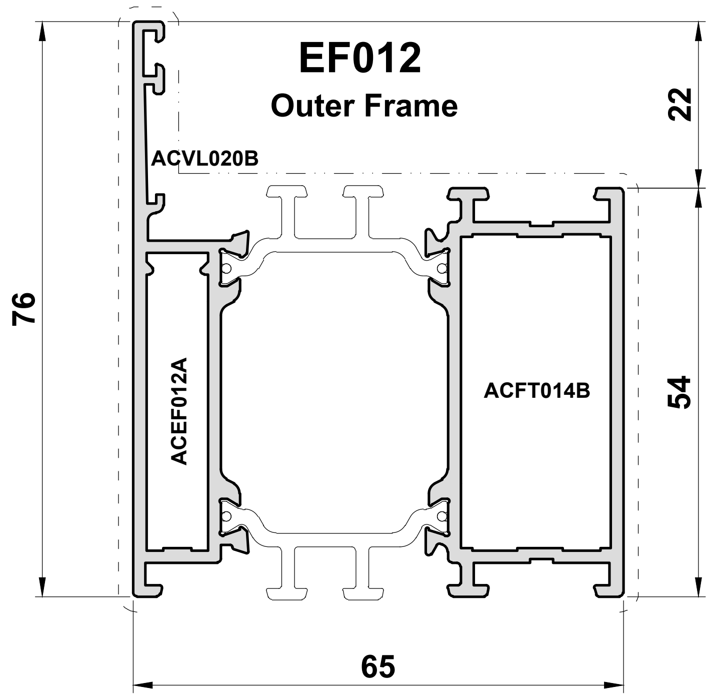


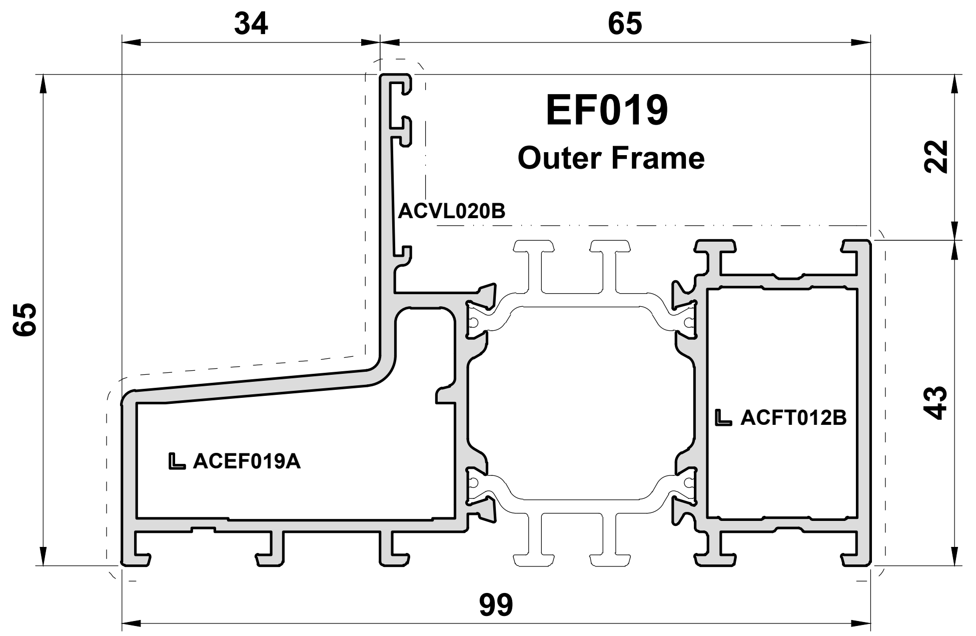




Scale 1:1

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



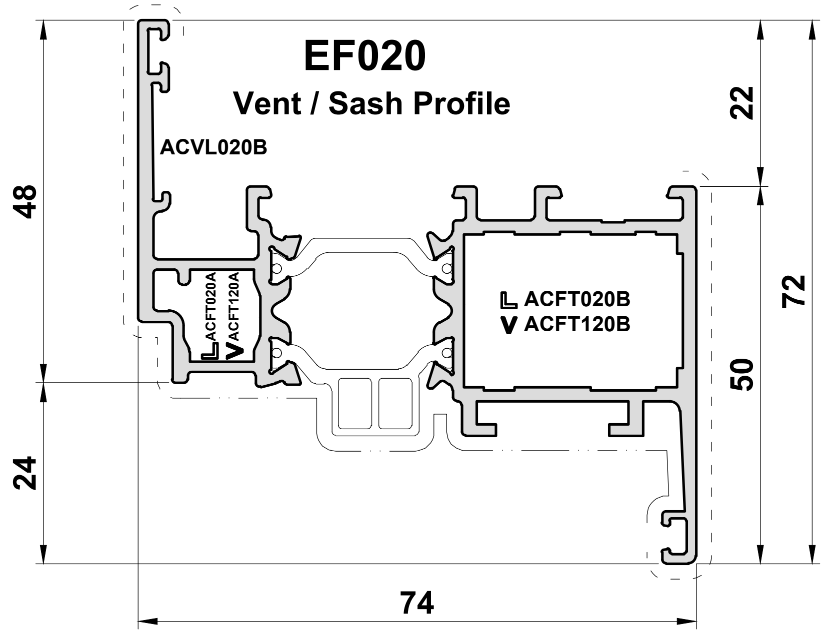


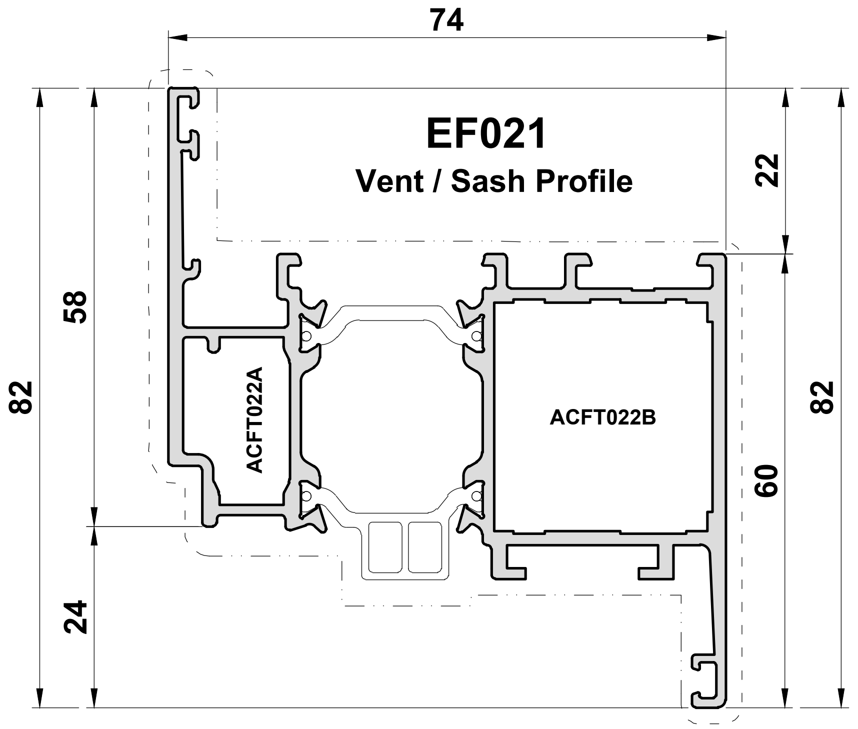
Scale 1:1 Scale 1:1

ISSUED: DECEMBER 2018

Primary Visible Side

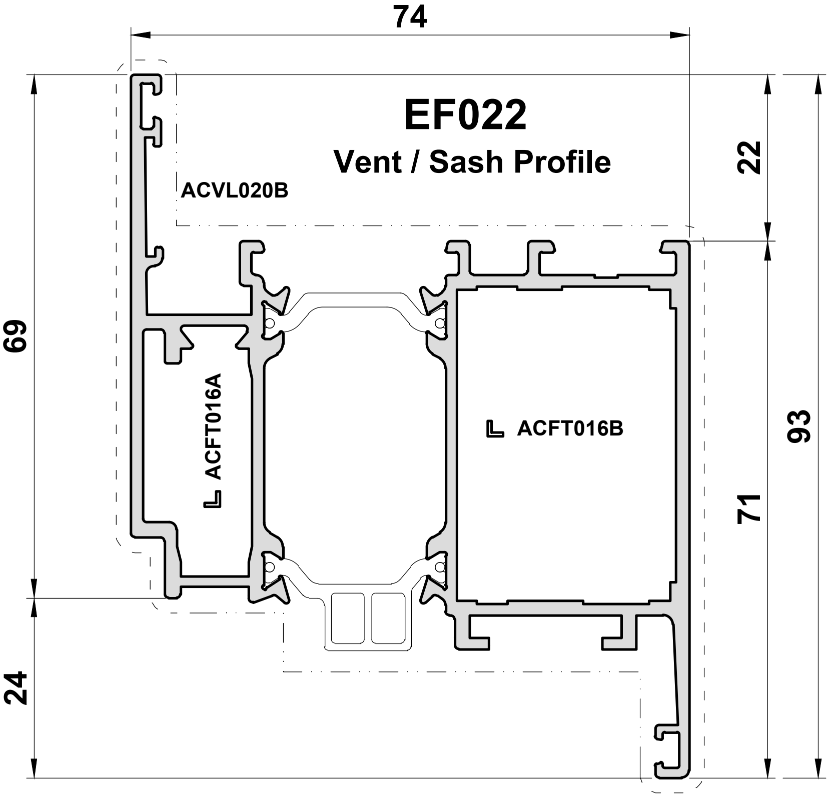
Secondary Visible Side

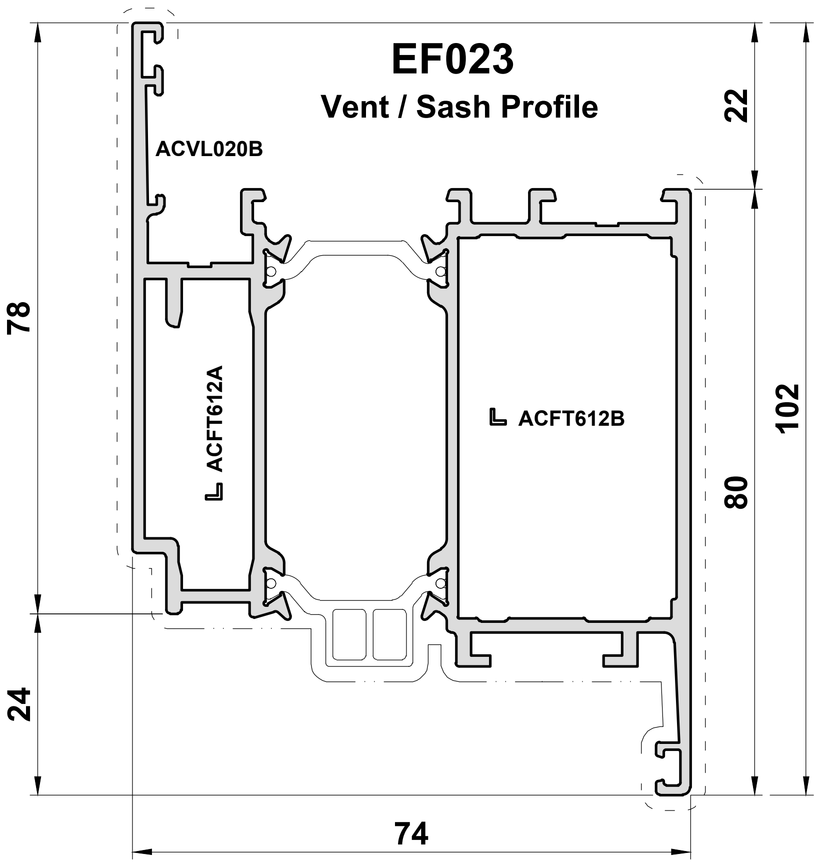




Scale 1:1

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

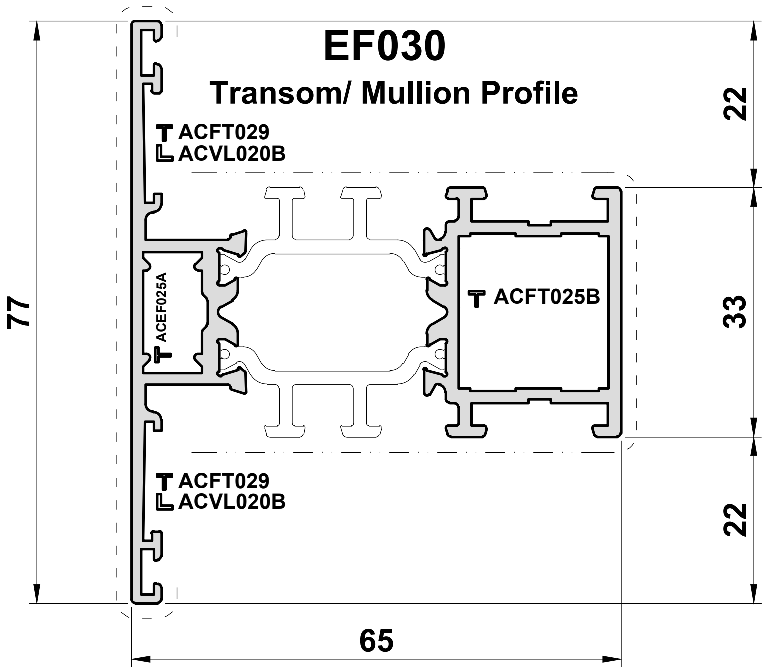


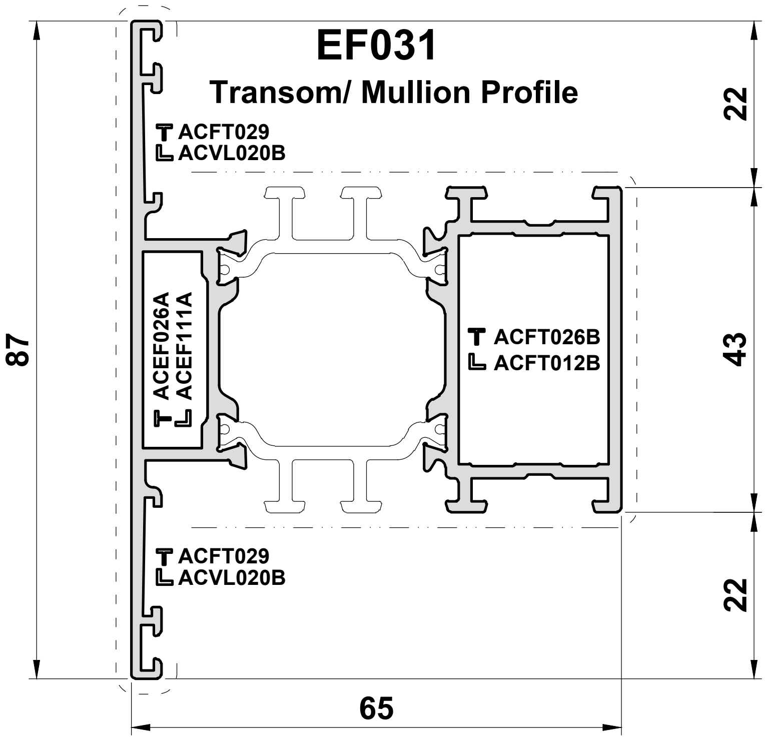


Scale 1:1

Primary Visible Side

Secondary Visible Side

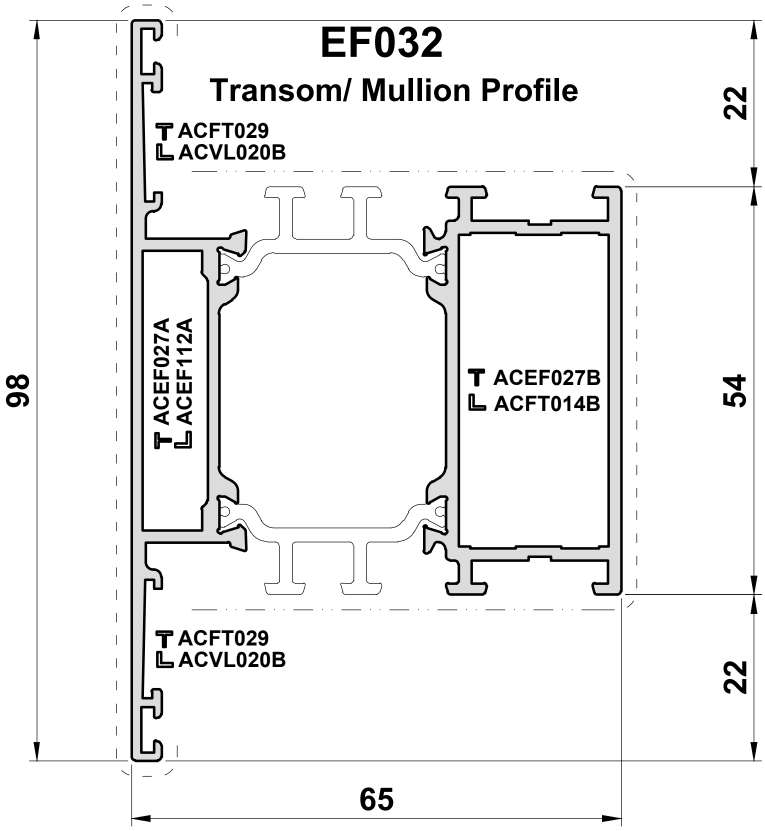


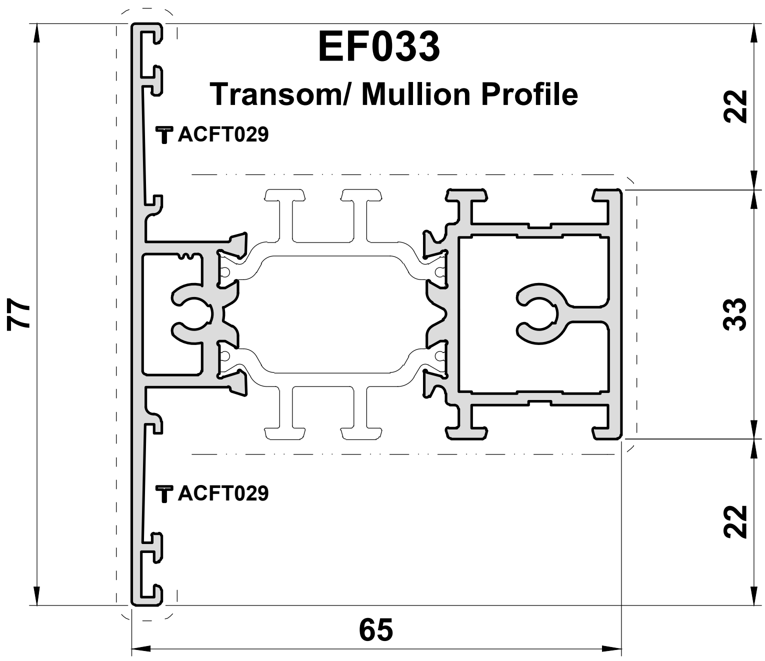


Scale 1:1

Primary Visible Side

Secondary Visible Side



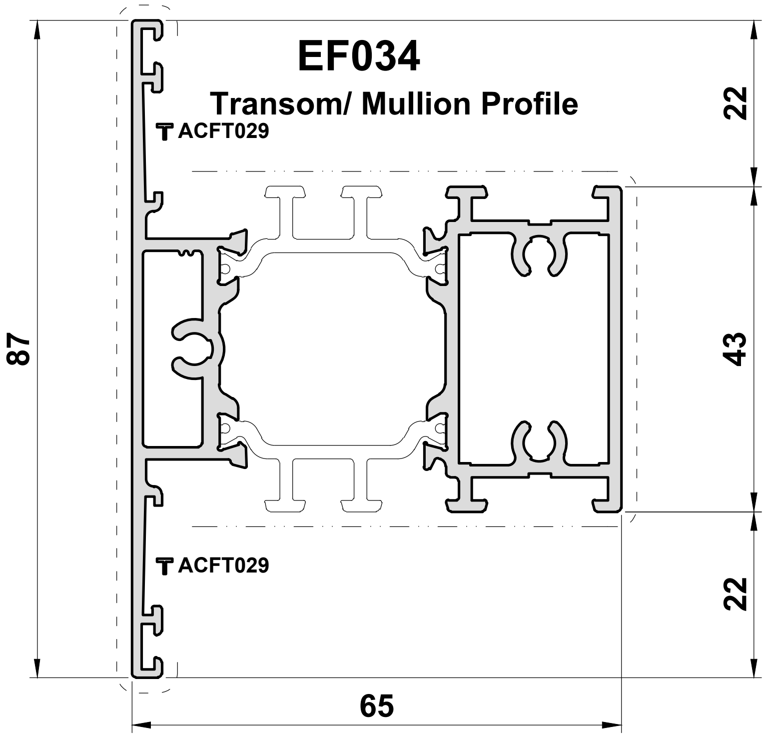


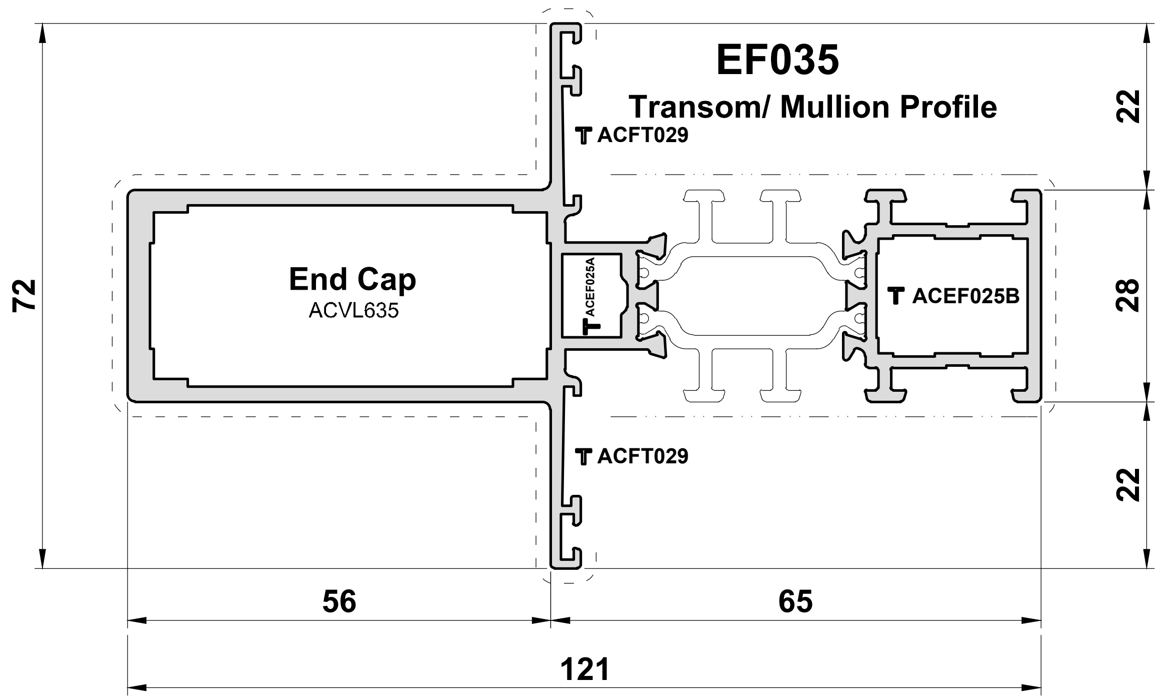
Scale 1:1

ISSUED: DECEMBER 2018

PROFILES : SCALE PROFILE DRAWINGS

Primary Visible Side
Secondary Visible Side





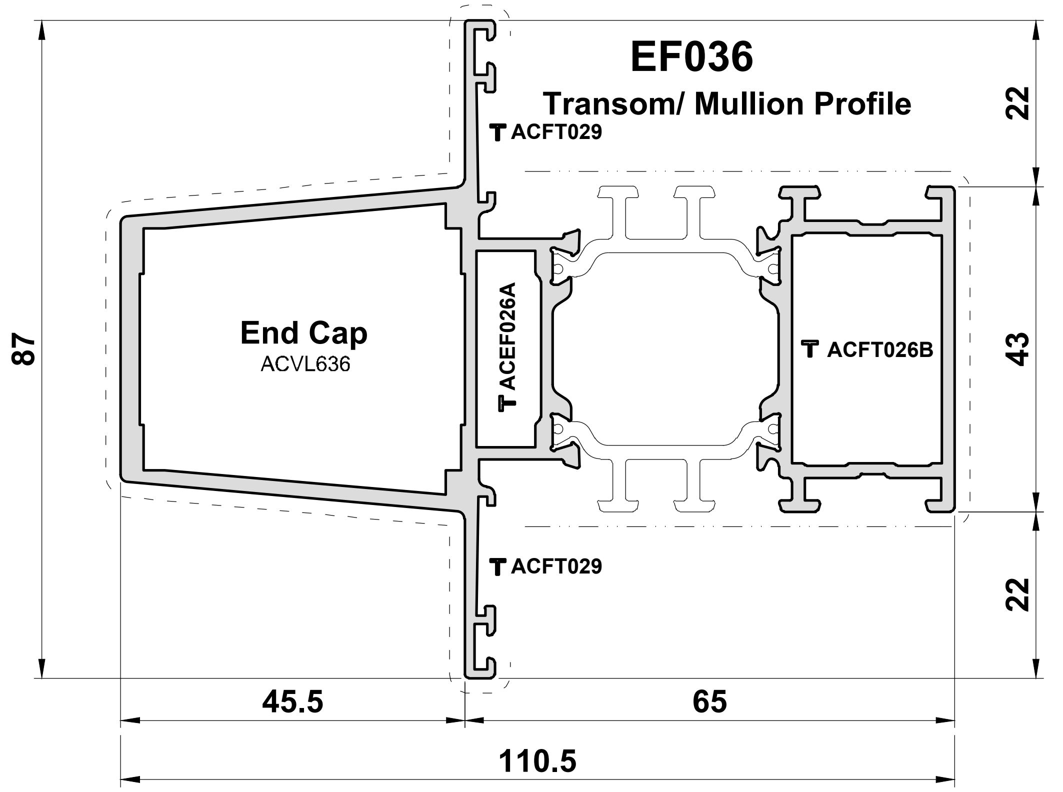
Scale 1:1

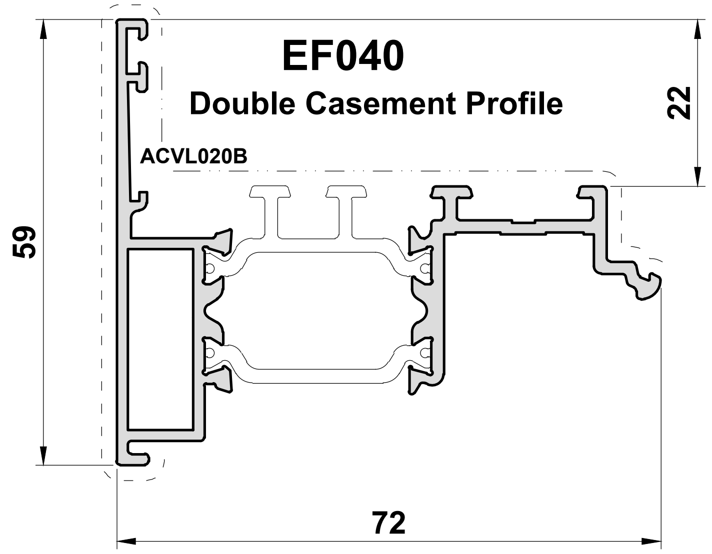
Eco Futural

PROFILES : SCALE PROFILE DRAWINGS

Primary Visible Side

Secondary Visible Side





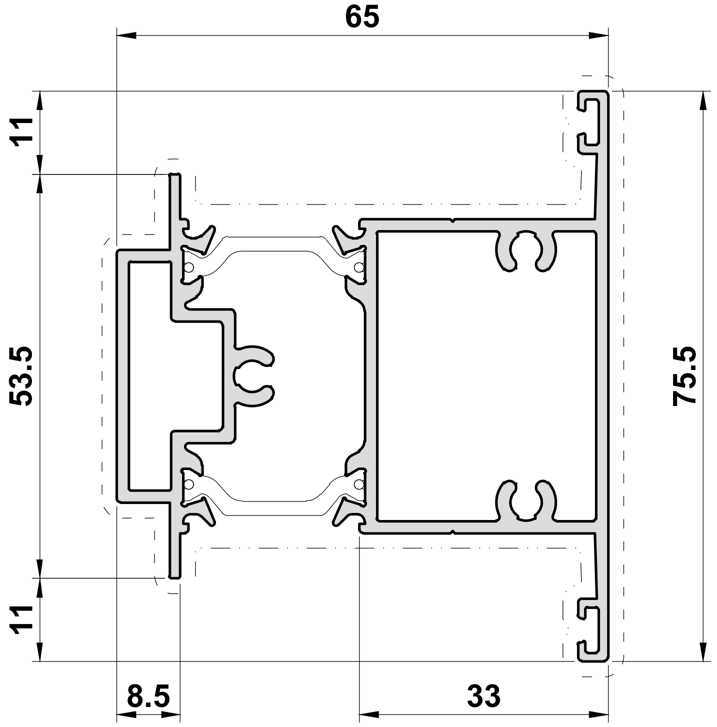
Scale 1:1

ISSUED: DECEMBER 2018

Primary Visible Side

Secondary Visible Side

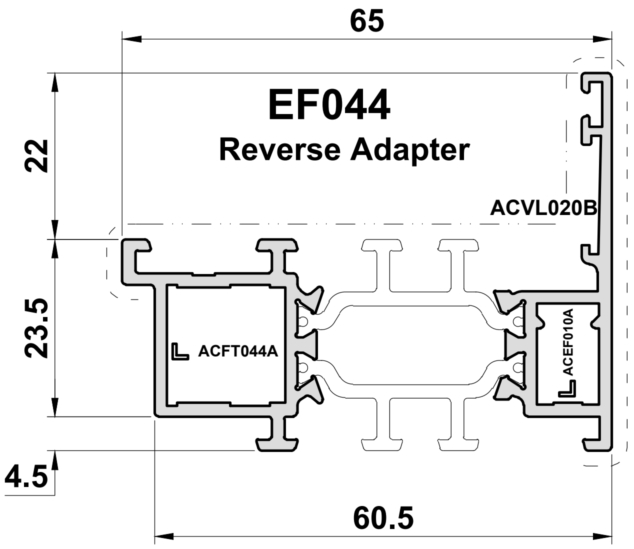
EF434
Transom Profile

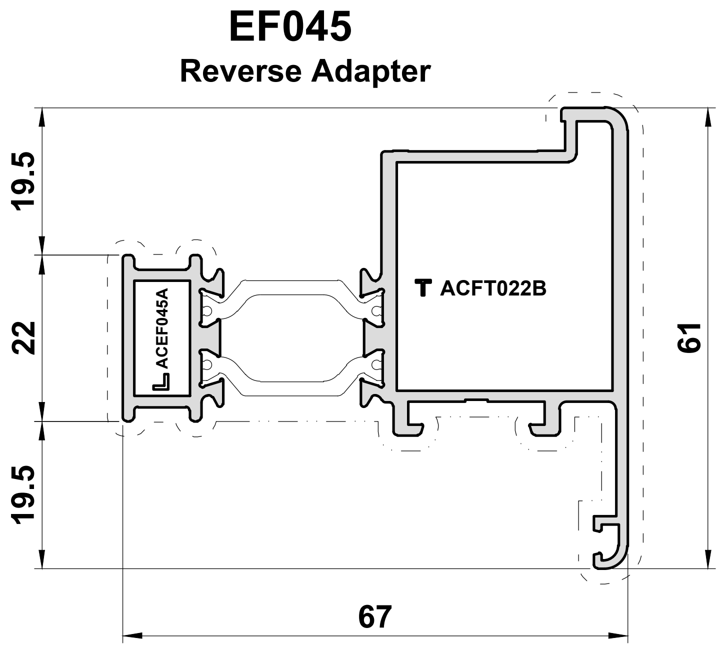


Scale 1:1

Primary Visible Side

Secondary Visible Side



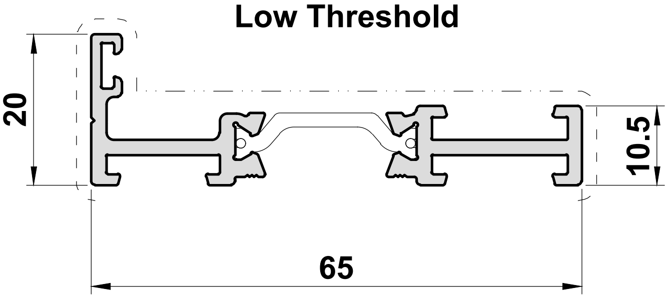


Scale 1:1

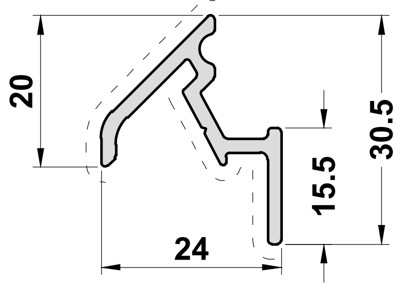
Primary Visible Side

Secondary Visible Side

EF094
Low Threshold



EF095
Weather Drip

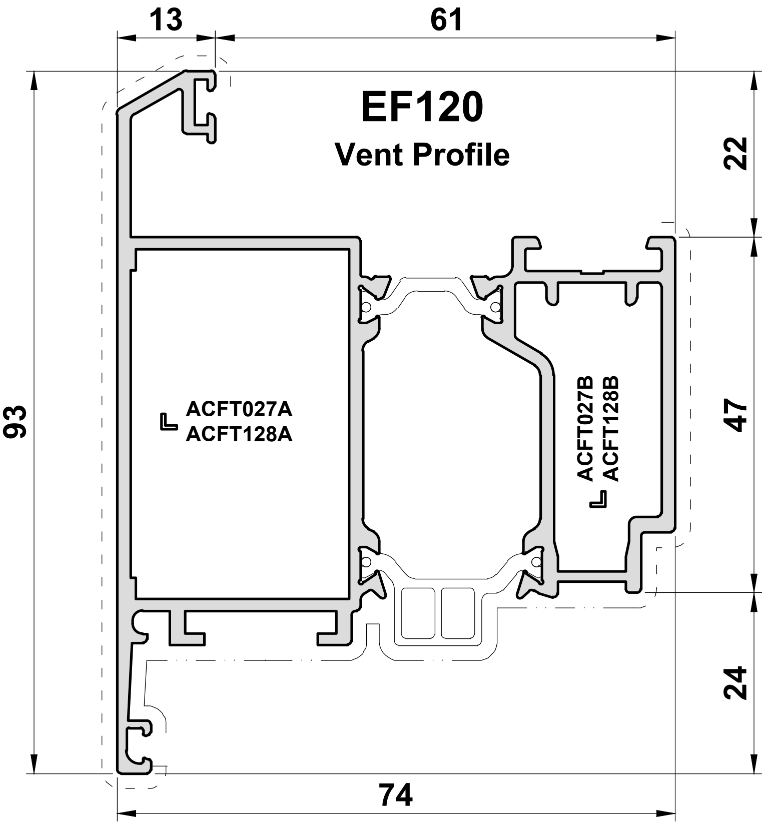


End Cap: ACEF095/096

Scale 1:1

Primary Visible Side

Secondary Visible Side

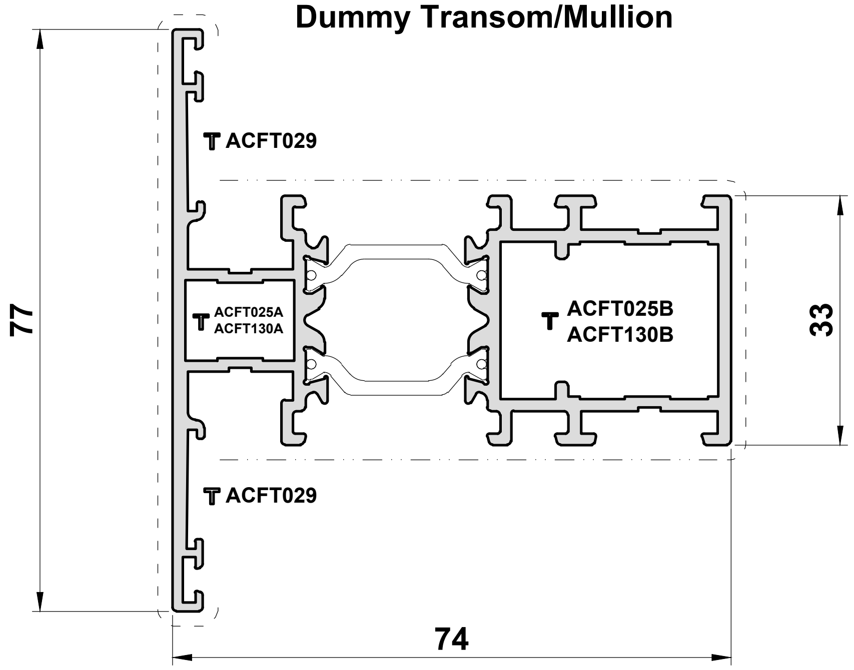


Scale 1:1

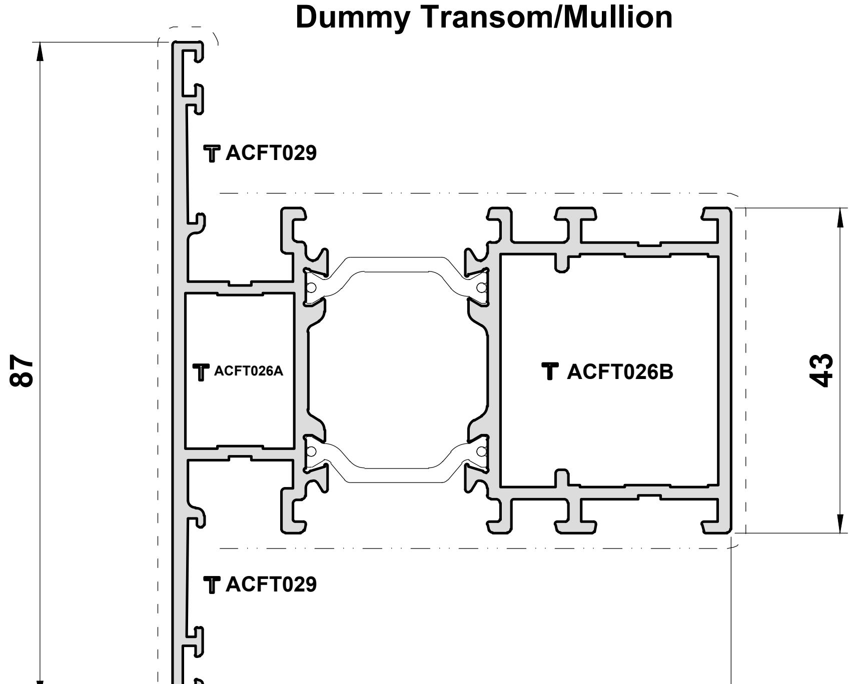
Primary Visible Side

Secondary Visible Side

EF130
Dummy Transom/Mullion



EF131
Dummy Transom/Mullion

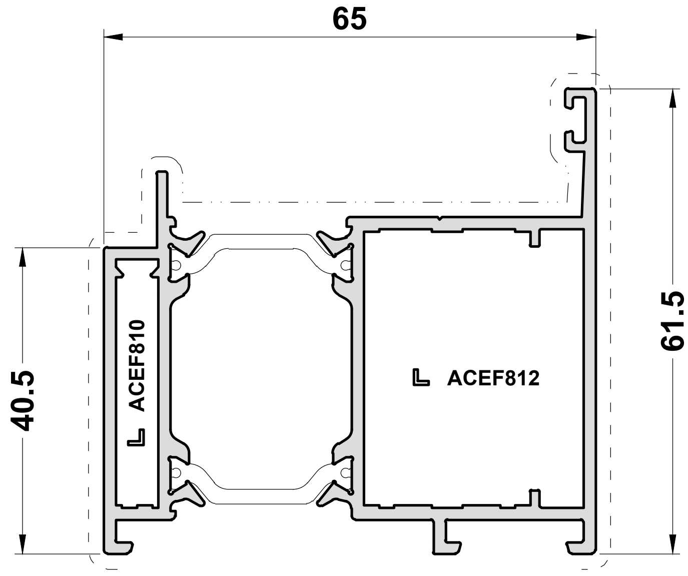


Scale 1:1

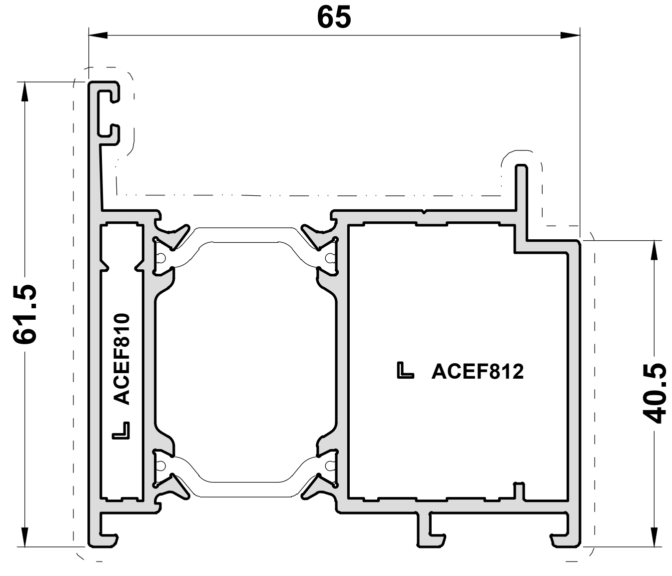
Primary Visible Side

Secondary Visible Side

EF414
Open Out
Outer Frame



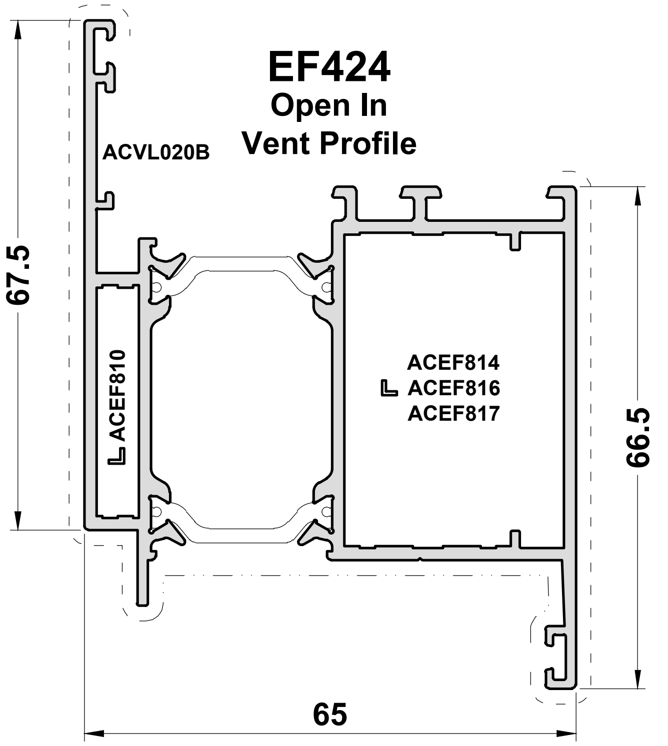
EF415
Open In
Outer Frame

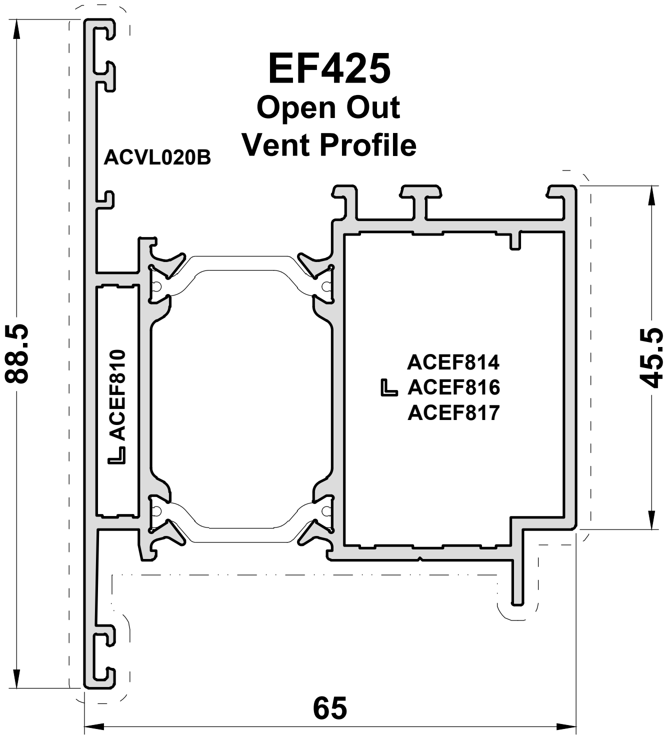


Scale 1:1

ISSUED: DECEMBER 2018

Primary Visible Side	Secondary Visible Side

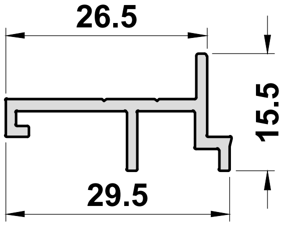


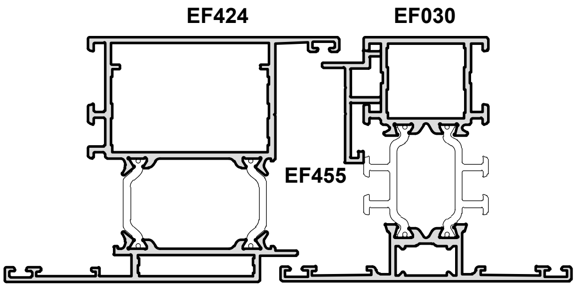


Scale 1:1

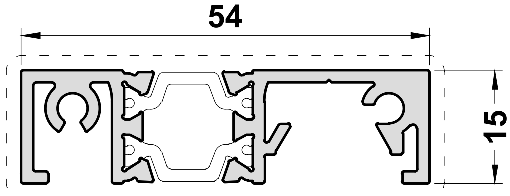
Primary Visible Side — — — — — — — — — — — — — — — — — — — Secondary Visible Side — · — · — · — · — · — · —

EF455
Mullion Adaptor

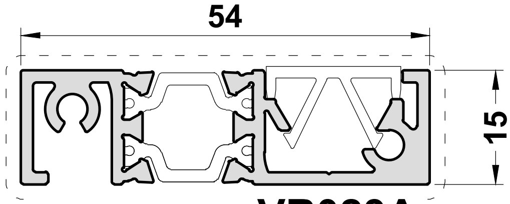




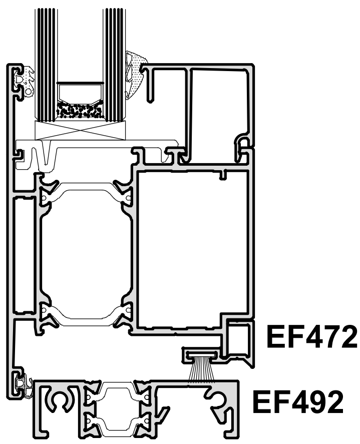
EF492
Low Threshold



EF493
Low Threshold



VR023A

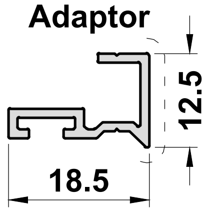


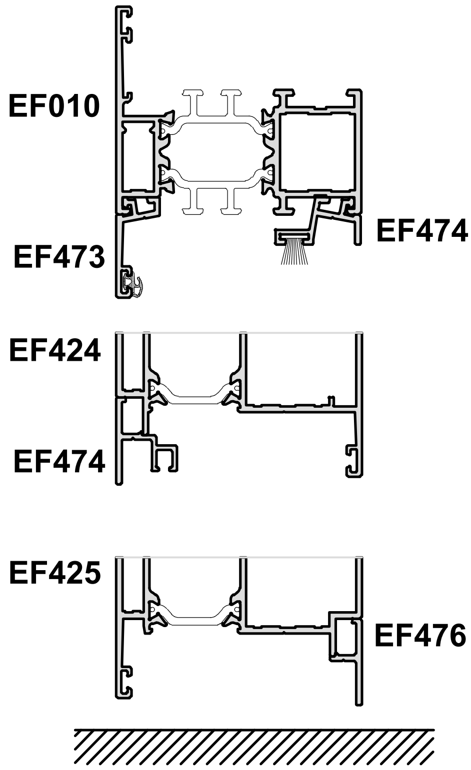
Scale 1:1

Primary Visible Side

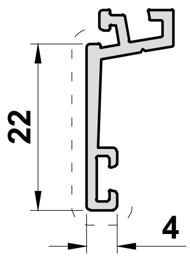
Secondary Visible Side

EF472
Bottom Rail Adaptor

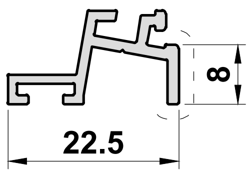




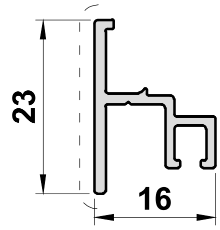
EF473
Bottom Rail Adaptor



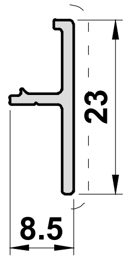
EF474
Bottom Rail Adaptor



EF475
Bottom Rail Adaptor



EF476
Bottom Rail Adaptor



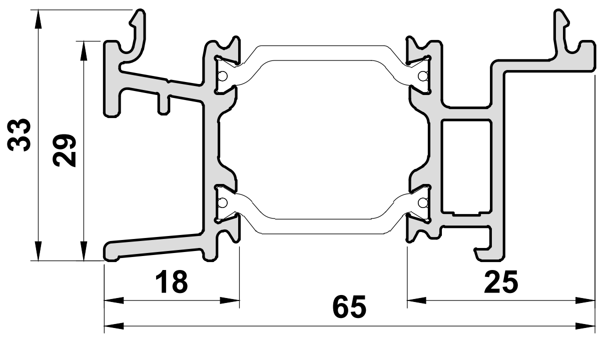
Scale 1:1

Primary Visible Side

Secondary Visible Side

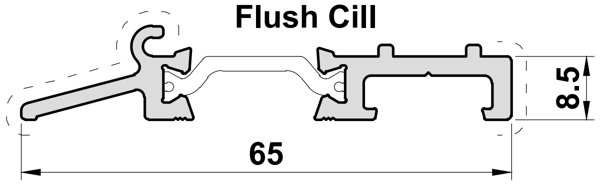
EF558

Sub Cill Adaptor



EF657

Flush Cill

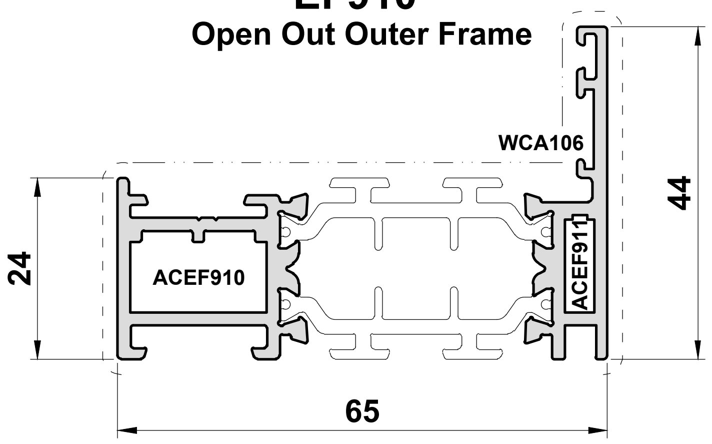


Scale 1:1

Primary Visible Side

Secondary Visible Side

EF910
Open Out Outer Frame

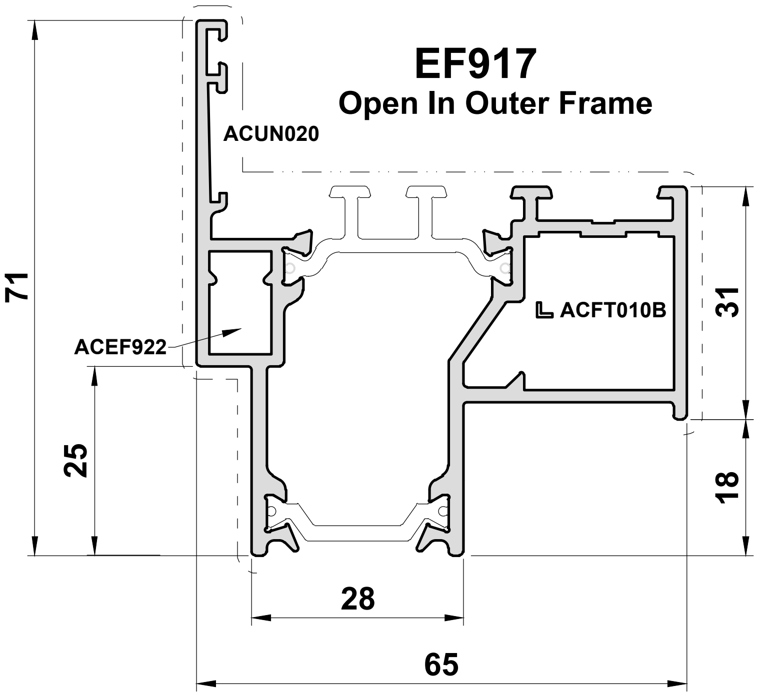


Scale 1:1

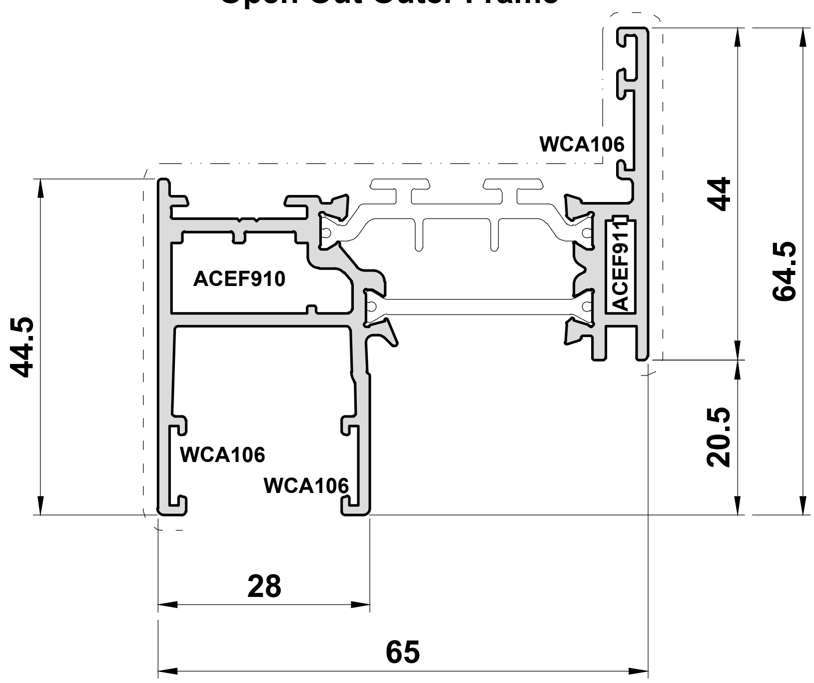
Primary Visible Side

Secondary Visible Side

EF917
Open In Outer Frame



EF918
Open Out Outer Frame

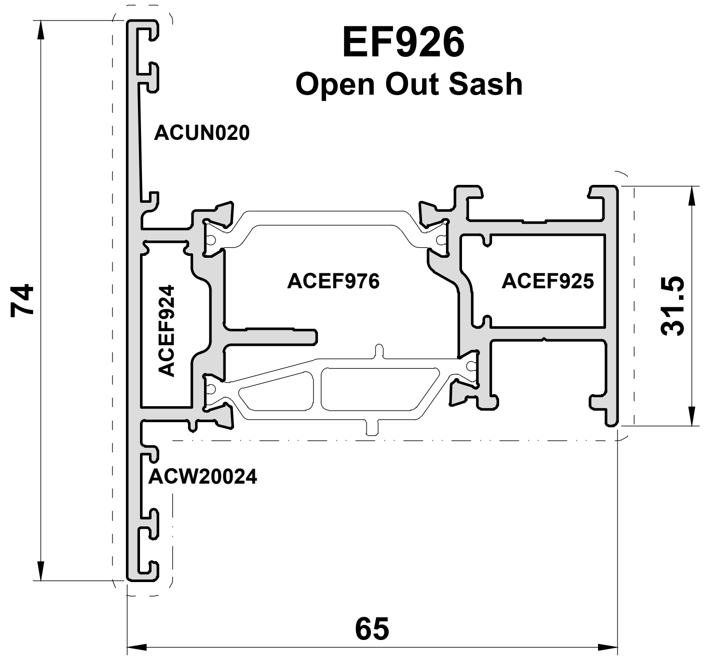


Scale 1:1

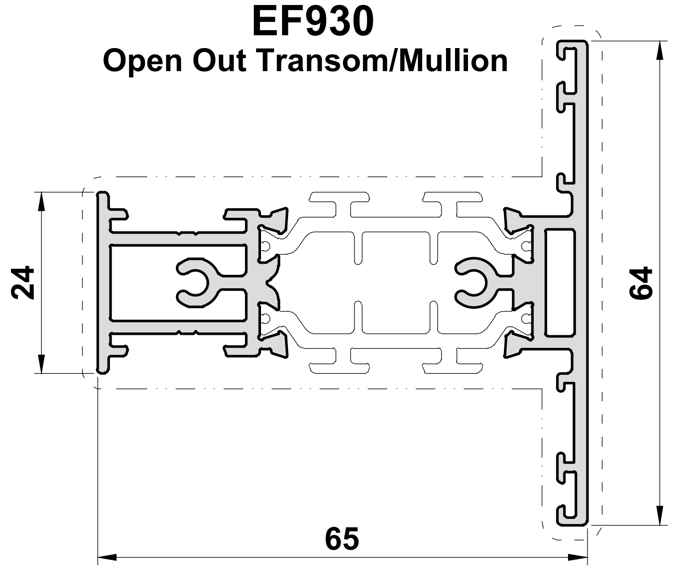
Primary Visible Side

Secondary Visible Side

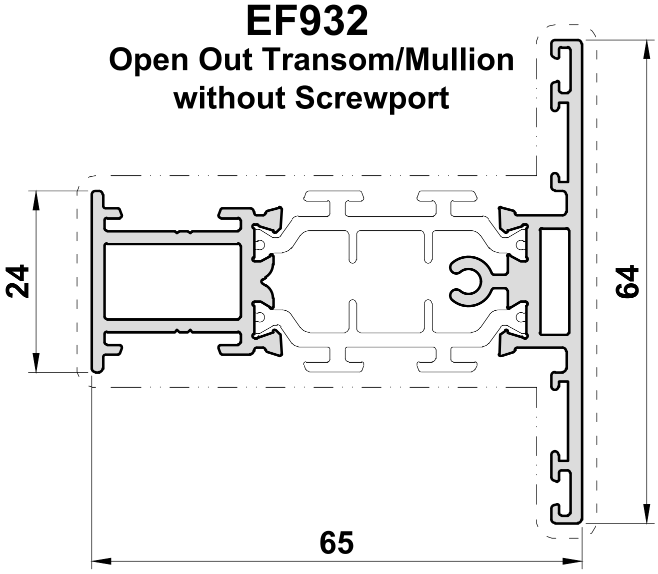
EF926
Open Out Sash



EF930
Open Out Transom/Mullion



EF932
Open Out Transom/Mullion without Screwport

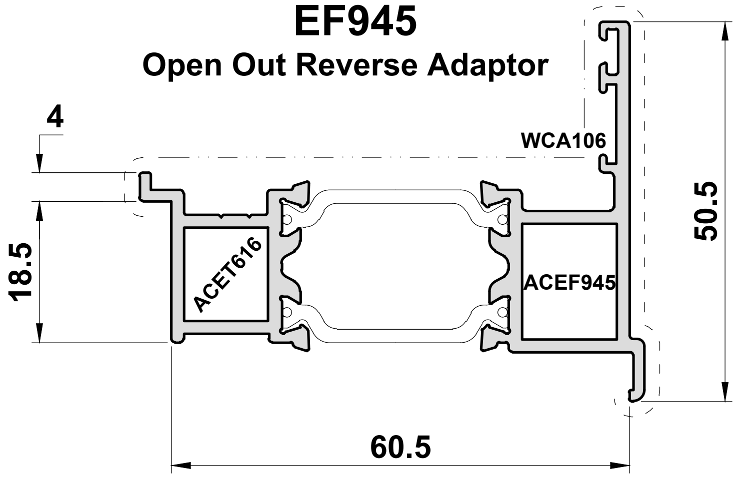


Scale 1:1

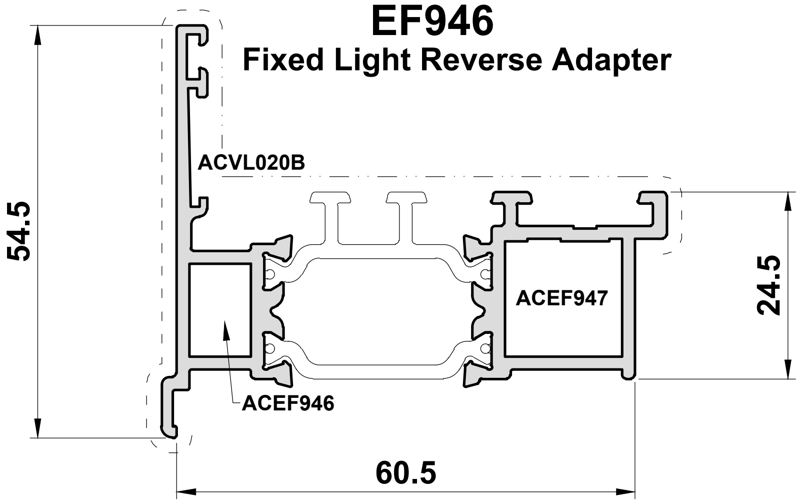
Primary Visible Side

Secondary Visible Side

EF945
Open Out Reverse Adaptor



EF946
Fixed Light Reverse Adapter

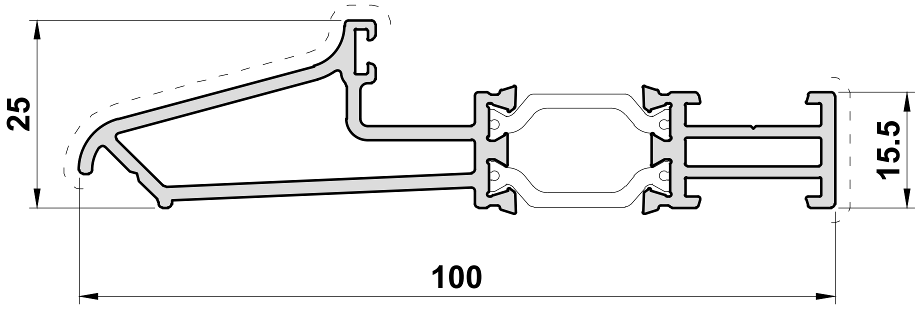


Scale 1:1

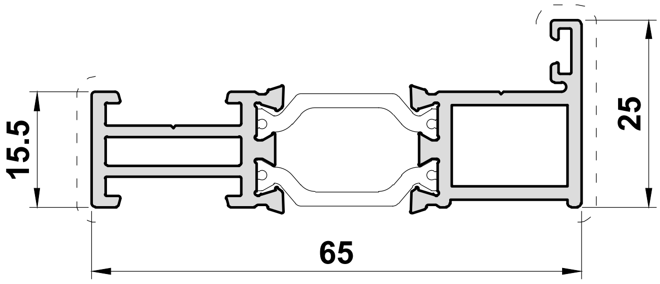
Primary Visible Side

Secondary Visible Side

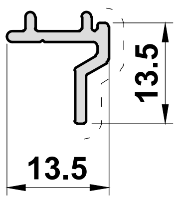
EF952
Low Threshold for Open In Doors



EF953
Low Threshold for Open Out Doors



EF954
Rebate For EF120 With Low Threshold

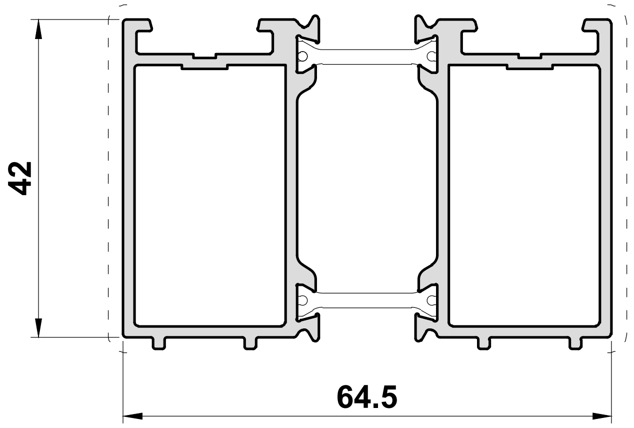


Scale 1:1

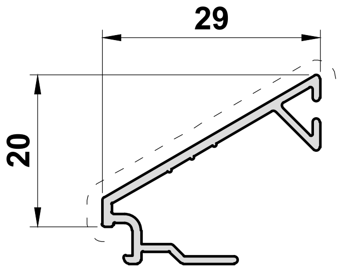
Primary Visible Side

Secondary Visible Side

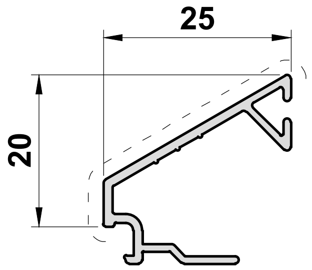
EF955
Head Extension



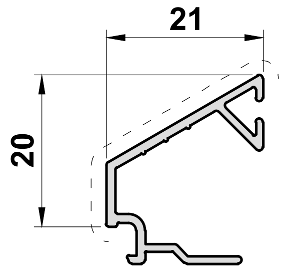
EF960
Sloped 24mm Glazing Bead



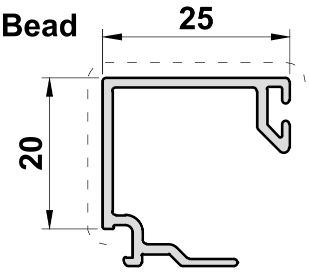
EF961
Sloped 28mm Glazing Bead



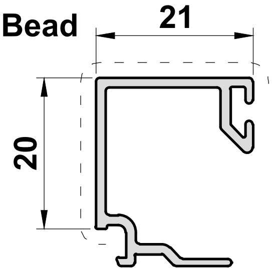
EF962
Sloped 32mm Glazing Bead



EF966
Square 28mm Glazing Bead



EF967
Square 32mm Glazing Bead

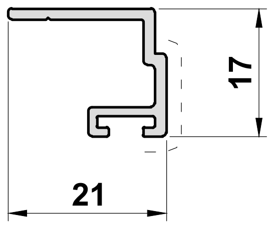


Scale 1:1

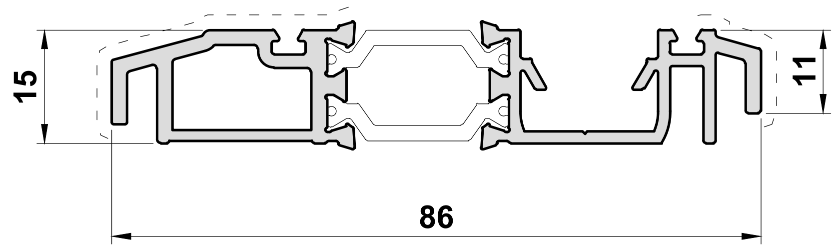
Primary Visible Side

Secondary Visible Side

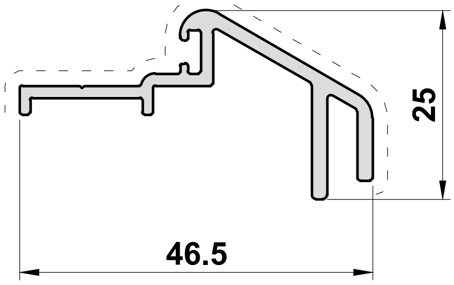
EF992
Woolpile Carrier



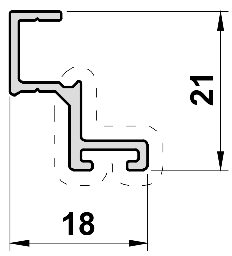
EF993
Low Threshold



EF994
Low Threshold Rebate



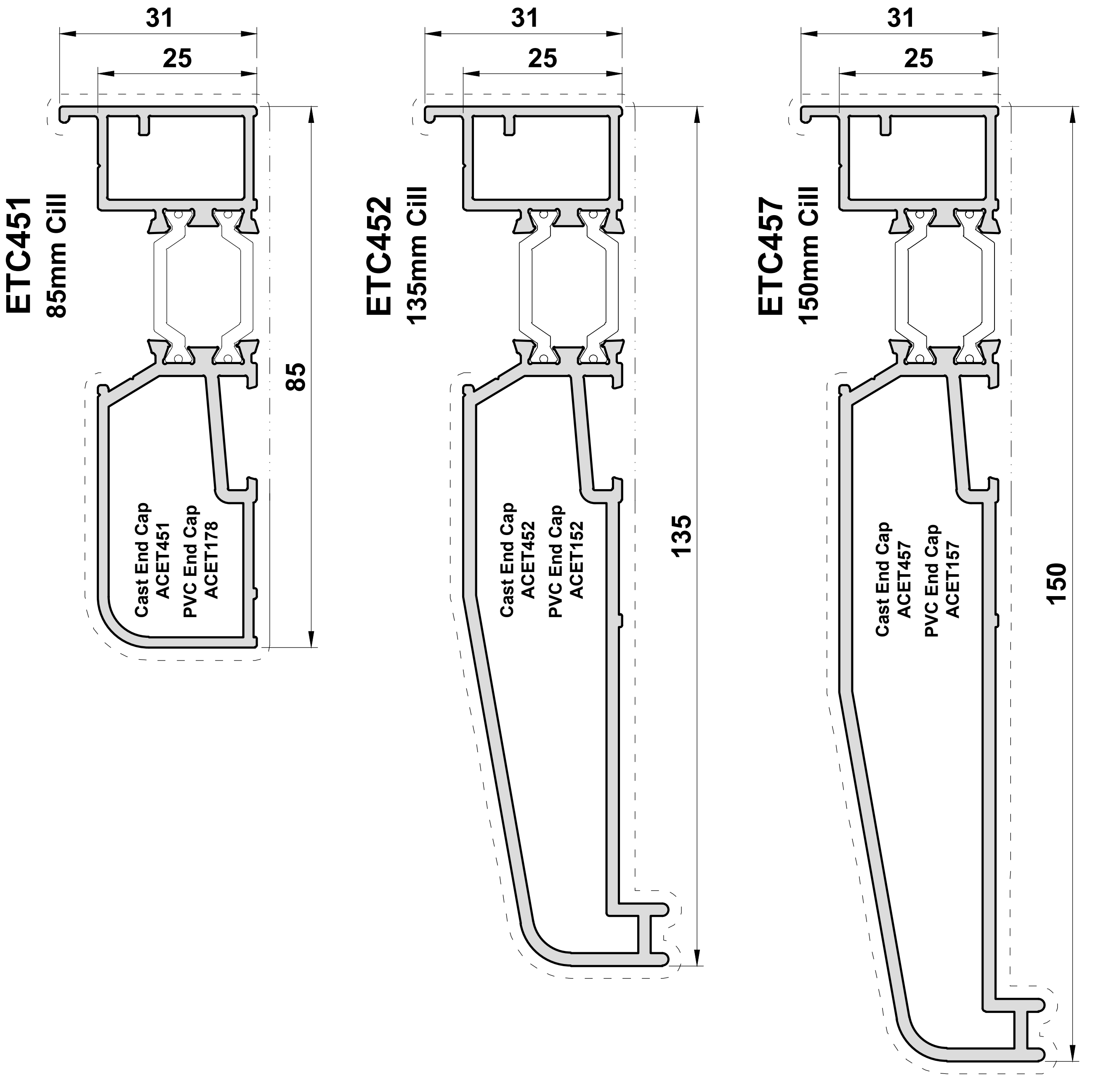
EF995
Low Threshold Adaptor



Scale 1:1

Primary Visible Side

Secondary Visible Side

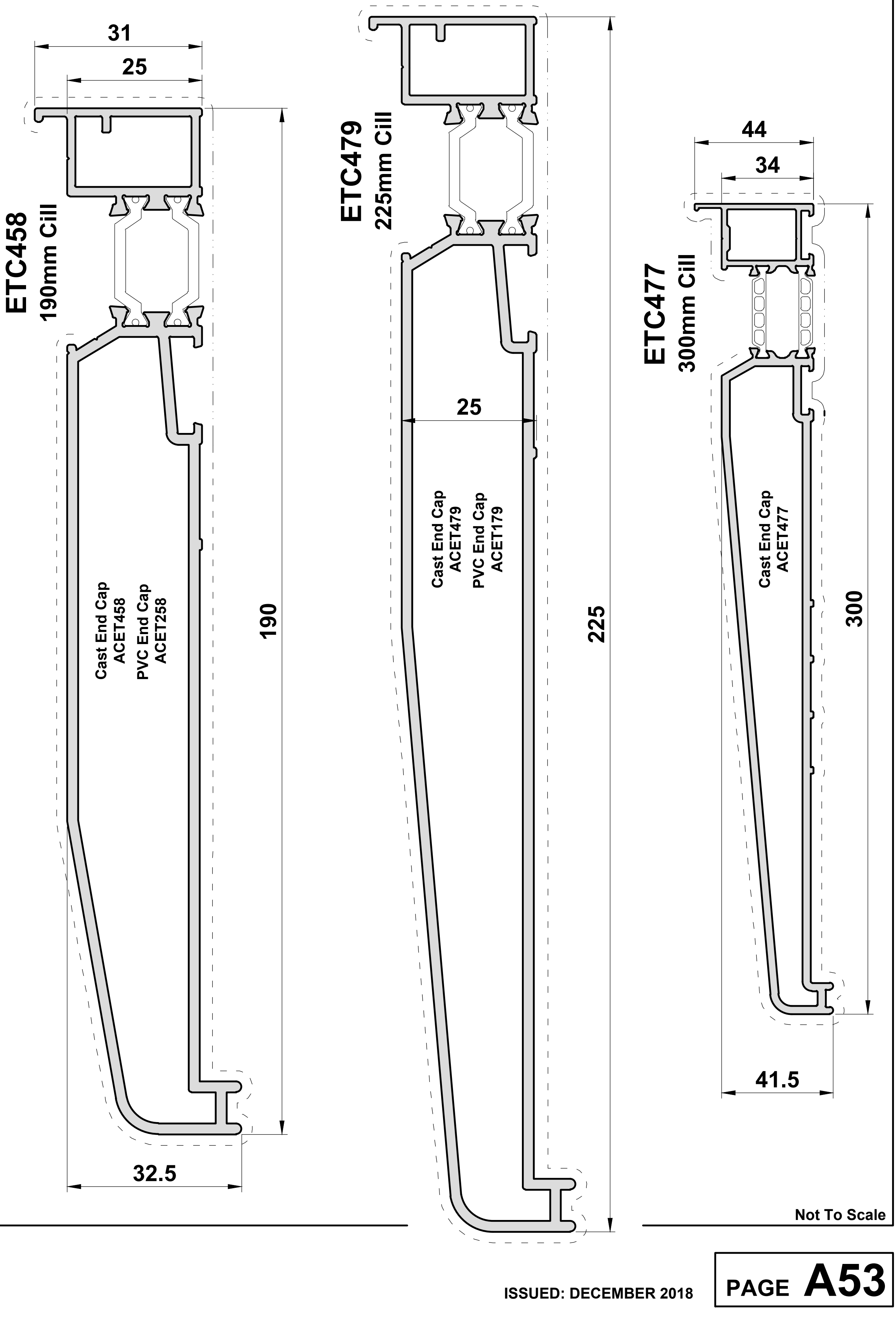


Scale 1:1

ISSUED: DECEMBER 2018

Primary Visible Side

Secondary Visible Side



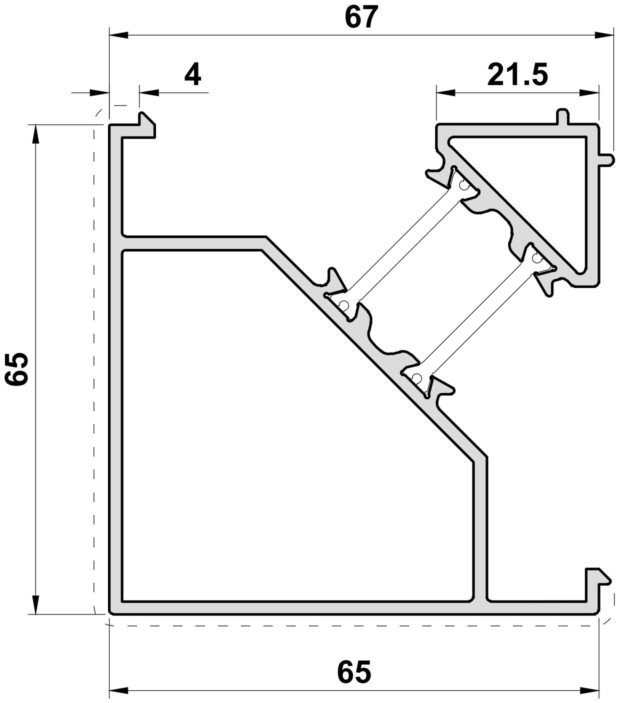
Not To Scale

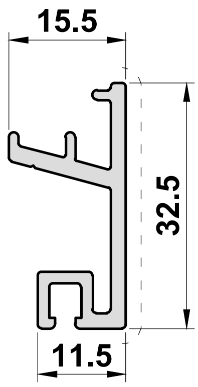
Primary Visible Side

Secondary Visible Side

FT050

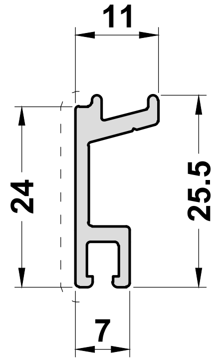
90° Corner Post





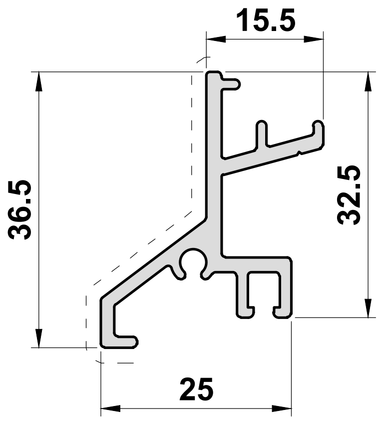
FT055

EF120 Bottom Rail Add On



FT056

EF120 Bottom Rail Add On



FT057

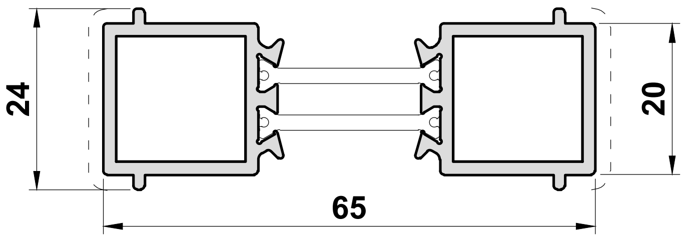
EF023 Bottom Rail Add On

Scale 1:1

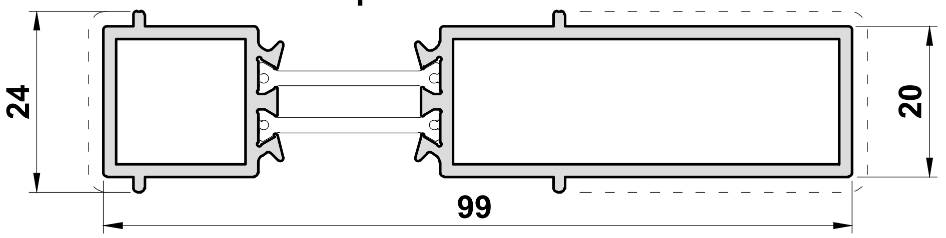
ISSUED: DECEMBER 2018

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

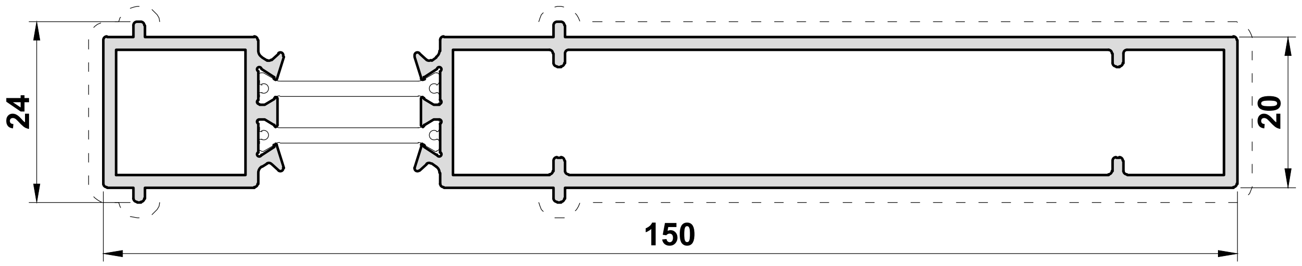
FT053
Coupler



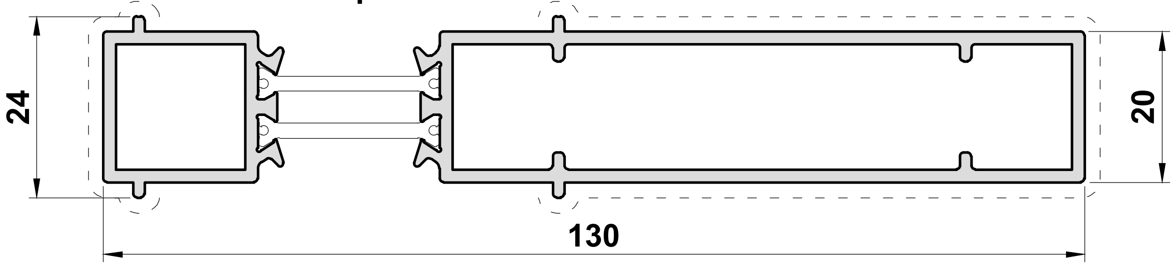
FT054
Coupler



FT155
Coupler



FT156
Coupler

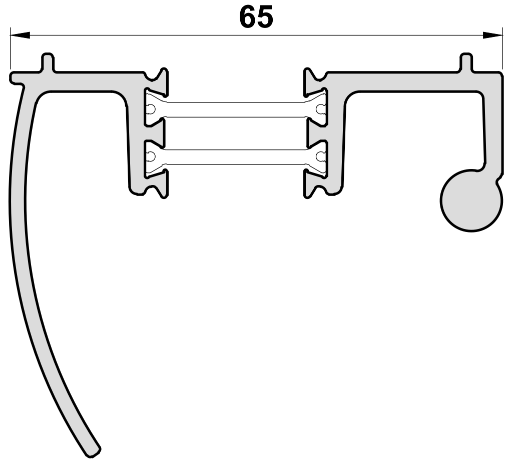


Scale 1:1

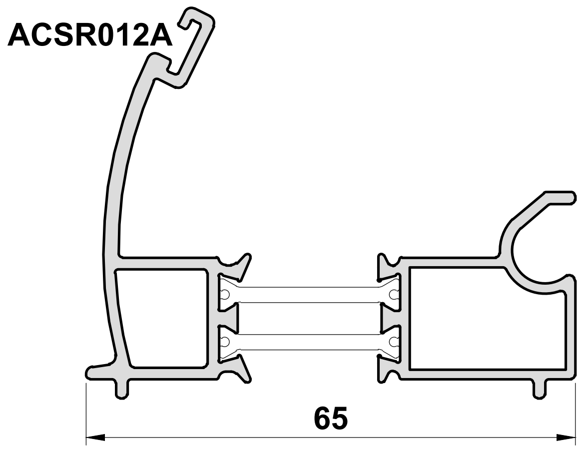
Primary Visible Side

Secondary Visible Side

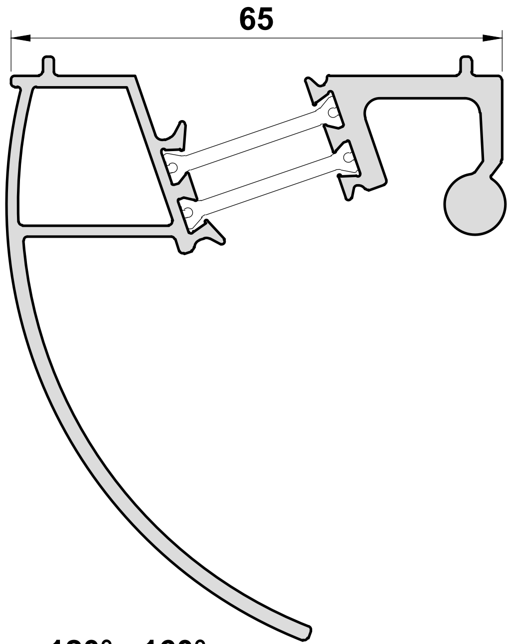
FT151
Variable Angled Coupler



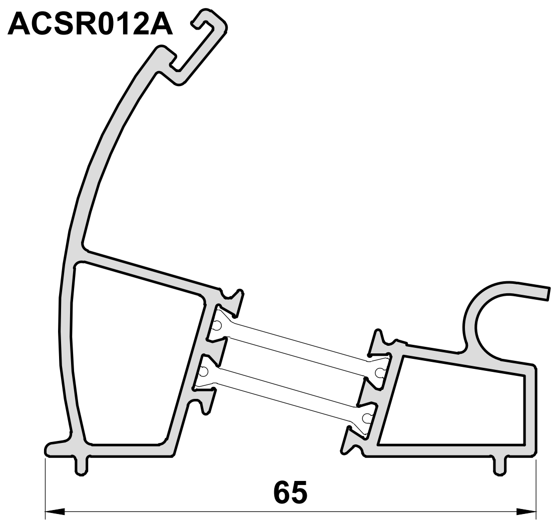
FT152
Variable Angled Coupler

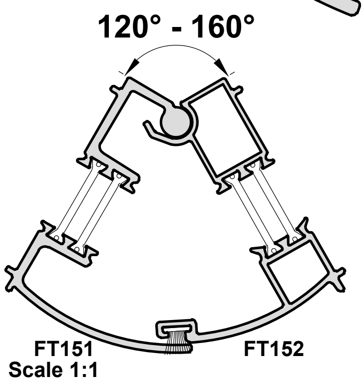


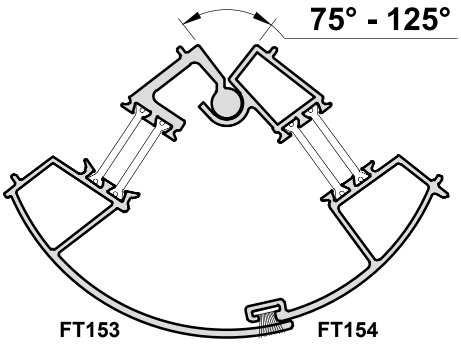
FT153
Variable Angled Coupler



FT154
Variable Angled Coupler







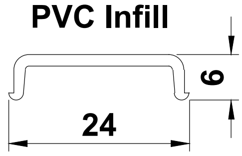
Scale 1:1

Eco Futural

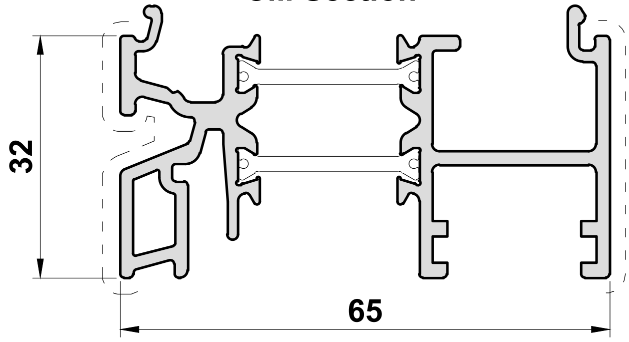
Primary Visible Side

Secondary Visible Side

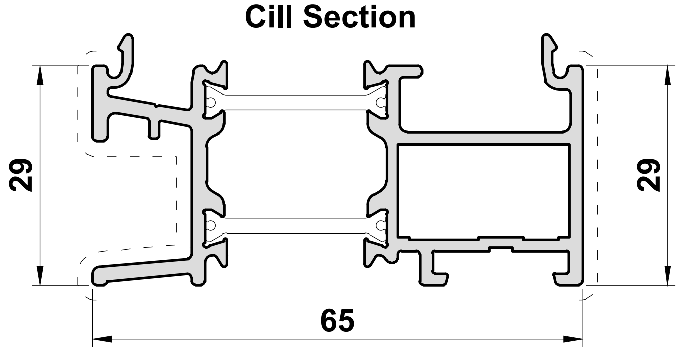
FT422
PVC Infill



FT458
Cill Section



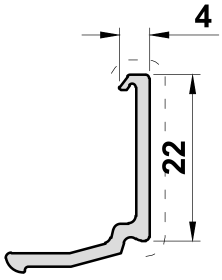
FT557
Cill Section

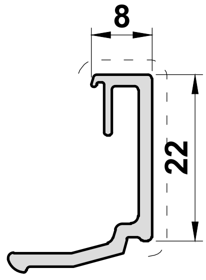


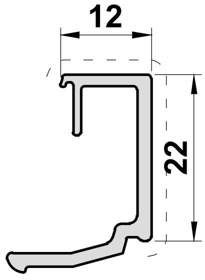
Scale 1:1

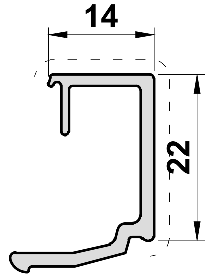
PROFILES : SCALE PROFILE DRAWINGS

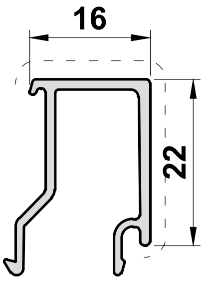
Primary Visible Side - - - - - - - - - - **Secondary Visible Side** — · — · — · —

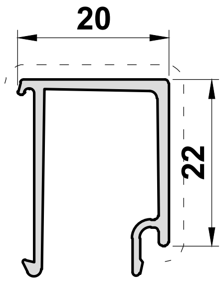
GL004


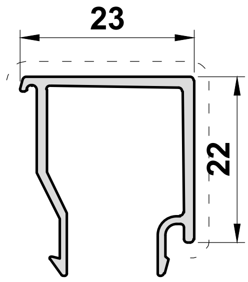
GL008


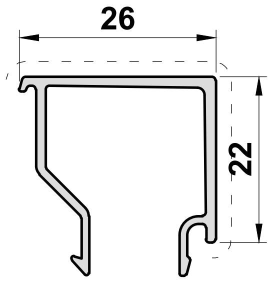
GL012


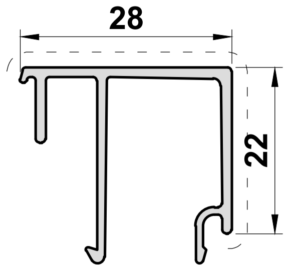
GL014


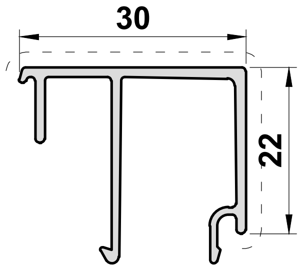
GL016


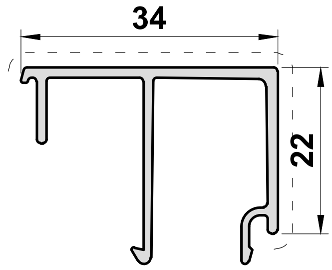
GL020


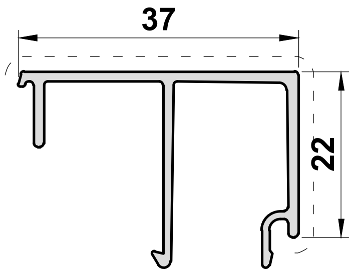
GL023


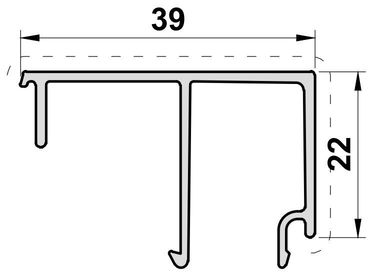
GL026


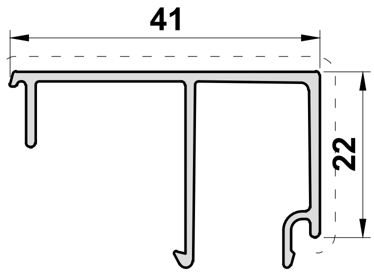
GL028


GL030


GL034


GL037


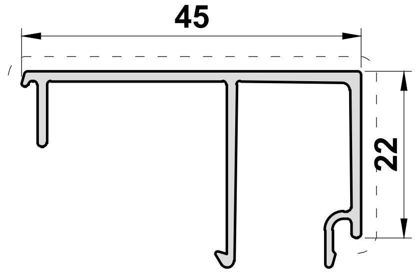
GL039


GL041


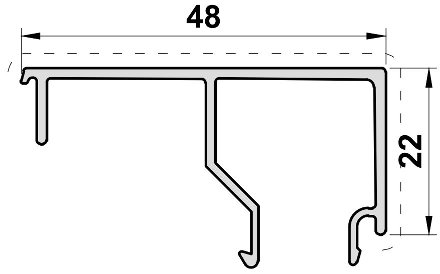
Scale 1:1

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

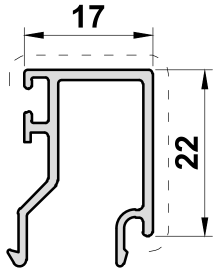
GL045



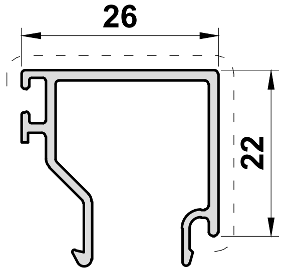
GL048



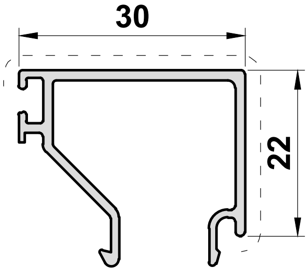
GL117



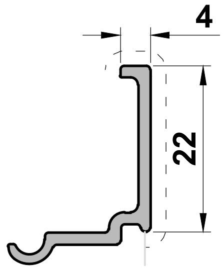
GL126



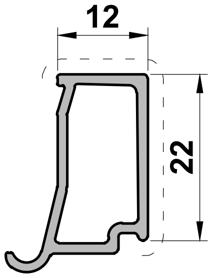
GL130



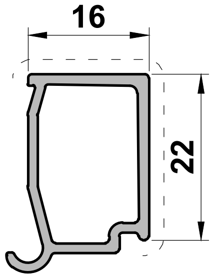
GL1204



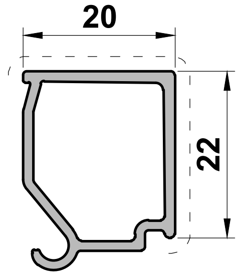
GL1212



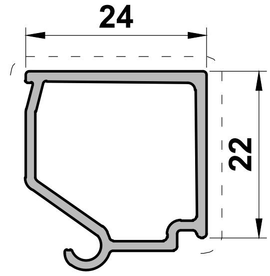
GL1216



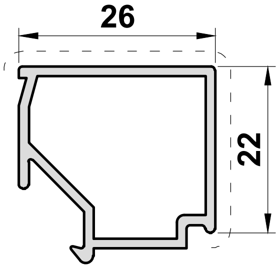
GL1220



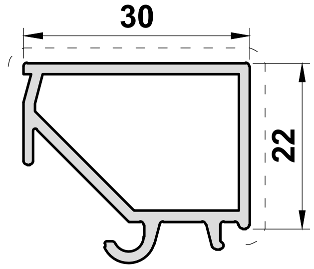
GL1224



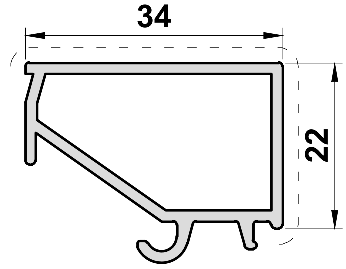
GL526



GL530

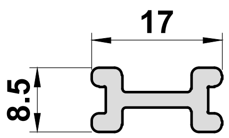


GL534

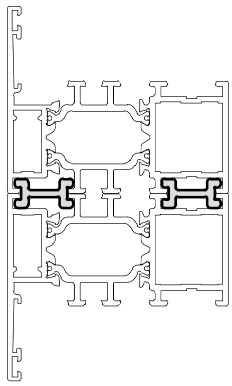


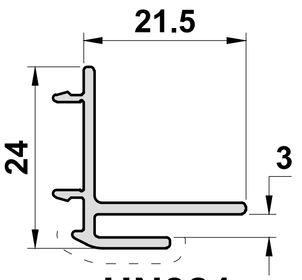
Scale 1:1

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

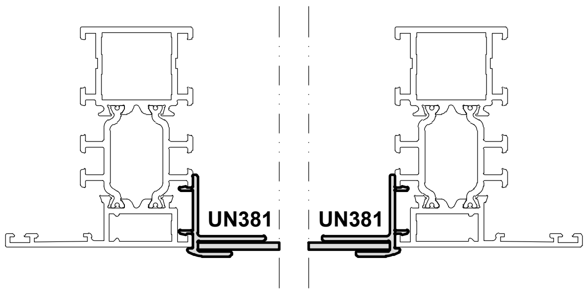


UN150
Concealed Coupler
Alternatively VL75, ACFT075

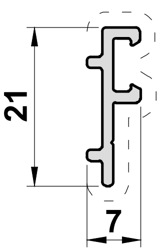


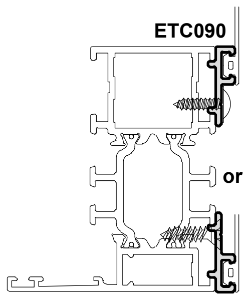


UN381
Pressing Carrier



ETC090





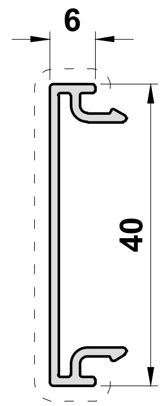
Use with OBEX 0764 EPDM.
Obex Protection:
T. 01905 337800
E: sales@obex.com

Scale 1:1

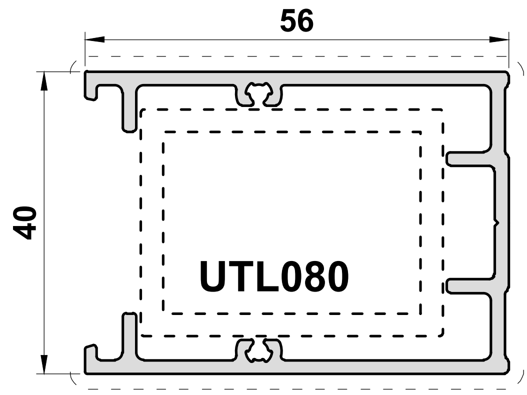
Primary Visible Side

Secondary Visible Side

UN500
UN510 Cover Cap



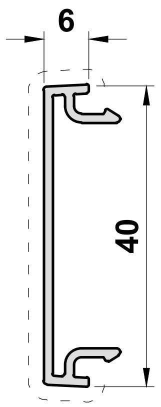
UN510
Reinforcement Profile



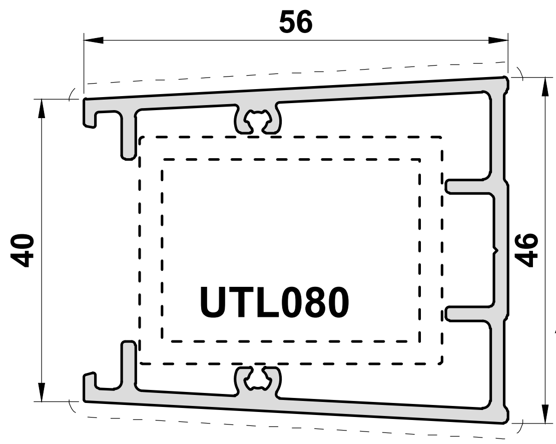
UN510

End Cap: ACUN500

UN501
UN511 Cover Cap



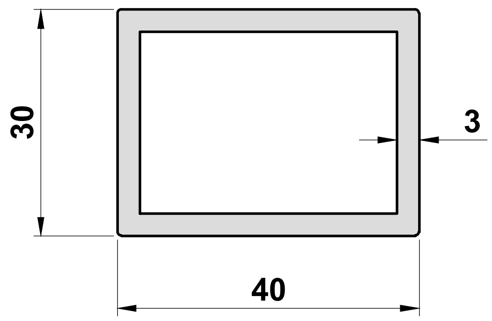
UN511
Reinforcement Profile



UN511

End Cap: ACUN501

UTL080
Reinforcement Profile

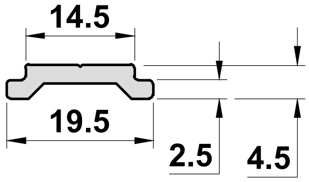


Scale 1:1

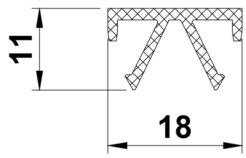
Primary Visible Side

Secondary Visible Side

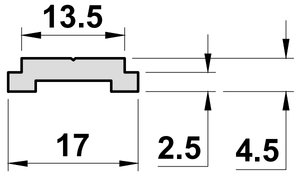
VL59
Link Rod



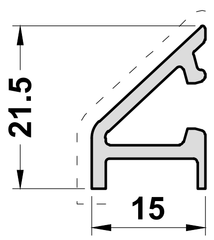
VR023A
PVC Profile



VL60
Link Rod

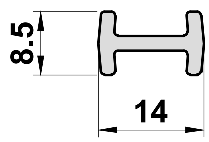


VL72
Weather Drip



End Cap ACVL059
Rivet ACVL061

VL75
Concealed Coupler
PVC

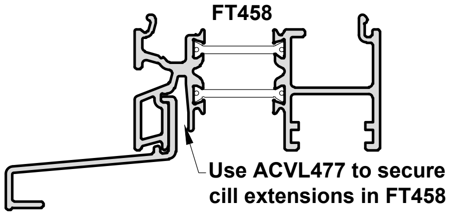


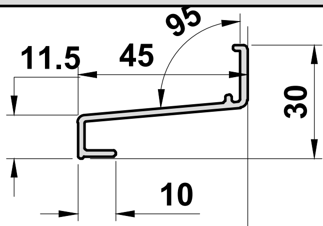
Scale 1:1

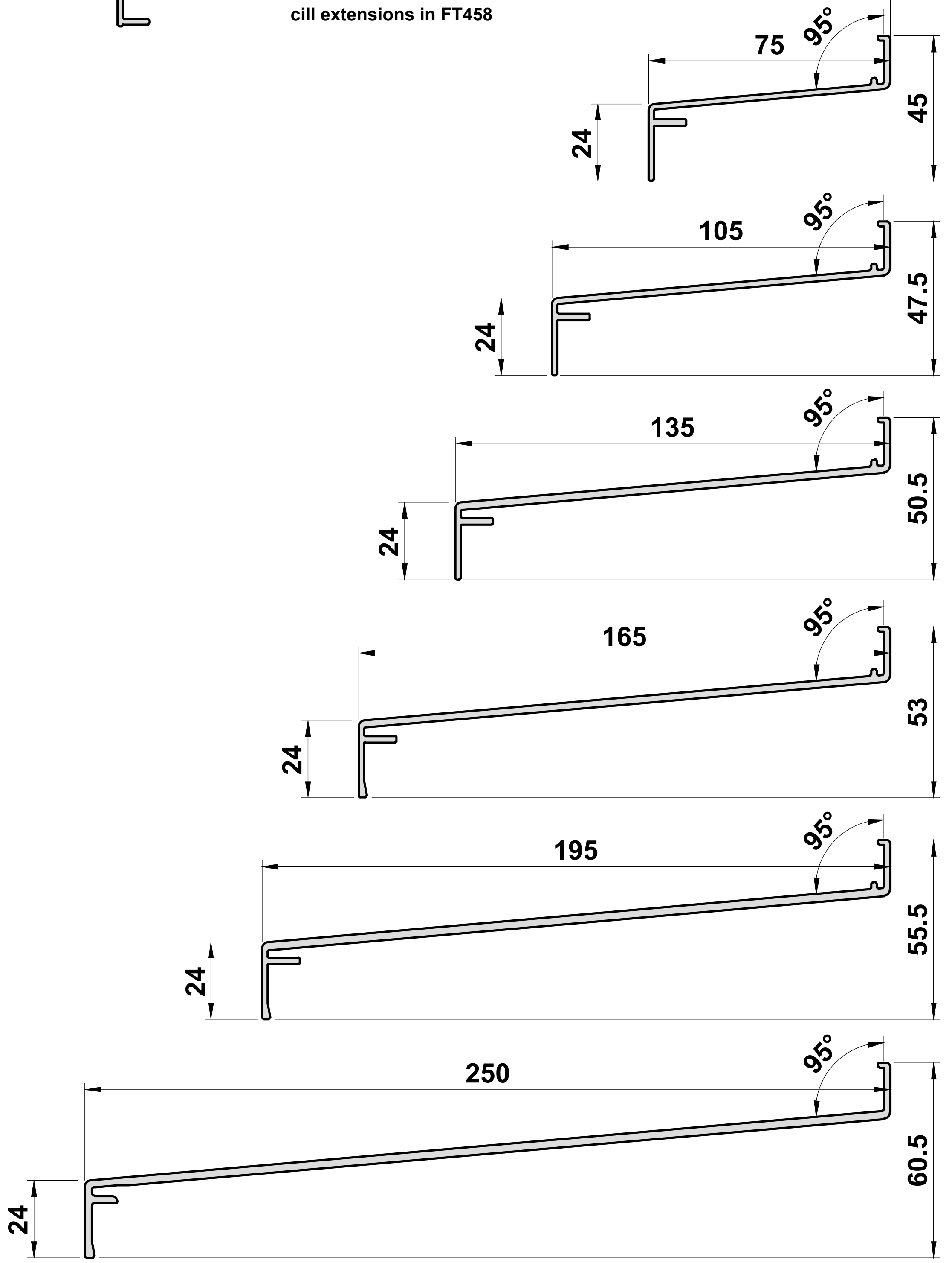
ISSUED: DECEMBER 2018

Primary Visible Side

Secondary Visible Side







VL479
Cill Extension

VL480
Cill Extension

VL481
Cill Extension

VL482
Cill Extension

VL483
Cill Extension

VL484
Cill Extension

VL486
Cill Extension

Scale 1:1

Primary Visible Side

Secondary Visible Side

This page is intentionally left blank

Scale 1:1

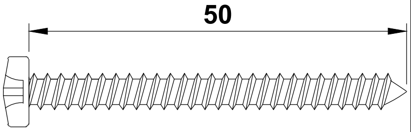
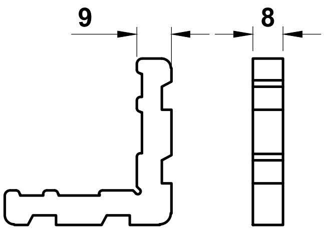
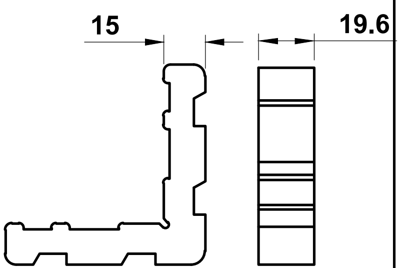
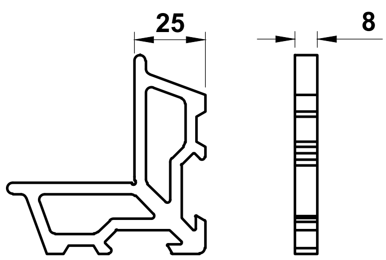
Section B

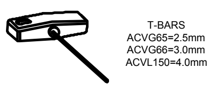
Eco Futural
Accessories
Photos & Drawings

This page is intentionally left blank

Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACDR052** No.10 x 50 S/S Self Tapping Pan Head Screw	200	pack	EF955	MF SA KL HP SSC SMC PC W Z
	**ACDV201** Brush fitting under door	3	m	FT057	MF SA KL HP SSC SMC PC W Z
	**ACEF010A** Crimping corner for outside chamber	20	pack	EF110 EF044	MF SA KL HP SSC SMC PC W Z
	**ACEF010B** Crimping cleat for inside chamber	24	pack	EF110	MF SA KL HP SSC SMC PC W Z
	**ACEF011A** Crimping cleat for outside (small) chamber	24	pack	EF011	MF SA KL HP SSC SMC PC W Z



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

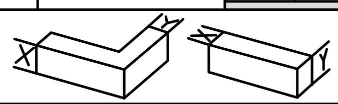
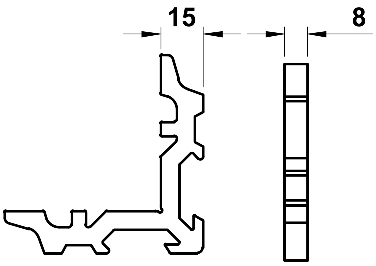
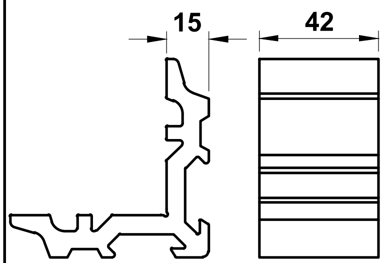
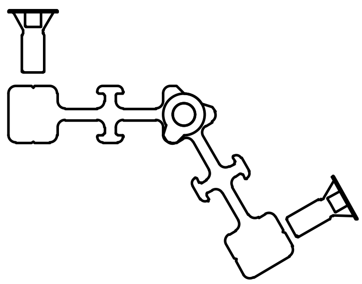
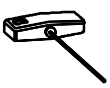


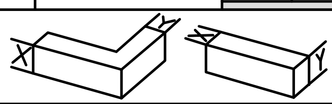
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF012A** Crimping cleat for outside chamber	24	pack	EF012	MF SA KL HP SSC SMC PC W Z
	**ACEF013A** Crimping cleat for outside chamber	24 OR 1	pack each	EF010	MF SA KL HP SSC SMC PC W Z
	**ACEF019A** Crimping corner for outside chamber	24	pack	EF019	MF SA KL HP SSC SMC PC W Z
	**ACEF021B** Variable angle bracket for inside chamber	1	each	EF110	MF SA KL HP SSC SMC PC W Z
	**ACEF025A** Connecting bracket for outside chamber	10	pack	EF030 EF035	MF SA KL HP SSC SMC PC W Z



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

Screw (Grub)

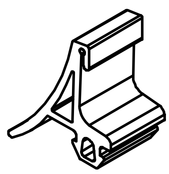
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

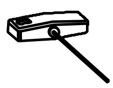


ISSUED: DECEMBER 2018

Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

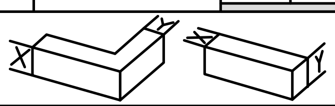
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF025B** **Connecting bracket for inside chamber**	10	pack	EF035	MF SA KL HP SSC SMC PC W Z
	**ACEF026A** **Connecting bracket for outside chamber**	10	pack	EF031 EF036	MF SA KL HP SSC SMC PC W Z
	**ACEF027A** **Crimping bracket for outside chamber**	10	pack	EF032	MF SA KL HP SSC SMC PC W Z
	**ACEF027B** **Crimping bracket for inside chamber**	10	pack	EF032	MF SA KL HP SSC SMC PC W Z
	**ACEF030A** **Central gasket outward** **(Pre-formed corners = ACEF031A)**	100	m	EF010 EF011 EF019 EF110 EF040 EF03*	MF SA KL HP SSC SMC PC W Z



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

Screw (Grub)

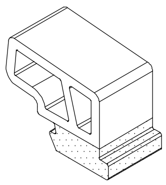
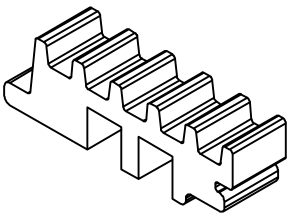
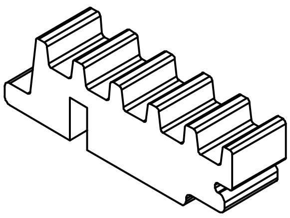
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

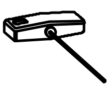


smart
architectural aluminium

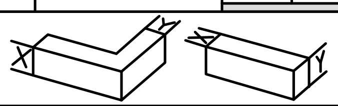
Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

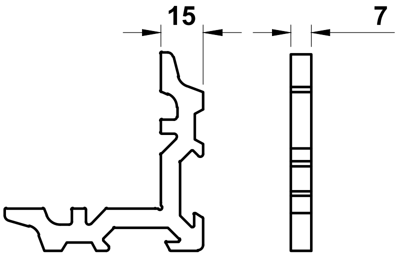
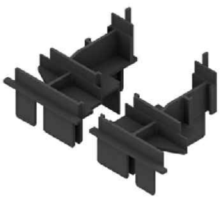
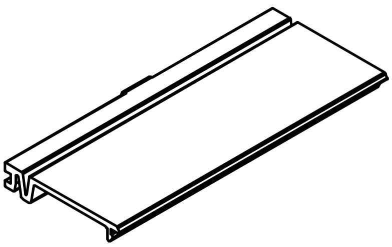
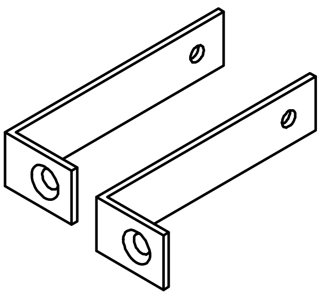
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF030B** **Central gasket inward**	100	m	EF010 EF011 EF019 EF110 EF040 EF03*	MF SA KL HP SSC SMC PC W Z
	**ACEF031A** **Corner for central gasket ACEF030A**	1	each	EF010 EF011 EF019 EF110 EF040 EF03*	MF SA KL HP SSC SMC PC W Z
	**ACEF039A** **Preformed Insulation glazing strip for outer frame**	50	m	EF010 EF011 EF030 EF031 EF032 EF033	MF SA KL HP SSC SMC PC W Z
	**ACEF039B** **Preformed insulation glazing strip for vents**	50	m	EF020 EF023	MF SA KL HP SSC SMC PC W Z
	**ACEF043** **Insulation strip** **26 x 10**	100	m	EF045	MF SA KL HP SSC SMC PC W Z

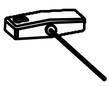


MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



ISSUED: DECEMBER 2018

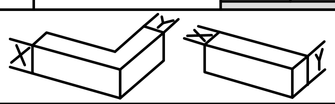
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF044** Insulation strip 20 x 10	100	m	EF120	MF SA KL HP SSC SMC PC W Z
	**ACEF045A** Crimping corner cleat for outside chamber	24	pack	EF045	MF SA KL HP SSC SMC PC W Z
	**ACEF055** Sealing double casement 5mm gap (black / white)	1	each	EF040	MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACEF057** Glazing support	100	pack	EF01* EF02* EF03* EF044	MF SA KL HP SSC SMC PC W Z
	**ACEF094** Mounting kit for EF094	1	pair	EF094	MF SA KL HP SSC SMC PC W Z



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

Screw (Grub)

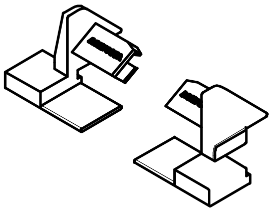
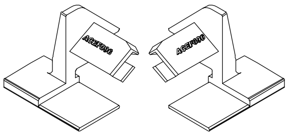
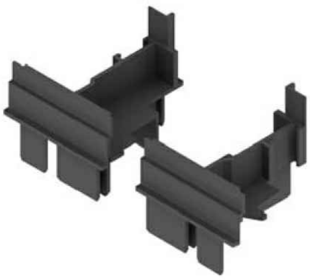
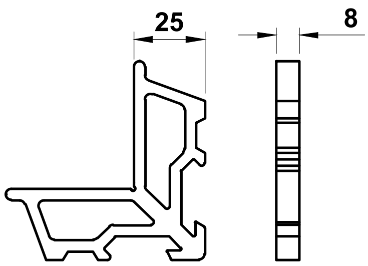
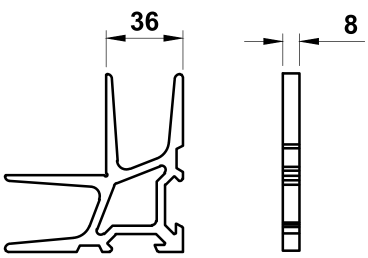
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

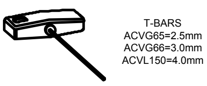


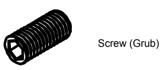
smart architectural aluminium

Eco Futural

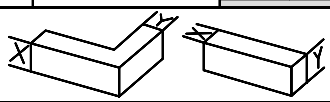
ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACEF095** **End piece for EF095**	1	set	EF095	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF096** **End piece double casement window for EF095**	1	set	EF095	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF097** **Sealing double casement window with EF094**	1	set	EF094	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF111A** **Crimping corner for outside chamber**	24	pack	EF031	MF SA KL HP SSC SMC PC W Z
	**ACEF112A** **Crimping corner for outside chamber**	24	pack	EF032	MF SA KL HP SSC SMC PC W Z

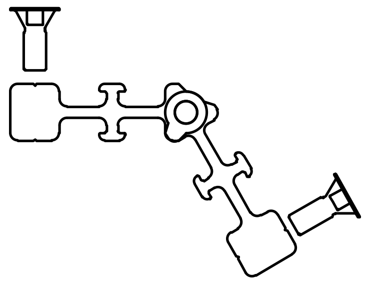
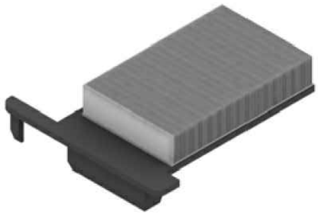
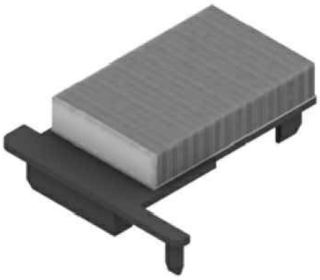


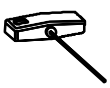


MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



ISSUED: DECEMBER 2018

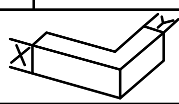
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF120A** **Variable angle corner for outside chamber**	1	each	EF010	MF SA KL HP SSC SMC PC W Z
	**ACEF202L** **End piece left**	1	each	EF045	MF SA KL HP SSC SMC PC W Z
	**ACEF202R** **End piece right**	1	each	EF045	MF SA KL HP SSC SMC PC W Z
	**ACEF203L** **Finishing piece left**	1	each	EF045	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF203R** **Finishing piece right**	1	each	EF045	MF SA KL HP SSC SMC PC W Z ✓

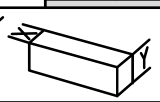


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

Screw (Grub)

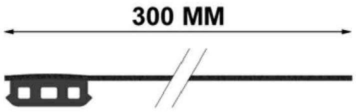
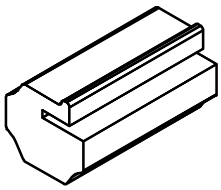
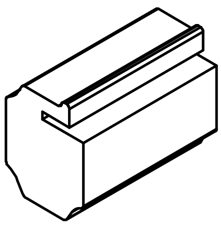
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

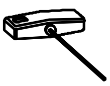




Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

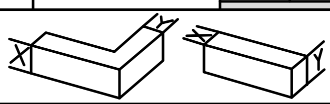
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF300** Base rubber	25	m		MF SA KL HP SSC SMC PC W Z
	**ACEF350** Weathering gasket 300mm	20	m	EF010 EF011	MF SA KL HP SSC SMC PC W Z
	**ACEF400** Preformed insulating strip	2	m	EF010	MF SA KL HP SSC SMC PC W Z
	**ACEF401** Preformed insulating strip	2	m	EF011 EF019 EF031 EF034 EF036	MF SA KL HP SSC SMC PC W Z
	**ACEF402** Preformed insulating strip	2	m	EF032	MF SA KL HP SSC SMC PC W Z



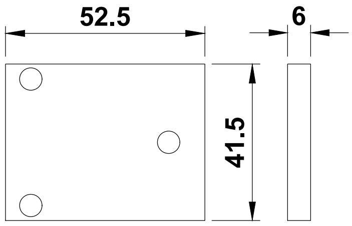
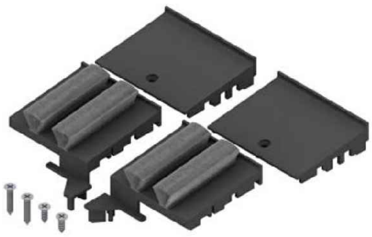
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

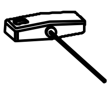
Screw (Grub)

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



ISSUED: DECEMBER 2018

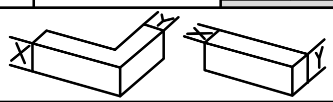
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF410** **Preformed insulating strip**	2	m	EF020	MF SA KL HP SSC SMC PC W Z
	**ACEF434** **End Pad**	50	pack	EF434	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF443** **Closer section for single door**	1	each	EF023	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF444** **Closer section for door**	1	each	EF120	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF470** **Closer section for single door (End Piece)**	1	each	EF415 EF424 EF414 EF425	MF SA KL HP SSC SMC PC W Z ✓



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

Screw (Grub)

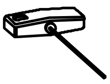
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

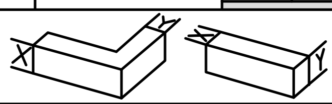
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF471** **Closer section for single door**	1	each	EF455 EF424	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF472A** **Closer section for double door (End Piece)**	1	each	EF414 EF454 EF425	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF472B** **Closer section for double door (End Piece)**	1	each	EF414 EF454 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF473A** **Closer section for double door (End Piece)**	1	each	EF415 EF454 EF424	MF SA KL HP SSC SMC PC W Z
	**ACEF473B** **Closer section for double door (End Piece)**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z



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

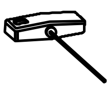
Screw (Grub)

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



ISSUED: DECEMBER 2018

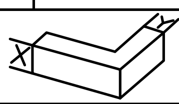
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF480** **Self operating threshold 730mm**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF481** **Self operating threshold 830mm**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF482** **Self operating threshold 930mm**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF483** **Self operating threshold 1030mm**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF484** **Self operating threshold 1130mm**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z



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



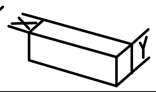
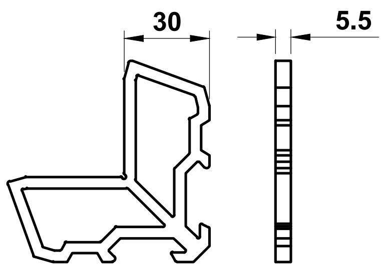
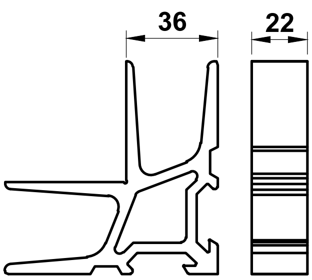
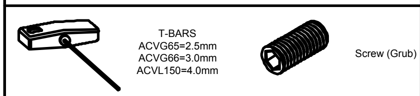


Image	Part Code	Pack	Unit	Application	Colour
	**ACEF485** Self operating threshold 1230mm	1	each	EF424 EF425	MF, SA, KL, HP, SSC, SMC, PC, W, Z
	**ACEF693** End piece threshold	1	each	EF492 EF493	MF, SA, KL, HP, SSC, SMC, PC, W, Z ✓
	**ACEF694** End piece threshold	1	each	EF492 EF493	MF, SA, KL, HP, SSC, SMC, PC, W, Z ✓
	**ACEF810** Crimping corner for outside chamber	24	pack	EF414 EF415 EF424 EF425	MF, SA, KL, HP, SSC, SMC, PC, W, Z
	**ACEF812** Crimping corner for inside chamber	24	pack	EF414 EF415	MF, SA, KL, HP, SSC, SMC, PC, W, Z



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

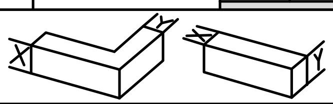
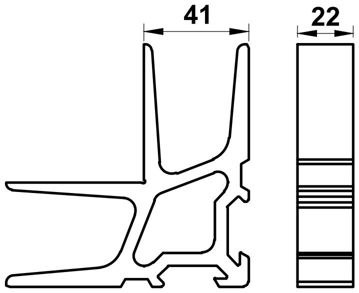
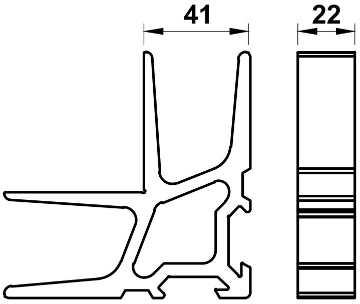
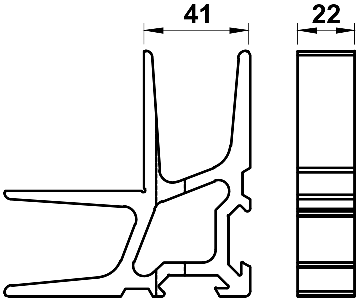
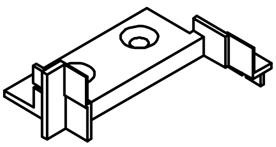
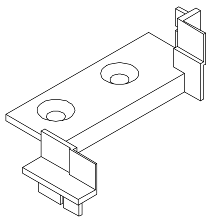
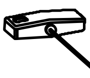


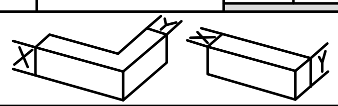
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF814** **Crimping corner for inside chamber**	24	pack	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF816** **Crimping corner for inside chamber**	24	pack	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF817** **Crimping corner (Drilled) for inside chamber**	24	pack	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF854** **Sealing double casement (End Piece)**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF855** **Sealing double casement**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z ✓



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

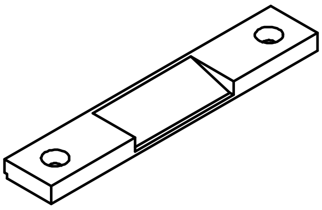
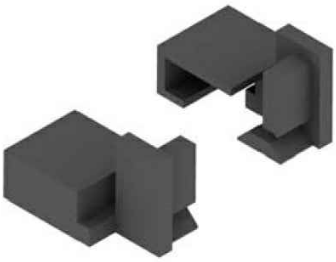
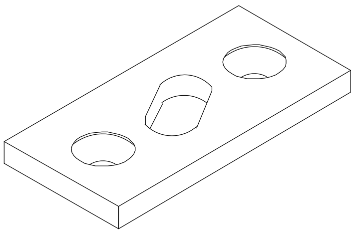
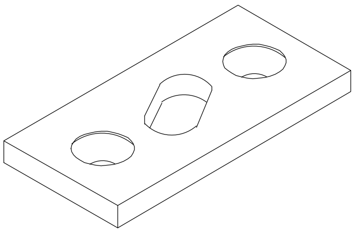
Screw (Grub)

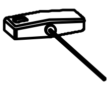
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

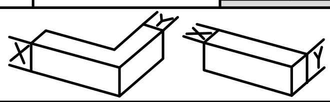
ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACEF860** Keep guide	1	each	EF414 EF454	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF872** End piece	1	each	EF472	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF891** Extended bolt lock for double door	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACEF892** Keeper - TOP (Lock Plate)	1	each	EF414 EF415	MF SA ✓ KL HP SSC SMC PC W Z
	**ACEF894** Keeper - BOTTOM (Lock Plate)	1	each	EF492 EF493	MF SA ✓ KL HP SSC SMC PC W Z

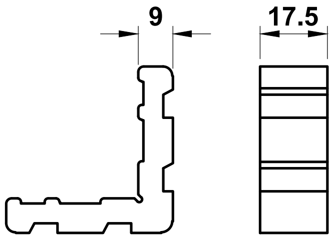
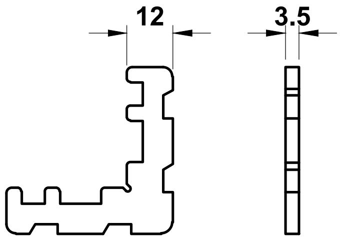
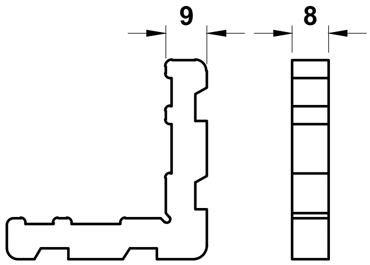
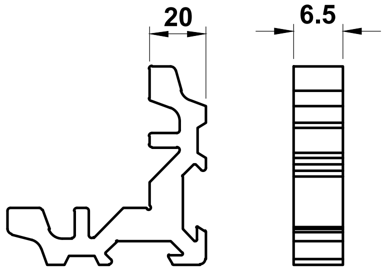

T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

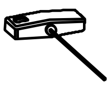

Screw (Grub)

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



ISSUED: DECEMBER 2018

Image	Part Code	Pack	Unit	Application	Colour
	**ACEF901** **Punch tool for drainage**	1	each	EF010 EF011 EF020 EF031 EF032 EF035 EF036	MF SA KL HP SSC SMC PC W Z
	**ACEF910** **Outer Chamber Crimping Cleat**	24	pack	EF910 EF918	MF SA KL HP SSC SMC PC W Z
	**ACEF911** **Inner Chamber Crimping Cleat**	24	pack	EF910 EF918	MF SA KL HP SSC SMC PC W Z
	**ACEF922** **Outer Chamber Crimping Cleat**	24	pack	EF917	MF SA KL HP SSC SMC PC W Z
	**ACEF924** **Outer Chamber Crimping Cleat**	24	pack	EF926	MF SA KL HP SSC SMC PC W Z



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

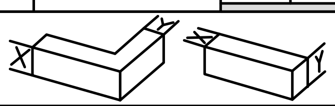
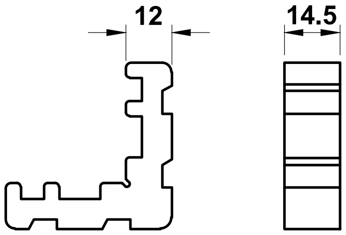
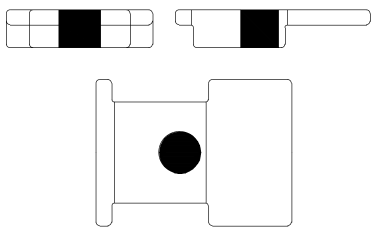
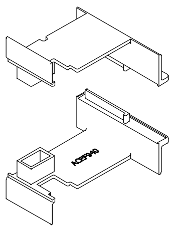
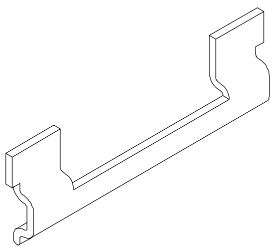
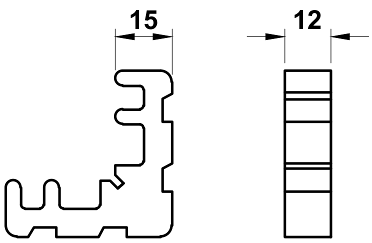
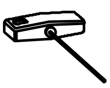


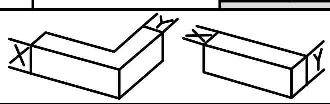
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF925** **Inner Chamber Crimping Cleat**	24	pack	EF926	MF SA KL HP SSC SMC PC W Z
	**ACEF931** **PVC Infill Block**	50	pack		MF SA KL HP SSC SMC PC W Z
	**ACEF940** **End Caps**	24	pack	EF948	MF SA KL HP SSC SMC PC W Z ✓
	**ACEF943** **Anti-Twist Clip**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACEF945** **Inner Chamber Crimping Cleat**	24	pack	EF945	MF SA KL HP SSC SMC PC W Z



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

Screw (Grub)

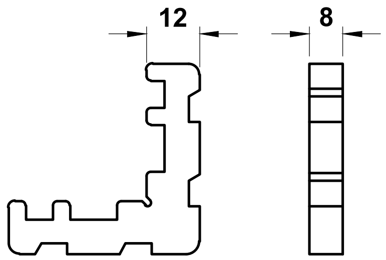
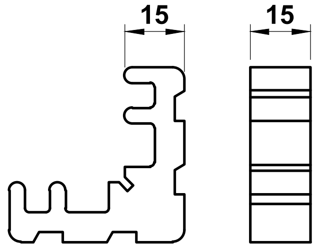
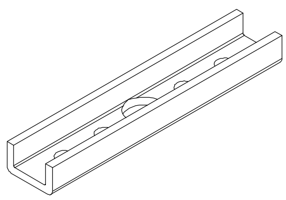
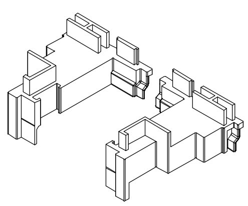
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

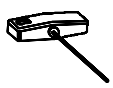


smart architectural aluminium

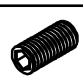
Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACEF946** **Outer Chamber Crimping Cleat**	24	pack	EF946	MF SA KL HP SSC SMC PC W Z
	**ACEF947** **Inner Chamber Crimping Cleat**	24	pack	EF946	MF SA KL HP SSC SMC PC W Z
	**ACEF948** **Stainless Steel Keep Reinforcement**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACEF950** **Drill jig for Variable angle bracket EF010**	1	each	EF010	MF SA KL HP SSC SMC PC W Z
	**ACEF957** **End Caps**	1	pair	EF040	MF SA KL HP SSC SMC PC W ✓ Z ✓

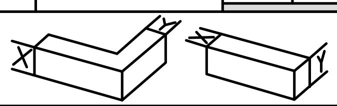


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

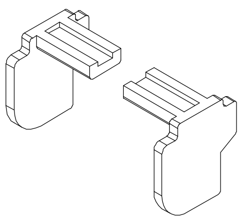
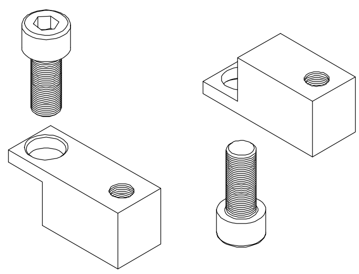
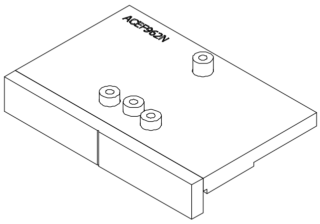
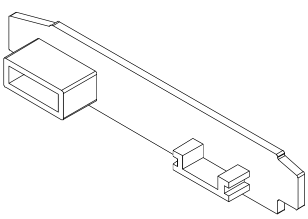
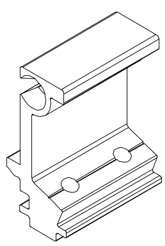


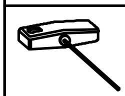
Screw (Grub)

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

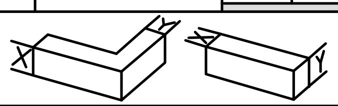


ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACEF958** **End Caps Low Threshold Stepped Double Door Kit**	10	pair		MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACEF961** **Shootbolt Adaptor Block**	1	pair	ACGT430	MF SA KL HP SSC SMC PC W Z
	**ACEF962N** **EF930 & EF932 Drill Jig**	1	each	EF930 EF932	MF SA KL HP SSC SMC PC W Z
	**ACEF964** **Low Threshold End Caps**	1	pair	EF993	MF SA KL HP SSC SMC PC W Z
	**ACEF965** **Bracket**	24	pack	EF993	MF SA KL HP SSC SMC PC W Z



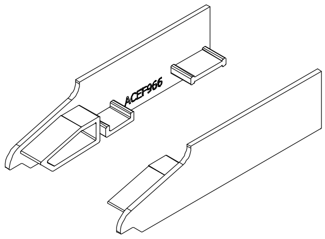
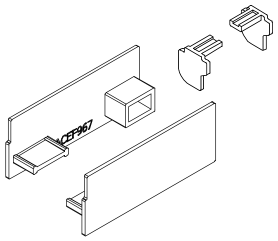
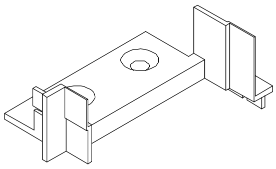
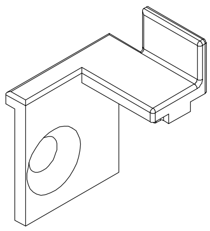
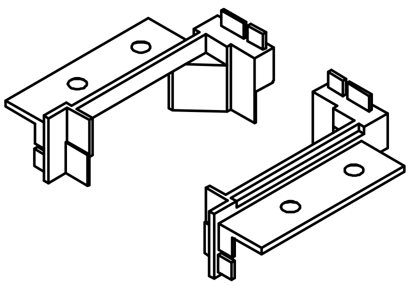
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

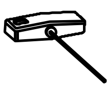


ISSUED: DECEMBER 2018

Eco Futural

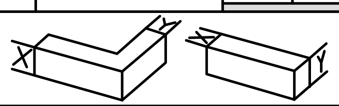
ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACEF966** **EF952 End Cap**	10	pairs	EF952	MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACEF967** **EF953 & EF954 End Caps**	10	pairs	EF953 EF954	MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACEF968** **Meeting Stile End Cap for EF993 Threshold**	10	pairs	EF993	MF SA KL HP SSC SMC PC W Z
	**ACEF969** **End Caps**	10	pairs	EF992	MF SA KL HP SSC SMC PC W Z
	**ACEF970** **End Caps**	1	pair	EF425 EF995	MF SA KL HP SSC SMC PC W Z


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

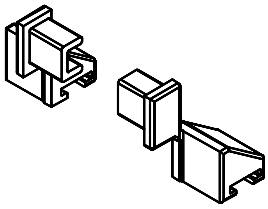
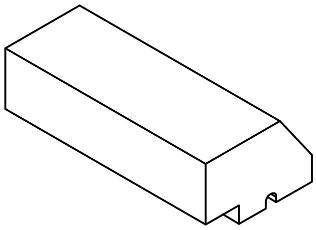
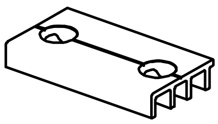
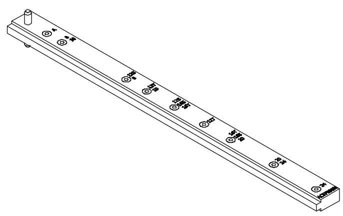
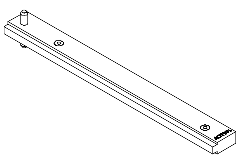

Screw (Grub)

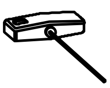
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

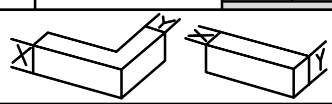
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF971** **End Caps**	10	pairs	EF995	MF SA KL HP SSC SMC PC W Z
	**ACEF976** **Foam Insert**	100	M	EF926	MF SA KL HP SSC SMC PC W Z
	**ACEF982** **Aluminium Guide Block for Smoke Vent**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACEF990N** **Drill Jig for Standard Hinges**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACEF991** **Drill Jig for Egress Hinges**	1	each		MF SA KL HP SSC SMC PC W Z



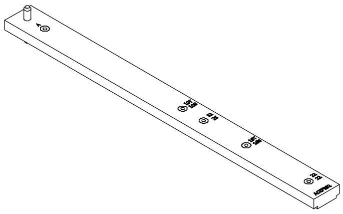
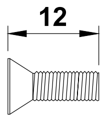
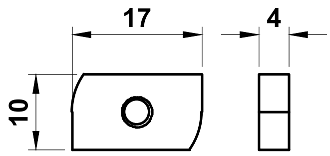
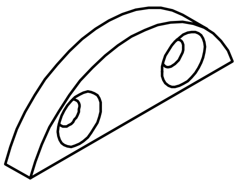
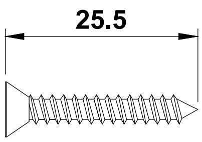
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

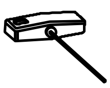
Screw (Grub)

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



ISSUED: DECEMBER 2018

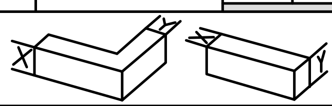
Image	Part Code	Pack	Unit	Application	Colour
	**ACEF992** **Drill Jog for Heavy Duty Hinges**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACET038** **M4 X 12MM CSK SS**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACET039** **M4 Channel Fixing**	50	pack		MF SA KL HP SSC SMC PC W Z
	**ACET041** **Cill Nose Bracket**	100	pack	ETC451 ETC452 ETC457 ETC458 ETC479	MF SA KL HP SSC SMC PC W Z
	**ACET060** **No. 7 x 25 S/S Self Tapping CSK Screw**	100	pack		MF SA KL HP SSC SMC PC W Z



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

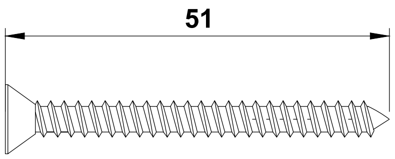
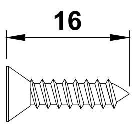
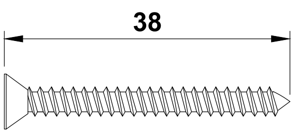
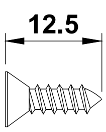
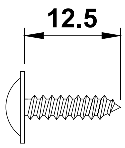
Screw (Grub)

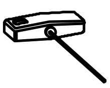
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

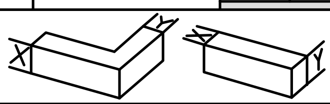
Image	Part Code	Pack	Unit	Application	Colour
	**ACET062** **No.10 x 50 S/S Self Tapping CSK Screw**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACET064** **No.8 x 16 S/S Self Tapping CSK Screw**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACET066** **No.7 x 38 S/S Self Tapping CSK Screw**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACET067** **No. 7 x 13 CSK S/S Self Tapper**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACET070** **No.8 x 13 S/S Self Tapping Flange Screw**	100	pack	Friction Hinges	MF SA KL HP SSC SMC PC W Z



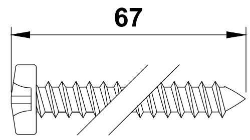
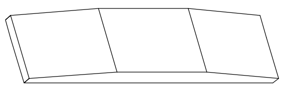
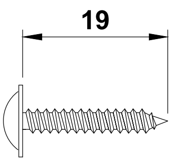
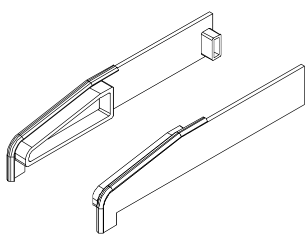
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

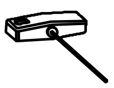
Screw (Grub)

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



ISSUED: DECEMBER 2018

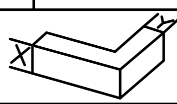
Image	Part Code	Pack	Unit	Application	Colour
	**ACET079** **Pan Head Screw No. 10 x 2 1/2**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACET080** **Cockspur Handle**	1	each	ACET083	MF SA KL ✓ HP SSC SMC PC W ✓ Z ✓
	**ACET083** **3mm Wedge**	100	pack	ACET080	MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACET099** **No.8 x 19 S/S Self Tapping Flange Screw**	100	pack	Friction Hinges	MF SA KL HP SSC SMC PC W Z
	**ACET157** **PVC End Cap**	10	pair	ETC457	MF SA KL HP SSC SMC PC W ✓ Z ✓

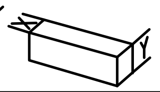


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

Screw (Grub)

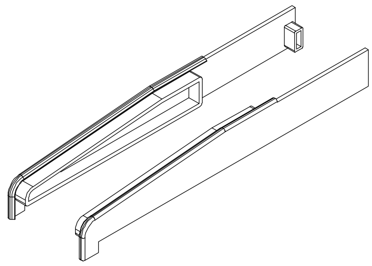
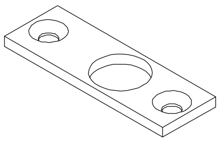
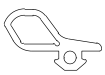
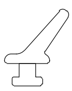
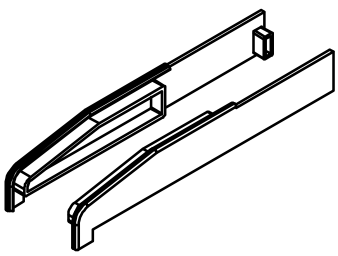
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

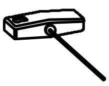




Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

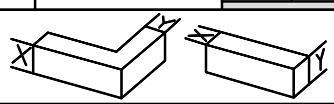
Image	Part Code	Pack	Unit	Application	Colour
	**ACET179** **PVC End Cap**	10	pair	ETC479	MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACET196** **Adjustable Shootbolt Keep** **Min. Order 500**	1	each	ACET195 ACET176	MF SA KL HP SSC SMC PC W Z
	**ACET232** **Threshold Gasket with Upstand**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACET234** **Threshold Gasket**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACET258** **PVC End Cap**	10	pair	ETC458	MF SA KL HP SSC SMC PC W ✓ Z ✓



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

Screw (Grub)

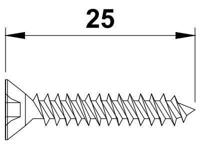
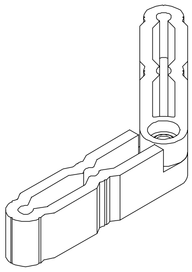
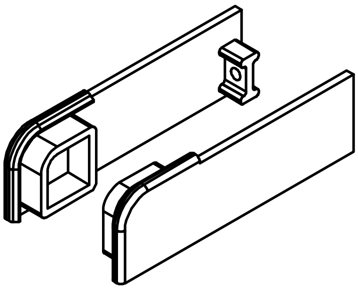
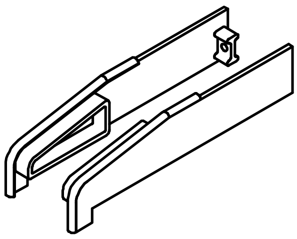
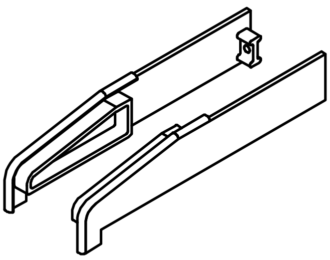
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

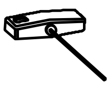


ISSUED: DECEMBER 2018

Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

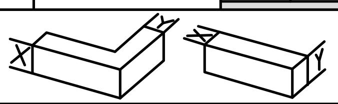
Image	Part Code	Pack	Unit	Application	Colour
	**ACET390** **4.3 x 25mm CSK S/S Polyamide Screw**	1000	pack		MF SA KL HP SSC SMC PC W Z
	**ACET440** **90° - 180° Variable Angle Cill / Bracket**	10	pack	ETC451 ETC452 ETC457 ETC458 ETC479	MF SA ✓ KL HP SSC SMC PC W Z
	**ACET451** **Cast End Cap**	1	pair		MF ✓ SA KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACET452** **Cast End Cap**	1	pair		MF ✓ SA KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACET457** **Cast End Cap**	1	pair		MF ✓ SA KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓



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

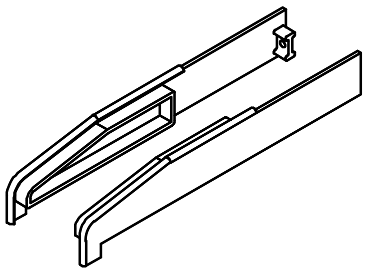
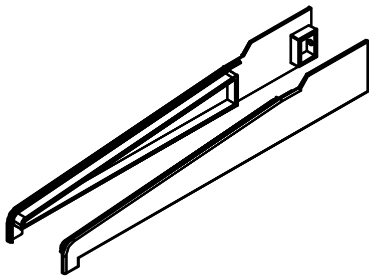
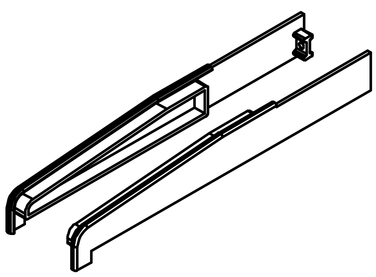
Screw (Grub)

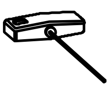
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

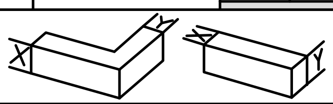
Image	Part Code	Pack	Unit	Application	Colour
	**ACET458** **Cast End Cap**	1	pair		MF ✓ SA KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACET461** **Inline Espag Handle with 15mm Spindle**	1	Each	ACET861 ACET862 ACET863 ACET864 ACET865 ACET866	MF SA KL ✓ HP ✓ SSC ✓ SMC ✓ PC ✓ W ✓ Z ✓
	**ACET466 L/R** **Cranked Espag Handle with 15mm Spindle**	1	Each	ACET861 ACET862 ACET863 ACET864 ACET865 ACET866	MF SA KL ✓ HP ✓ SSC ✓ SMC ✓ PC ✓ W ✓ Z ✓
	**ACET477** **Cast End Cap**	1	pair	ETC477	MF ✓ SA KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACET479** **Cast End Cap**	1	pair		MF ✓ SA KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓



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

Screw (Grub)

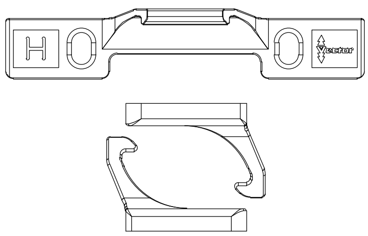
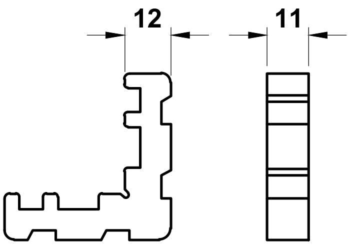
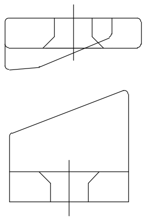
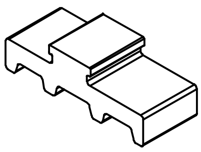
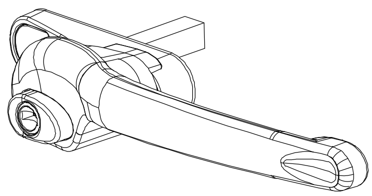
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

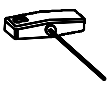


ISSUED: DECEMBER 2018

Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

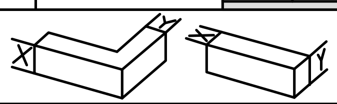
Image	Part Code	Pack	Unit	Application	Colour
	**ACET516** **16mm Cavity Hinge Protector** **4 Per Set (2 pairs)**	50	sets	EF926	MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACET616** **Inner Chamber Crimping Cleat**	24	pack	EF945	MF SA KL HP SSC SMC PC W Z
	**ACET652** **Pull In Blocks**	50	pairs		MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACET855** **Foam Insulation**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACET868** **Espag Handle R/L**	1	each		MF SA KL HP SSC SMC PC ✓ W ✓ Z ✓



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

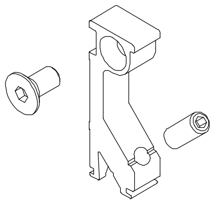
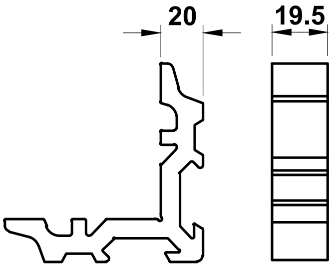
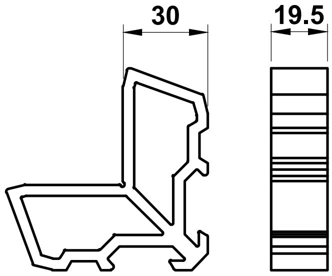
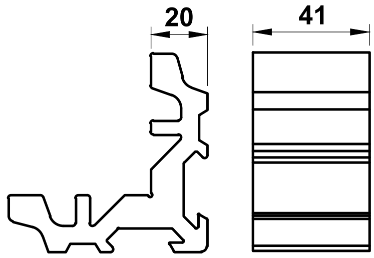
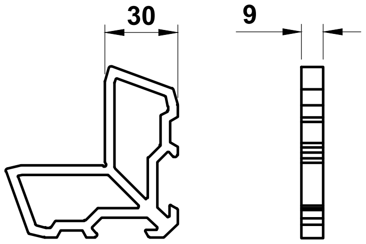
Screw (Grub)

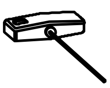
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

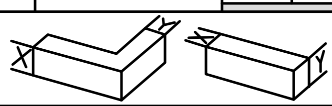
Image	Part Code	Pack	Unit	Application	Colour
 L/H	**ACET6130L/R** **Cruciform Bracket**	10	Pairs	EF930 EF932	MF ✓ SA KL HP SSC SMC PC W Z
	**ACFT010B** **Crimping corner for inside chamber**	24	pack	EF010 EF917	MF SA KL HP SSC SMC PC W Z
	**ACFT012B** **Crimping corner for inside chamber**	24	pack	EF011 EF019 EF031	MF SA KL HP SSC SMC PC W Z
	**ACFT014B** **Crimping corner for inside chamber**	24	pack	EF012 EF032	MF SA KL HP SSC SMC PC W Z
	**ACFT016A** **Crimping corner for outside chamber**	24	pack	EF022	MF SA KL HP SSC SMC PC W Z



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

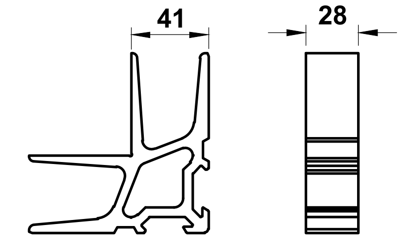
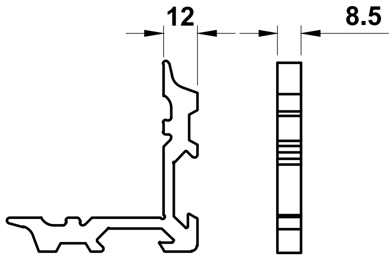
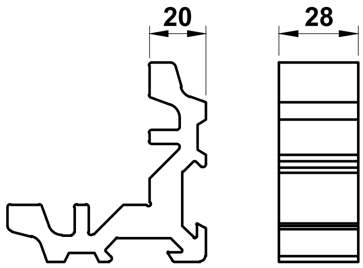
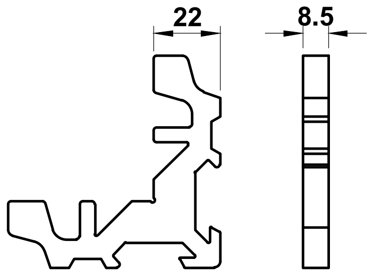
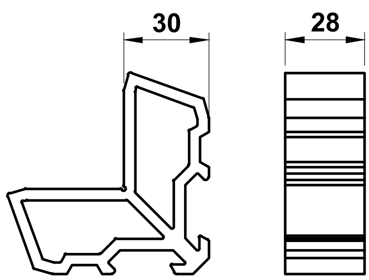
Screw (Grub)

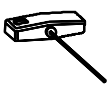
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



ISSUED: DECEMBER 2018

ACCESSORIES : PHOTOS & DRAWINGS

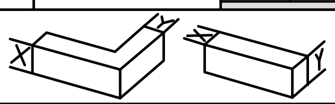
Image	Part Code	Pack	Unit	Application	Colour
	**ACFT016B** Crimping corner for inside chamber	24	pack	EF022	MF SA KL HP SSC SMC PC W Z
	**ACFT020A** Crimping corner for outside chamber	24	pack	EF020	MF SA KL HP SSC SMC PC W Z
	**ACFT020B** Crimping corner for inside chamber	24	pack	EF020	MF SA KL HP SSC SMC PC W Z
	**ACFT022A** Crimping corner for Outside chamber	24	pack	EF021	MF SA KL HP SSC SMC PC W Z
	**ACFT022B** Crimping corner for inside chamber	24	pack	EF021 EF045	MF SA KL HP SSC SMC PC W Z



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

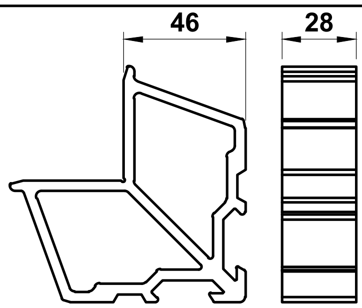
Screw (Grub)

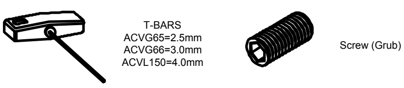
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



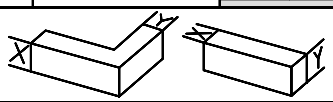
Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

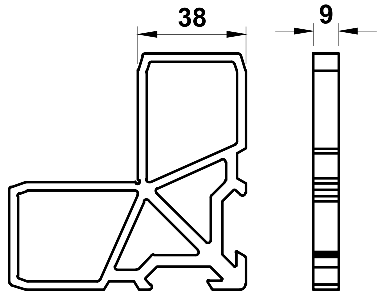
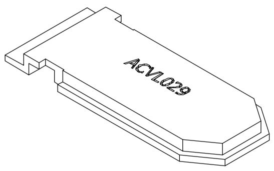
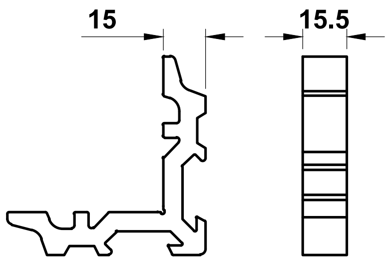
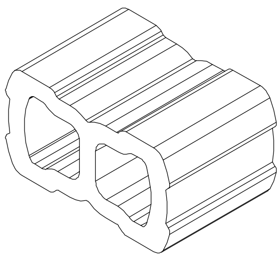
Image	Part Code	Pack	Unit	Application	Colour
	**ACFT025A** **Transom/Mullion Bracket**	24	pack	EF130	MF SA KL HP SSC SMC PC W Z
	**ACFT025B** **Transom/Mullion Bracket**	24	pack	EF030 EF130	MF SA KL HP SSC SMC PC W Z
	**ACFT026A** **Transom/Mullion Bracket**	24	pack	EF131	MF SA KL HP SSC SMC PC W Z
	**ACFT026B** **Transom/Mullion Bracket**	24	pack	EF031 EF036 EF131	MF SA KL HP SSC SMC PC W Z
	**ACFT027A** **Crimping corner for outside chamber**	24	pack	EF120	MF SA KL HP SSC SMC PC W Z

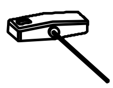


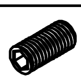
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



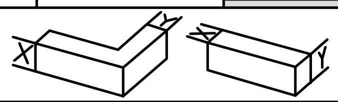
ISSUED: DECEMBER 2018

Image	Part Code	Pack	Unit	Application	Colour
	**ACFT027B** **Crimping corner for inside chamber**	24	pack	EF120	MF SA KL HP SSC SMC PC W Z
	**ACFT029-5000** **Anti-twist clip** **Order ACVL029 for single quantities**	5000 1	pack or each		MF SA KL HP SSC SMC PC W Z
	**ACFT044A** **Crimping corner for outside chamber**	24	pack	EF044	MF SA KL HP SSC SMC PC W Z
	**ACFT075** **Coupling gasket**	50	m		MF SA KL HP SSC SMC PC W Z
	**ACFT116B** **Variable angle bracket for inside chamber**	48 1	pack or each	EF010	MF SA KL HP SSC SMC PC W Z



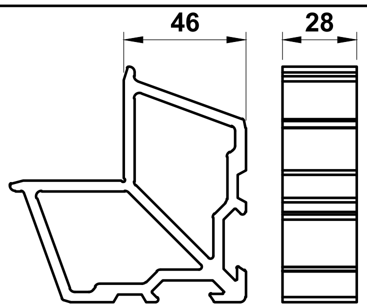
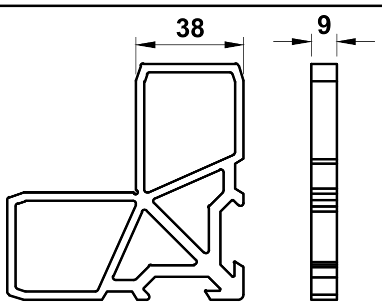


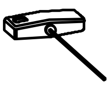
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



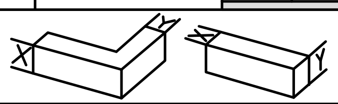
Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACFT117B** **Variable angle bracket for inside chamber**	48 1	pack or each	EF011	MF SA KL HP SSC SMC PC W Z
	**ACFT120A** **Variable angle bracket for outside chamber**	48	pack	EF020	MF SA KL HP SSC SMC PC W Z
	**ACFT120B** **Variable angle bracket for outside chamber**	48	pack	EF020	MF SA KL HP SSC SMC PC W Z
	**ACFT128A** **Mechanical Corner Cleat for Outside Chamber**	24	pack	EF120	MF SA KL HP SSC SMC PC W Z
	**ACFT128B** **Mechanical Corner Cleat for Inside Chamber**	24	pack	EF120	MF SA KL HP SSC SMC PC W Z

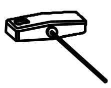


MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



ISSUED: DECEMBER 2018

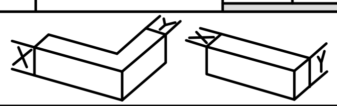
Image	Part Code	Pack	Unit	Application	Colour
	**ACFT130A** **Adjustable Bracket for Outside Chamber**	1	each	EF130	MF SA KL HP SSC SMC PC W Z
	**ACFT130B** **Adjustable Bracket for Inside Chamber**	1	each	EF130	MF SA KL HP SSC SMC PC W Z
	**ACFT146** **Self operating threshold 710mm**	1	each	EF023 EF120	MF ✓ SA KL HP SSC SMC PC W Z
	**ACFT147** **Self operating threshold 835mm**	1	each	EF023 EF120	MF ✓ SA KL HP SSC SMC PC W Z
	**ACFT148** **Self operating threshold 960mm**	1	each	EF023 EF120	MF ✓ SA KL HP SSC SMC PC W Z



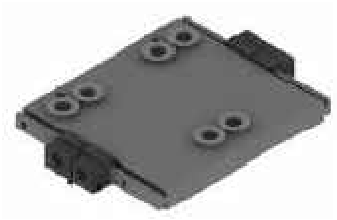
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

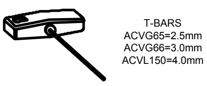
Screw (Grub)

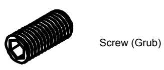
MF	**= Mill Finish**	**W**	**= White**
SA	**= Silver Anodised**	**Z**	**= Black**
KL	**= Basic Colour**		
HP	**= Special Colour**		
SSC	**= Smooth Satin Chrome**		
SMC	**= Smokey Chrome**		
PC	**= Polished Chrome**		



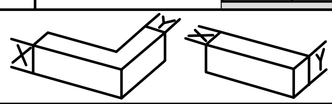
ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACFT149** **Self operating threshold 1085mm**	1	each	EF023 EF120	MF ✓ SA KL HP SSC SMC PC W Z
	**ACFT150** **Self operating threshold 1210mm**	1	each	EF023 EF120	MF ✓ SA KL HP SSC SMC PC W Z
	**ACFT399** **Boring Jig 93mm**	1	each	ACUN461 ACUN462 ACUN466	MF SA KL HP SSC SMC PC W Z
	**ACFT512** **Lift-out security**	1	each	EF011 EF023 EF120	MF SA KL HP SSC SMC PC W Z
	**ACFT521** **Handle set for burglary resistance**	1	each	EF424 EF425	MF ✓ SA ✓ KL ✓ HP SSC SMC PC W ✓ Z ✓

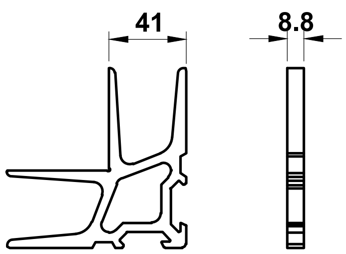
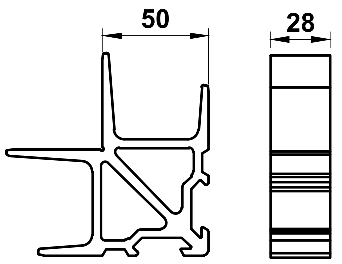


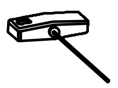


MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



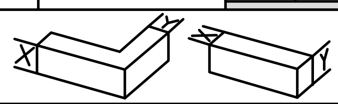
ISSUED: DECEMBER 2018

Image	Part Code	Pack	Unit	Application	Colour
	**ACFT522L** Handle set for burglary resistance	1	each	EF424 EF425	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACFT522R** Handle set for burglary resistance	1	each	EF424 EF425	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACFT612A** Crimping corner for outside chamber	24	pack	EF023	MF SA KL HP SSC SMC PC W Z
	**ACFT612B** Crimping corner for inside chamber	24	pack	EF023	MF SA KL HP SSC SMC PC W Z
	**ACFT909** Drill jig set for connecting T brackets	1	each	EF030 EF031 EF032	MF SA KL HP SSC SMC PC W Z


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

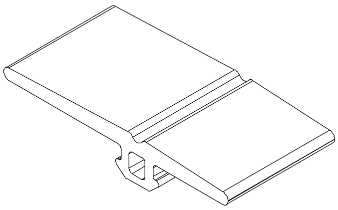
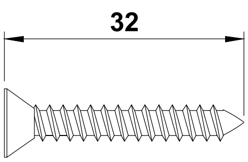

Screw (Grub)

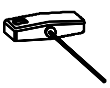
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

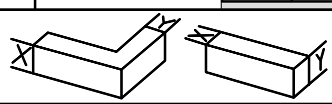
Image	Part Code	Pack	Unit	Application	Colour
	**ACGSL045** **Drainage Cap**	1	each		MF SA KL HP SSC SMC PC W ✓ Z ✓
	**ACGT430** **Shoot bolt central finger pull**	1	each	ACVL127 EF424 EF425 EF022 EF023 EF120	MF SA KL HP SSC SMC PC W Z
	**ACGT463** **Finishing gasket for door**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACIM062** **No.10 x 1 $\frac{1}{4}$ CSK Stainless Steel Self Tapper**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACMX0030** **Half cylinder 30**	1	each	EF023 EF424 EF425	MF SA KL HP SSC SMC PC W Z



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

Screw (Grub)

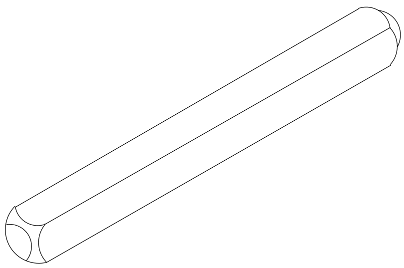
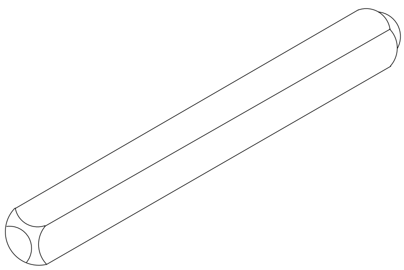
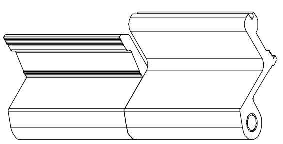
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

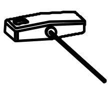


ISSUED: DECEMBER 2018

Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

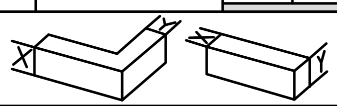
Image	Part Code	Pack	Unit	Application	Colour
	**ACMX0065** **Half cylinder 65**	1	each	EF120	MF SA KL HP SSC SMC PC W Z
	**ACMX008** **Spindle = 60mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX012** **Spindle = 100mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX01627** **Burglary Resistant Cylinder 30/65**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX040** **Window Hinge**	10	pack		MF SA KL HP SSC SMC PC W Z



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

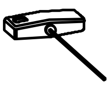
Screw (Grub)

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



ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACMX05050** **Bernini Savio Horizontal panic bar** **Grey**	1	each	EF414 EF425	MF SA KL HP SSC SMC PC W Z
	**ACMX05052** **Bernini Savio Vertical panic bar** **Grey**	1	each	EF414 EF425	MF SA KL HP SSC SMC PC W Z
	**ACMX05054** **Door handle for panic bar** **Grey**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX05060** **Cellini Savio Horizontal panic bar** **Grey**	1	each	EF414 EF425	MF SA KL HP SSC SMC PC W Z
	**ACMX05062** **Cellini Savio Vertical panic bar**	1	each	EF414 EF425	MF SA KL HP SSC SMC PC W Z



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

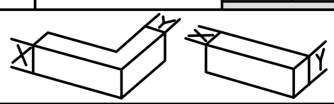
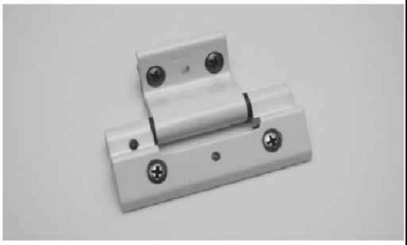
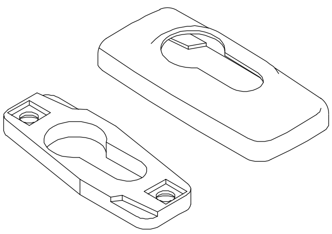
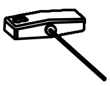


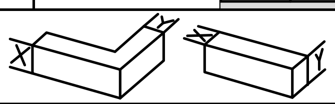
Image	Part Code	Pack	Unit	Application	Colour
	**ACMX053** Link Lever With Clips	1	pair		MF SA KL HP SSC SMC PC W Z ✓
	**ACMX100** Door Hinge	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX102** Door Hinge Max 50kg	1	each	EF023 EF120	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACMX103** Pin for burglary resistant	1	each	ACMX102	MF SA KL HP SSC SMC PC W Z
	**ACMX208** Escutcheon (Protection / Shield)	1	each		MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓



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

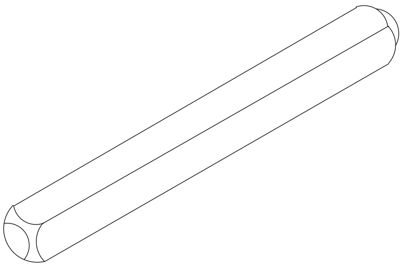
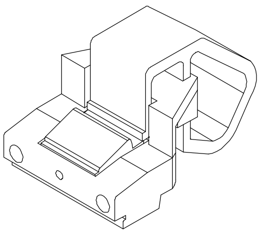
Screw (Grub)

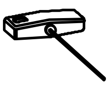
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

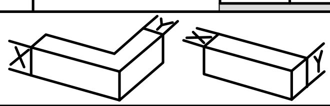
Image	Part Code	Pack	Unit	Application	Colour
	**ACMX209** **Spindle = 110mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX252** **Springlatch Kit**	1	each		MF SA ✓ KL HP SSC SMC PC W ✓ Z ✓
	**ACMX3045** **Half cylinder 30/45**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX3055** **Cylinder 30/55**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACMX3065** **Cylinder 30/65**	1	each	EF023 EF120	MF SA KL HP SSC SMC PC W Z



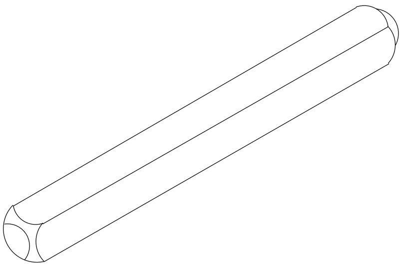
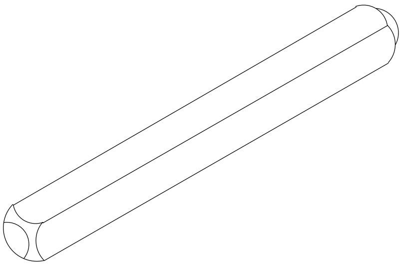
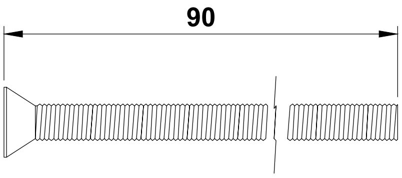
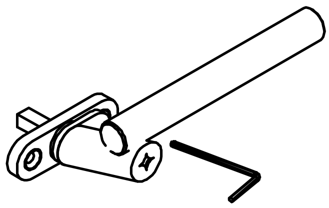
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

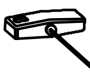
Screw (Grub)

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



ISSUED: DECEMBER 2018

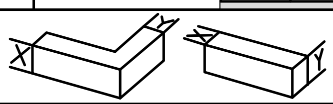
Image	Part Code	Pack	Unit	Application	Colour
	**ACMX309** **Spindle = 130mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX310** **Spindle = 140mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX862** **DIN965 M5 x 90mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACSM022SS L/R** **15mm Spindle Espag Handle.** **Spindle & fixings provided** **Includes M4 Long Ball Point Allen Key for locking**	1	each	**ACET861** **ACET862** **ACET863** **ACET864** **ACET865** **ACET866**	MF SA KL HP SSC SMC PC W Z
	**ACSP906** **Drill jig for Variable angle bracket**	1	each		MF SA KL HP SSC SMC PC W Z



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

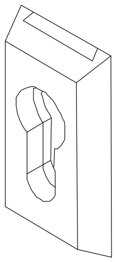
Screw (Grub)

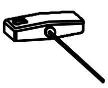
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

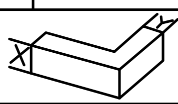
Image	Part Code	Pack	Unit	Application	Colour
	**ACSZ400** **Safety Lock Plate** **Door Handle - External**	1	each		MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
					MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z

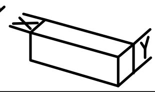


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

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



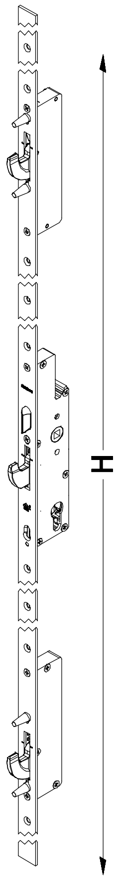
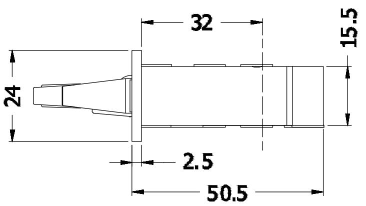
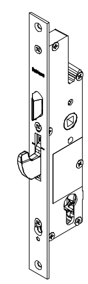


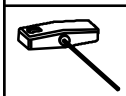
ISSUED: DECEMBER 2018

smart architectural aluminium

Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
 	**ACSZ510** **Multi-Point Door Lock** **H = 2170mm** **Requires:** **1xACSZ650L/R** **1xACSZ651** **------------------OR-------------------** **1xACSZ680L/R**	1	each		MF SA KL HP SSC SMC PC W Z
	ACSZ511 **Multi-Point Door Lock** **H = 1895mm** **Requires:** **1xACSZ650L/R** **1xACSZ651** **------------------OR-------------------** **1xACSZ511** **1xACSZ681**	1	each	**EF023** **EF120**	
	ACSZ512 **Multi-Point Door Lock** **H = 2470mm** **Requires:** **1xACSZ650L/R** **1xACSZ651** **------------------OR-------------------** **1xACSZ512** **1xACSZ682**	1	each		
	**ACSZ515** **1-Point Door Lock** **H = 290mm**	1	each	**EF023** **EF120**	MF SA KL HP SSC SMC PC W Z



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

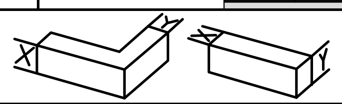
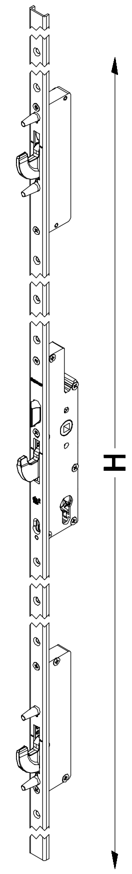
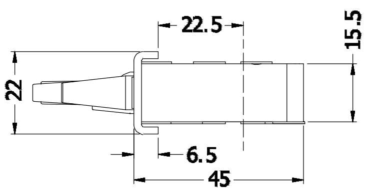
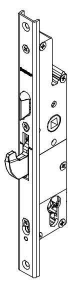
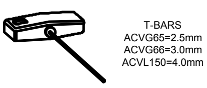
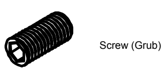


Image	Part Code	Pack	Unit	Application	Colour
	**ACSZ550** **Multi-Point Door Lock** **H = 2170mm** **Requires:** 1xACSZ650L/R & 2xACSZ651 ------------------OR------------------- 1xACSZ680L/R	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	ACSZ551 **Multi-Point Door Lock** **H = 1895mm** **Requires:** 1xACSZ650L/R & 2xACSZ651 ------------------OR------------------- 1xACSZ681L/R	1	each		
	ACSZ552 **Multi-Point Door Lock** **H = 2470mm** **Requires:** 1xACSZ650L/R & 2xACSZ651 ------------------OR------------------- 1xACSZ682L/R	1	each		
	**ACSZ555** **1-Point Door Lock** **H = 290mm**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z





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		

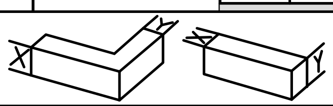
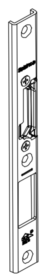
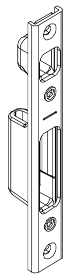
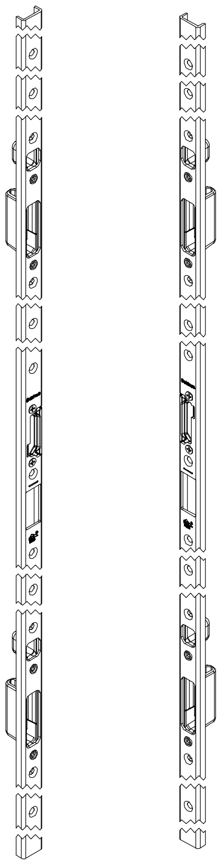
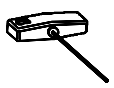


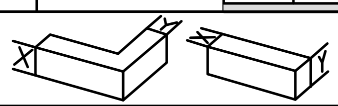
Image	Part Code	Pack	Unit	Application	Colour
	**ACSZ650L/R** **Short Keep Left**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACSZ651** **Short Keep Top & Bottom**	1	each		MF SA KL HP SSC SMC PC W Z
 L R	**ACSZ680L/R** **Long Keep : 2170mm**	1	each	ACSZ550	MF SA KL HP SSC SMC PC W Z
	ACSZ681L/R **Long Keep : 1895mm**	1	each	ACSZ551	MF SA KL HP SSC SMC PC W Z
	ACSZ682L/R **Long Keep : 2470mm**	1	each	ACSZ552	MF SA KL HP SSC SMC PC W Z



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

Screw (Grub)

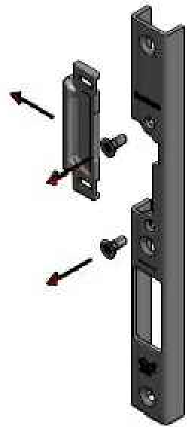
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

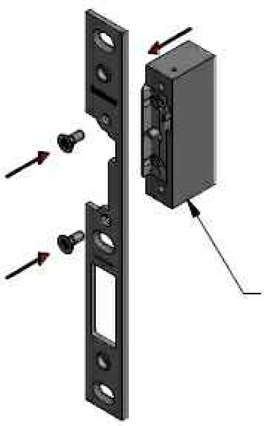


ELECTRIC STRIKE

In order to be able to use an electric strike, a keep with latch plate must be provided

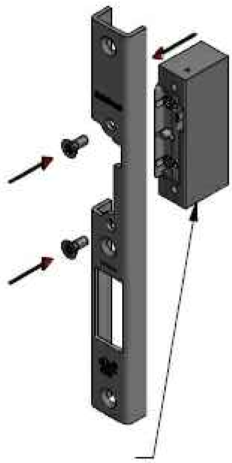
Remove the latch plate





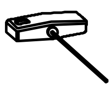
Mount and fit the electric strike with the same screws

ACSZ780



ACSZ780

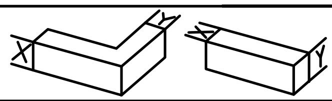
For both short and long keeps, flat and U-faceplate



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

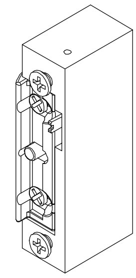
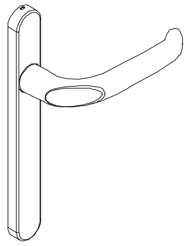
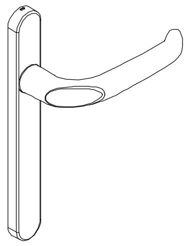
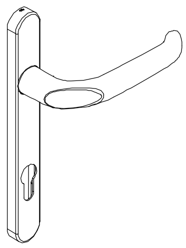
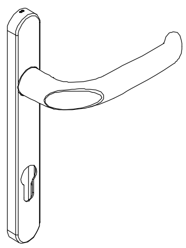
Screw (Grub)

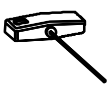
MF	= Mill Finish	W	= White
SA	= Silver Anodised	Z	= Black
KL	= Basic Colour		
HP	= Special Colour		
SSC	= Smooth Satin Chrome		
SMC	= Smokey Chrome		
PC	= Polished Chrome		



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

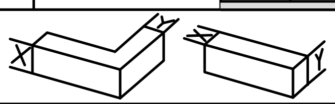
Image	Part Code	Pack	Unit	Application	Colour
	**ACSZ780** **Fail Secure Electric strike (L/R)**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACSZ800** **External Lever Handle Without Cylinder**	1	each	ACSZ55* ACSZ801 ACSZ803 ACSZ830 ACMX309	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACSZ801** **Internal Lever Handle Without Cylinder**	1	each	ACSZ55* ACSZ800 ACSZ803 ACMX309	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACSZ802** **External Handle With Cylinder**	1	each	ACSZ55* ACSZ800 ACSZ803 ACMX309	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACSZ803** **Internal Handle With Cylinder**	1	each	ACSZ55* ACSZ801 ACSZ803 ACMX309	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓



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

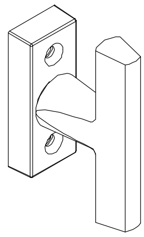
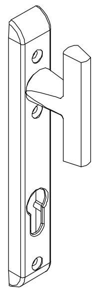
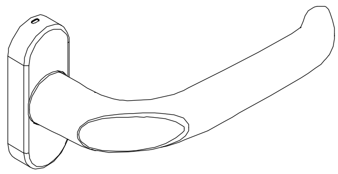
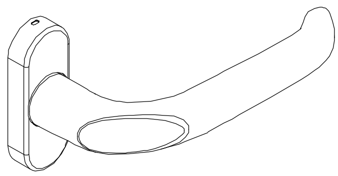
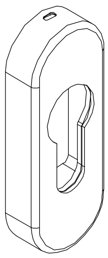
Screw (Grub)

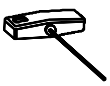
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



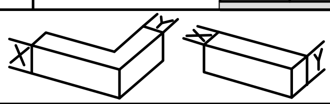
Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

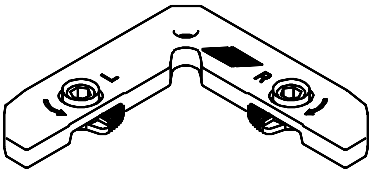
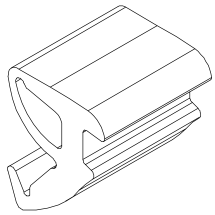
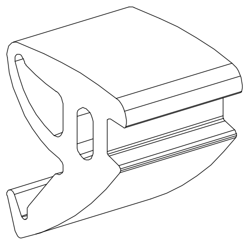
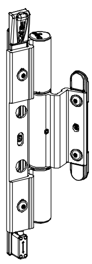
Image	Part Code	Pack	Unit	Application	Colour
	**ACSZ827** **Internal 'T' Door Handle With Short Backplate**	1	each		MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACSZ830** **Internal 'T' Door Handle With Long Backplate**	1	each		MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACSZ836** **Internal Door Handle With Short Backplate**	1	each		MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACSZ837** **External Door Handle With Short Backplate**	1	each		MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACSZ839** **Escutcheon (Cylinder Cover)**	1	each		MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓

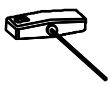


MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



ISSUED: DECEMBER 2018

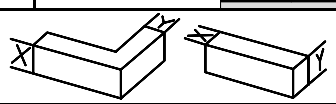
Image	Part Code	Pack	Unit	Application	Colour
	**ACUN020** **Corner alignment Variable angle bracket**	10	pack	EF010 EF011 EF019 EF110 EF020 EF023 EF424 EF425 EF917 EF926	MF SA KL HP SSC SMC PC W Z
	**ACUN033** **Inner glazing gasket 3 - 5mm**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACUN036** **Inner glazing gasket 6 - 8mm**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACUN102** **Three Part Hinge**	1	each	EF023 EF120	MF SA KL HP SSC SMC PC W Z
	**ACUN103** **Security Pins for Three Part Hinge**	1	each	ACUN102	MF SA KL HP SSC SMC PC W Z



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

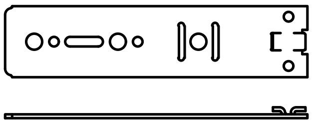
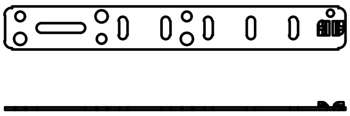
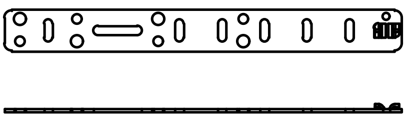
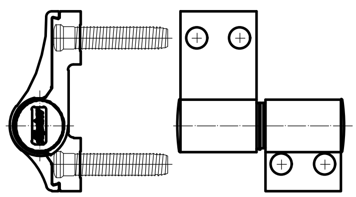
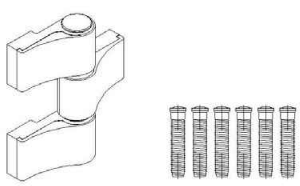
Screw (Grub)

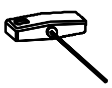
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

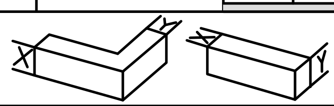
Image	Part Code	Pack	Unit	Application	Colour
	**ACUN230** **160mm Fixing Lug**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACUN232** **240mm Fixing Lug**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACUN233** **280mm Fixing Lug**	100	pack		MF SA KL HP SSC SMC PC W Z
	**ACUN450** **Hinge**	1	each	EF424 EF425	MF SA KL HP SSC SMC PC W Z
	**ACUN456** **Hinge**	1	each	EF454 EF425	MF SA KL HP SSC SMC PC W Z



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

Screw (Grub)

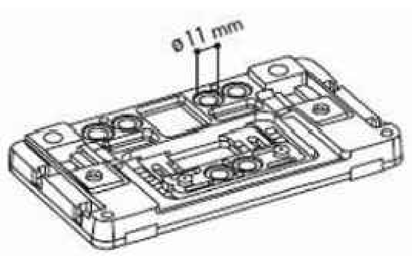
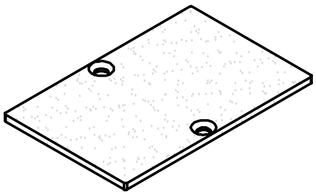
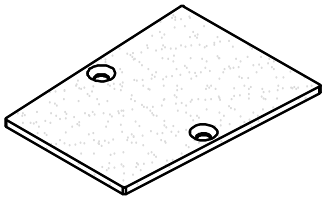
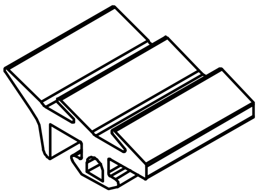
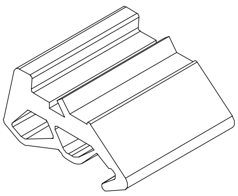
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

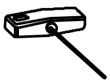


ISSUED: DECEMBER 2018

Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

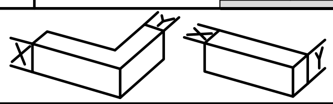
Image	Part Code	Pack	Unit	Application	Colour
	**ACUN480** **Drill Jig**	1	each	ACUN450	MF SA KL HP SSC SMC PC W Z
	**ACUN500** **Cover plate**	1	each	UN500 UN501	MF SA KL HP SSC SMC PC W Z
	**ACUN501** **Cover plate**	1	each	UN500 UN511	MF SA KL HP SSC SMC PC W Z
	**ACVG31N** **Glazing gasket outside 3mm rotated**	200	m		MF SA KL HP SSC SMC PC W Z
	**ACVG32N** **Glazing gasket inside 3mm rotated**	100	m		MF SA KL HP SSC SMC PC W Z



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

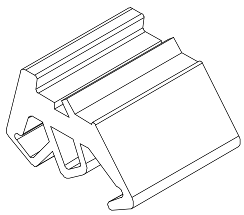
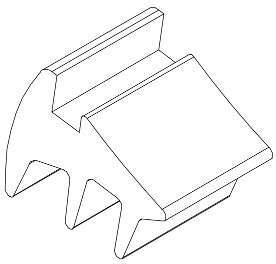
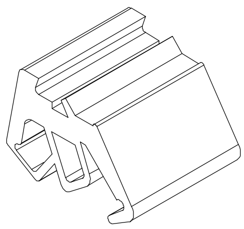
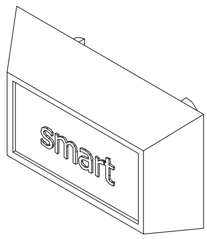
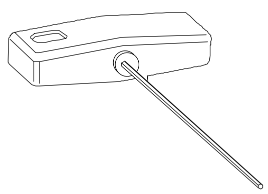
Screw (Grub)

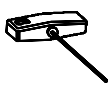
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

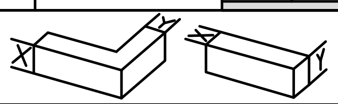
Image	Part Code	Pack	Unit	Application	Colour
	**ACVG33N** **Glazing gasket inside 4mm rotated**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACVG340N** **Glazing gasket inside 6mm rotated**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACVG34N** **Glazing gasket inside 5mm rotated**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACVG45N** **Drain hole cover**	100	pack	EF010 EF011 EF110	MF SA KL HP SSC SMC PC ✓ W ✓ Z
	**ACVG65** **T-handle hexagon-key 2.5mm**	24	pack	EF045	MF SA KL HP SSC SMC PC W Z



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

Screw (Grub)

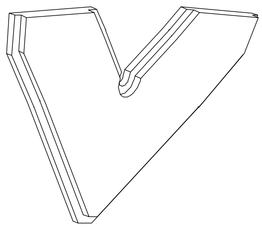
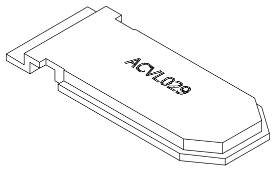
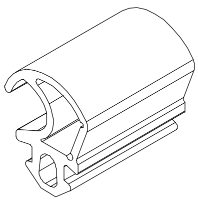
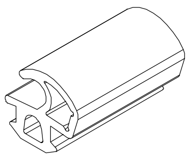
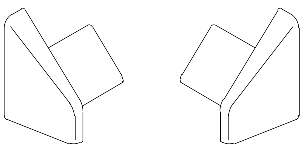
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

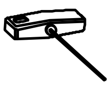


ISSUED: DECEMBER 2018

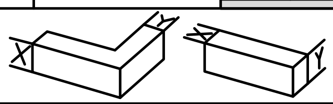
Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

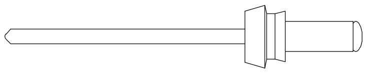
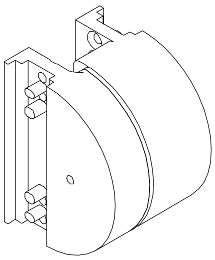
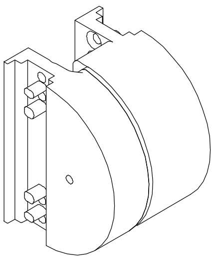
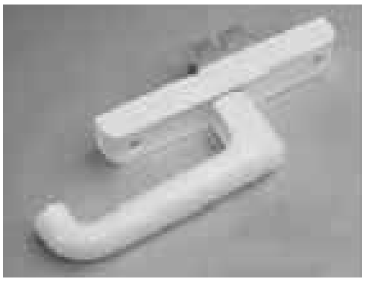
Image	Part Code	Pack	Unit	Application	Colour
	**ACVL020B** **Plastic chevron**	2000	pack	EF010 EF011 EF019 EF110 EF020 EF023	MF SA KL HP SSC SMC PC W Z
	**ACVL029** **Strengthening piece for connecting bracket**	1	each	EF030 EF031 EF032	MF SA KL HP SSC SMC PC W Z
	**ACVL031N** **Gasket rotated for windows**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACVL032N** **Gasket rotated for doors**	100	m		MF SA KL HP SSC SMC PC W Z
	**ACVL059** **VL72 end cap**	1	set	VL72	MF SA KL HP SSC SMC PC W ✓ Z ✓

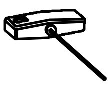


MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



ISSUED: DECEMBER 2018

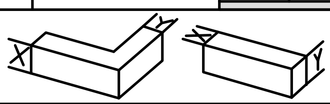
Image	Part Code	Pack	Unit	Application	Colour
	**ACVL061** **Rivet**	100	pack	VL72	MF SA KL HP SSC SMC PC W Z
	**ACVL090 L/R** **Pivot box 180°** **Max hor. = 180kg** **Max ver. = 120kg**	1	each	EF045	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL091 L/R** **Pivot box 180° + restrict** **Max hor. = 180kg** **Max ver. = 120kg**	1	each	EF045	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL092** **Set for pivoting window**	1	set	EF045	MF SA KL HP SSC SMC PC W Z
	**ACVL093** **Non-Locking Pivot Window Handle** **Fitting requires 2 x M5x30 CSK Screws (sold separately)**	1	each	EF032	MF SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓



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

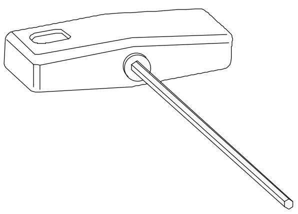
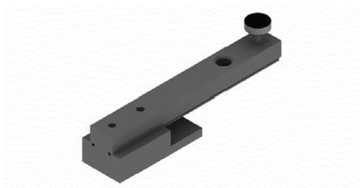
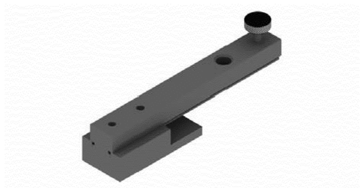
Screw (Grub)

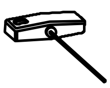
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

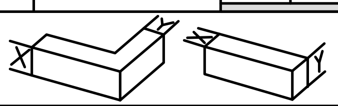
Image	Part Code	Pack	Unit	Application	Colour
	**ACVL094** **Locking Pivot Window Handle** Fitting requires 2 x M5x30 CSK Screws (sold separately)	1	each		MF SA ✓ KL ✓ HP ✓ SSC SMC PC W Z
	**ACVL127** **2.5m rod**	1	each	ACGT430	MF SA KL HP SSC SMC PC W Z
	**ACVL150** **T-handle hexagon key 4mm**	1	each	ACFT026B ACFT116B ACFT120B	MF SA KL HP SSC SMC PC W Z
	**ACVL162** **Drill jig set**	1	each	ACFT120A	MF SA KL HP SSC SMC PC W Z
	**ACVL163** **Drill jig set**	1	each	ACFT120B	MF SA KL HP SSC SMC PC W Z



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

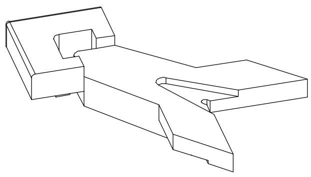
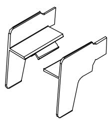
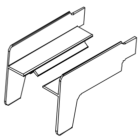
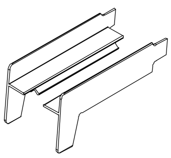
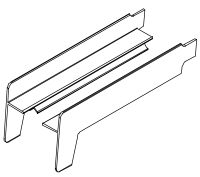
Screw (Grub)

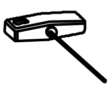
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

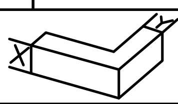
Image	Part Code	Pack	Unit	Application	Colour
	**ACVL231** **Corner for gasket**	1	each	ACVL032	MF SA KL HP SSC SMC PC W Z
	**ACVL279N** **Sealing member**	1	each	FT557 VL479	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL280N** **Sealing member**	1	each	FT557 VL480	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL281N** **Sealing member**	1	each	FT557 VL481	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL282N** **Sealing member**	1	each	FT557 VL482	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓

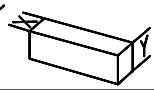


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

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

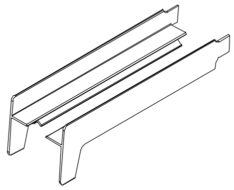
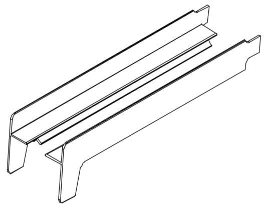
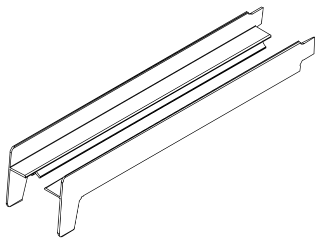
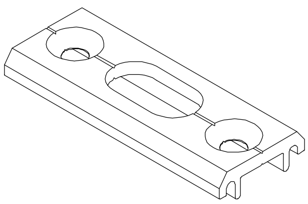
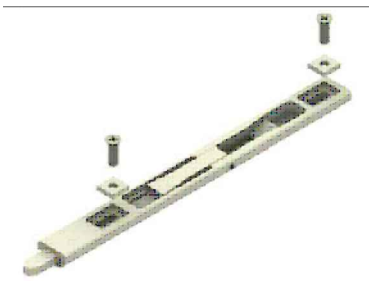


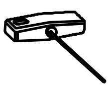


ISSUED: DECEMBER 2018

Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

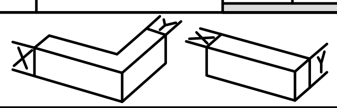
Image	Part Code	Pack	Unit	Application	Colour
	**ACVL283N** Sealing member	1	each	FT557 VL483	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL284N** Sealing member	1	each	FT557 VL484	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL286N** Sealing member	1	each	FT557 VL486	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL429** Keep for ACVL432	1	each	ACVL432	MF SA KL HP SSC SMC PC W Z
	**ACVL432** Extended bolt lock	1	each	EF023 EF120 EF040	MF SA KL HP SSC SMC PC W Z



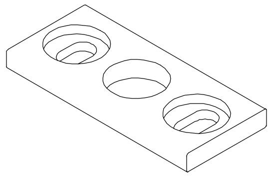
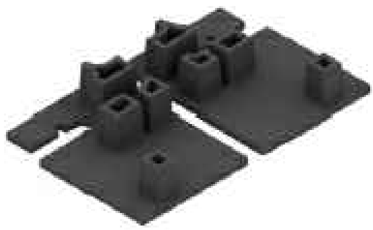
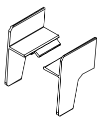
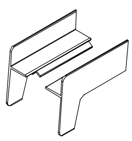
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

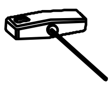
Screw (Grub)

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



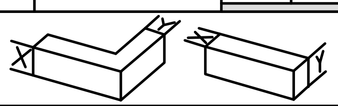
Eco Futural

Image	Part Code	Pack	Unit	Application	Colour
	**ACVL434** **Keep for ACVL432**	1	each	ACVL432	MF SA KL HP SSC SMC PC W Z
	**ACVL457** **Sealing for VL479 > VL486**	1	set	FT458	MF SA KL HP SSC SMC PC W Z
	**ACVL477** **For FT458 and VL479 > VL486**	1	each	FT458	MF SA KL HP SSC SMC PC W Z
	**ACVL479N** **Sealing member**	1	each	FT458 VL479	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL480N** **Sealing member**	1	each	FT458 VL480	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓


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

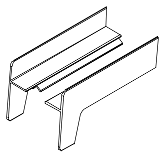
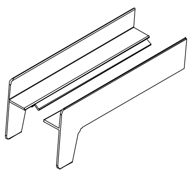
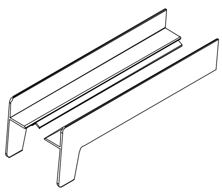
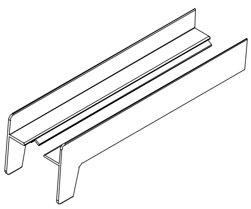
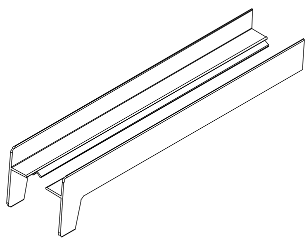

Screw (Grub)

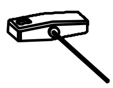
MF	= Mill Finish	W	= White
SA	= Silver Anodised	Z	= Black
KL	= Basic Colour		
HP	= Special Colour		
SSC	= Smooth Satin Chrome		
SMC	= Smokey Chrome		
PC	= Polished Chrome		



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

Image	Part Code	Pack	Unit	Application	Colour
	**ACVL481N** **Sealing member**	1	each	FT458 VL481	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL482N** **Sealing member**	1	each	FT458 VL482	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL483N** **Sealing member**	1	each	FT458 VL483	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL484N** **Sealing member**	1	each	FT458 VL484	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL486N** **Sealing member**	1	each	FT458 VL486	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓



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

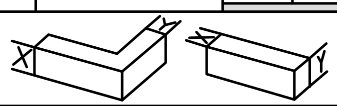
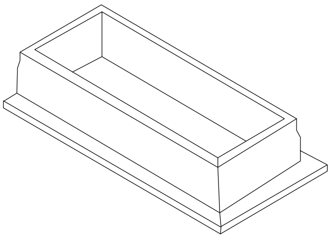
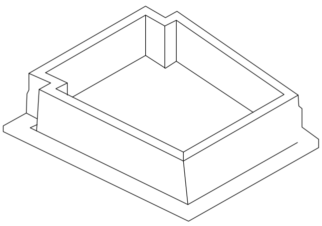
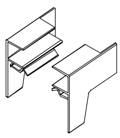
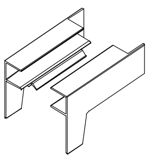
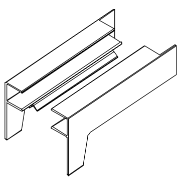
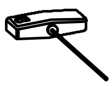


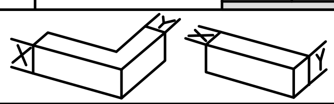
Image	Part Code	Pack	Unit	Application	Colour
	**ACVL635** **End piece**	1	each	EF035	MF SA KL HP SSC SMC PC W Z ✓
	**ACVL636** **End piece**	1	each	EF036	MF SA KL HP SSC SMC PC W Z ✓
	**ACVL679** **End piece (pair)**	1	each	VL479	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL680** **End piece (pair)**	1	each	VL480	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL681** **End piece (pair)**	1	each	VL481	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓



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

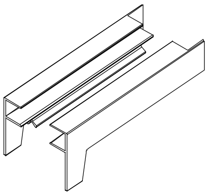
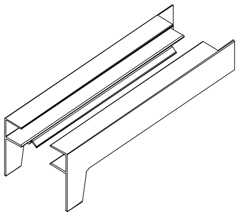
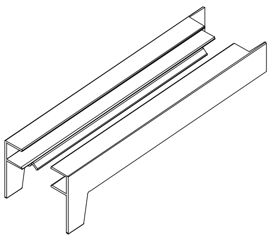
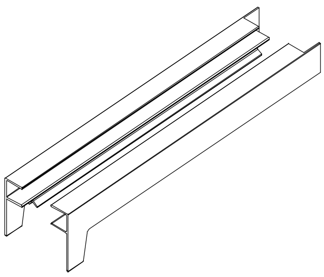
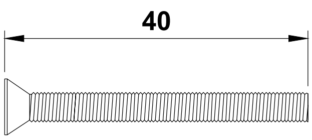
Screw (Grub)

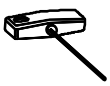
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

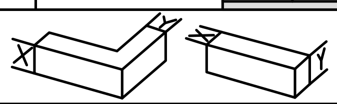
Image	Part Code	Pack	Unit	Application	Colour
	**ACVL682** **End piece (pair)**	1	each	VL482	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL683** **End piece (pair)**	1	each	VL483	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL684** **End piece (pair)**	1	each	VL484	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVL686** **End piece (pair)**	1	each	VL486	MF ✓ SA ✓ KL ✓ HP ✓ SSC SMC PC W ✓ Z ✓
	**ACVS061** **M5 X 40mm Din 965 Screw**	200	pack		MF SA KL HP SSC SMC PC W Z



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

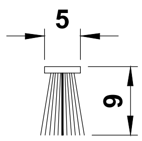
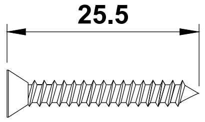
Screw (Grub)

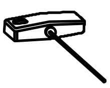
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
SSC = Smooth Satin Chrome
SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black



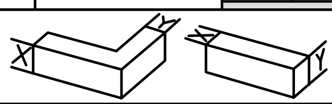
Eco Futural

ACCESSORIES : PHOTOS & DRAWINGS

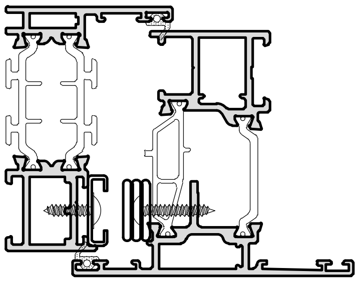
Image	Part Code	Pack	Unit	Application	Colour
	**ACVS033** **5 x 9mm Woolpile in Black with Fin**	150	m		MF SA KL HP SSC SMC PC W Z ✓
	**MUA025** **No.6 X 25mm SS CSK Self Tapping Screw**	100	pack		MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z



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**



ISSUED: DECEMBER 2018



EF924
EF926

Friction Hinge Stays 16mm Stack (Standard)

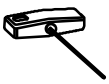
Top Hung Windows

Top Hung	Type of Hinge / Stay	Max. Vent Weight (kgs)	Height Mimimum	Height Maximum	Typical Width
ACETDHS08	Standard	12	200	350	-
ACETDHS10		16	275	400	-
ACETDHS12		20	350	550	-
ACETDHS16		21	500	780	-
ACETDHS20		26	700	1100	-
ACETDHS24		40	850	1300	-
ACETDTH24	Heavy Duty	50	850	1500	-
ACETDHS12R	Restricted	20	350	550	-
ACETDHS16R		21	500	780	-
ACETDHS20R		26	700	1100	-
ACETDHS24R		40	850	1300	-

Side Hung Windows

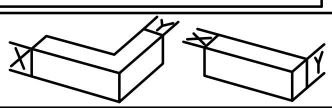
Side Hung	Type of Hinge / Stay	Max. Vent Weight (kgs)	Width Minimum	Width Maximum	Typical Height
ACETDHSSH12	Standard	22	320	600	-
ACETDHSSH16		24	420	700	-
ACETDHRSH12	Restricted	22	300	600	-
ACETDHRSH16		24	400	700	-
ACETME16	Egress	40	400	900	-
ACETDSH16	Heavy Duty	40	400	1000	-

Note1: Vent Height / Width is measured in mm.
Note2: Dimensions shown in table are sash sizes - not rebate sizes.
Note3: Top hung height and side hung width sizes to be reduced by 2mm where size is 450mm or smaller
Note4: Typical Dimensions based on Max. Size and Glass 30kg/metre

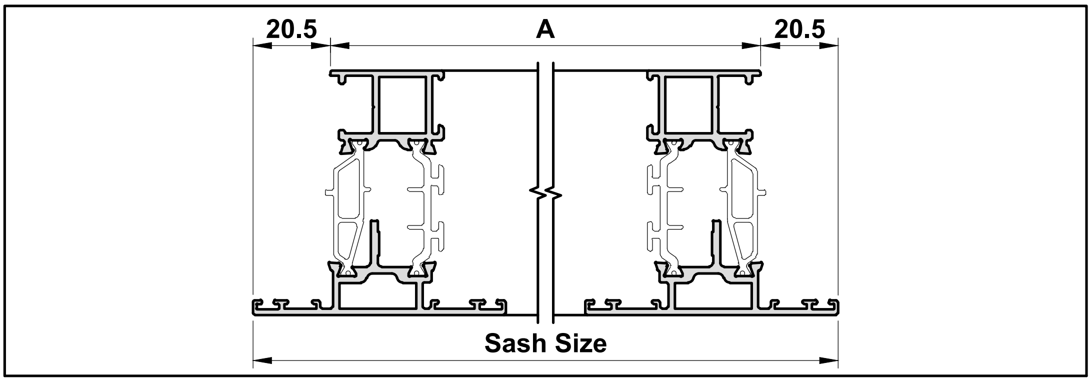


T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

Screw (Grub)

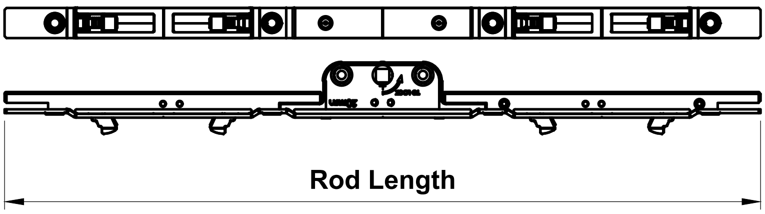


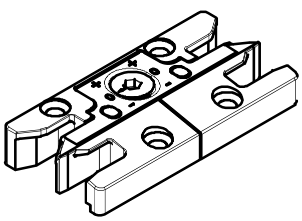
Open Out Windows



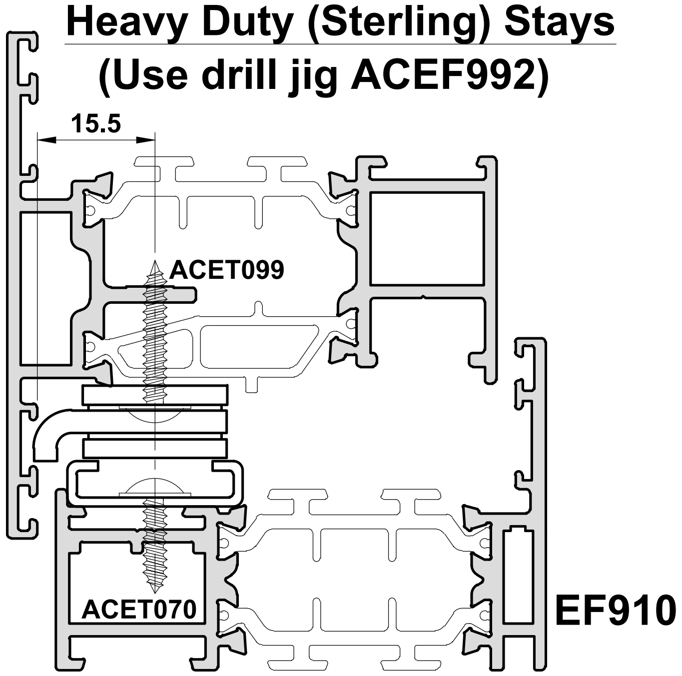
Part Code	Rod Length (mm)	Number of Keeps	Sash Rebate Size ('A')	
			Minimum	Maximum
ACEF951	200	1	200	400
ACEF952	400	2	400	600
ACEF953	600	2	600	800
ACEF954	800	3	800	1000
ACEF955	1000	3	1000	1200
ACEF956	1200	3	1200	1400

Note: To Suit Handle ACET868





Heavy Duty (Sterling) Stays
(Use drill jig ACEF992)

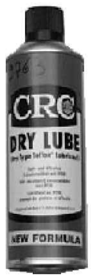


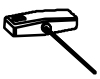
Hinge Code Top Hung	Hinge Length (mm)	Max Vent Weight (kg)	Min Vent Height (mm)	Max Vent Height (mm)	Opening Angle (+/-2.5°)
ACINS10	262	40	315	640	50
ACINS12	313	50	640	800	50
ACINS16	415	65	800	1100	50
ACINS22	567	100	1090	1500	45
ACINS22W	567	100	1500	2000	20
ACINS26	680	180	2000	2500	20
Side Hung	**Hinge Length (mm)**	**Max Vent Weight (kg)**	**Min Vent Width (mm)**	**Max Vent Width (mm)**	**Opening Angle (+/-2.5°)**
ACINSSH10	262	38	327	660	85
ACINSSH16	415	55	450	838	60

Please Note:

1. Dimensions shown in table are sash sizes - not rebate sizes.
2. The minimum sash sizes for ACINS10 & ACINSSH10 can both be reduced to 281mm where cockspur handles are used.
3. Top hung height & side hung width sizes to be reduced by 2mm where size is 450mm or smaller.

Eco Futural

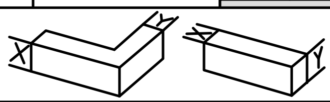
Image	Part Code	Pack	Unit	Application	Colour
	**ACMX09700** **Alu. Polish**	1	each		MF ✓ SA KL HP SSC SMC PC W Z
	**ACMX09761** **Maxi Gloss**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX09762** **Alu. Bright**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX09763** **Teflon Spray**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX09764** **Maxi Clean**	1	each		MF SA KL HP SSC SMC PC W Z



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

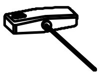
Screw (Grub)

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



ISSUED: DECEMBER 2018

Image	Part Code	Pack	Unit	Application	Colour
	**ACMX09765** **Alu. Cleaner**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX09770** **Roll & Wrap 100mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX09775** **Grip Handwrap**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX09801** **Protective Tape 50mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACMX09802** **Protective Tape 70mm**	1	each		MF SA KL HP SSC SMC PC W Z



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

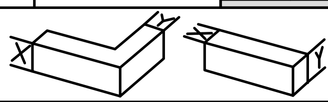
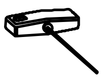


Image	Part Code	Pack	Unit	Application	Colour
	**ACMX09803** **Protective Tape 100mm**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACSIL04** **Sealing Glue** **Order with suffix of KL colour (eg.ACSIL04KL005) or BL=Black/WP=White/ CL=Clear**	1	each		MF SA KL ✓ HP SSC SMC PC W ✓ Z ✓
	**ACSIL05** **Rubber Sealant**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACSIL08** **Silicon Gun**	1	each		MF SA KL HP SSC SMC PC W Z
	**ACSIL013** **Glue for Mitre**	1	each		MF SA KL HP SSC SMC PC W Z



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

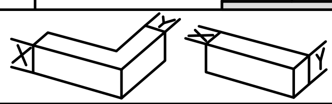
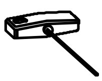


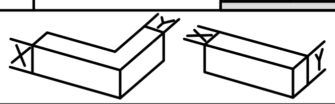
Image	Part Code	Pack	Unit	Application	Colour
	**ACSIL014** **Anti-Corrosion Coating**	1	each		MF ✓ SA KL HP SSC SMC PC W Z
	**ACUN3900** **Gasket Roller**	1	each		MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z
					MF SA KL HP SSC SMC PC W Z



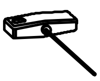
T-BARS
ACVG65=2.5mm
ACVG66=3.0mm
ACVL150=4.0mm

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



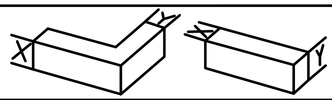
This page is intentionally left blank



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		



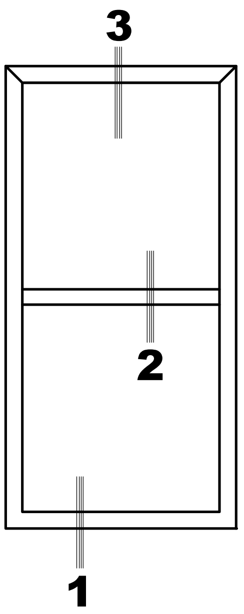
Section C

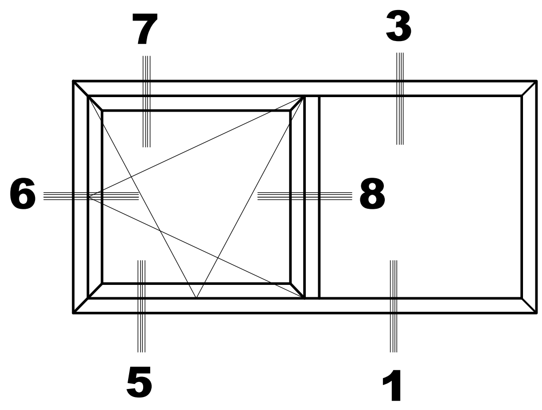
Eco Futural

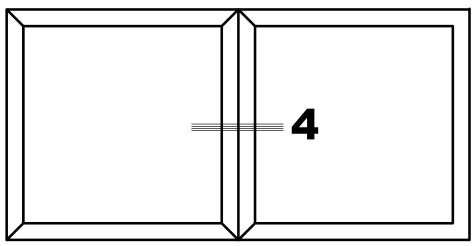
Sections

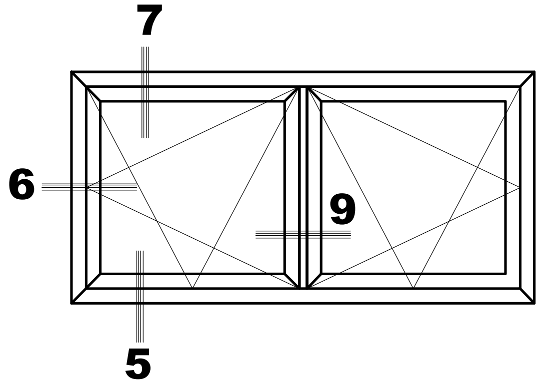
Scale Elevations

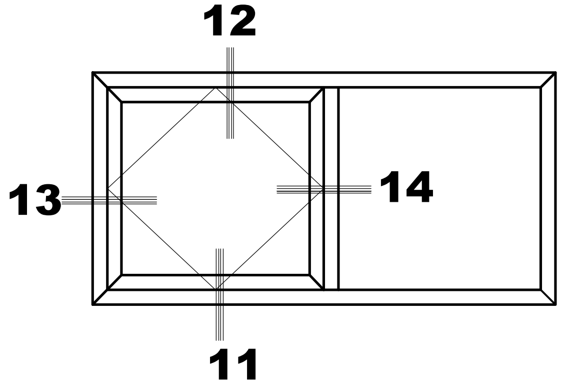
Section C - Windows



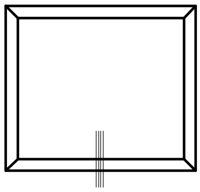


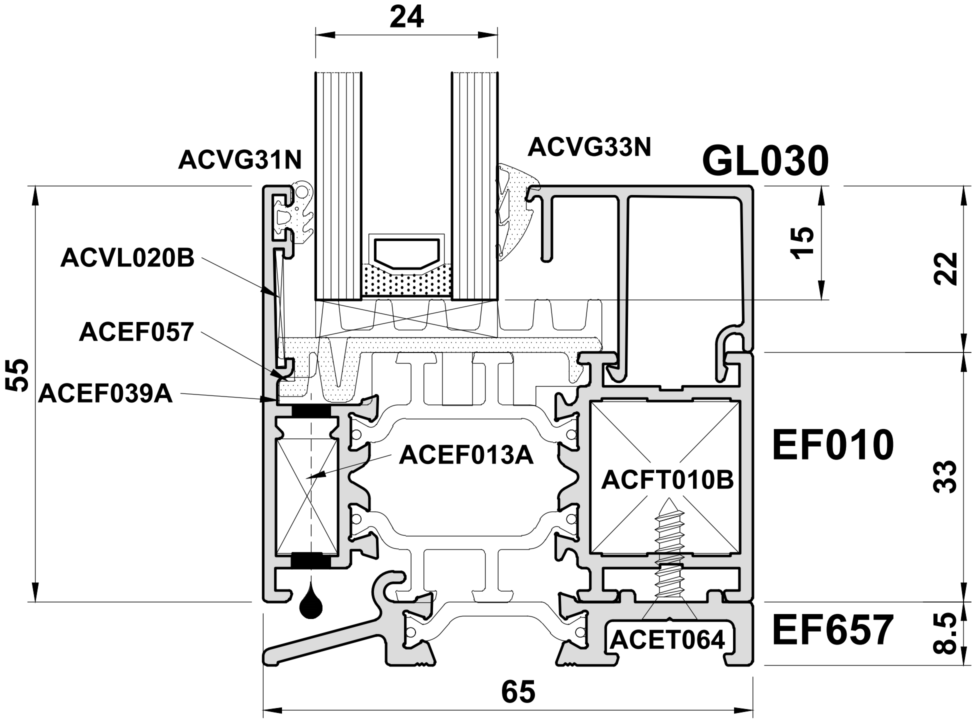






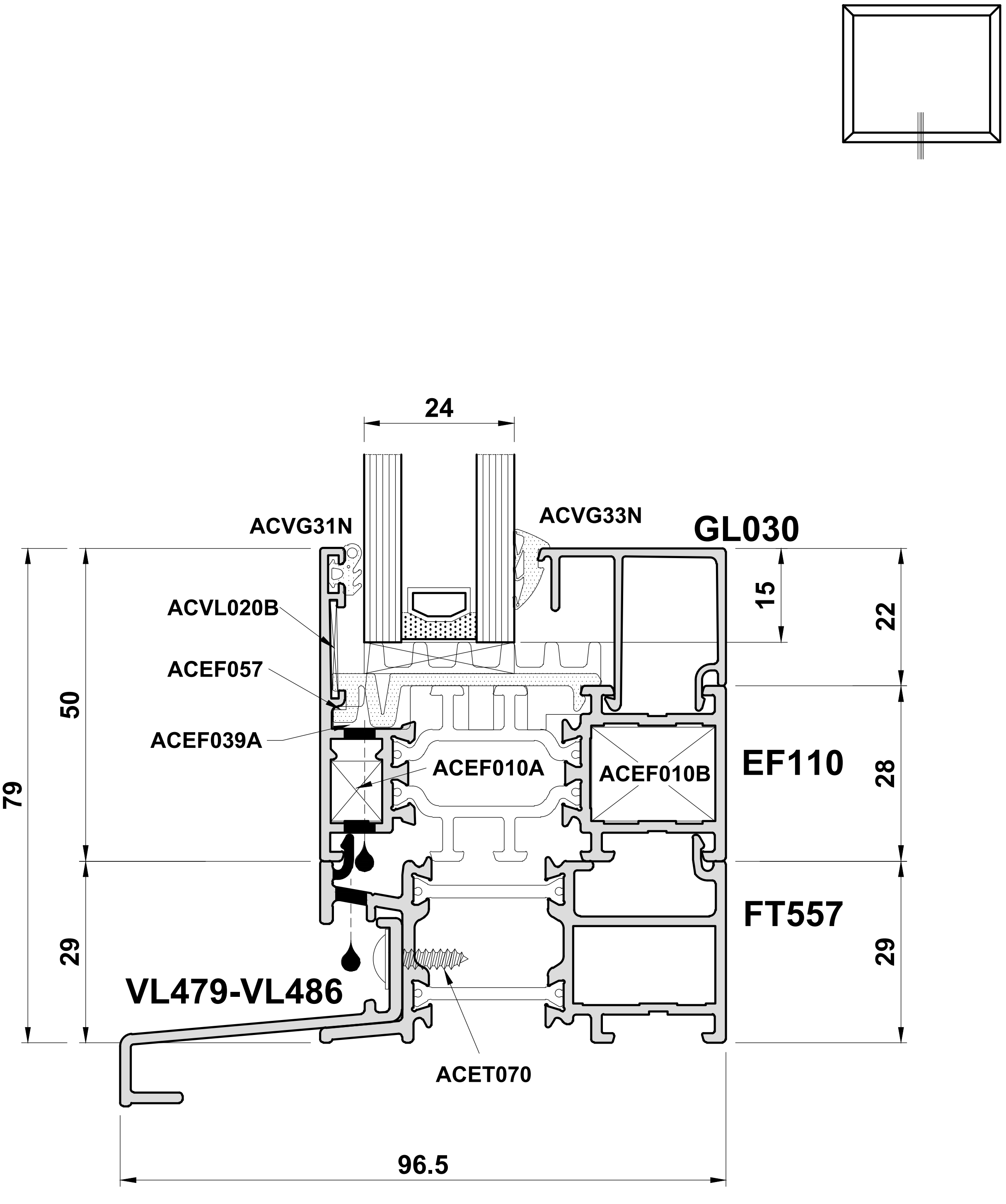
Detail 1A





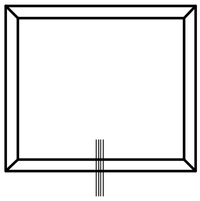
Do Not Scale From This Drawing

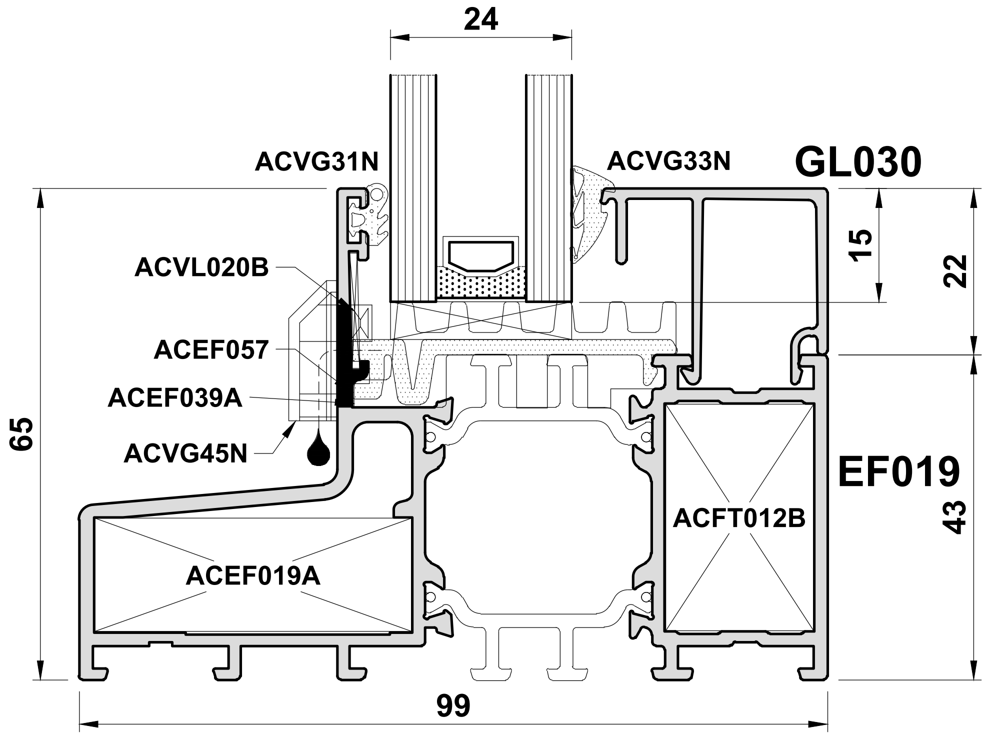
Detail 1B



Do Not Scale From This Drawing

Detail 1C

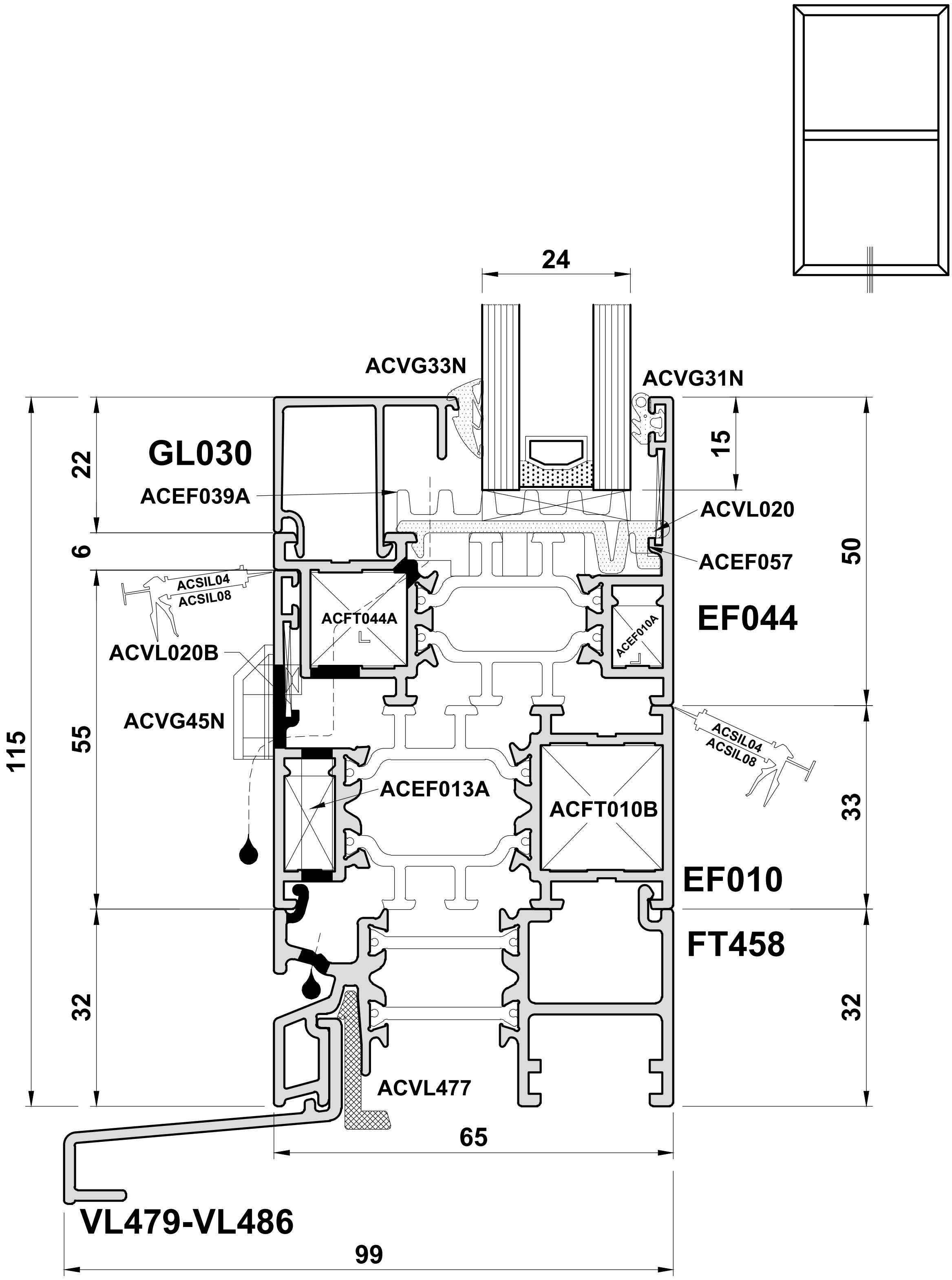




Do Not Scale From This Drawing

Eco Futural

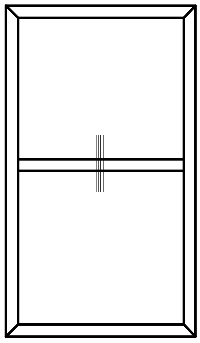
Detail 1D

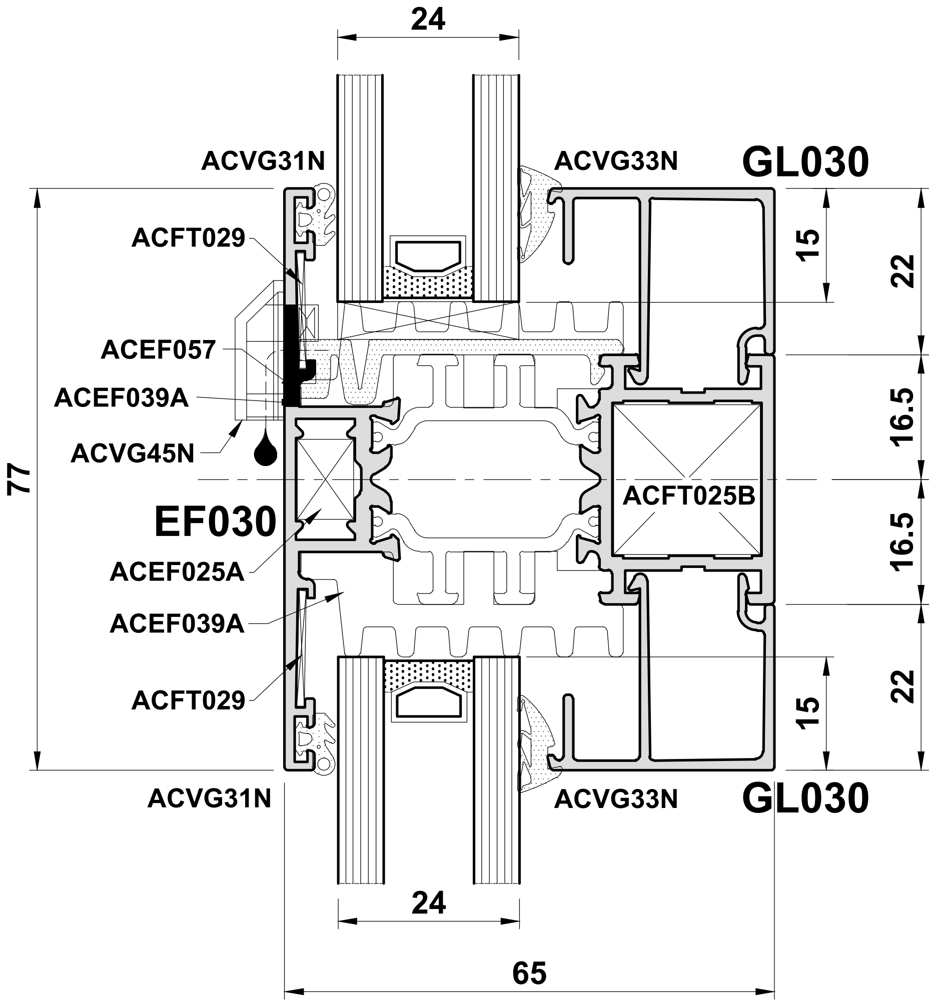


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

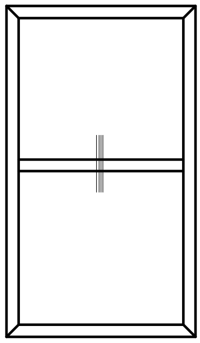
Detail 2A

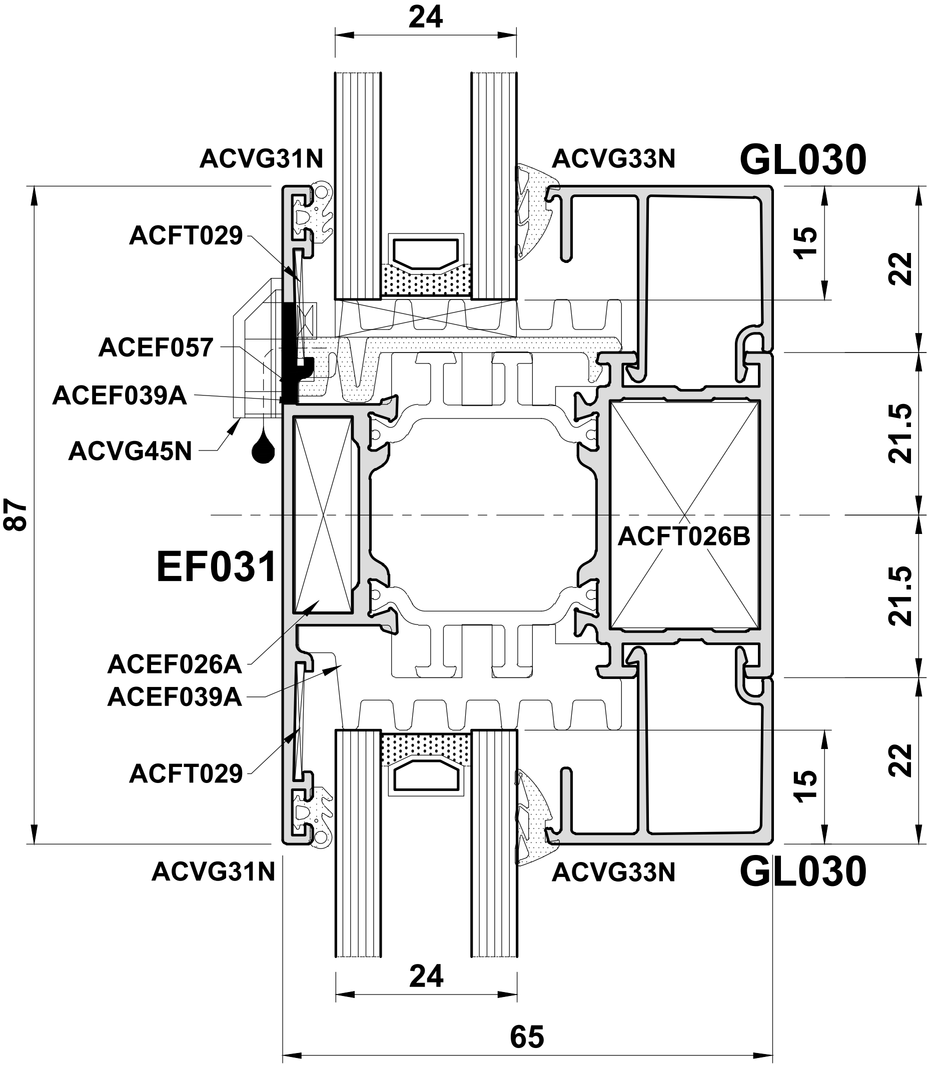




Do Not Scale From This Drawing

Detail 2B

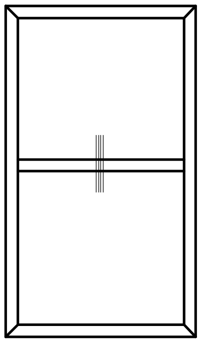


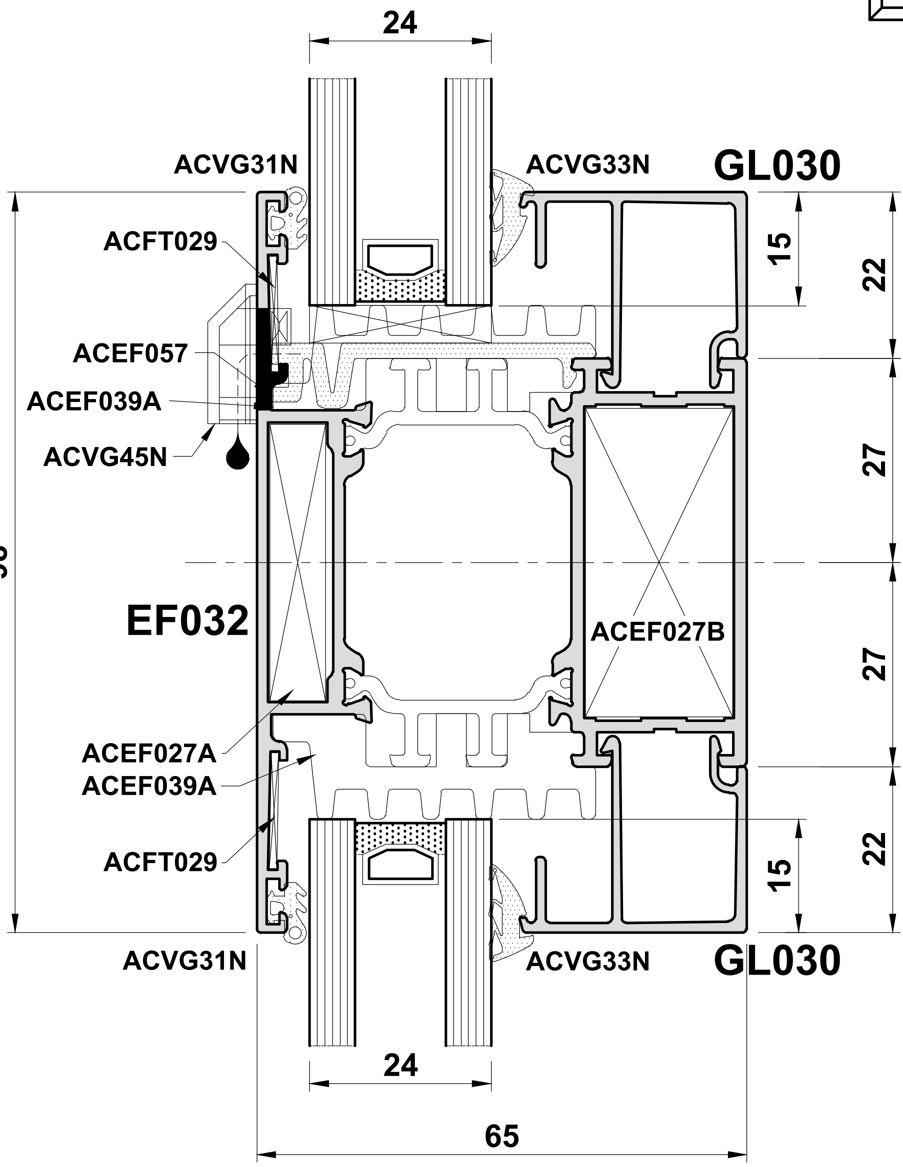


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

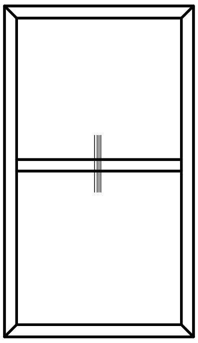
Detail 2C

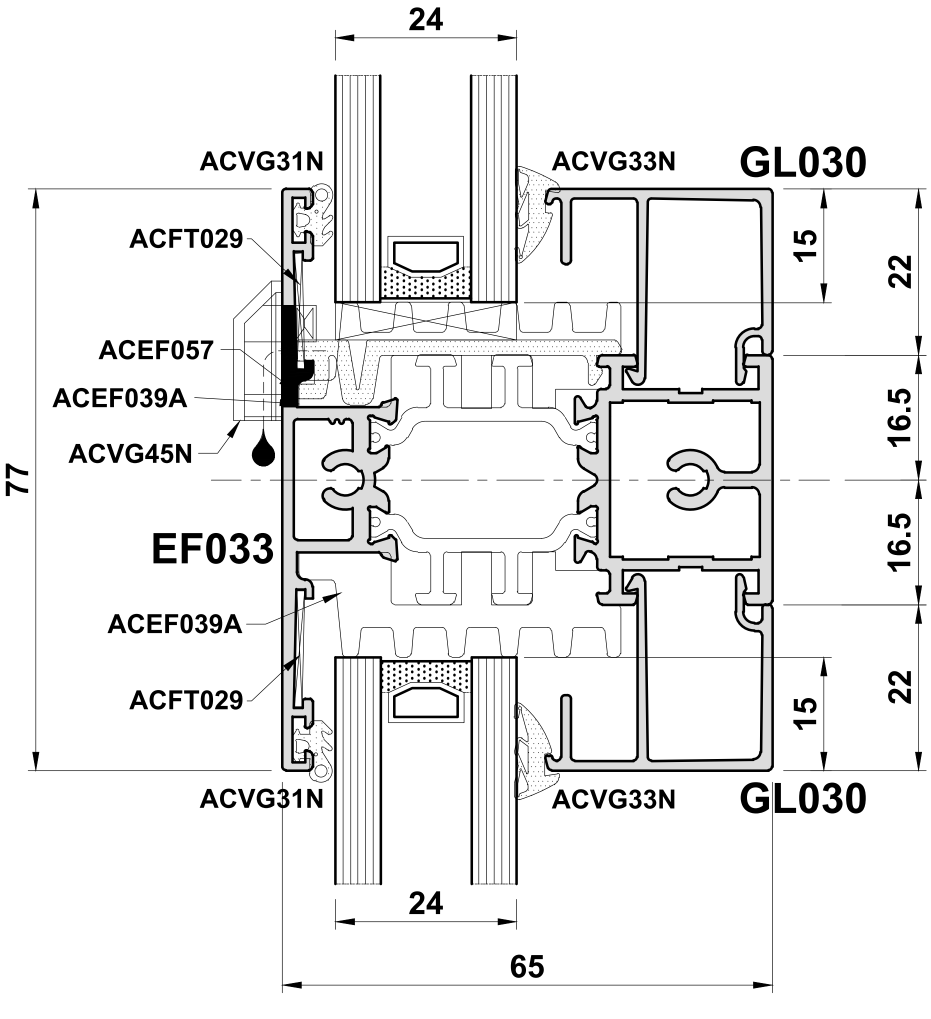




Do Not Scale From This Drawing

Detail 2D

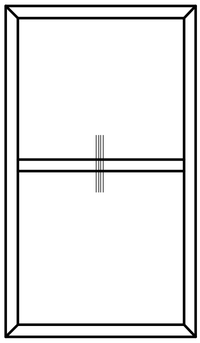


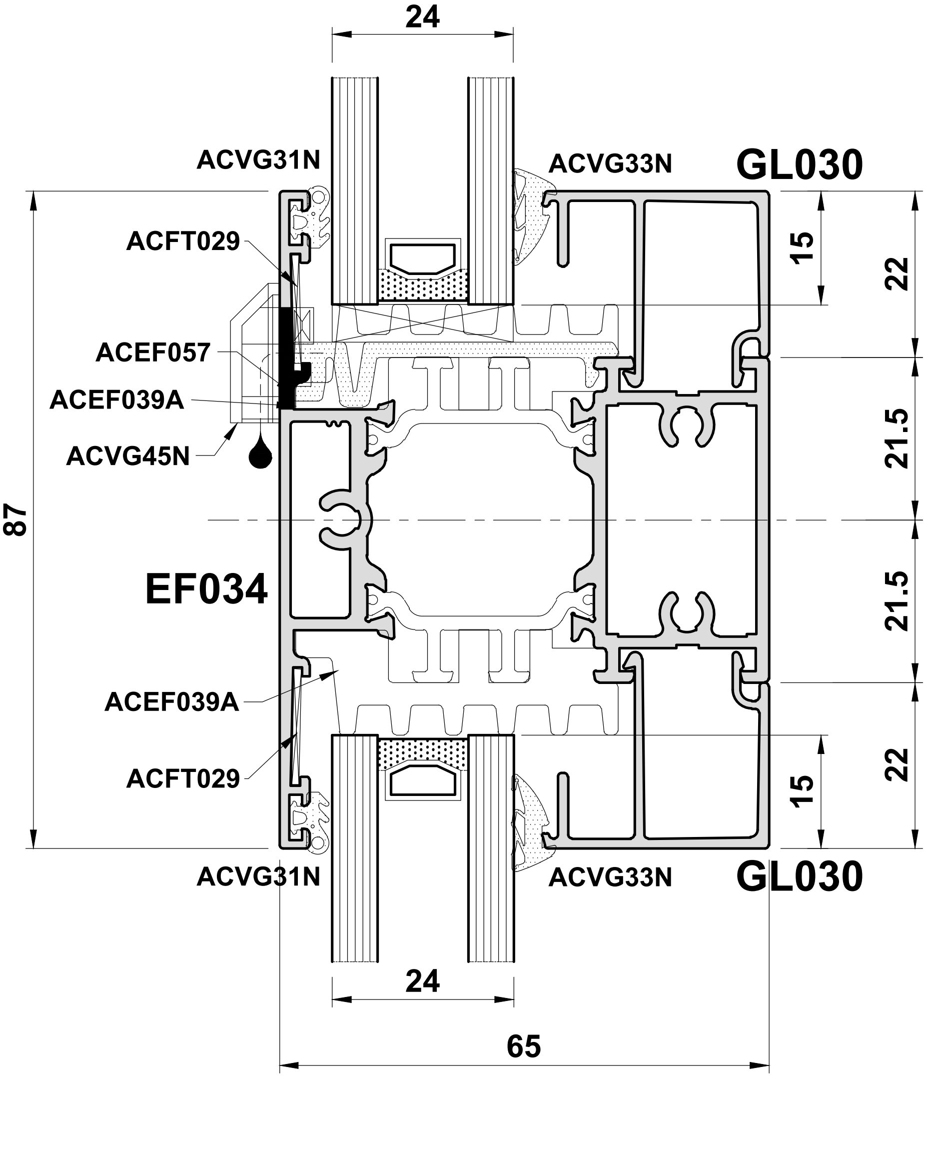


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

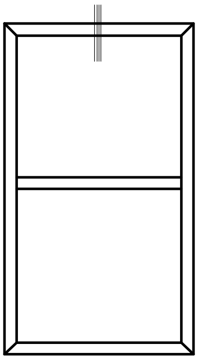
Detail 2E

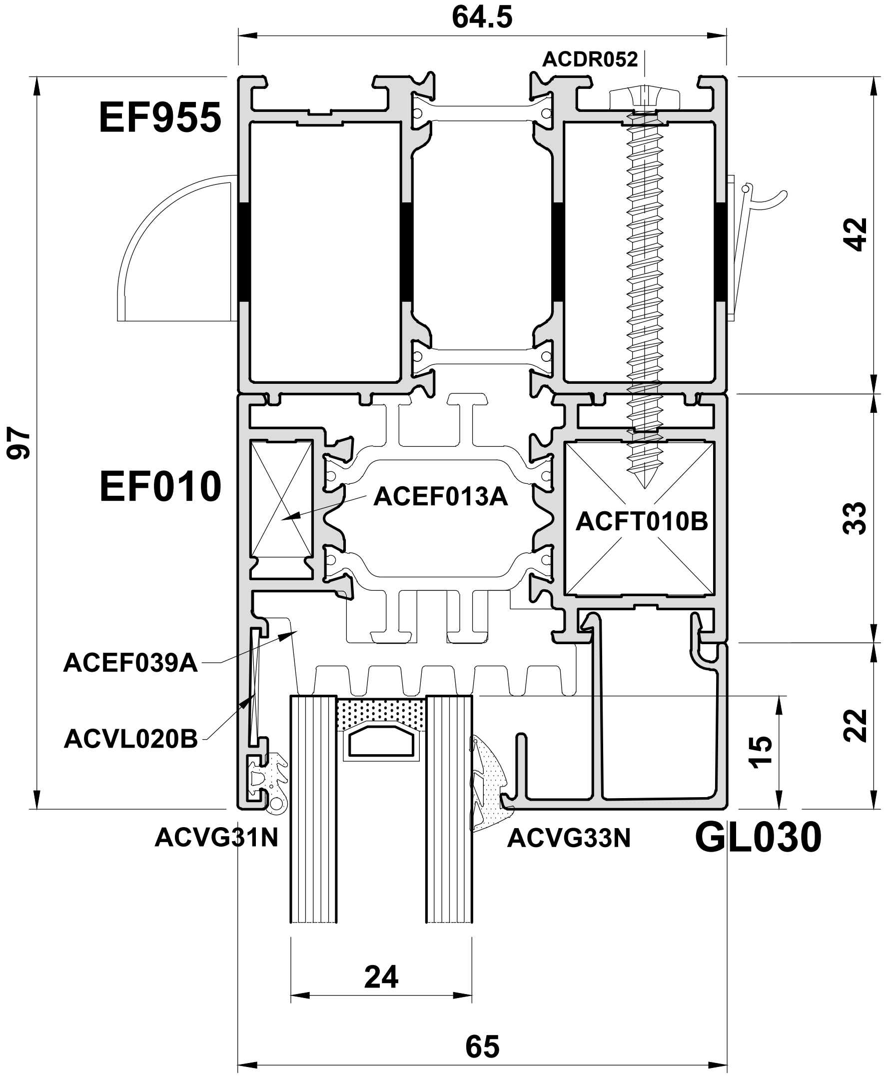




Do Not Scale From This Drawing

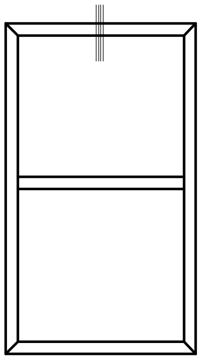
Detail 3A

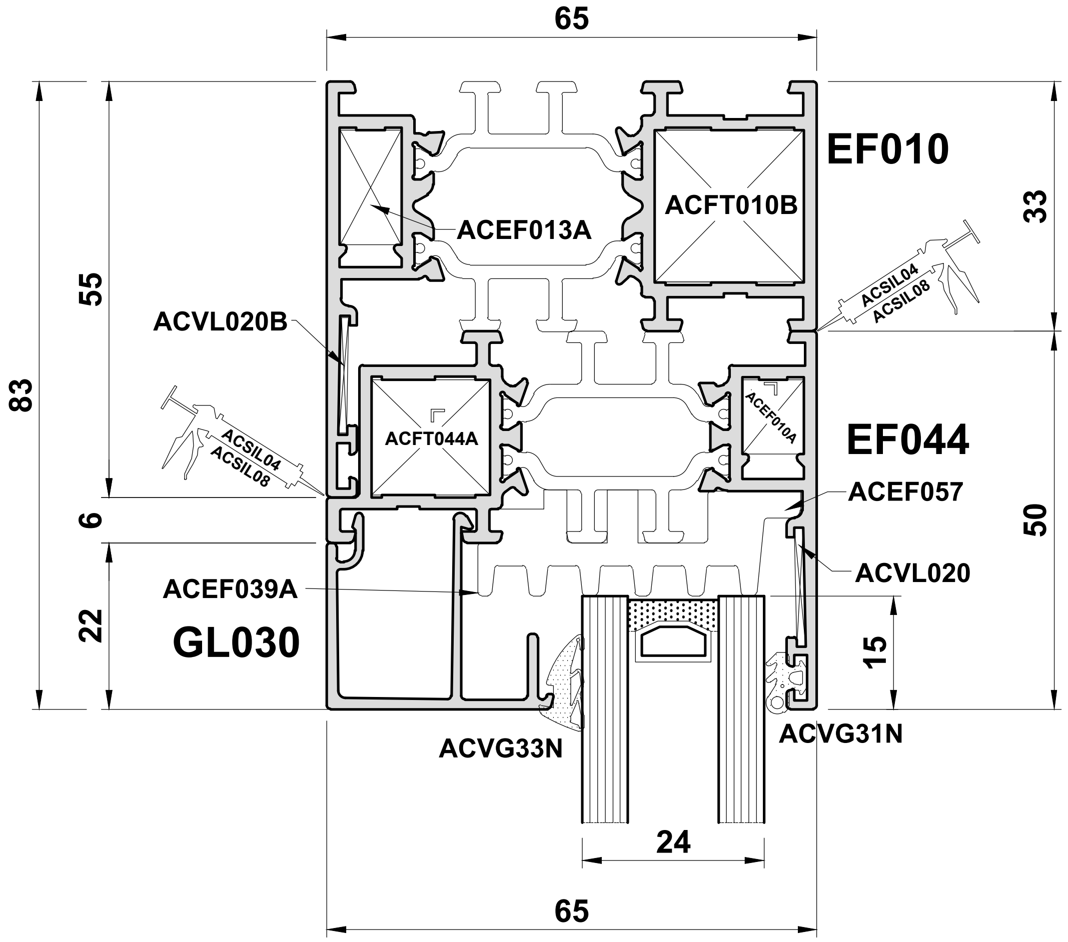




Do Not Scale From This Drawing

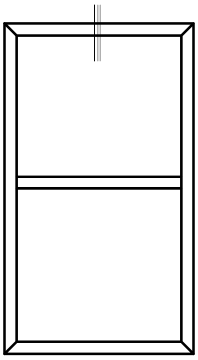
Detail 3B

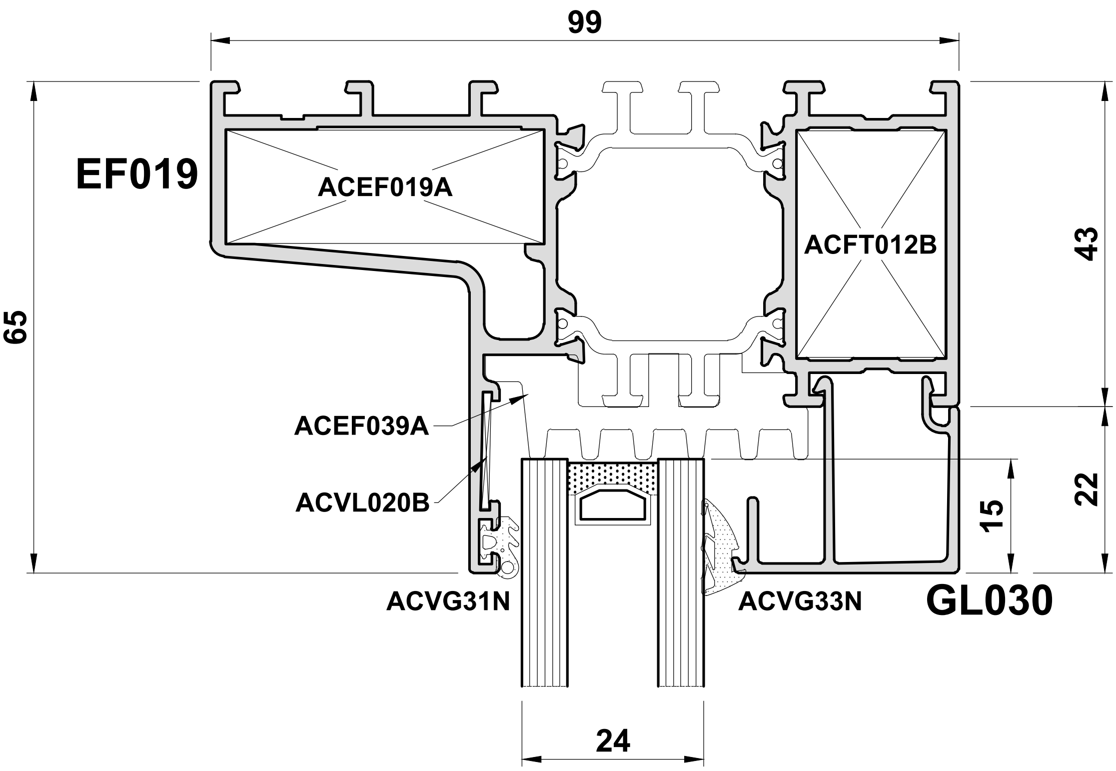




Do Not Scale From This Drawing

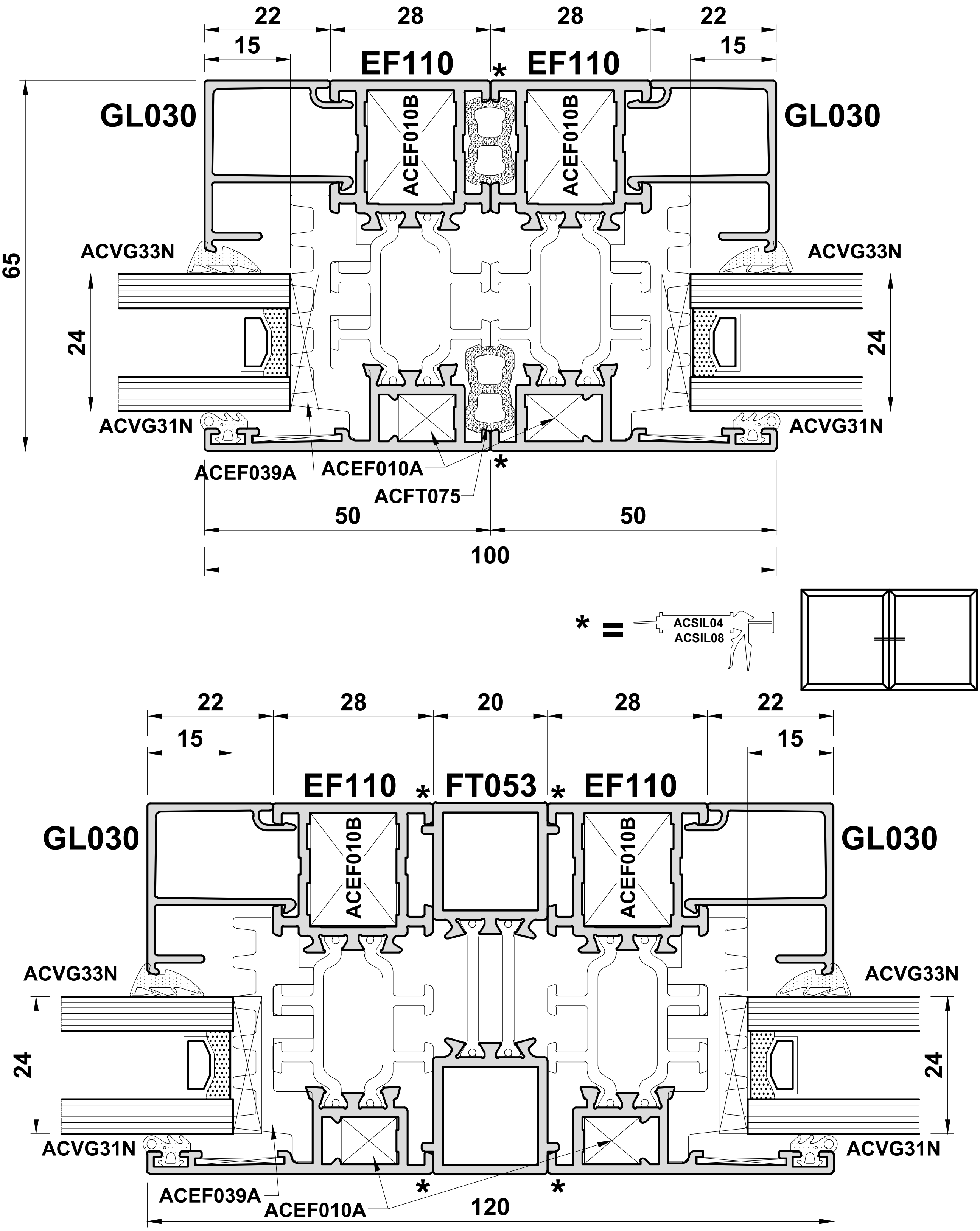
Detail 3C





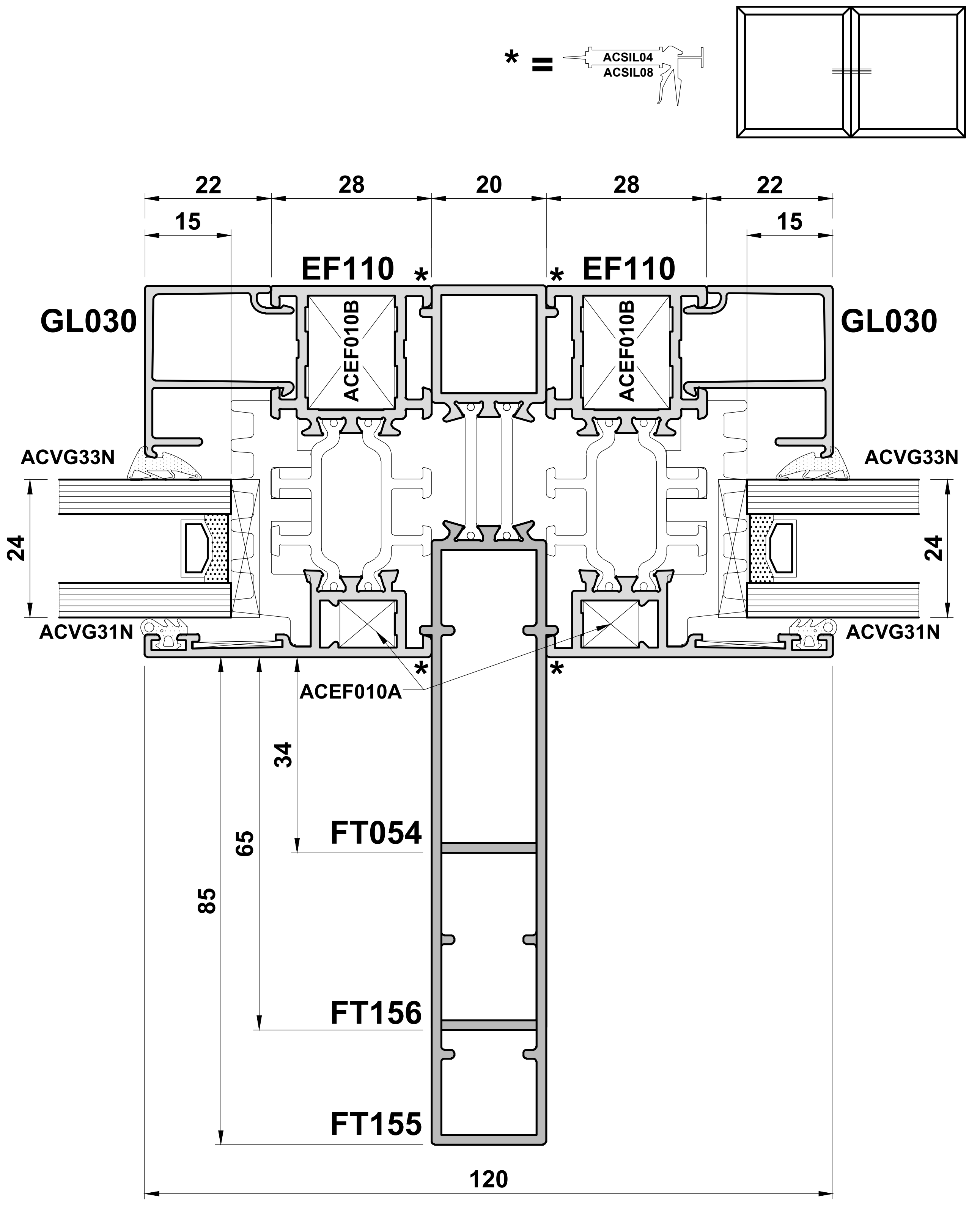
Do Not Scale From This Drawing

Detail 4A & 4B



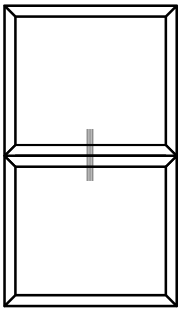
Do Not Scale From This Drawing

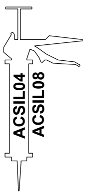
Detail 4C

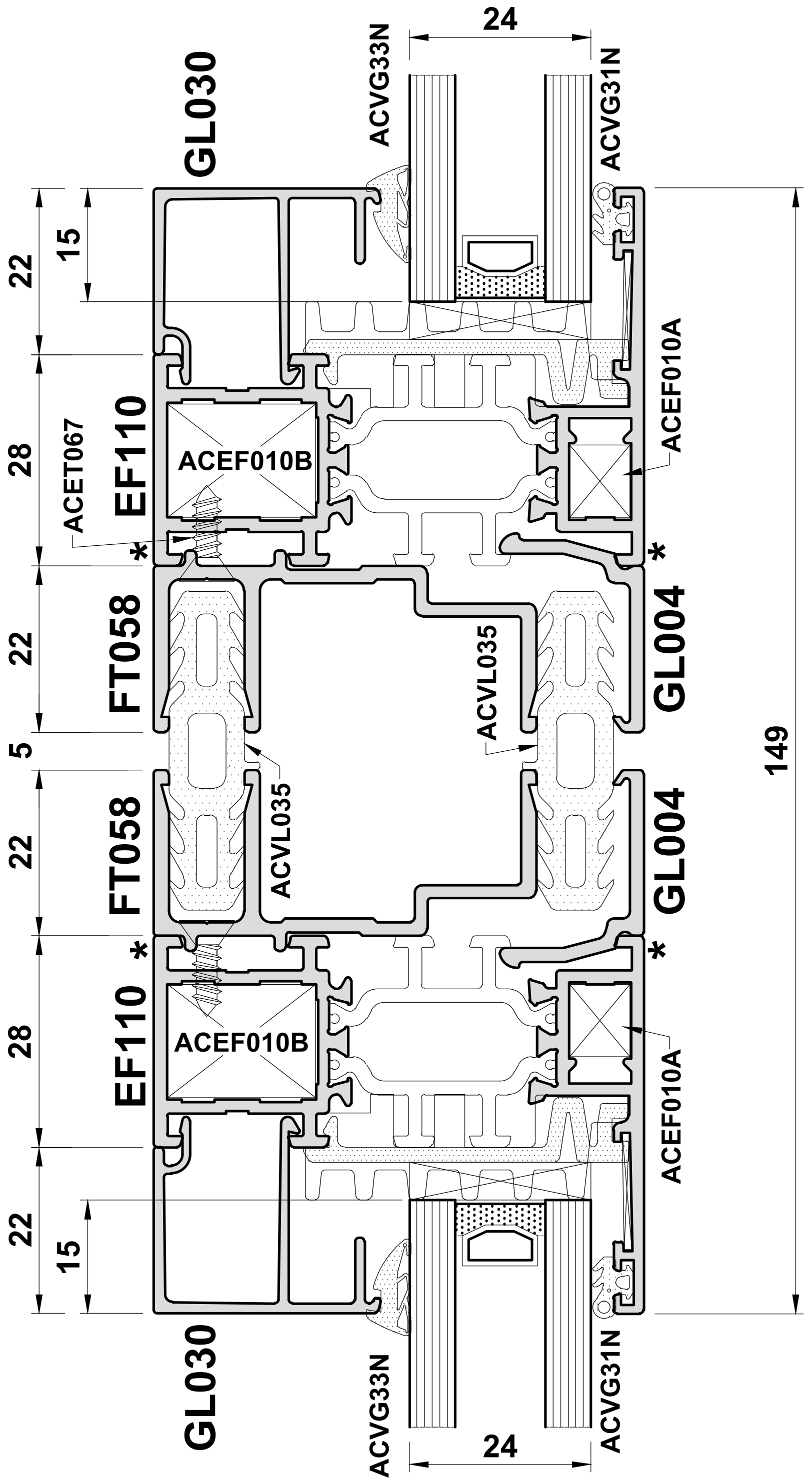


Do Not Scale From This Drawing

Detail 4D

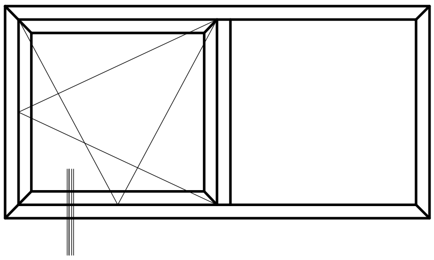


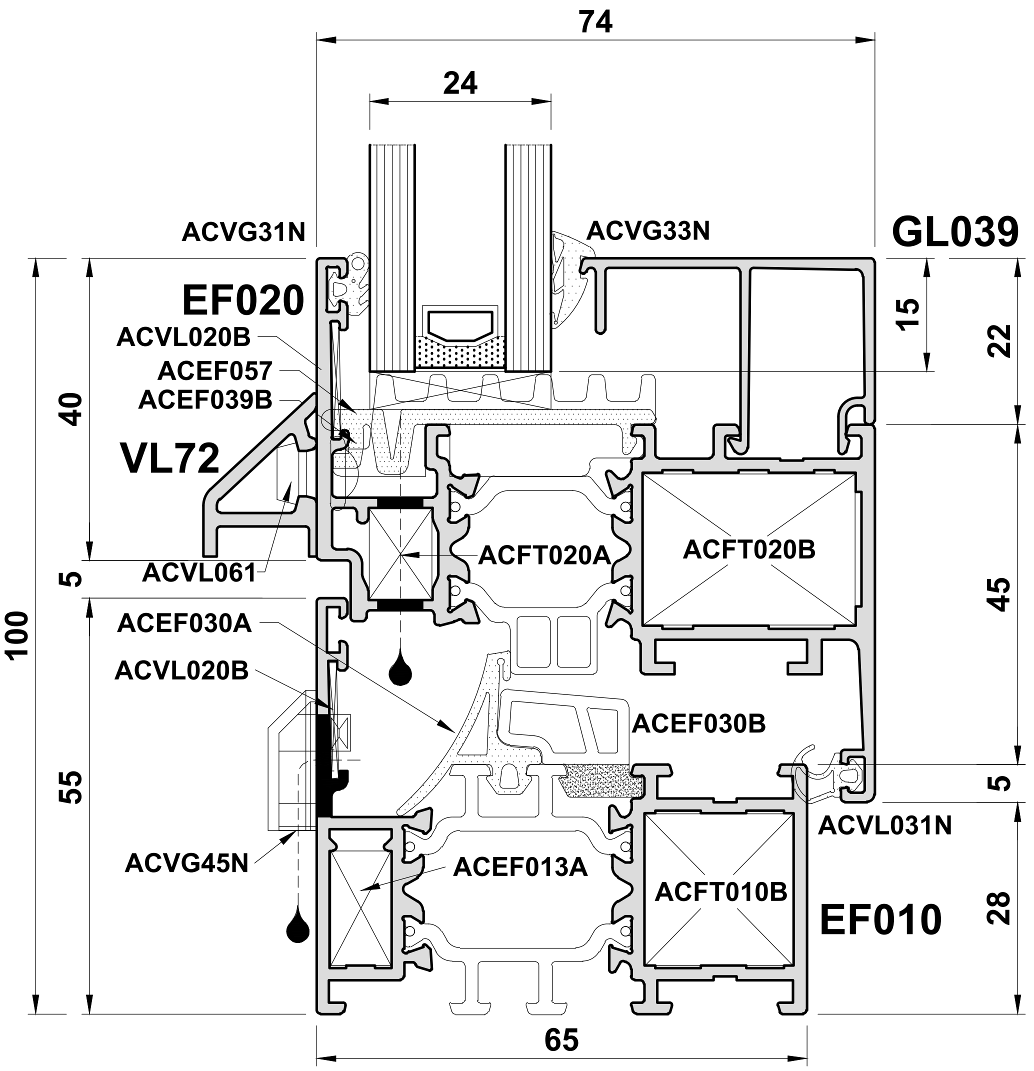




Do Not Scale From This Drawing

Detail 5A

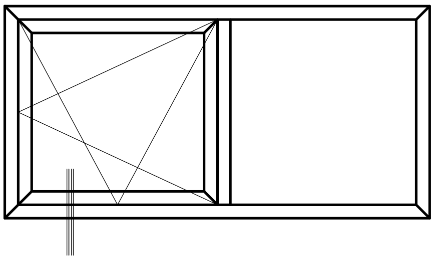


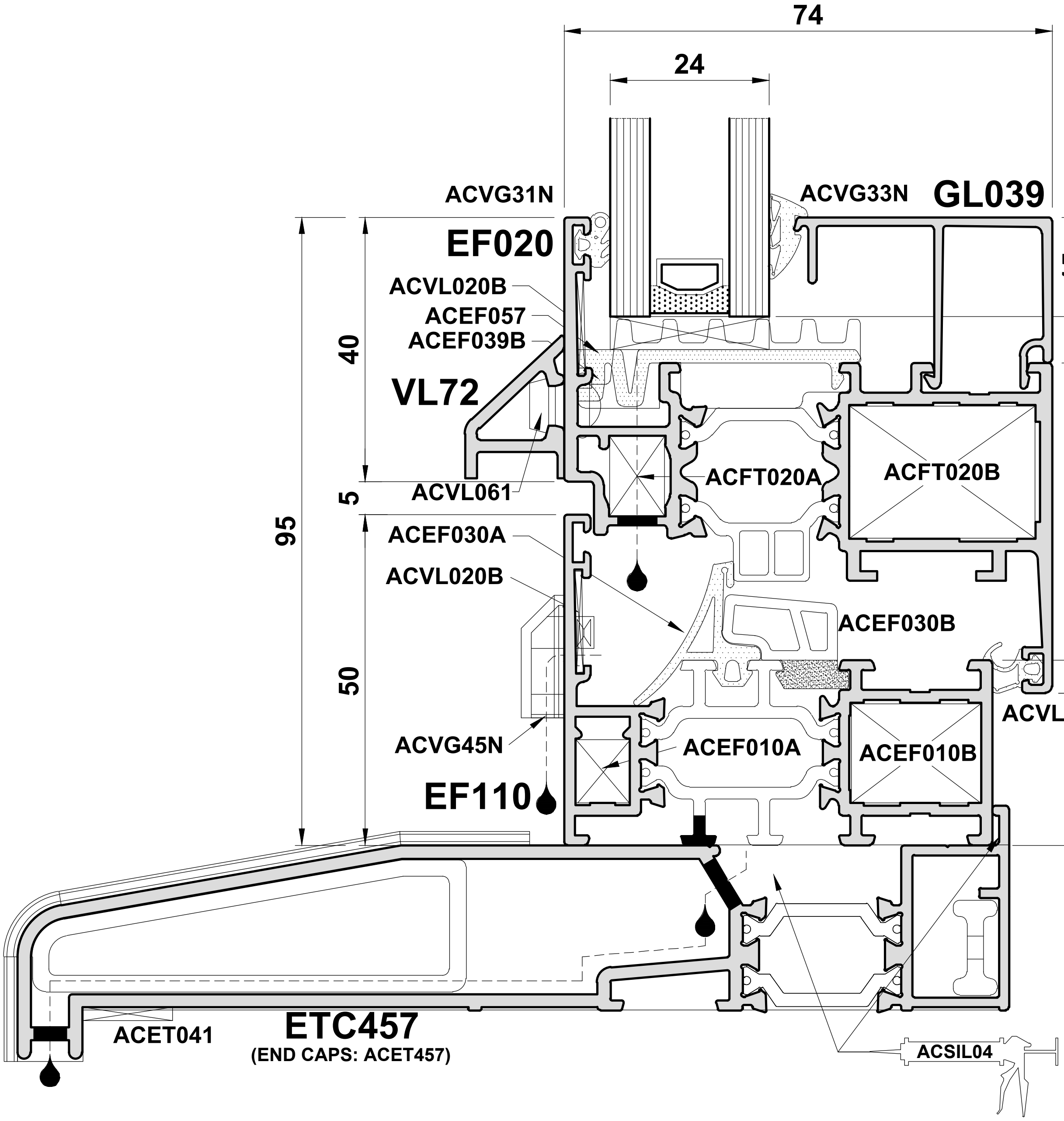


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

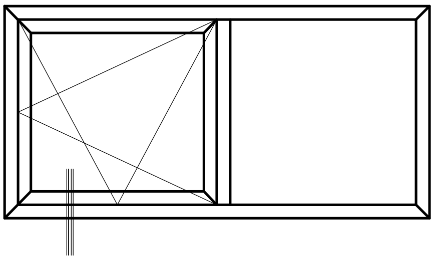
Detail 5B

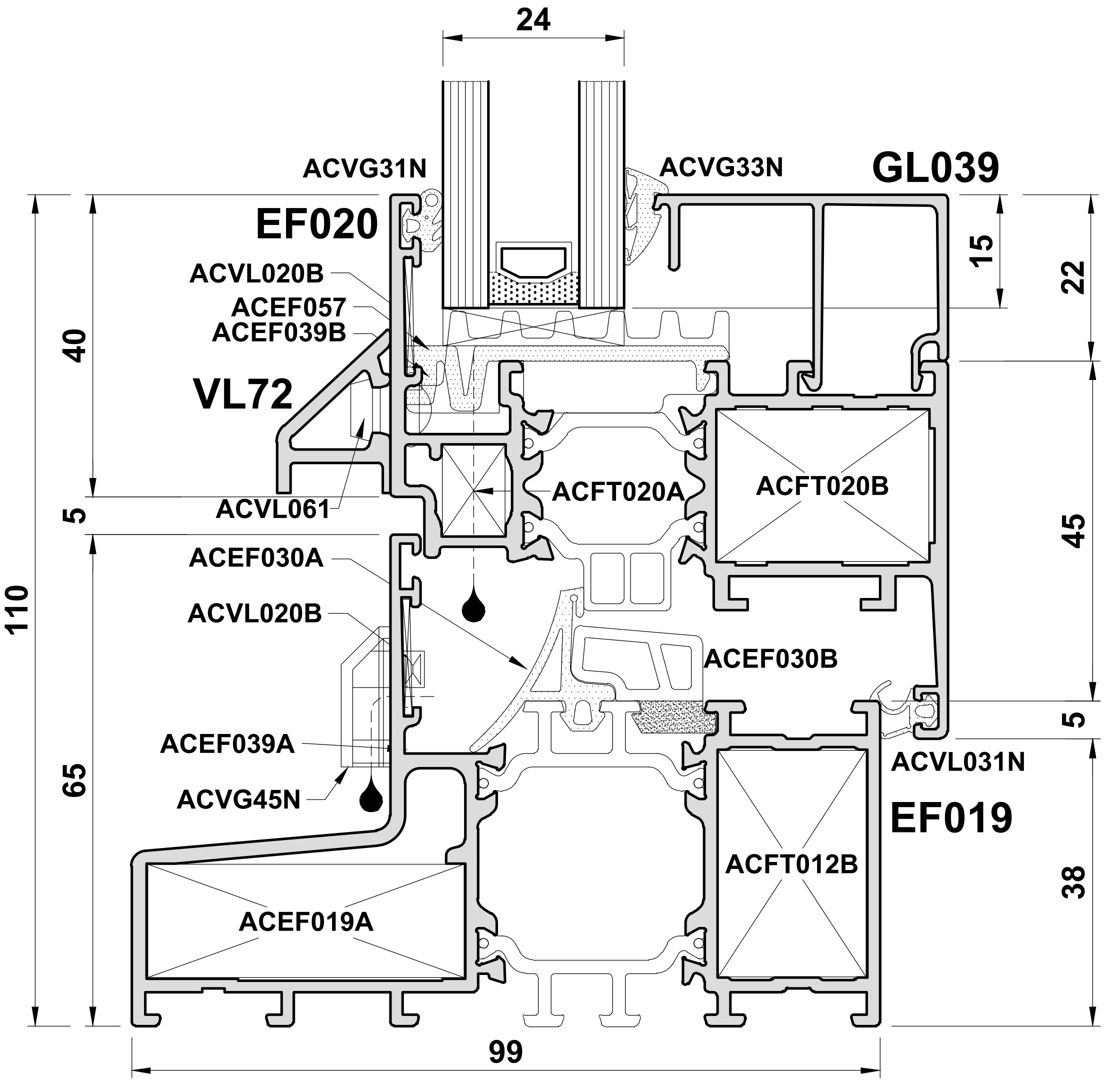




Do Not Scale From This Drawing

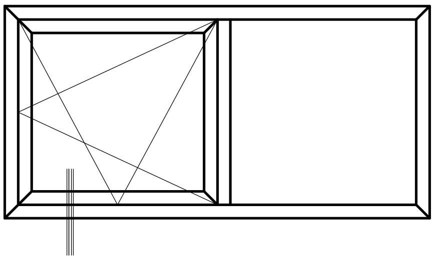
Detail 5C

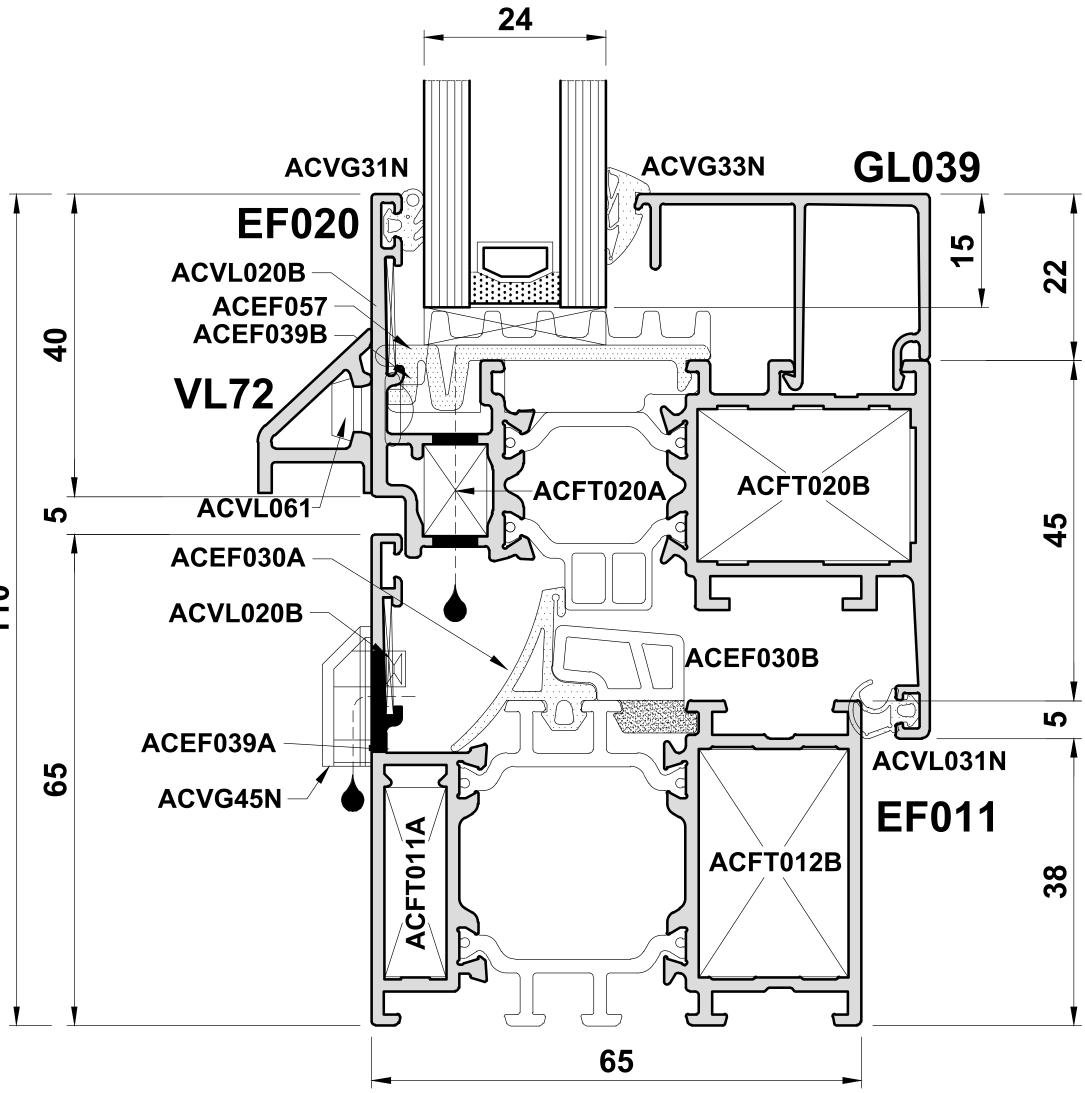




Do Not Scale From This Drawing

Detail 5D



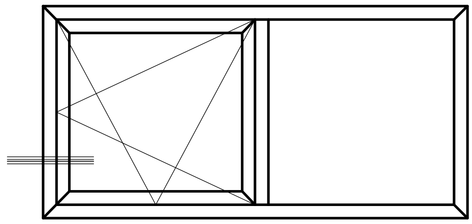


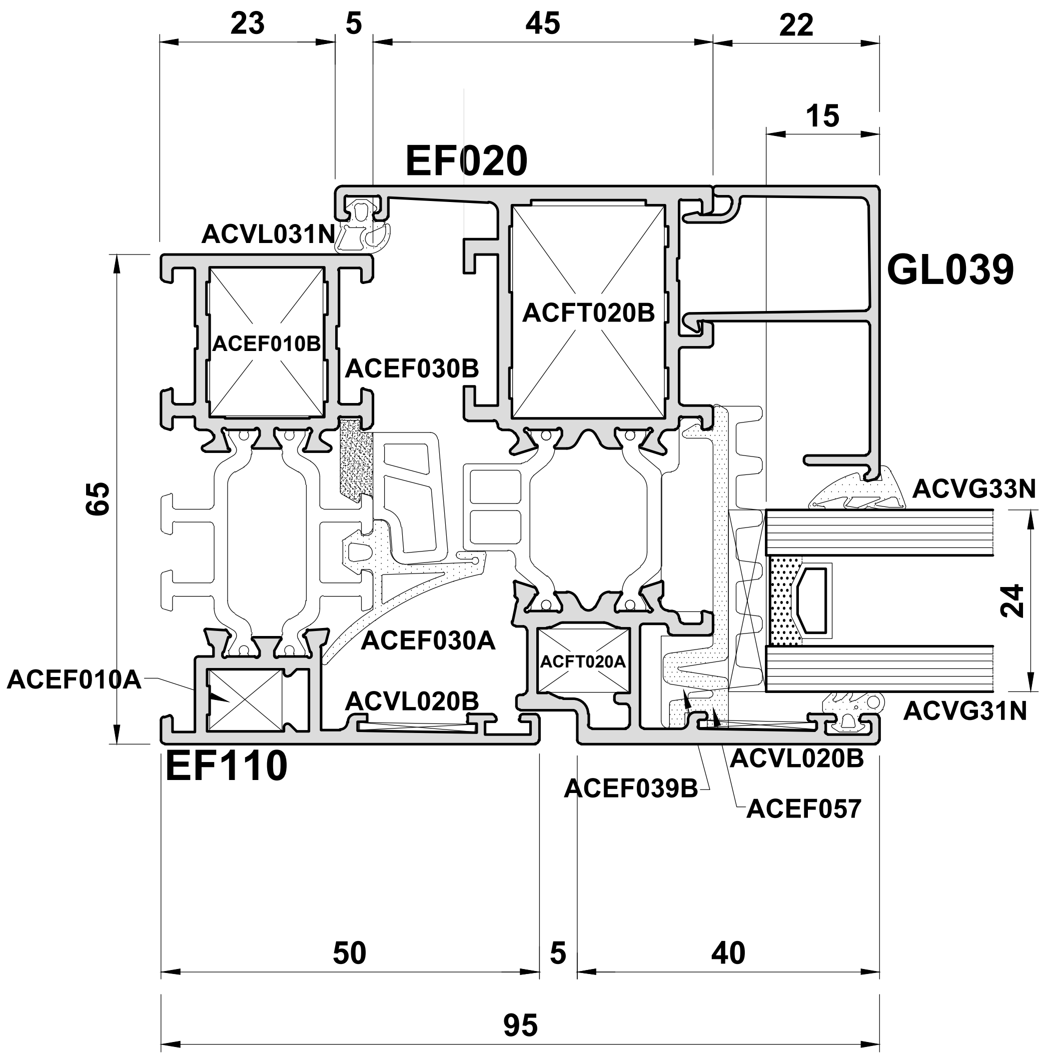
Do Not Scale From This Drawing

smart
architectural aluminium

Eco Futural

Detail 6A

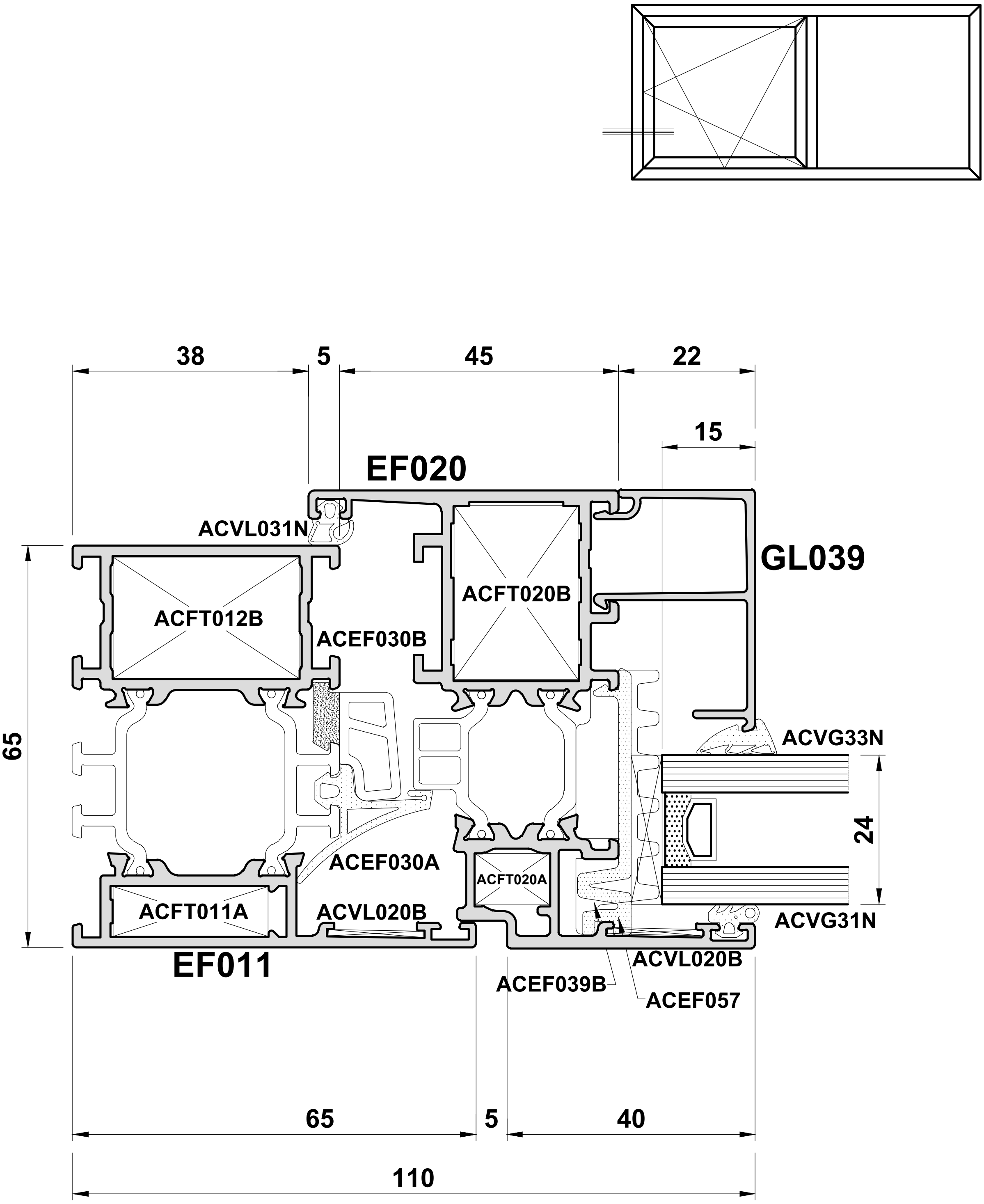




Do Not Scale From This Drawing

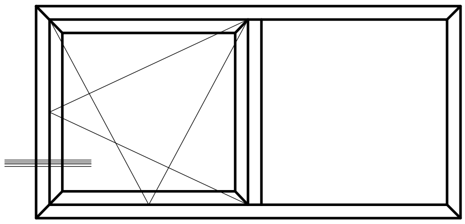
ISSUED: DECEMBER 2018

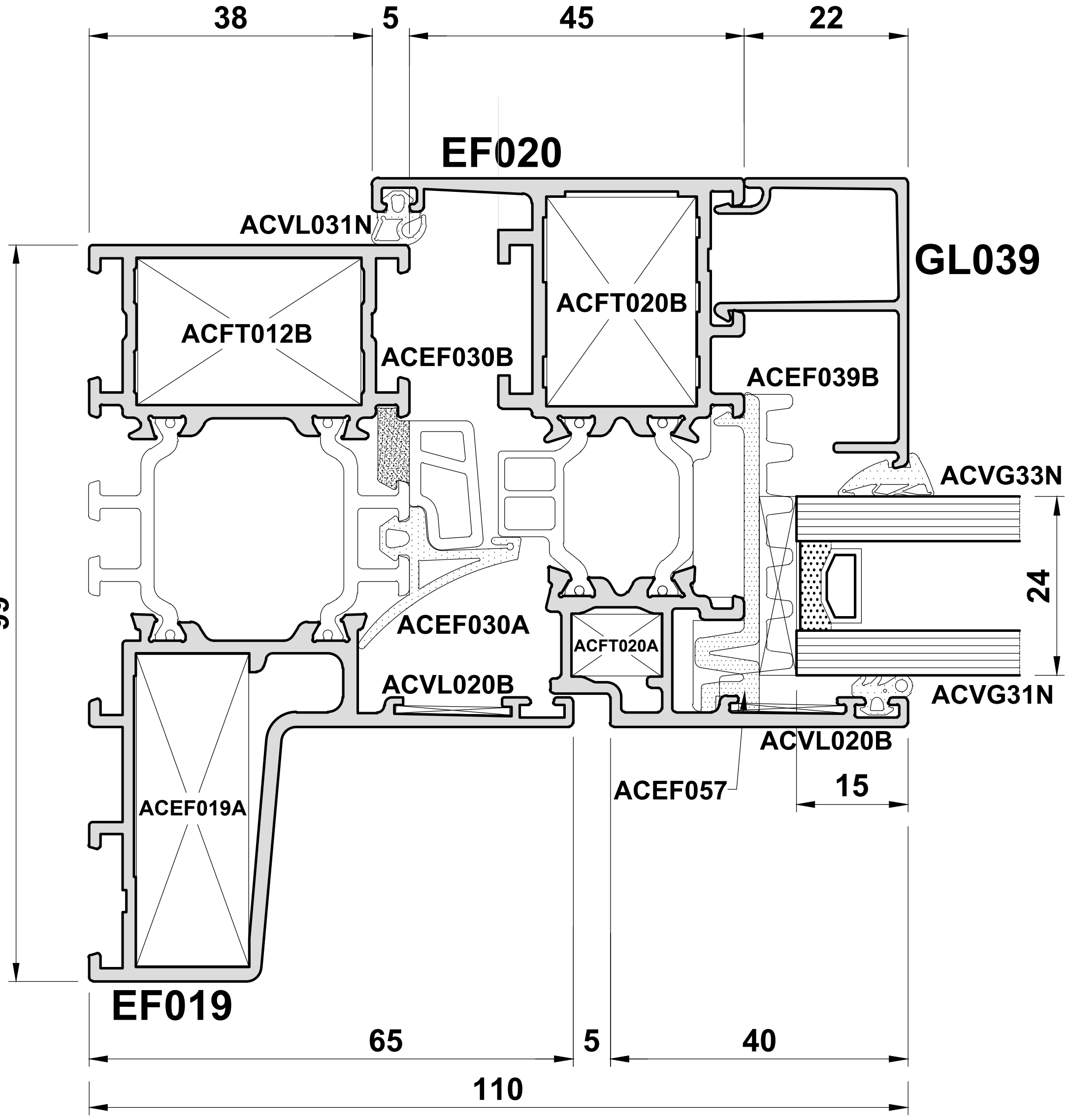
Detail 6B



Do Not Scale From This Drawing

Detail 6C





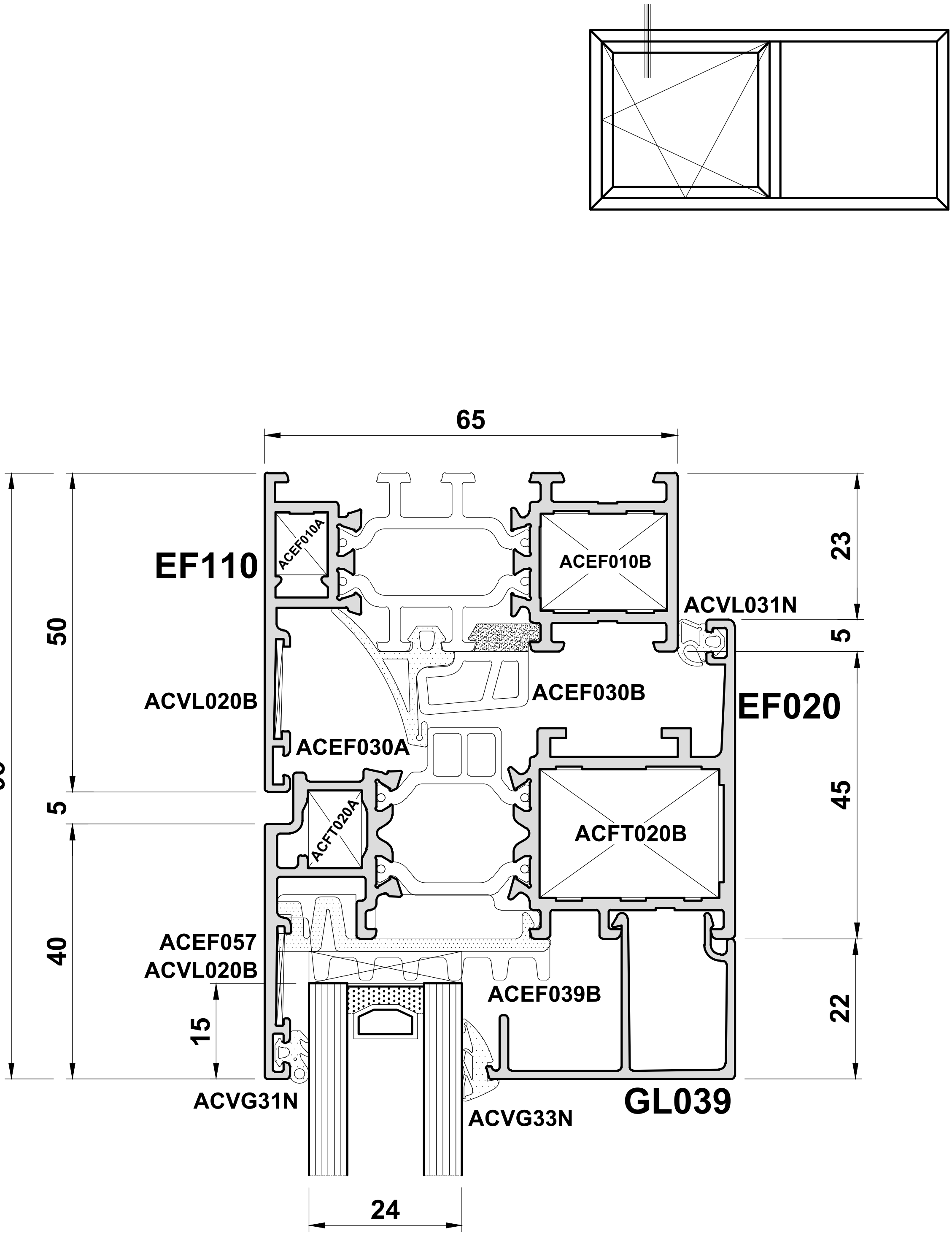
Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

smart
architectural aluminium

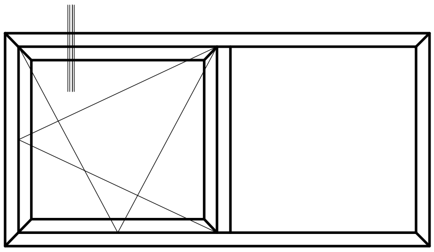
Eco Futural

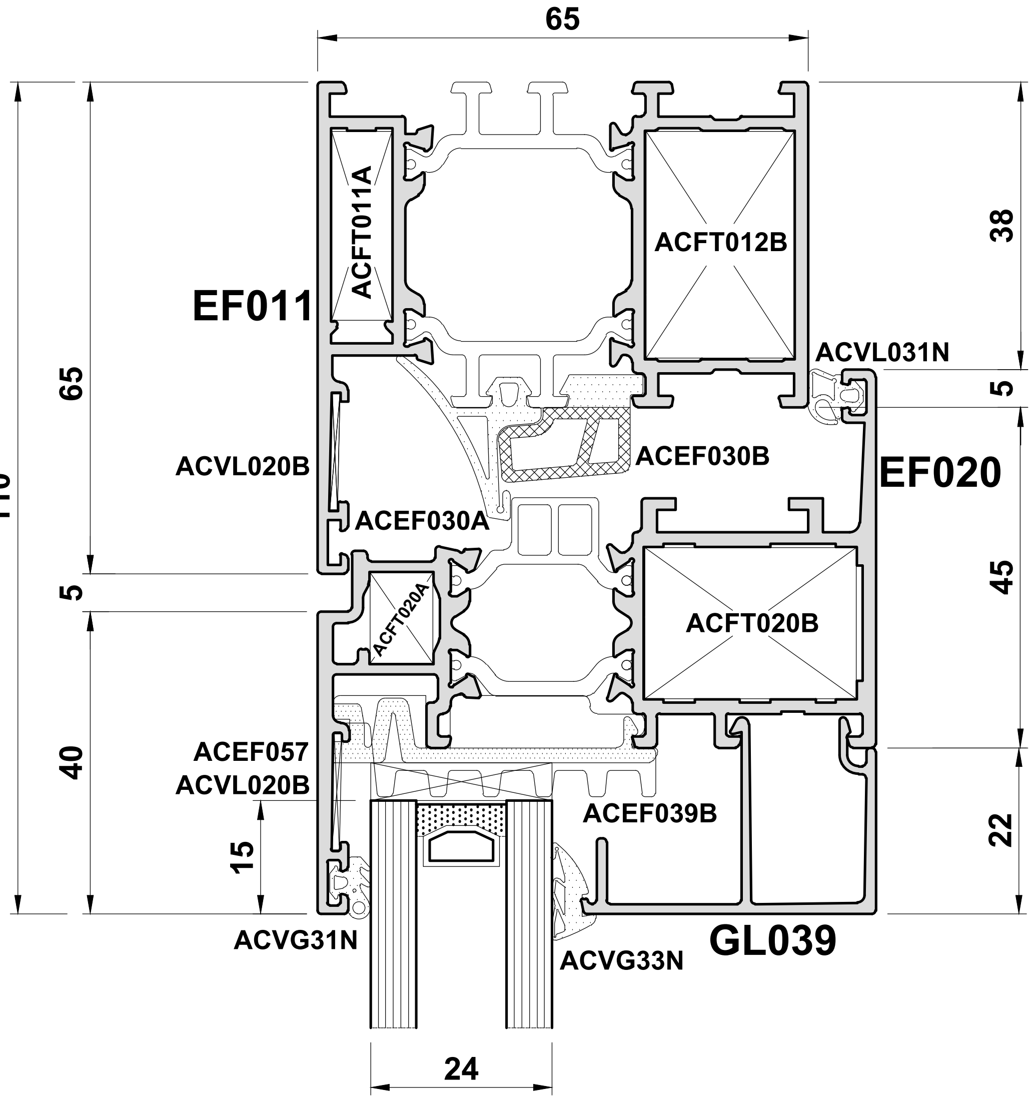
Detail 7A



Do Not Scale From This Drawing

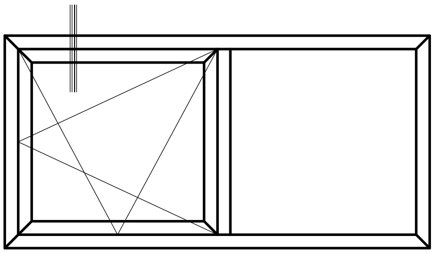
Detail 7B

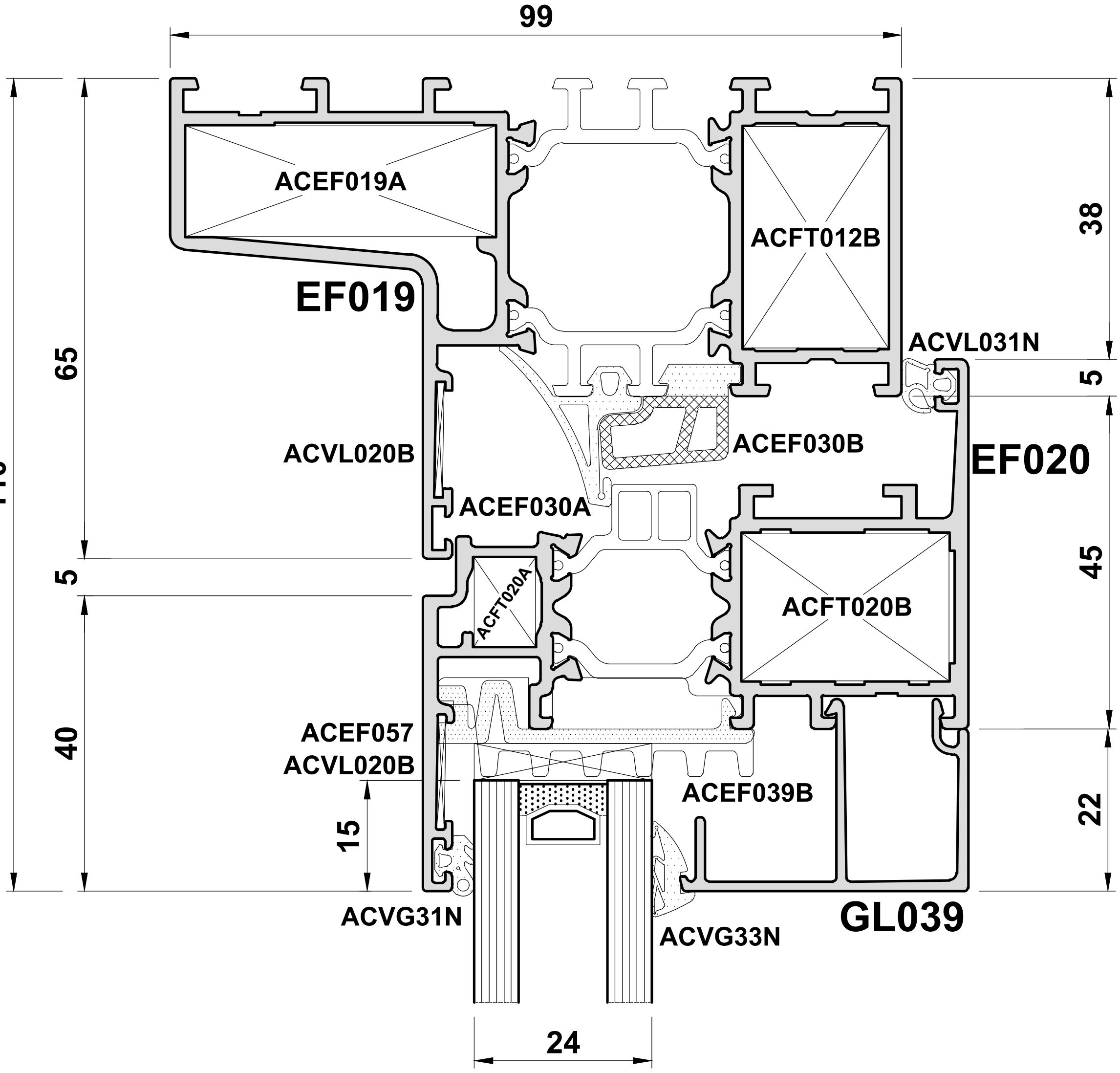




Do Not Scale From This Drawing

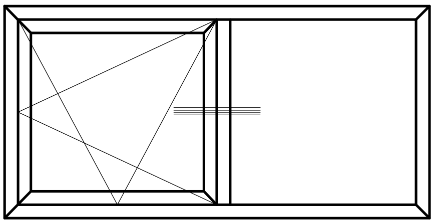
Detail 7C

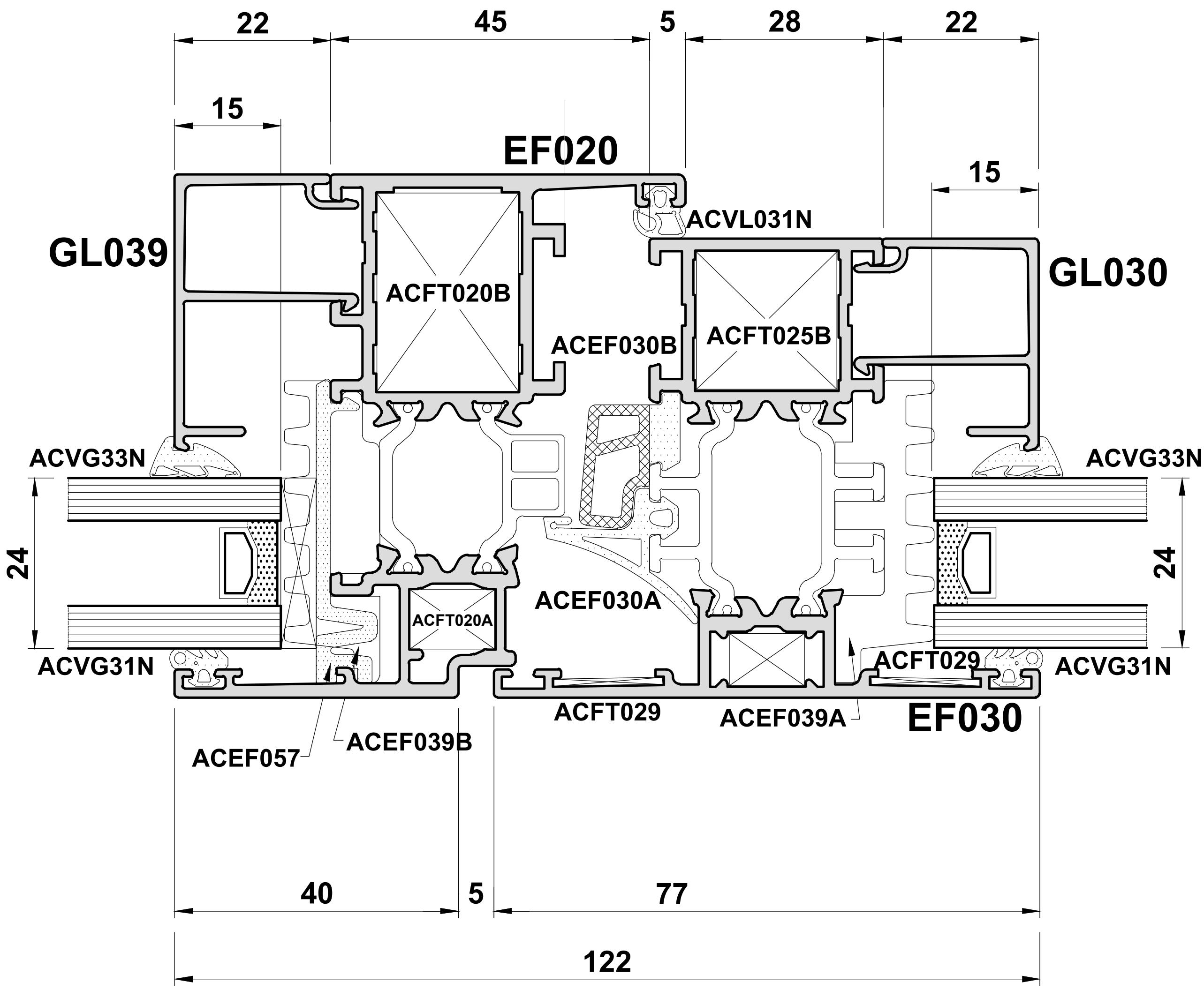




Do Not Scale From This Drawing

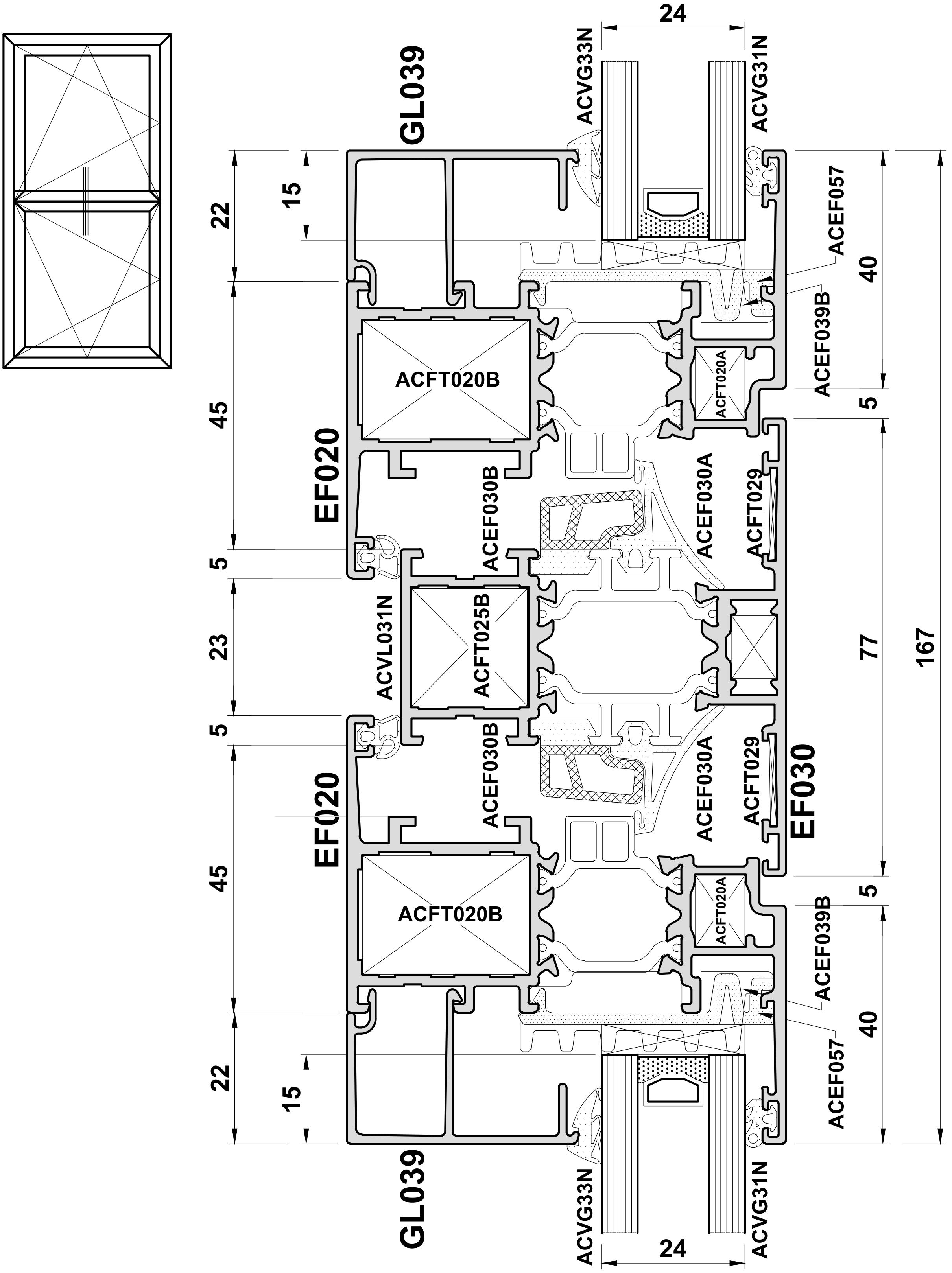
Detail 8





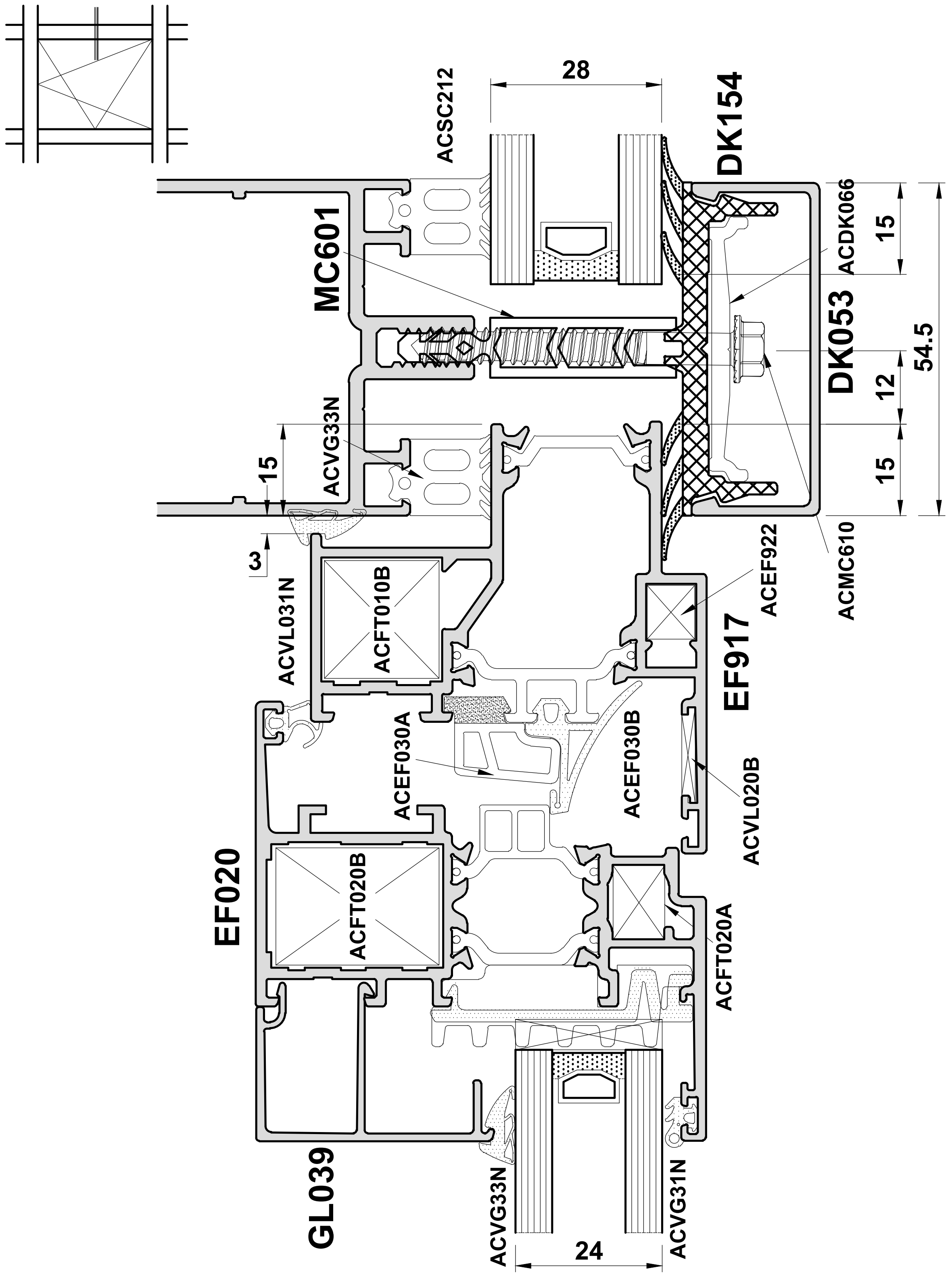
Do Not Scale From This Drawing

Detail 9



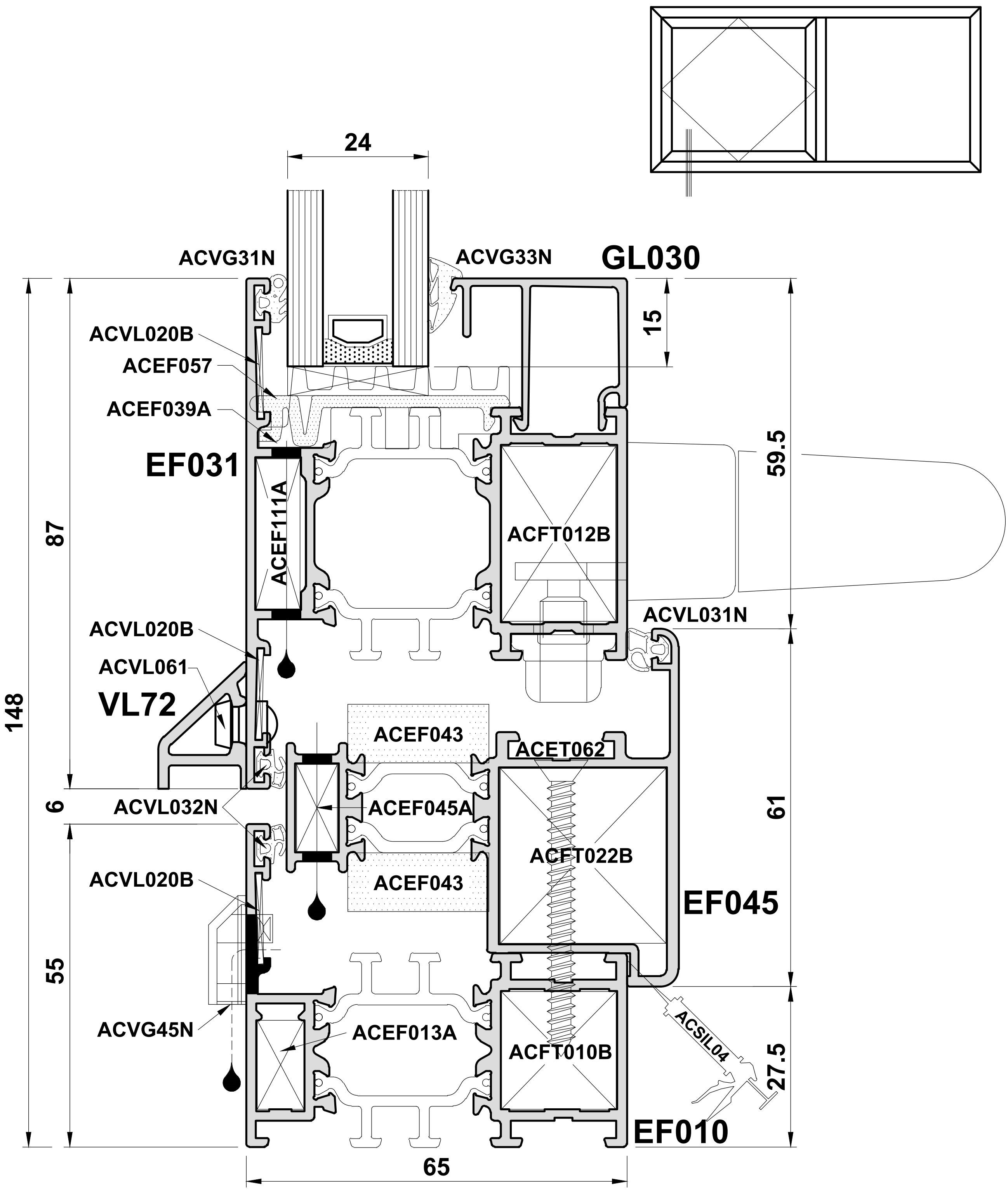
Do Not Scale From This Drawing

Detail 10



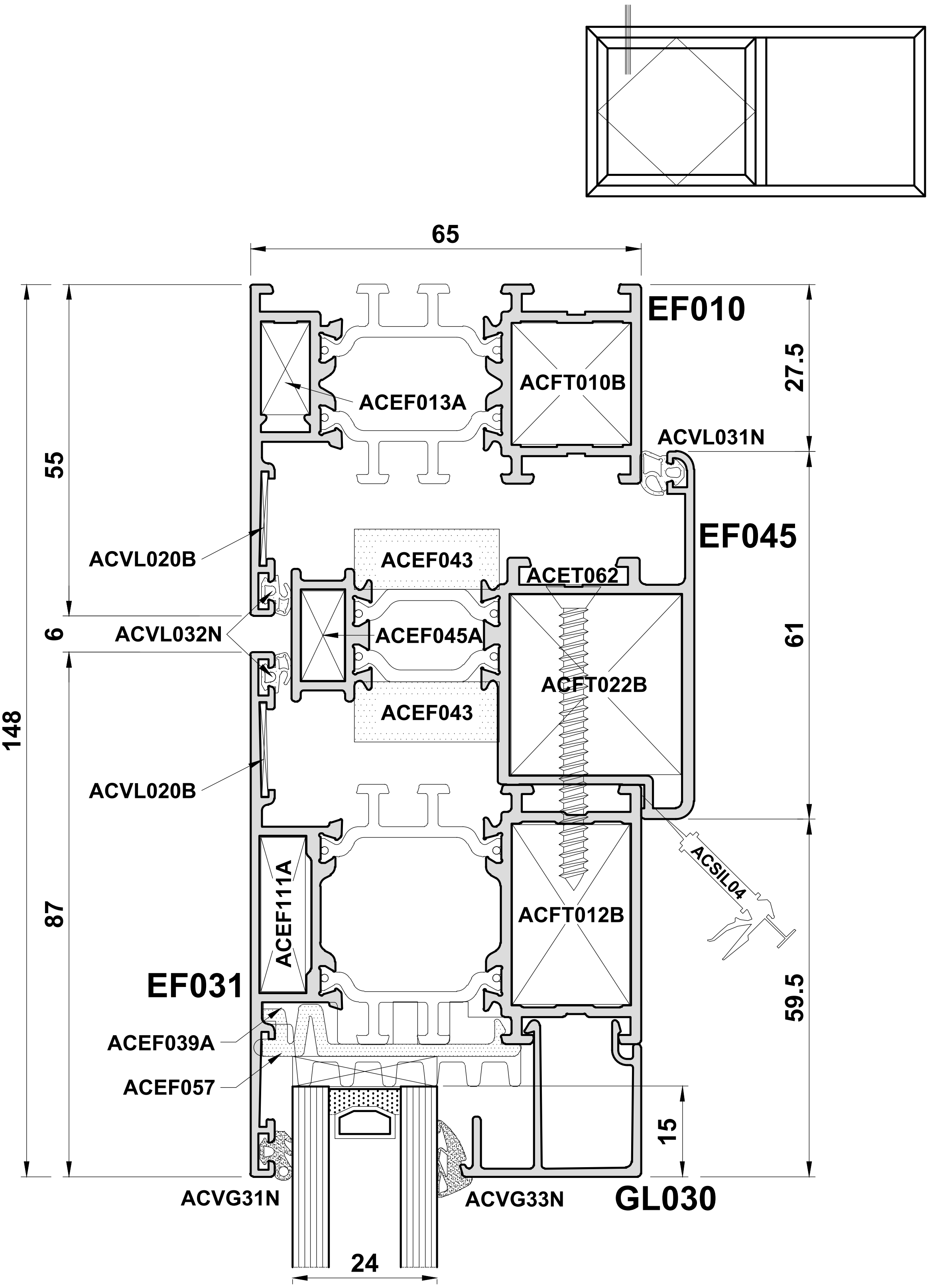
Do Not Scale From This Drawing

Detail 11



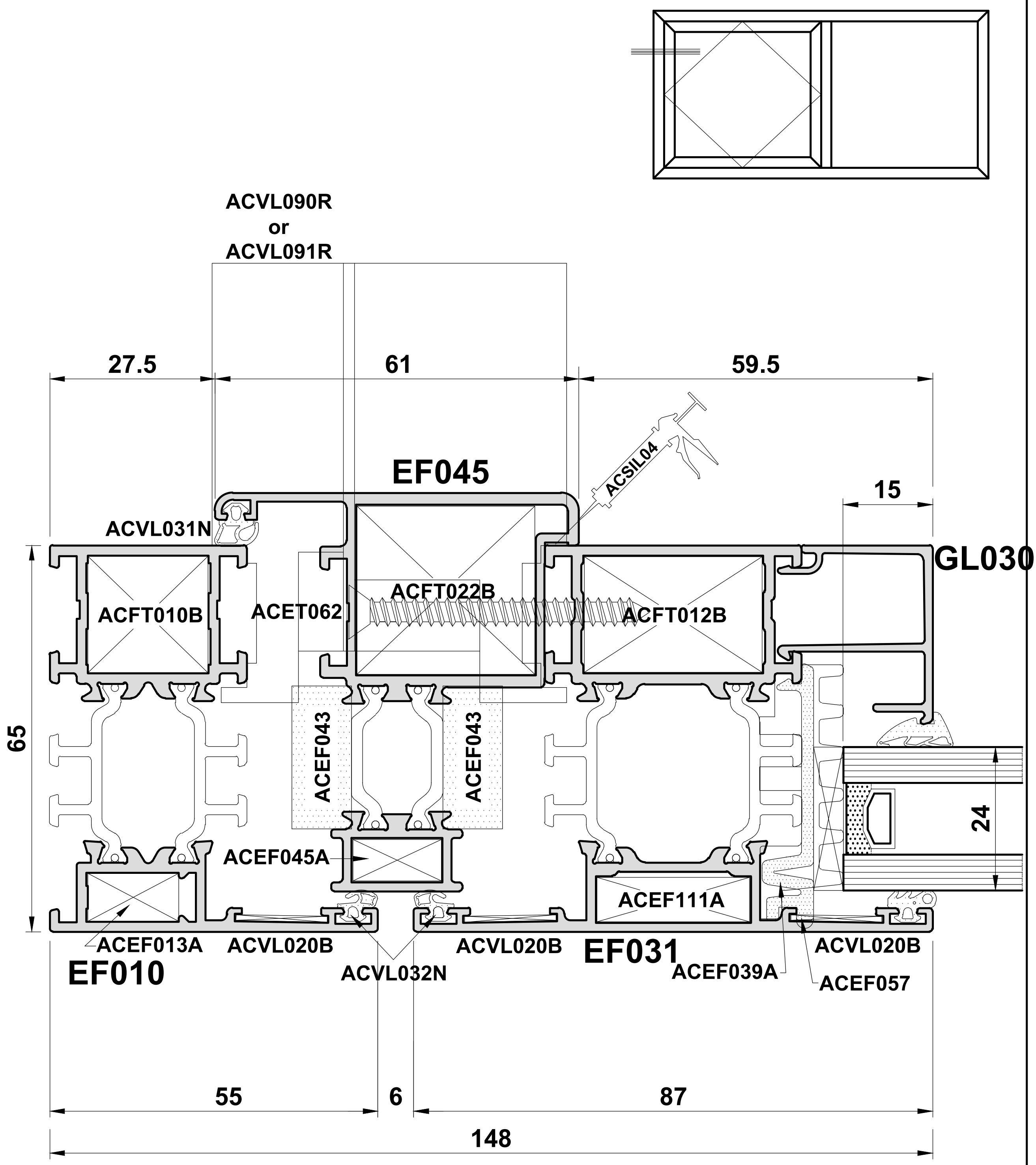
Do Not Scale From This Drawing

Detail 12



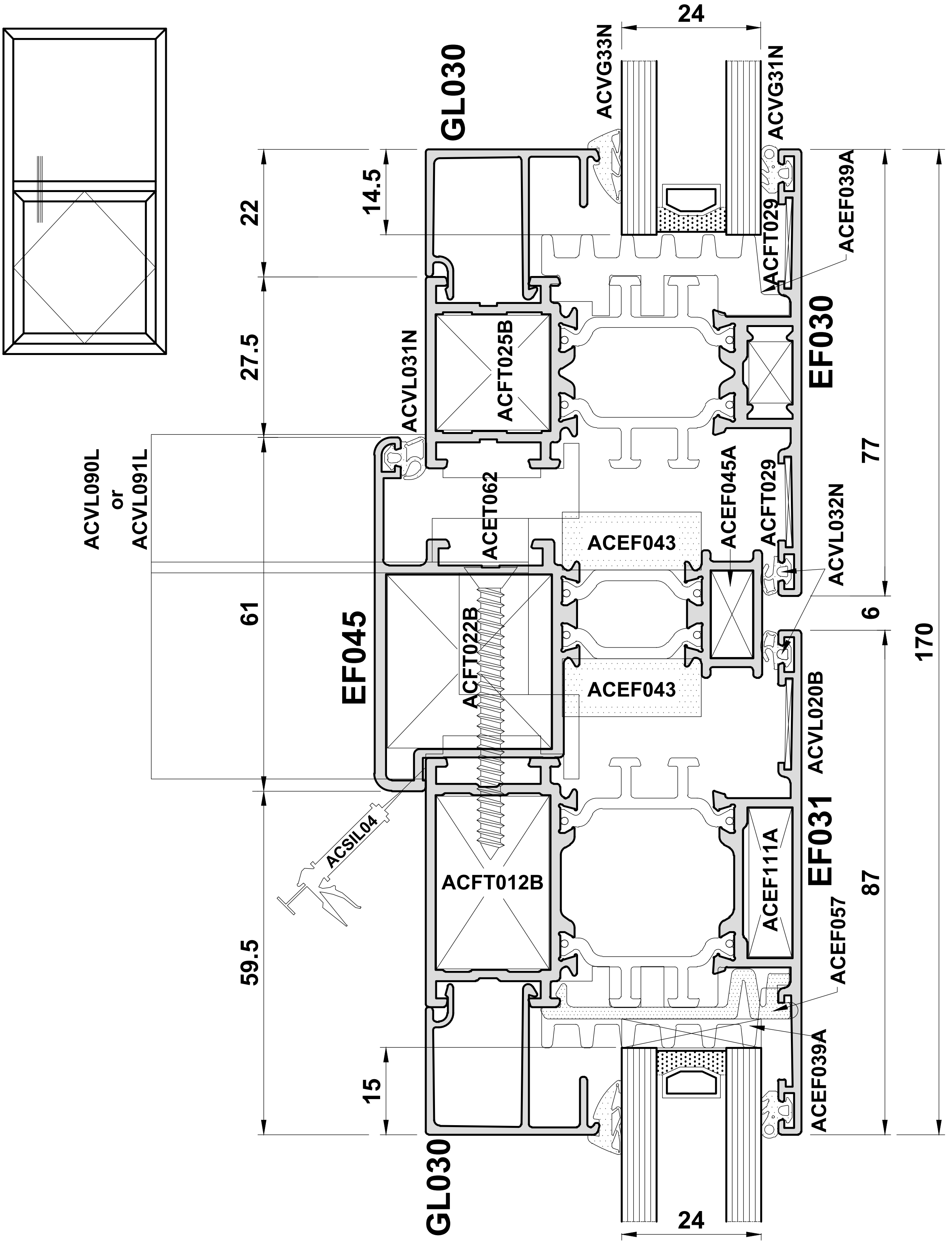
Do Not Scale From This Drawing

Detail 13



Do Not Scale From This Drawing

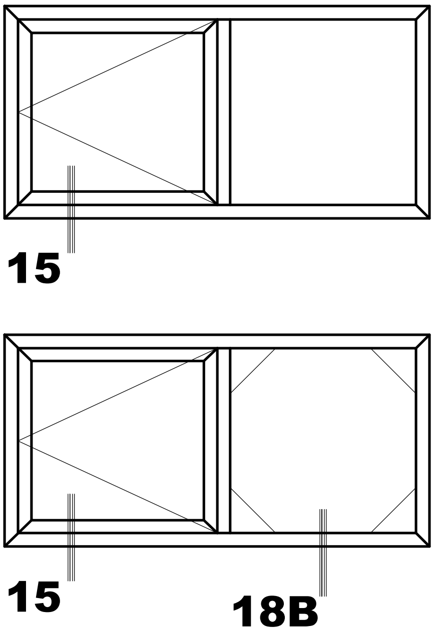
Detail 14

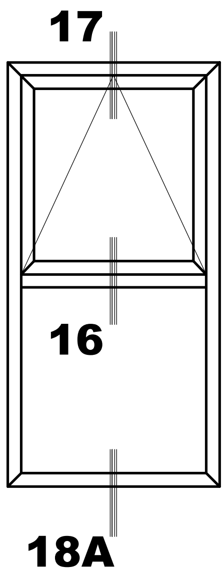


Do Not Scale From This Drawing

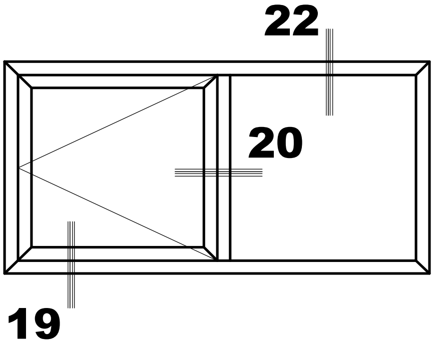
Windows - Casement

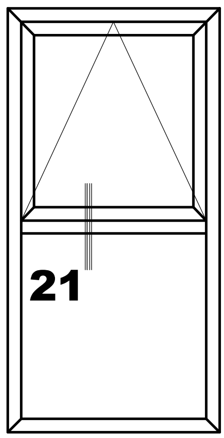
Externally Glazed Fixed Light



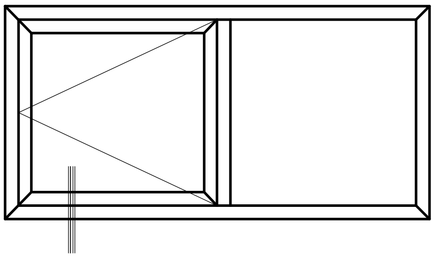


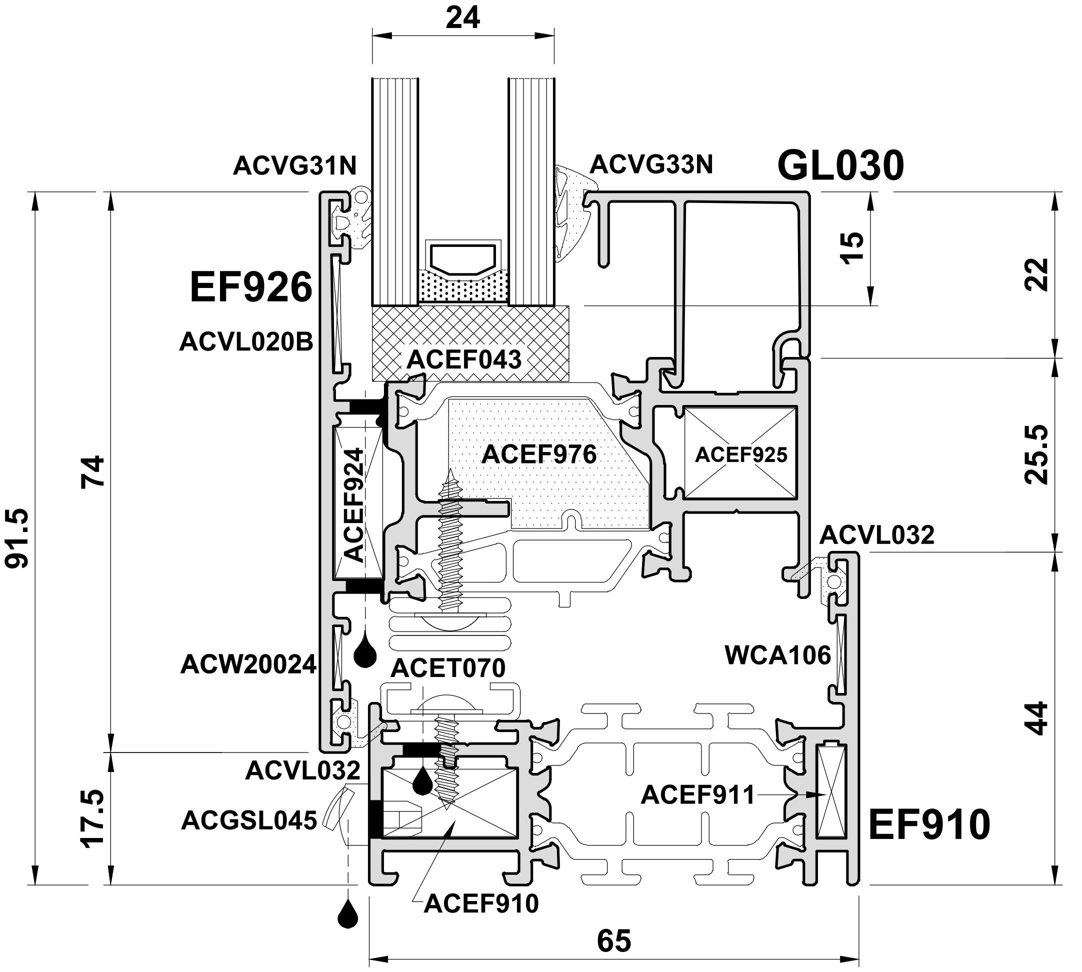
Internally Glazed Fixed Light





Detail 15

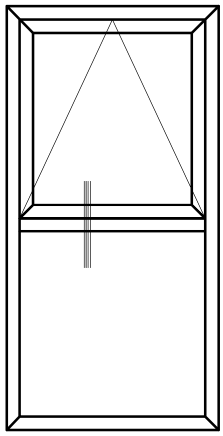


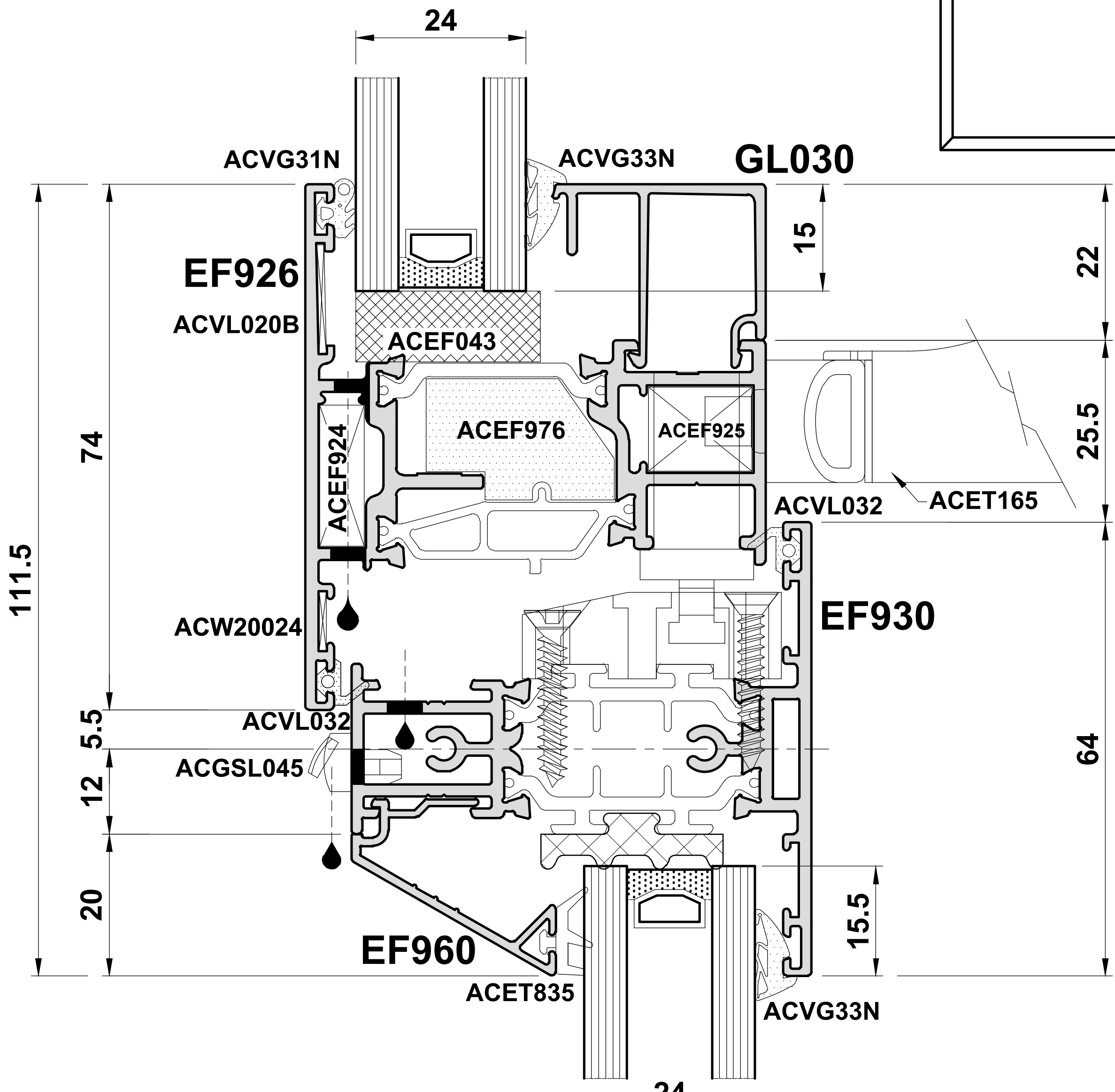


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

Detail 16



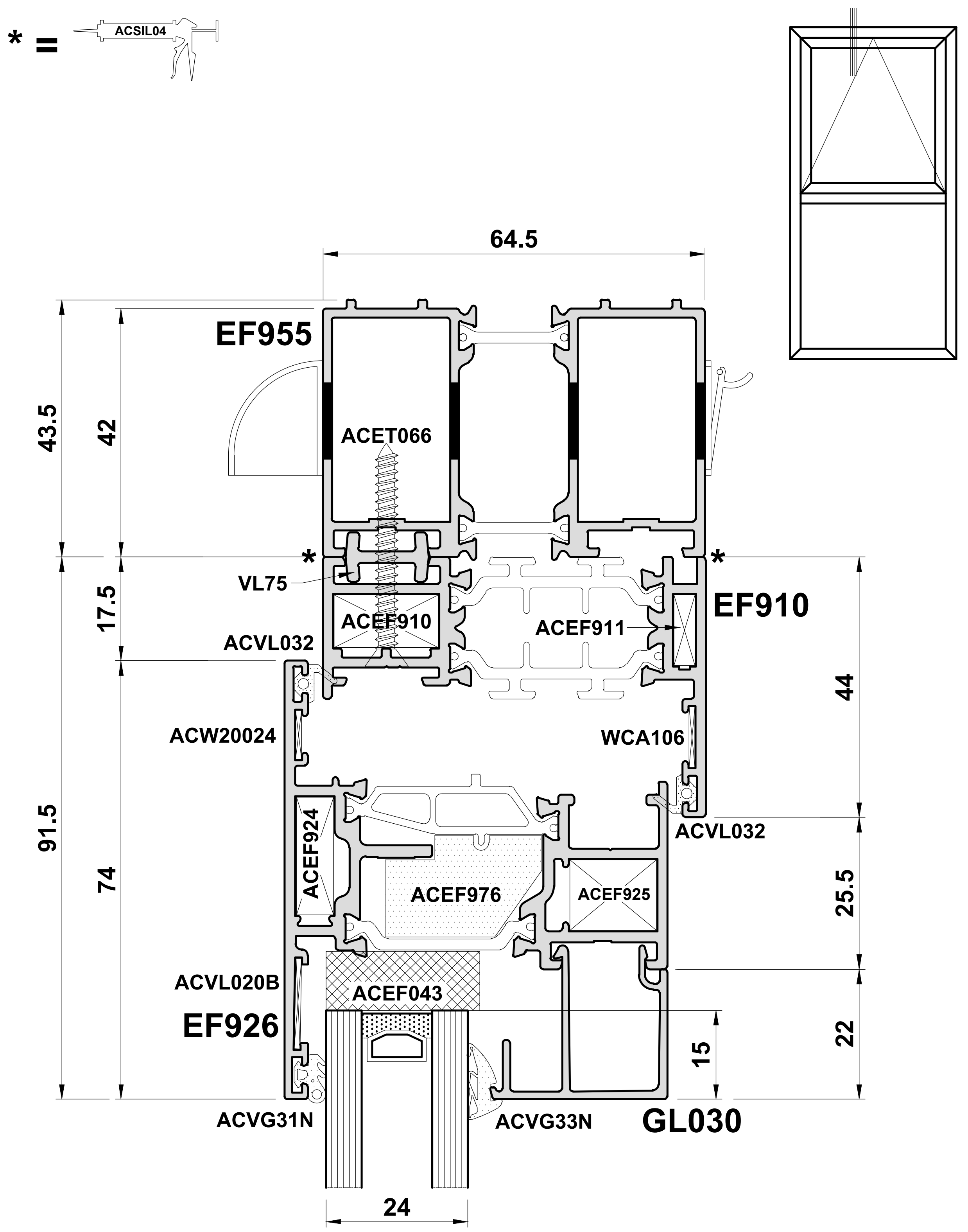


Do Not Scale From This Drawing

smart architectural aluminium

Eco Futural

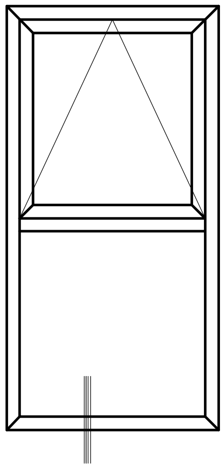
Detail 17

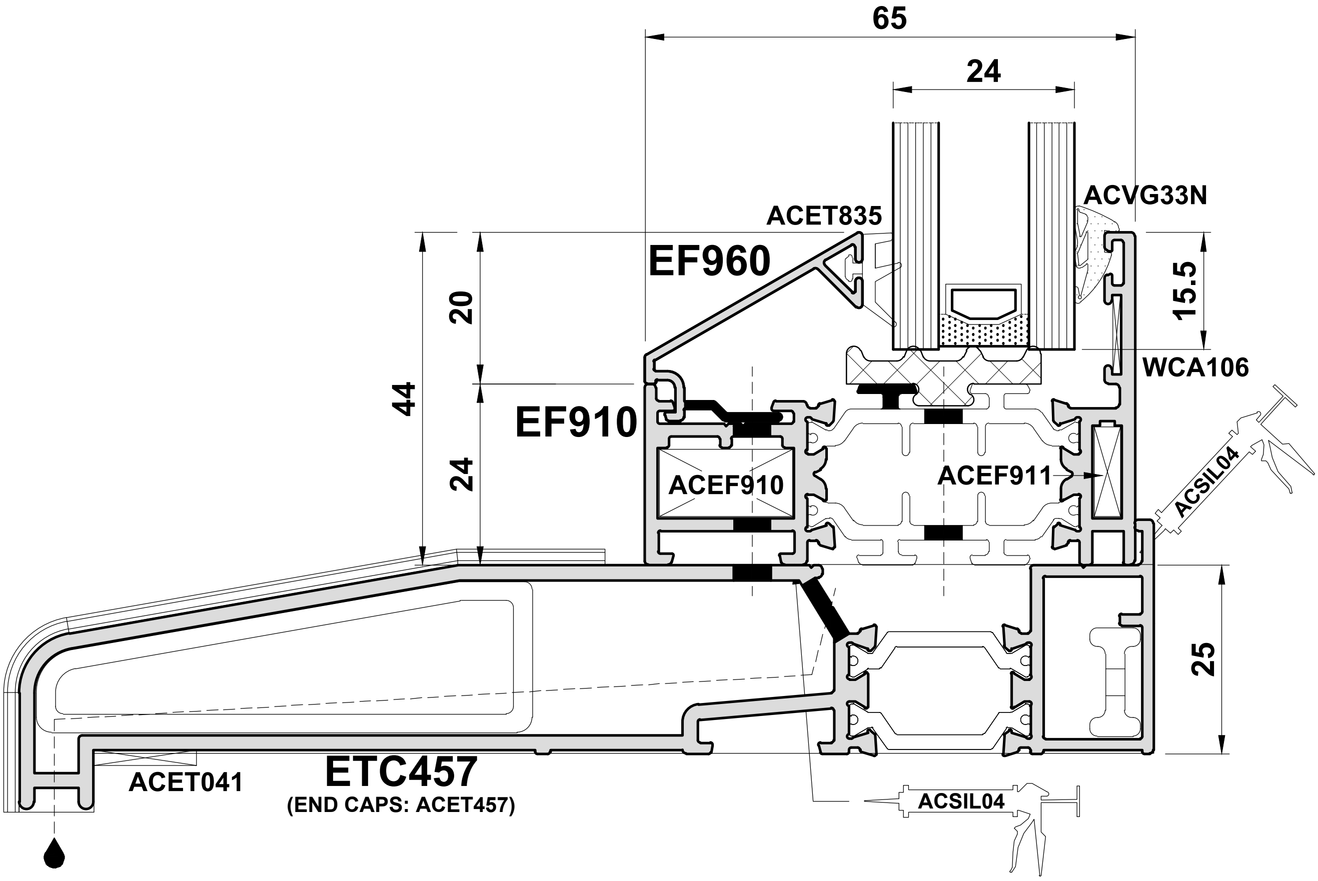


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

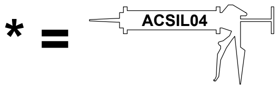
Detail 18A

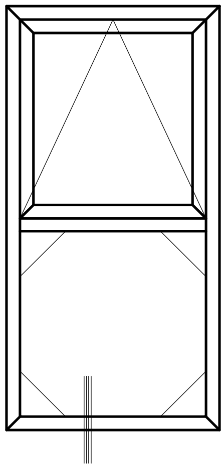


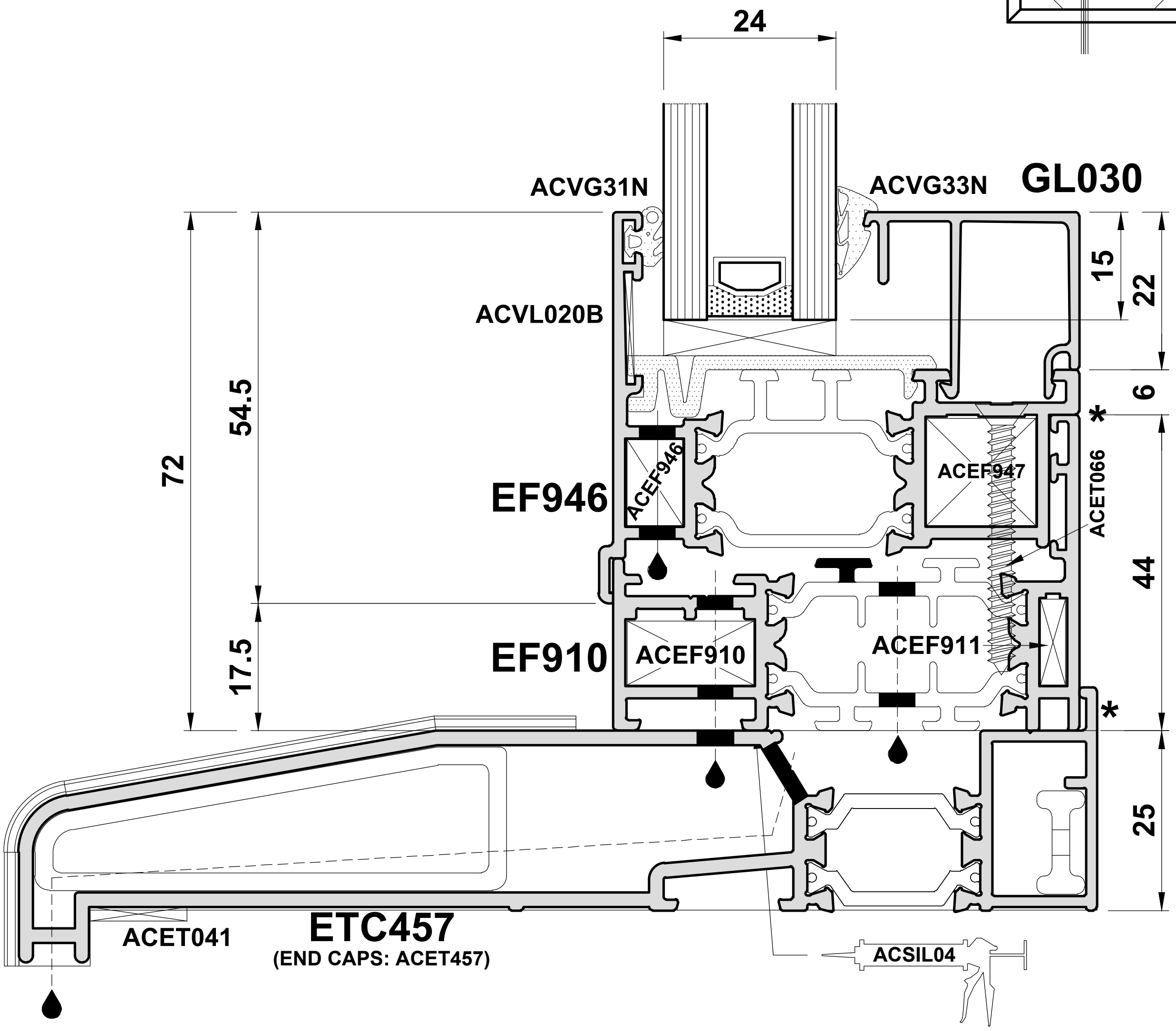


Do Not Scale From This Drawing

Detail 18B

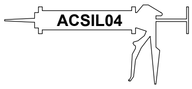


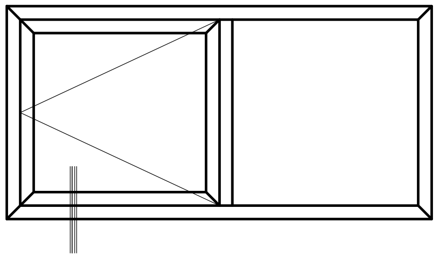


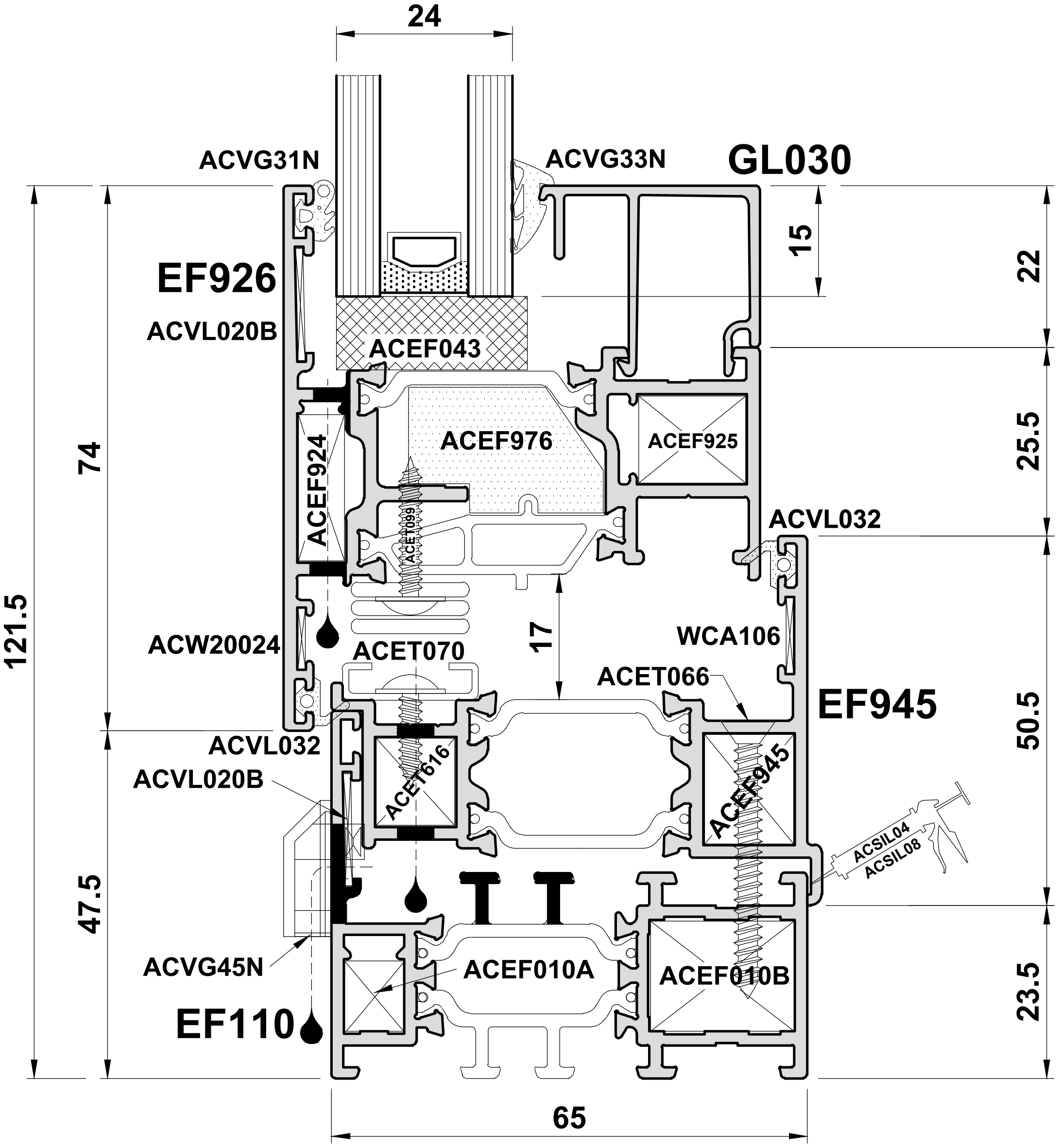


Do Not Scale From This Drawing

Detail 19

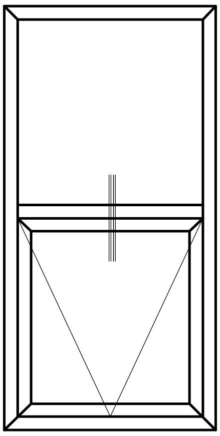
* = 

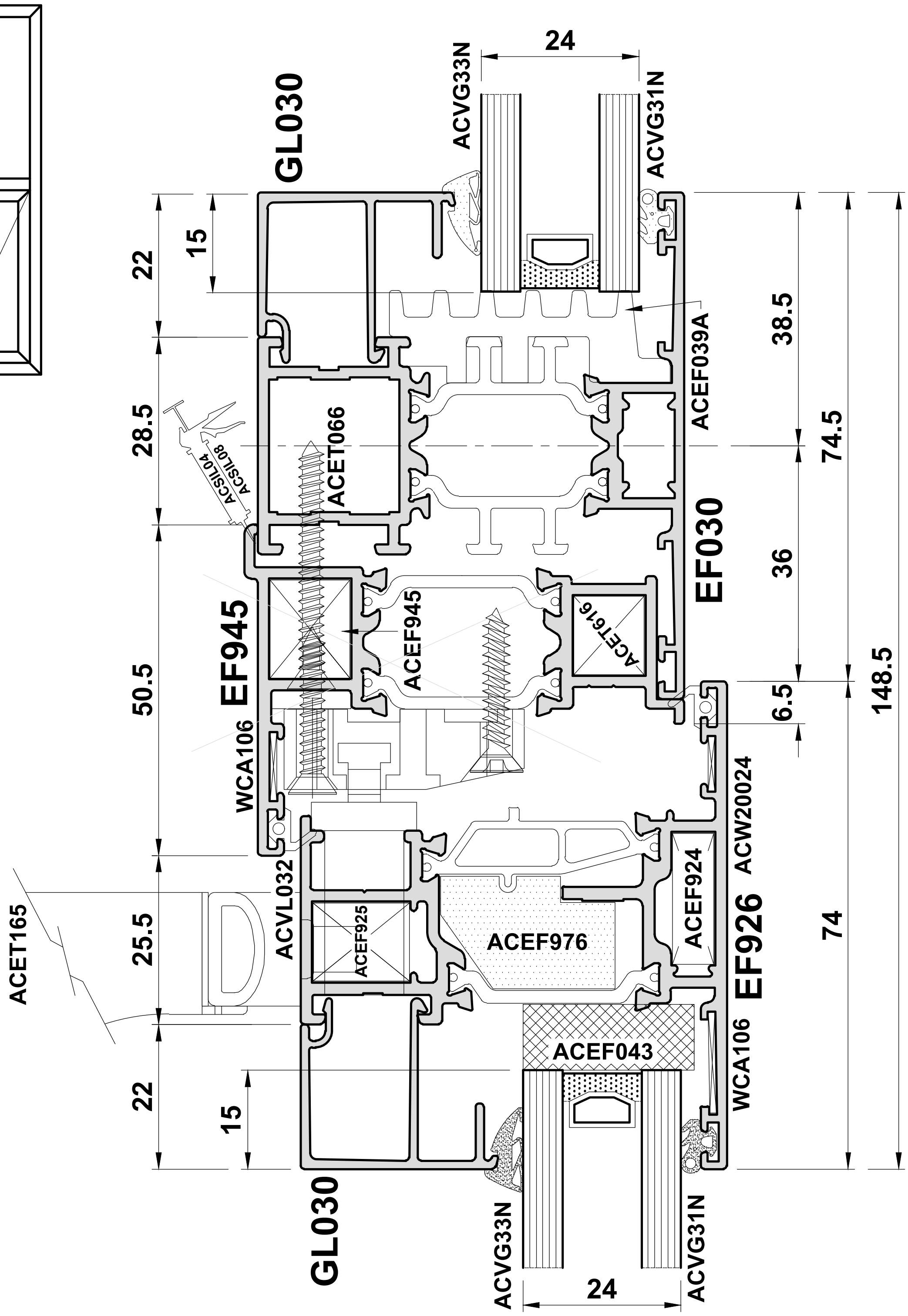




Do Not Scale From This Drawing

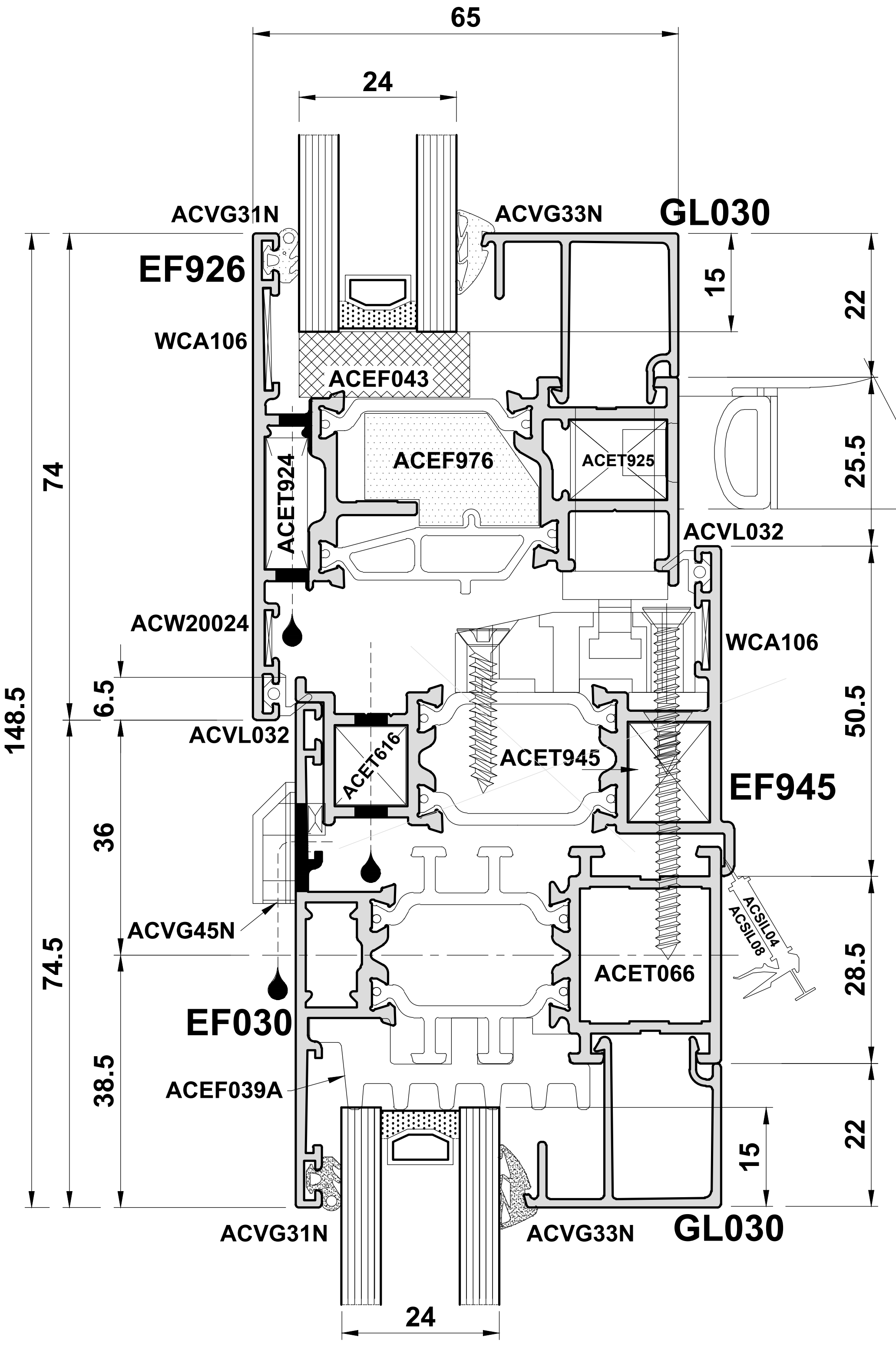
Detail 20

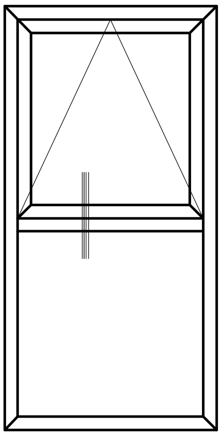




Do Not Scale From This Drawing

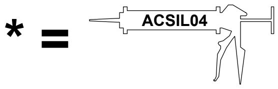
Detail 21

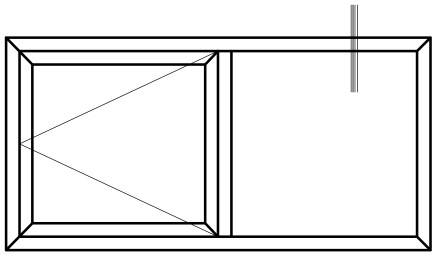


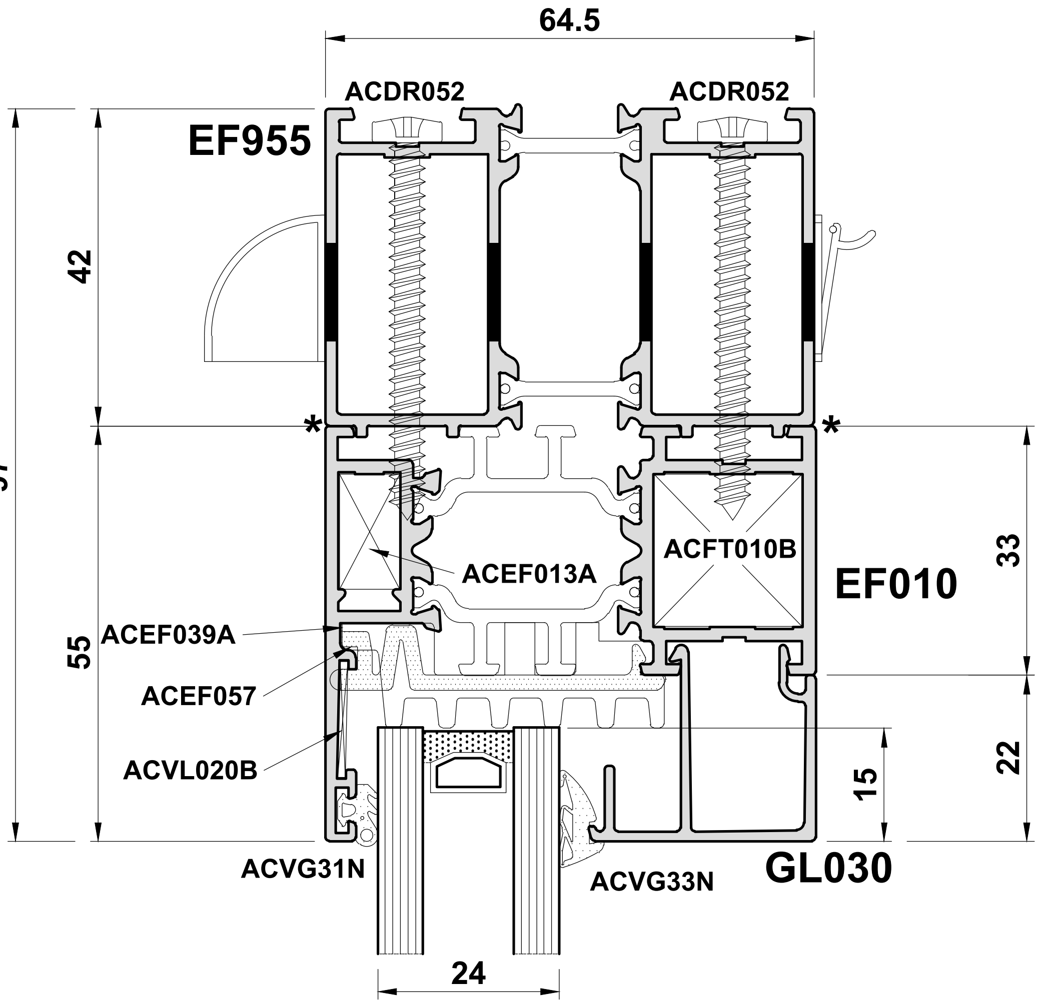


Do Not Scale From This Drawing

Detail 22

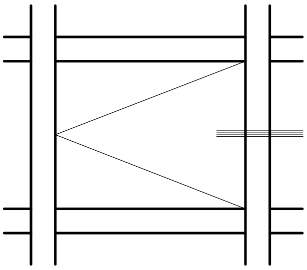


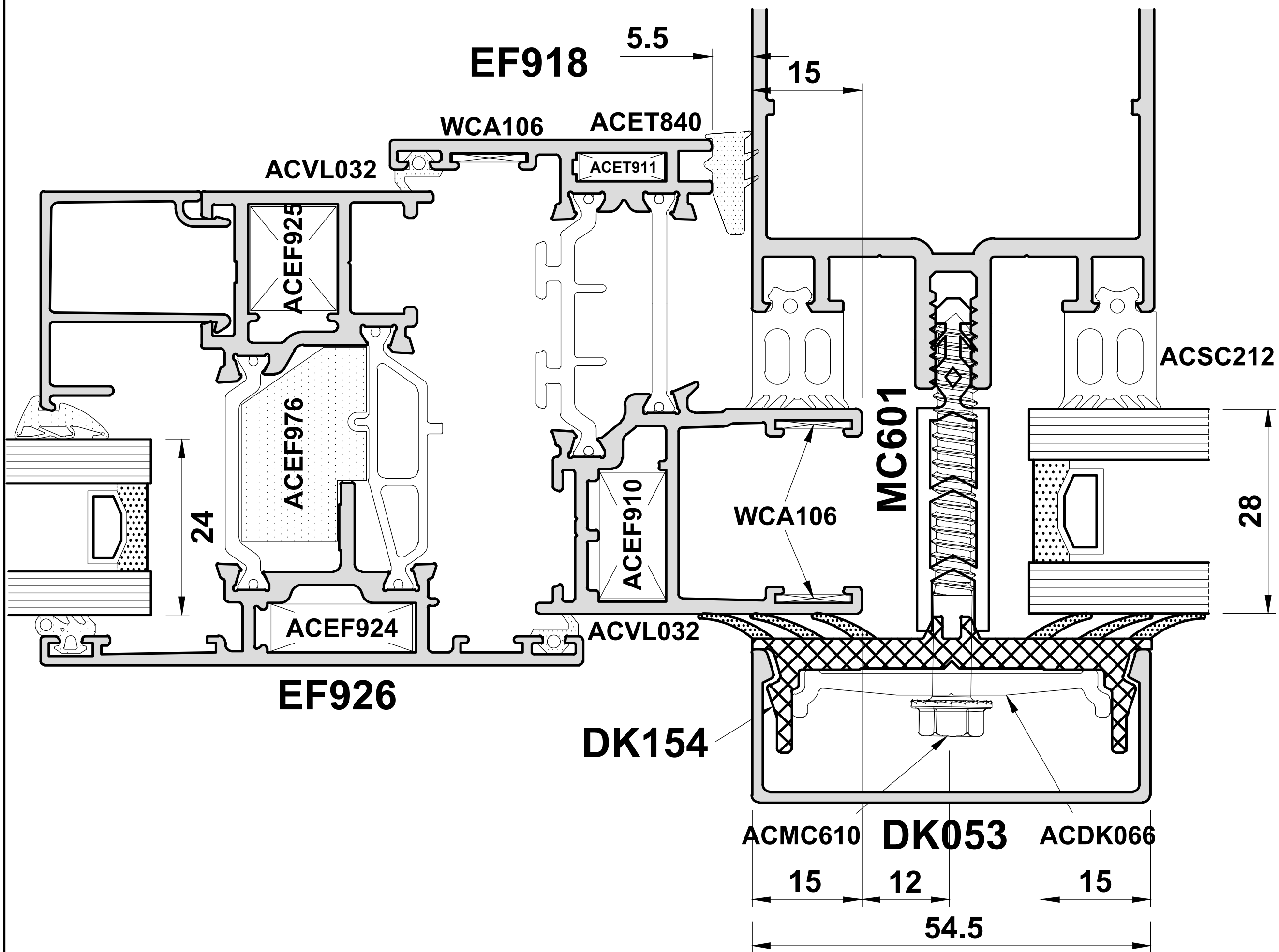




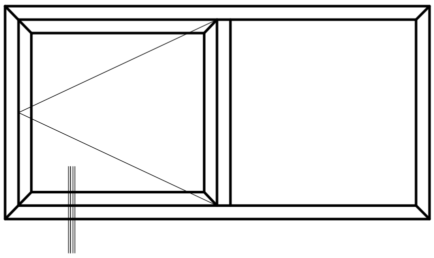
Do Not Scale From This Drawing

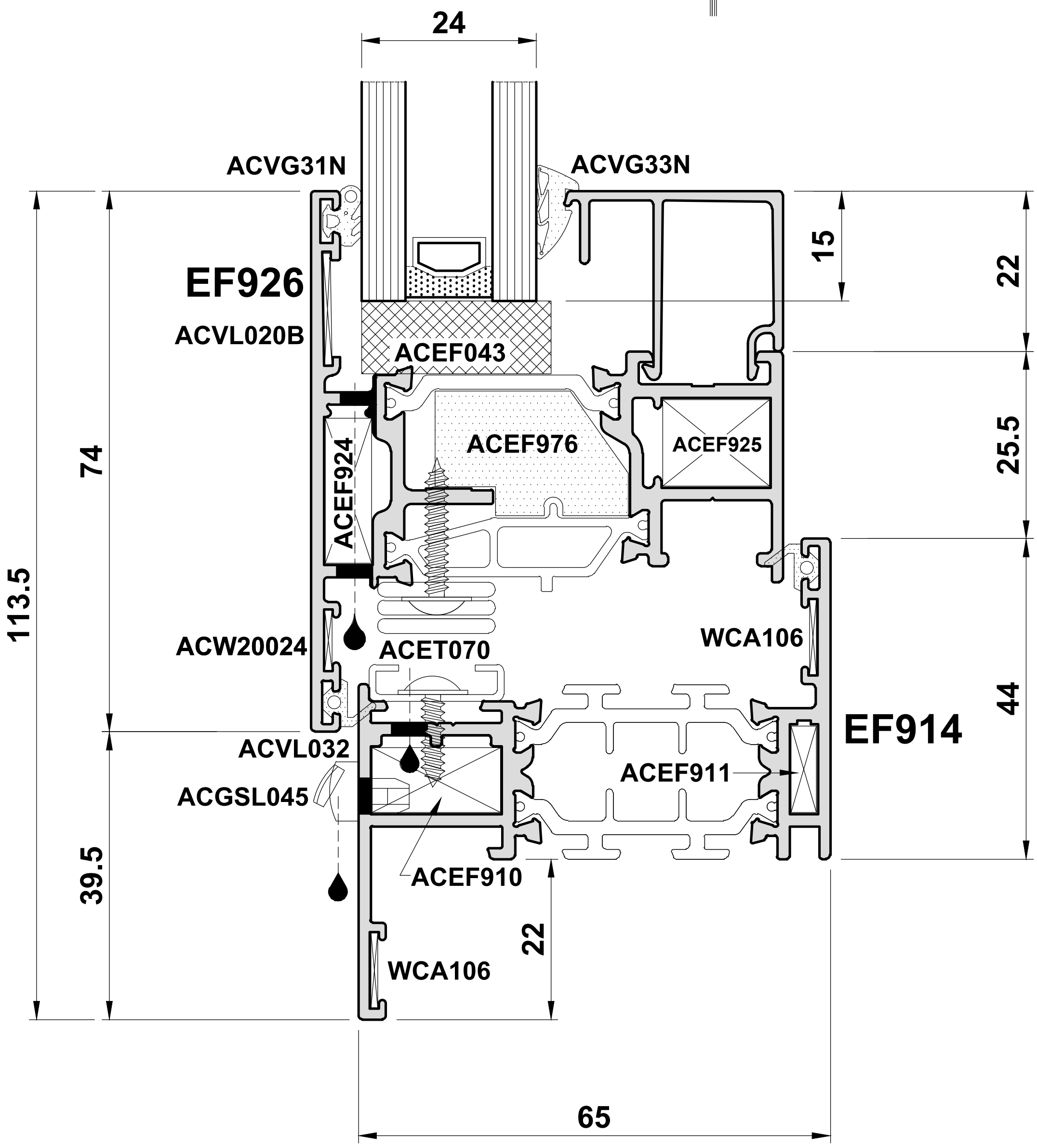
Detail 23



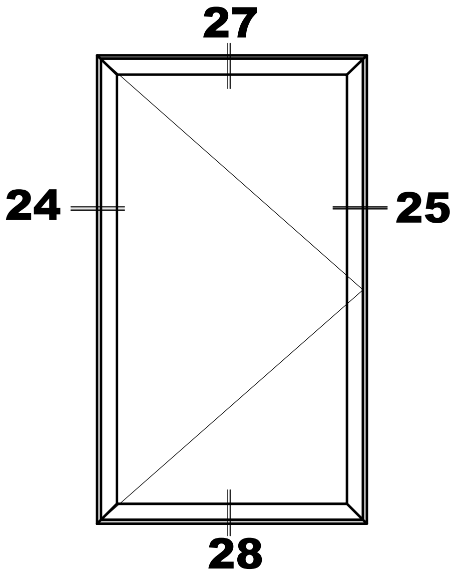


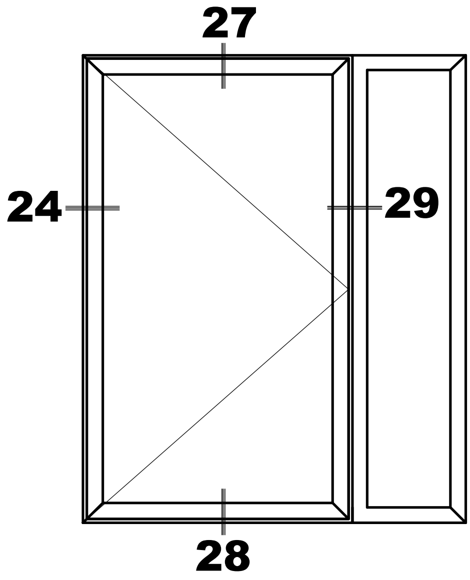
Do Not Scale From This Drawing

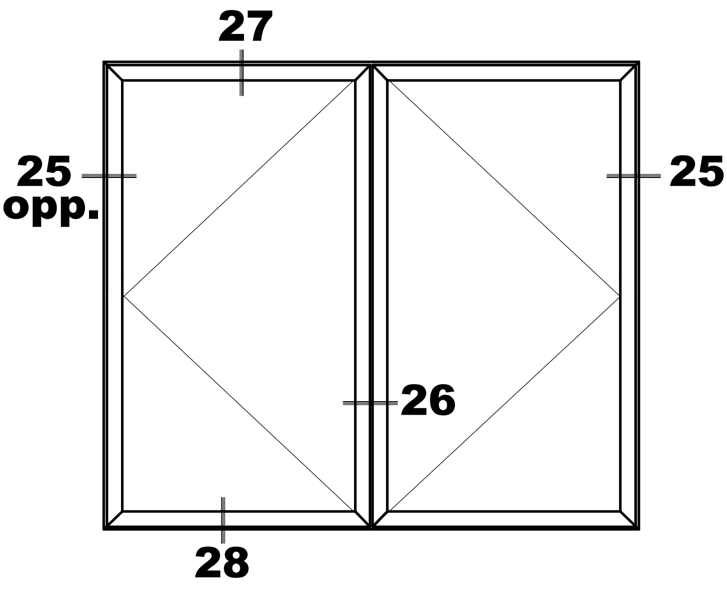



24
ACVG31N
ACVG33N
EF926
ACVL020B
ACEF043
ACEF976
ACEF925
ACEF924
15
22
25.5
74
113.5
ACW20024
ACET070
WCA106
44
EF914
ACVL032
ACGSL045
ACEF911
ACEF910
39.5
22
WCA106
65

Open Out Doors - Scale Elevations

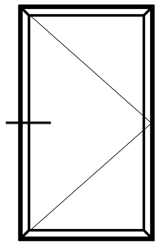


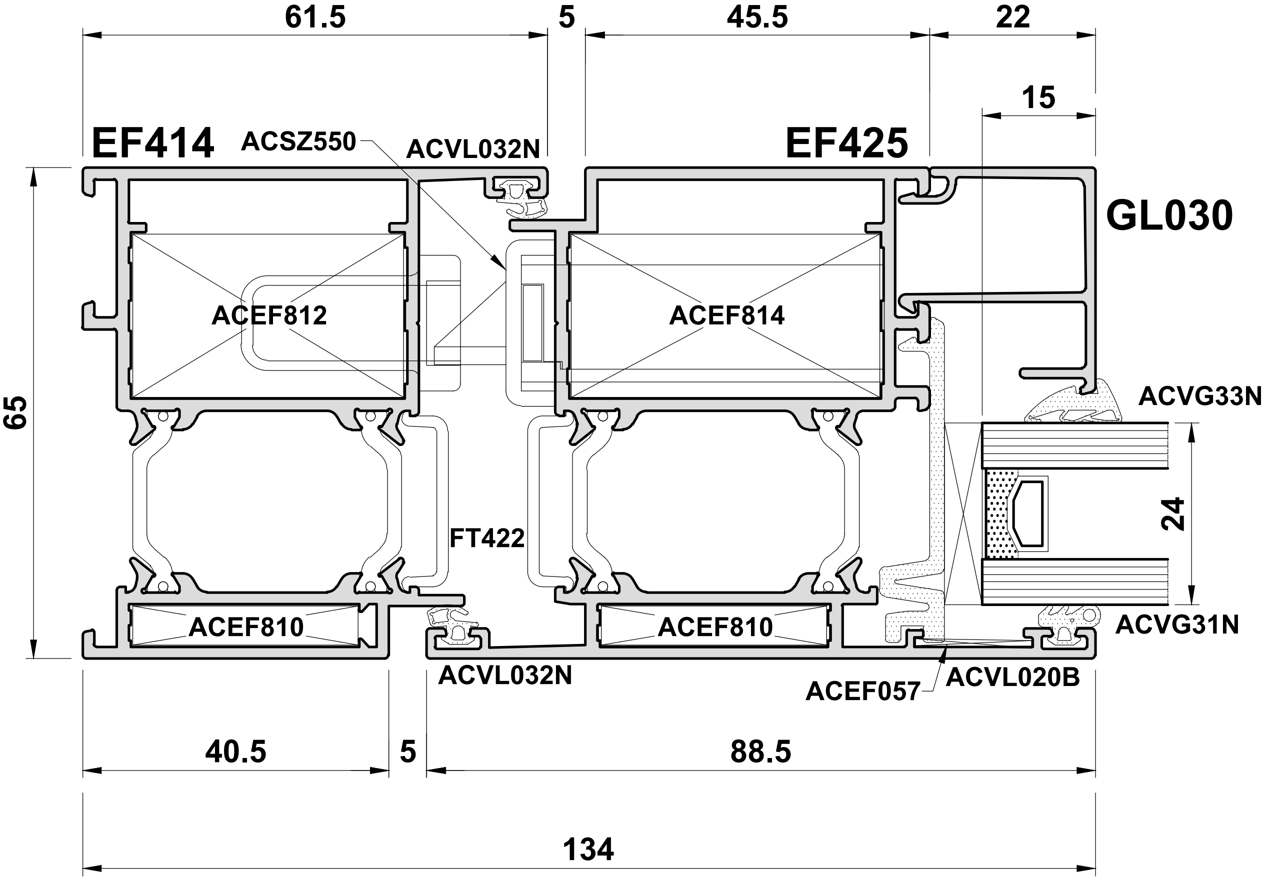




Do Not Scale From This Drawing

Open Out Doors - Detail 24

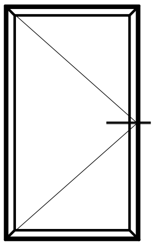


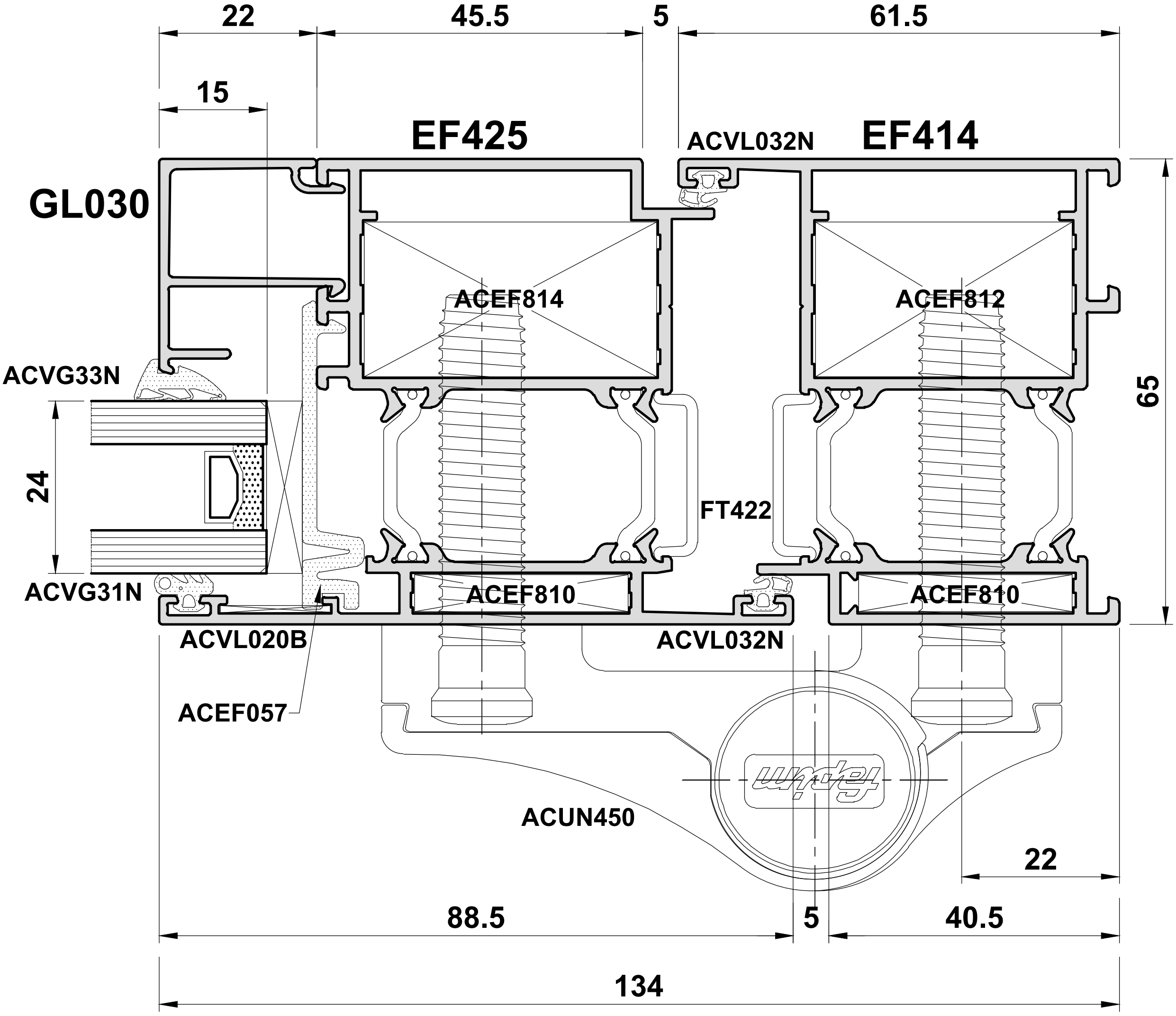


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

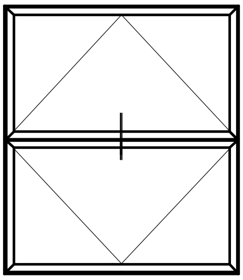
Open Out Doors - Detail 25

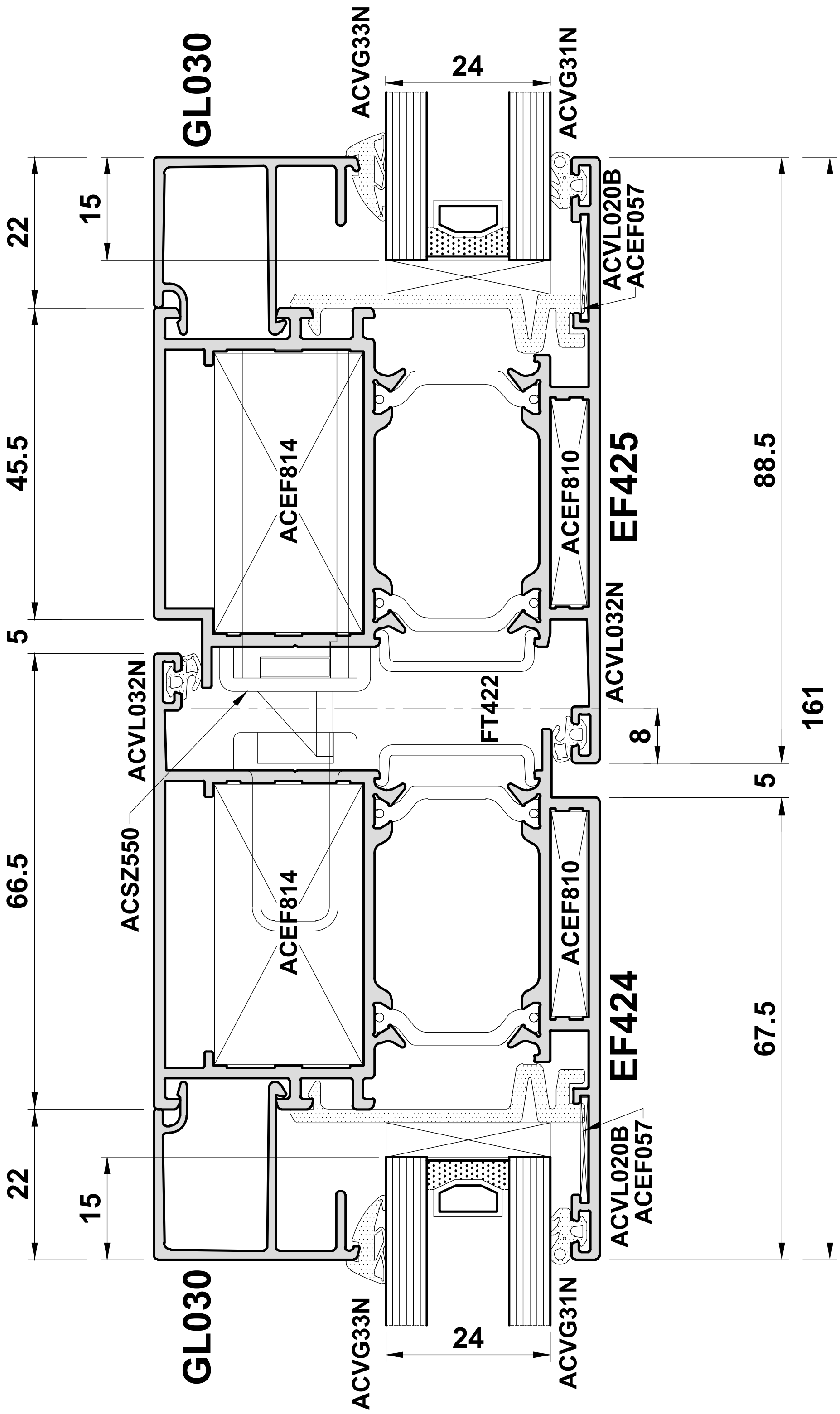




Do Not Scale From This Drawing

Open Out Doors - Detail 26

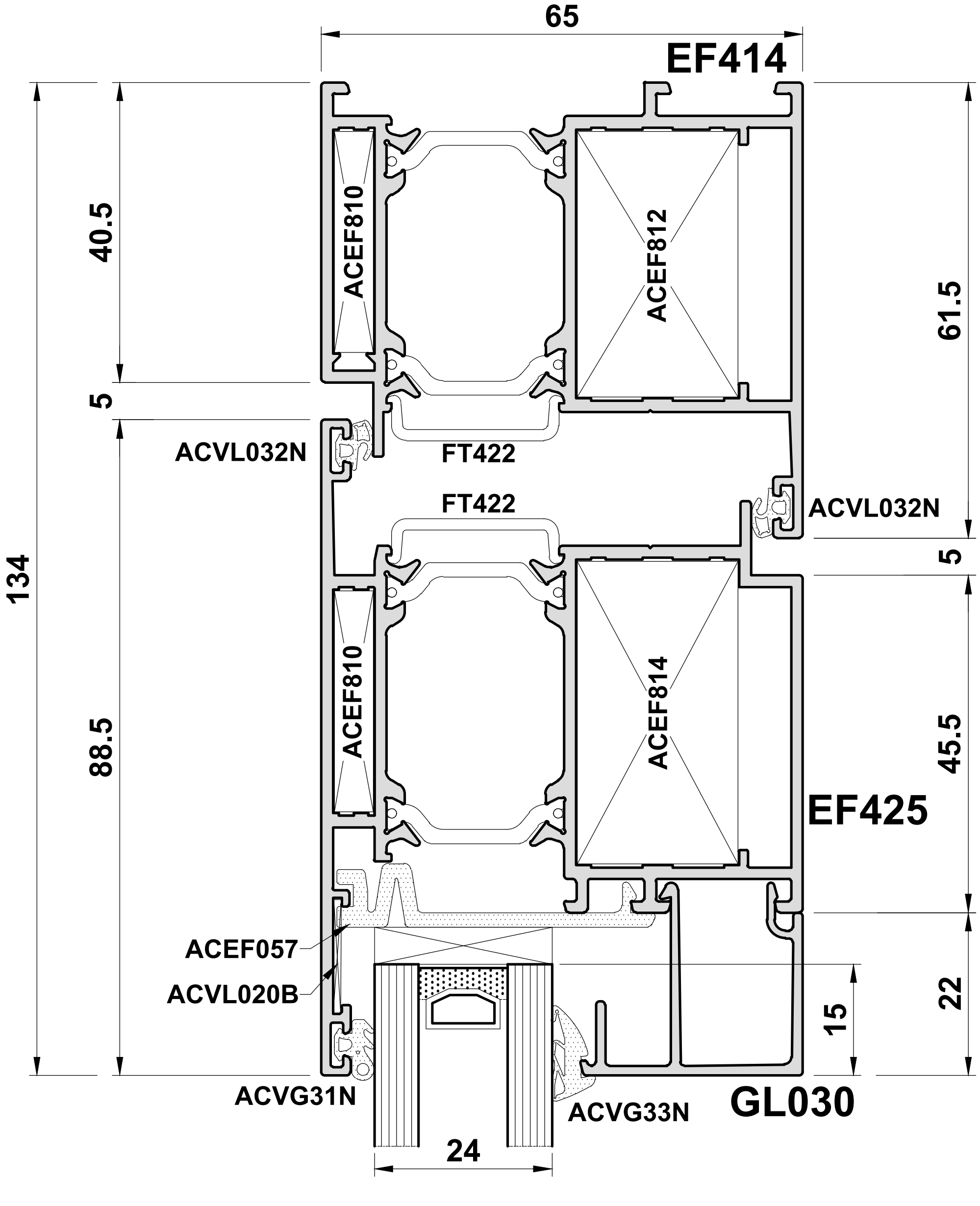


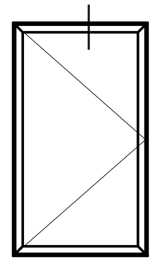


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

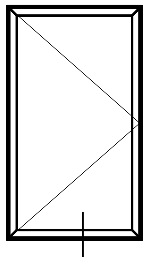
Open Out Doors - Detail 27

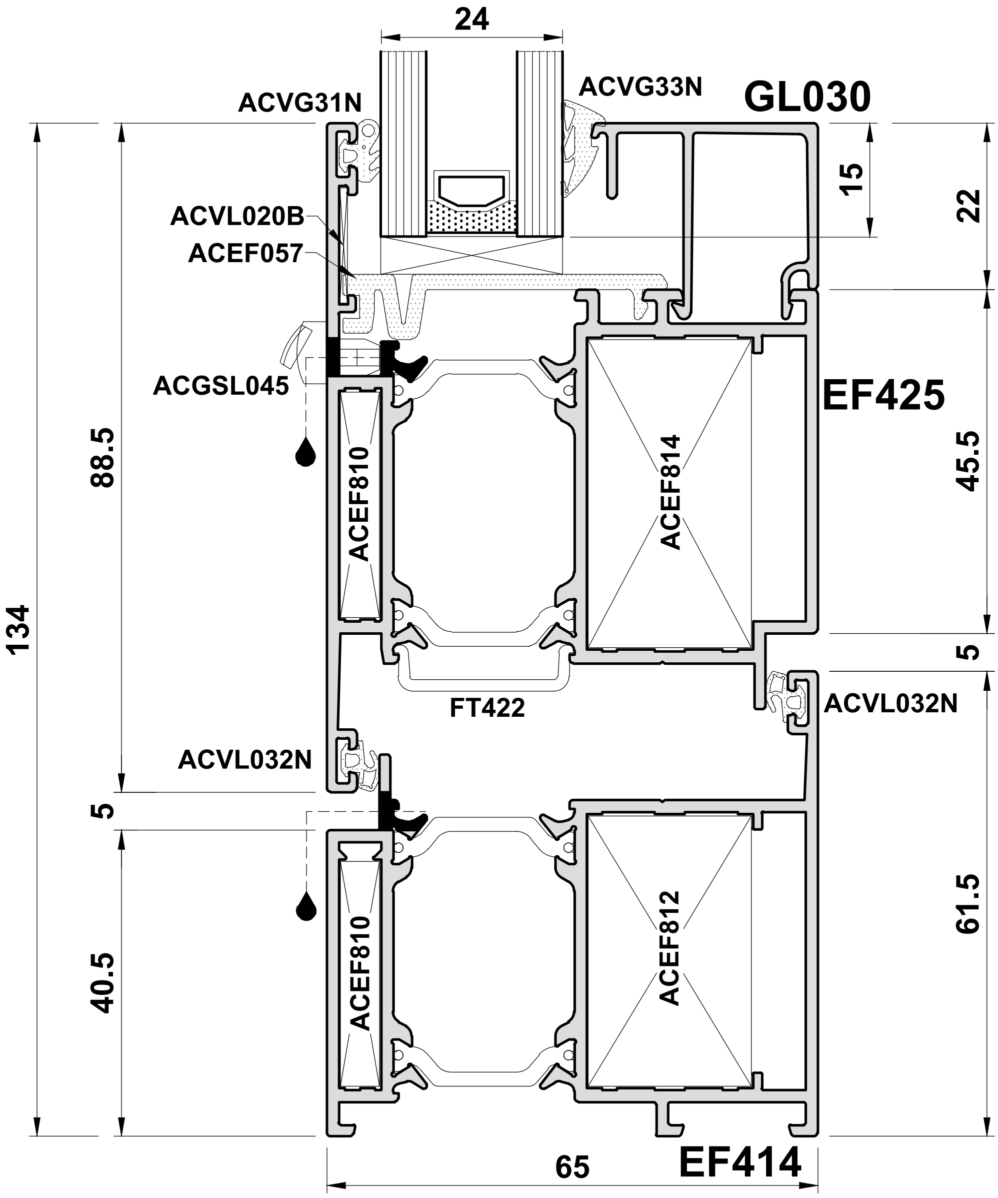




Do Not Scale From This Drawing

Open Out Doors - Detail 28A

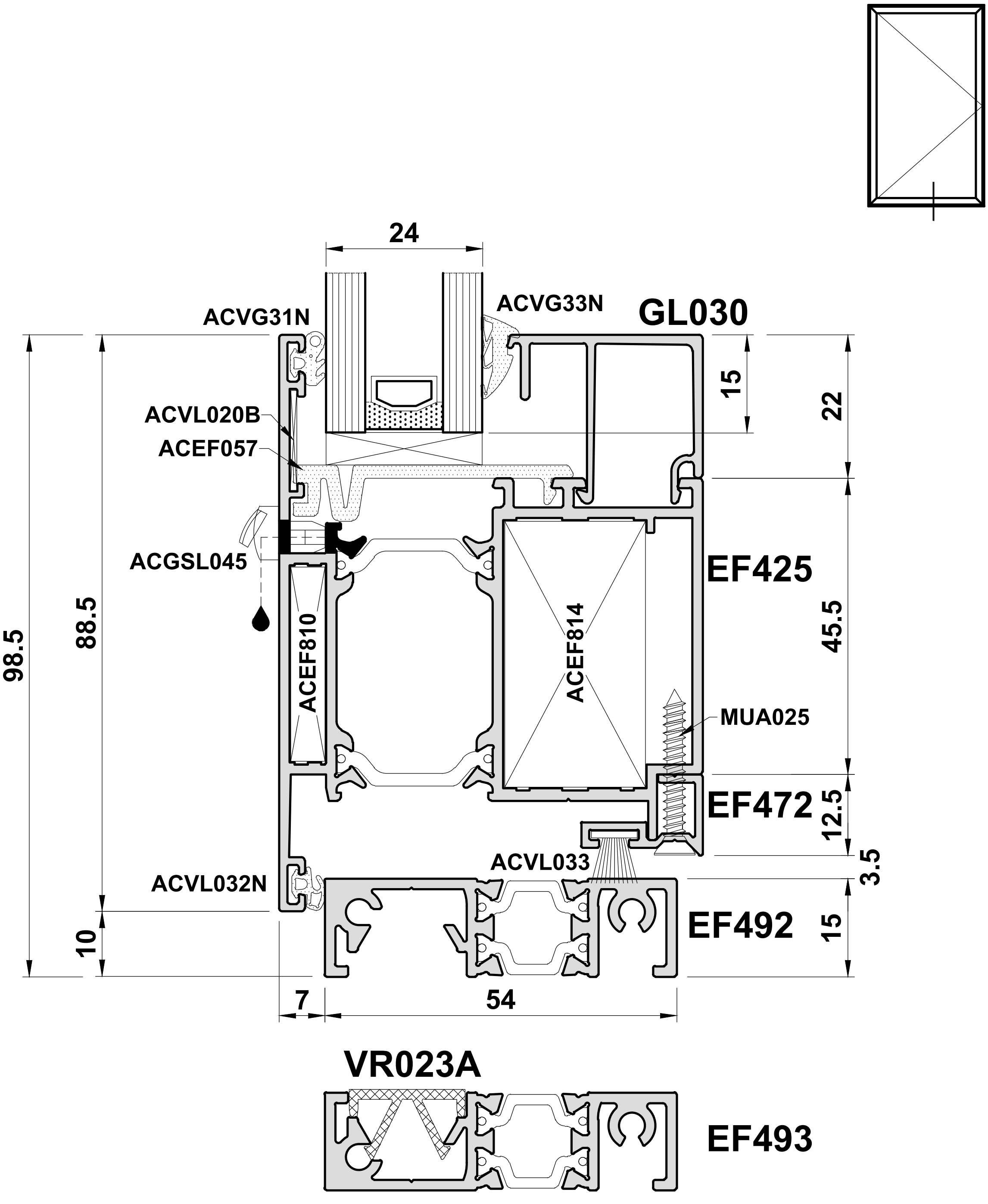




Do Not Scale From This Drawing

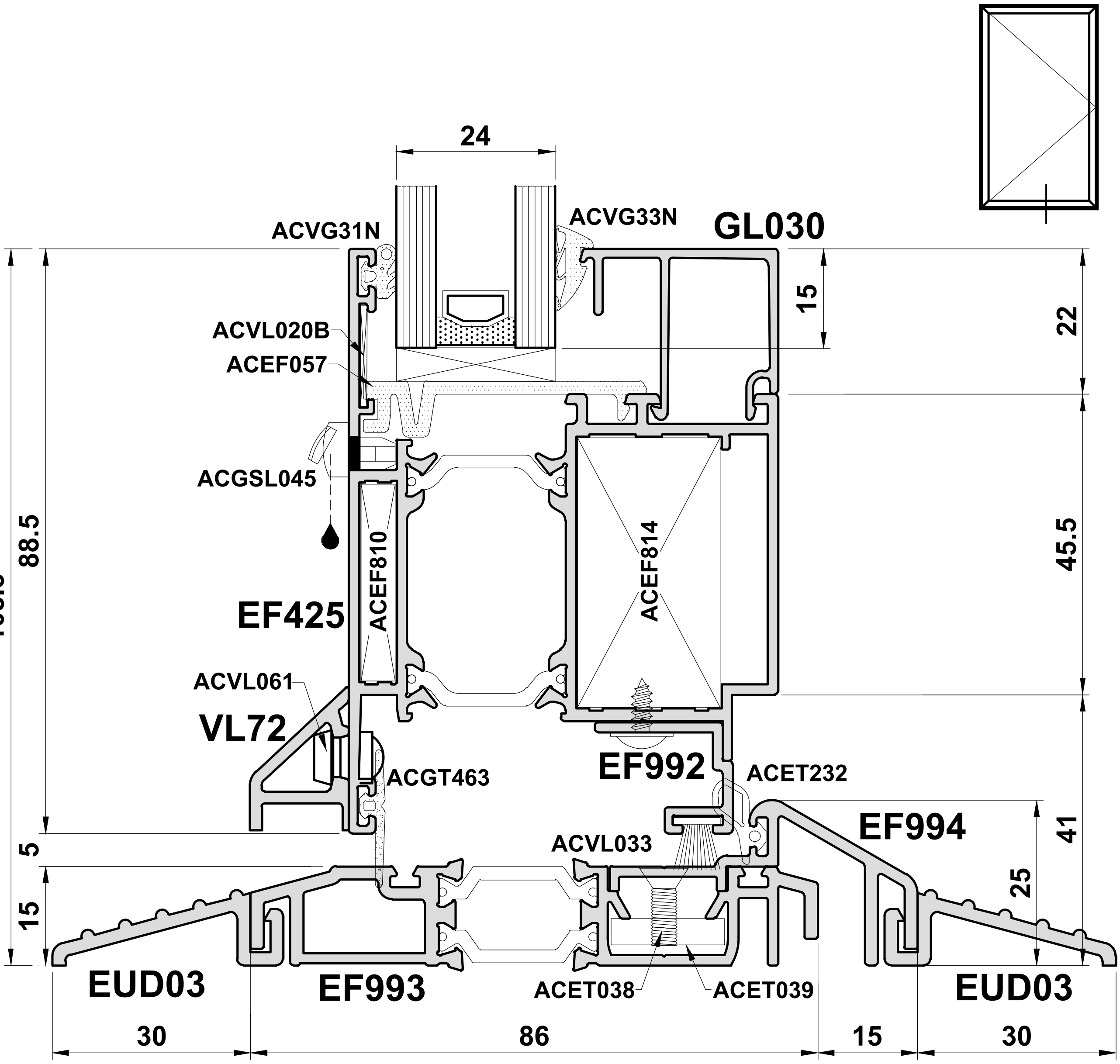
ISSUED: DECEMBER 2018

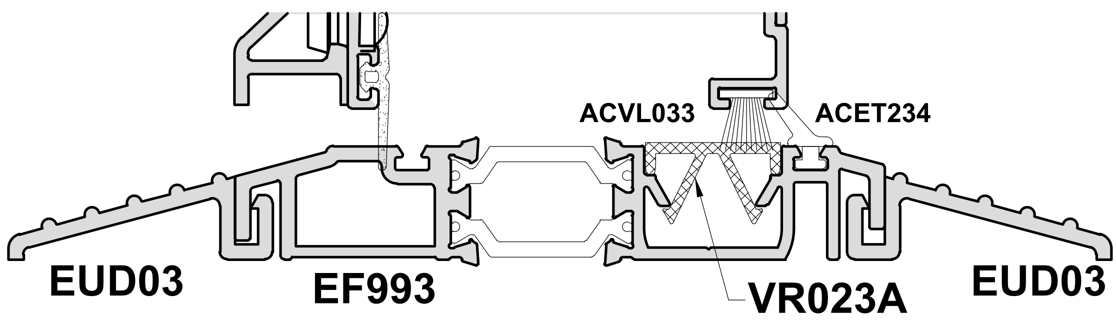
Open Out Doors - Detail 28B



Do Not Scale From This Drawing

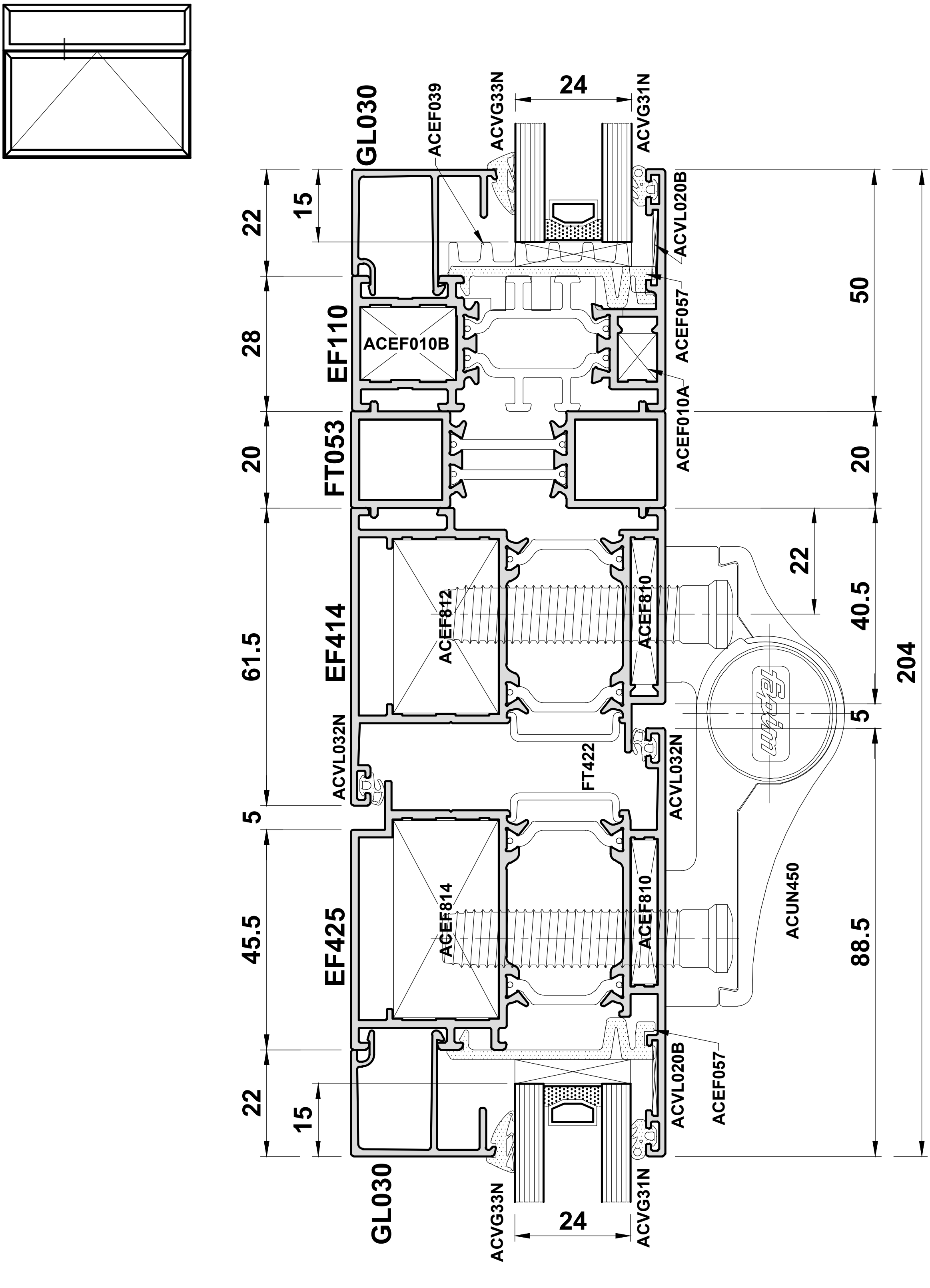
Open Out Doors - Detail 28C





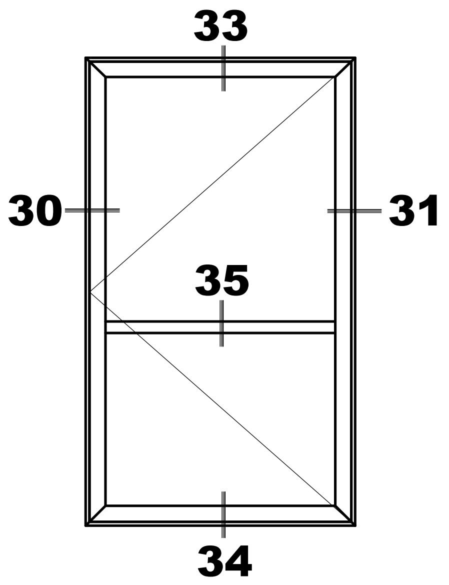
Do Not Scale From This Drawing

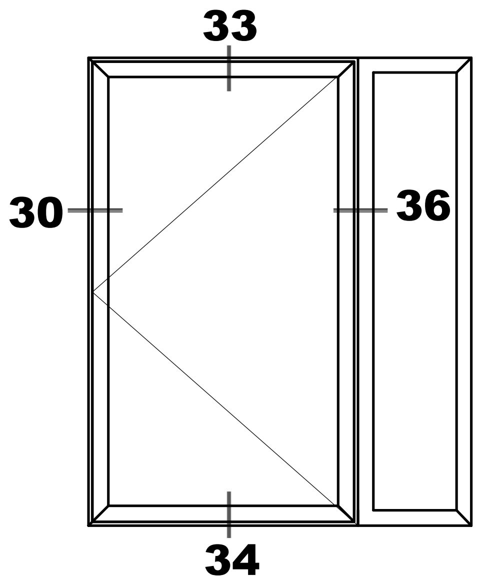
Open Out Doors - Detail 29

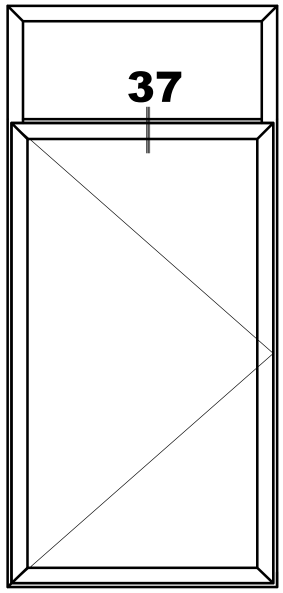


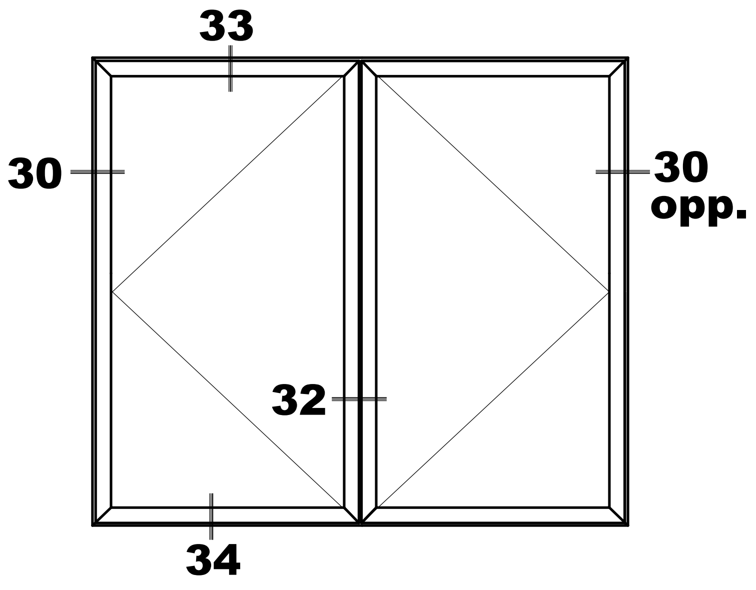
Do Not Scale From This Drawing

Open In Doors - Scale Elevations



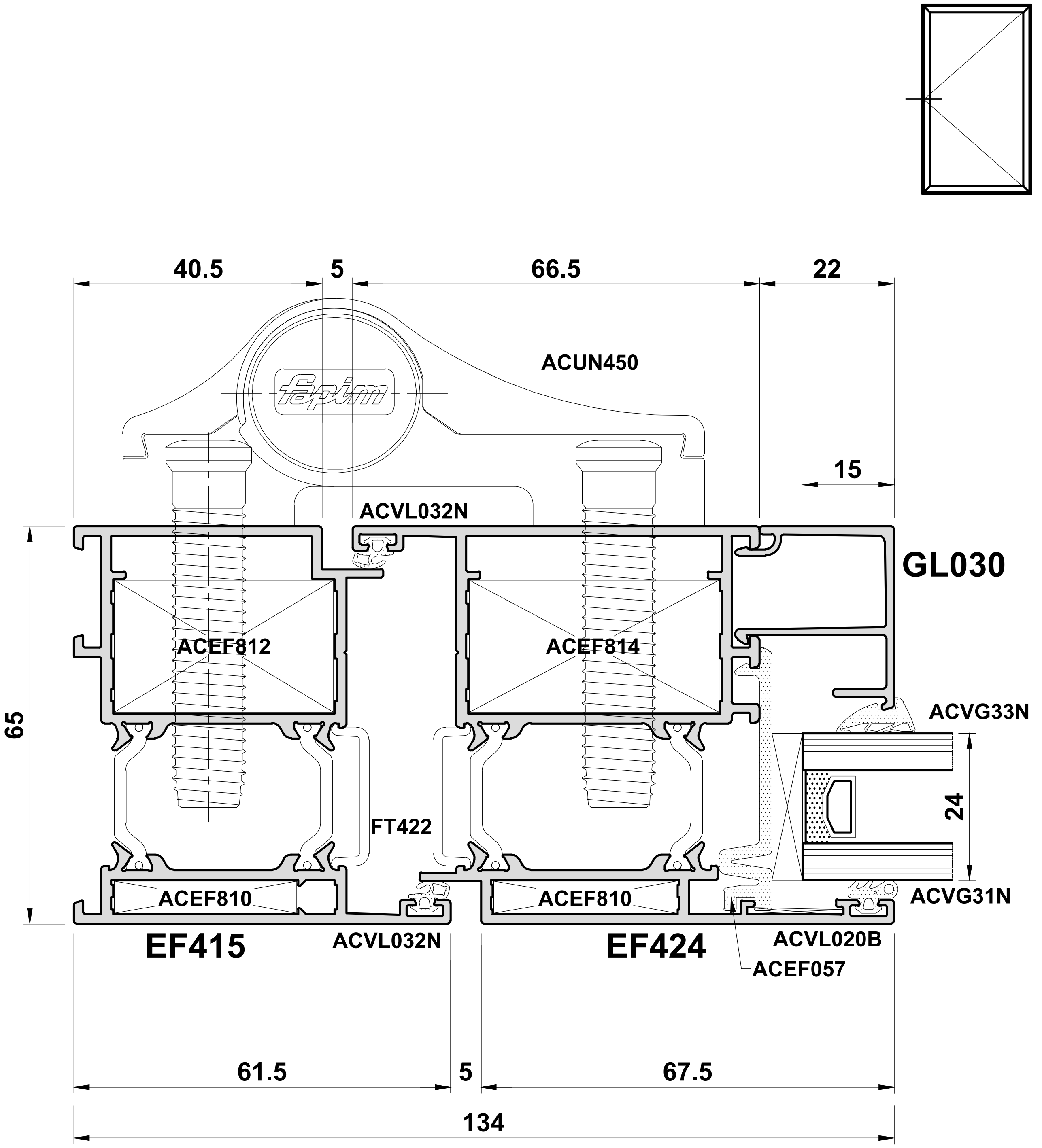






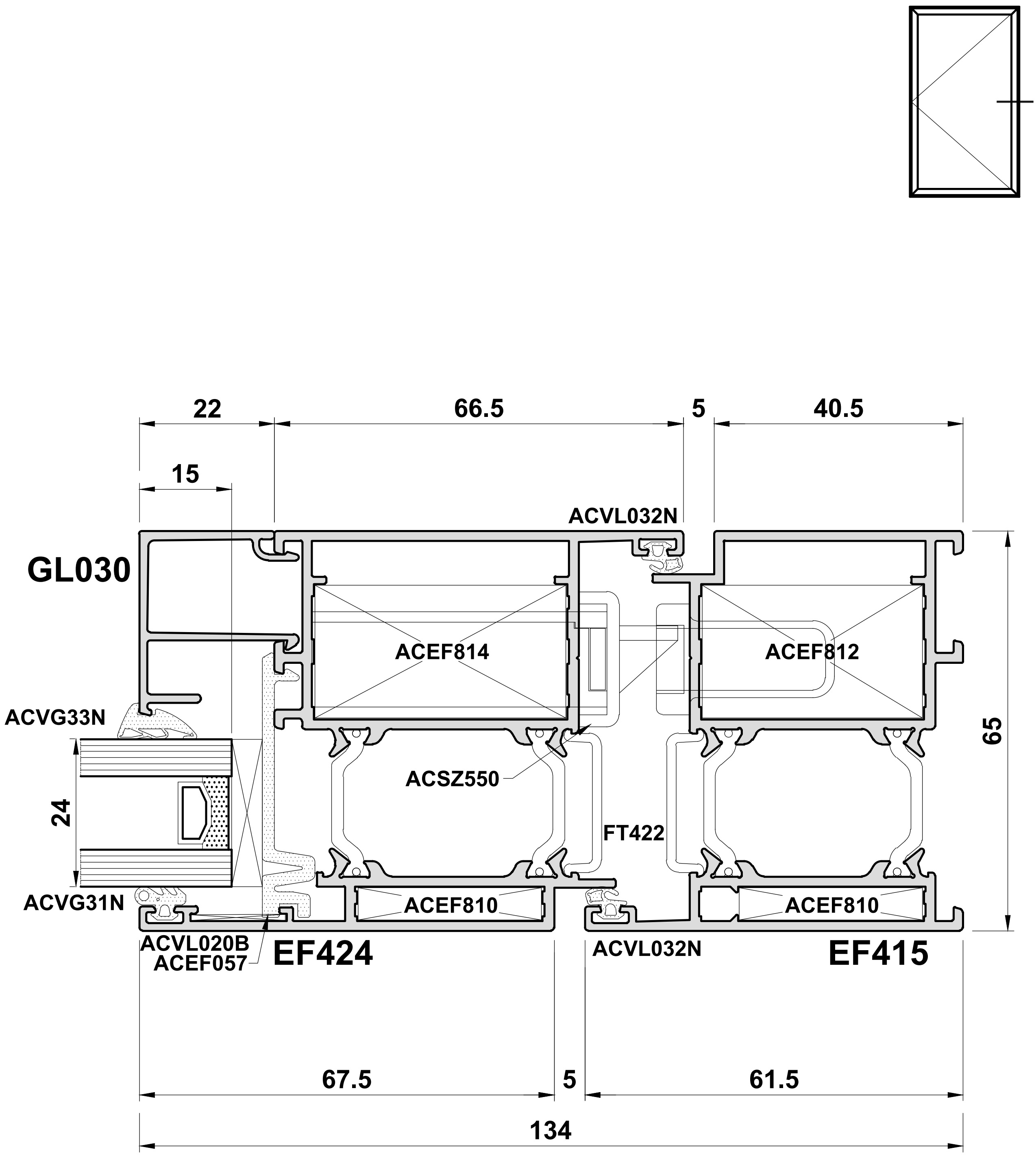
Do Not Scale From This Drawing

Open In Doors - Detail 30



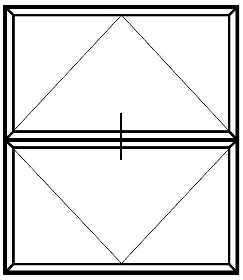
Do Not Scale From This Drawing

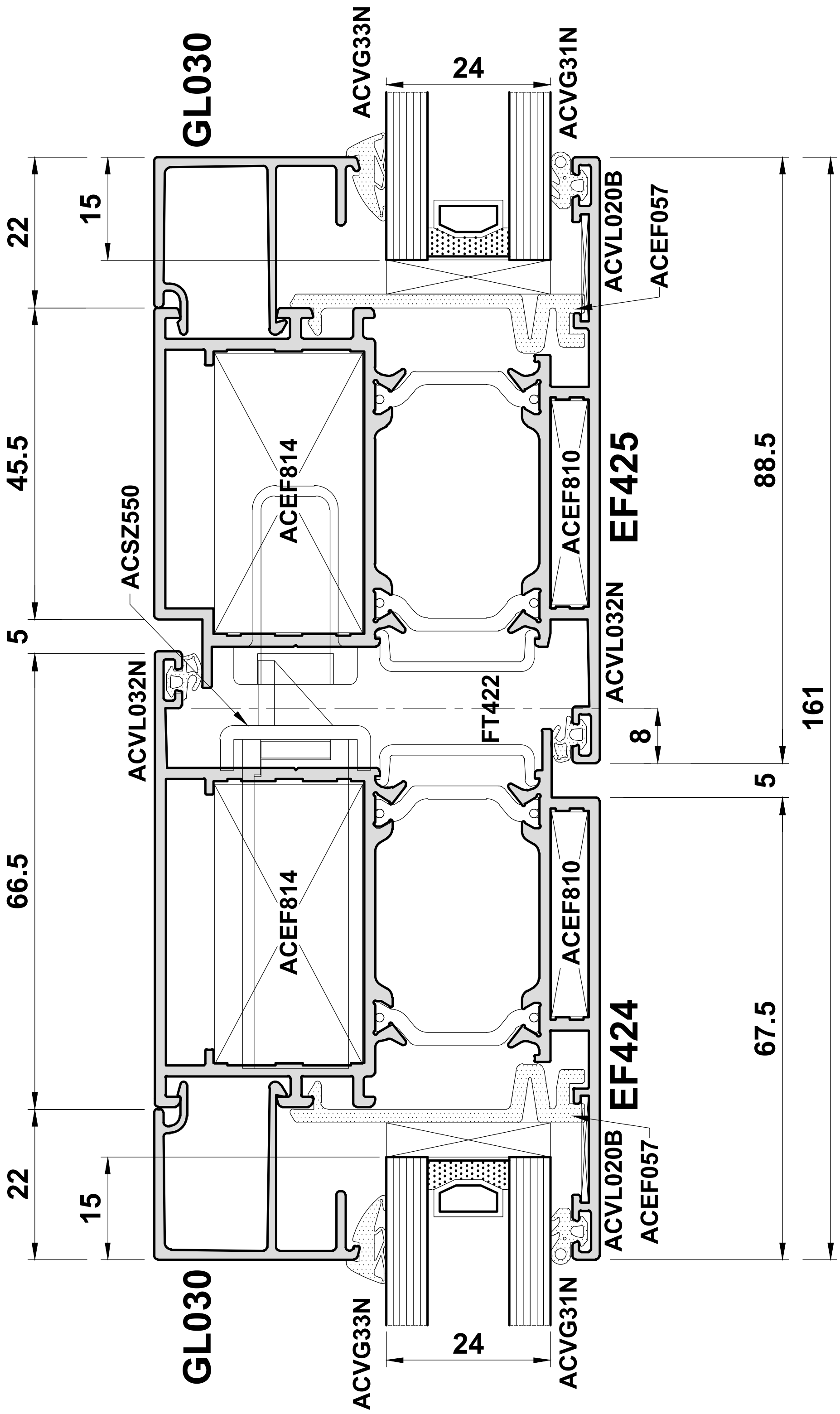
Open In Doors - Detail 31



Do Not Scale From This Drawing

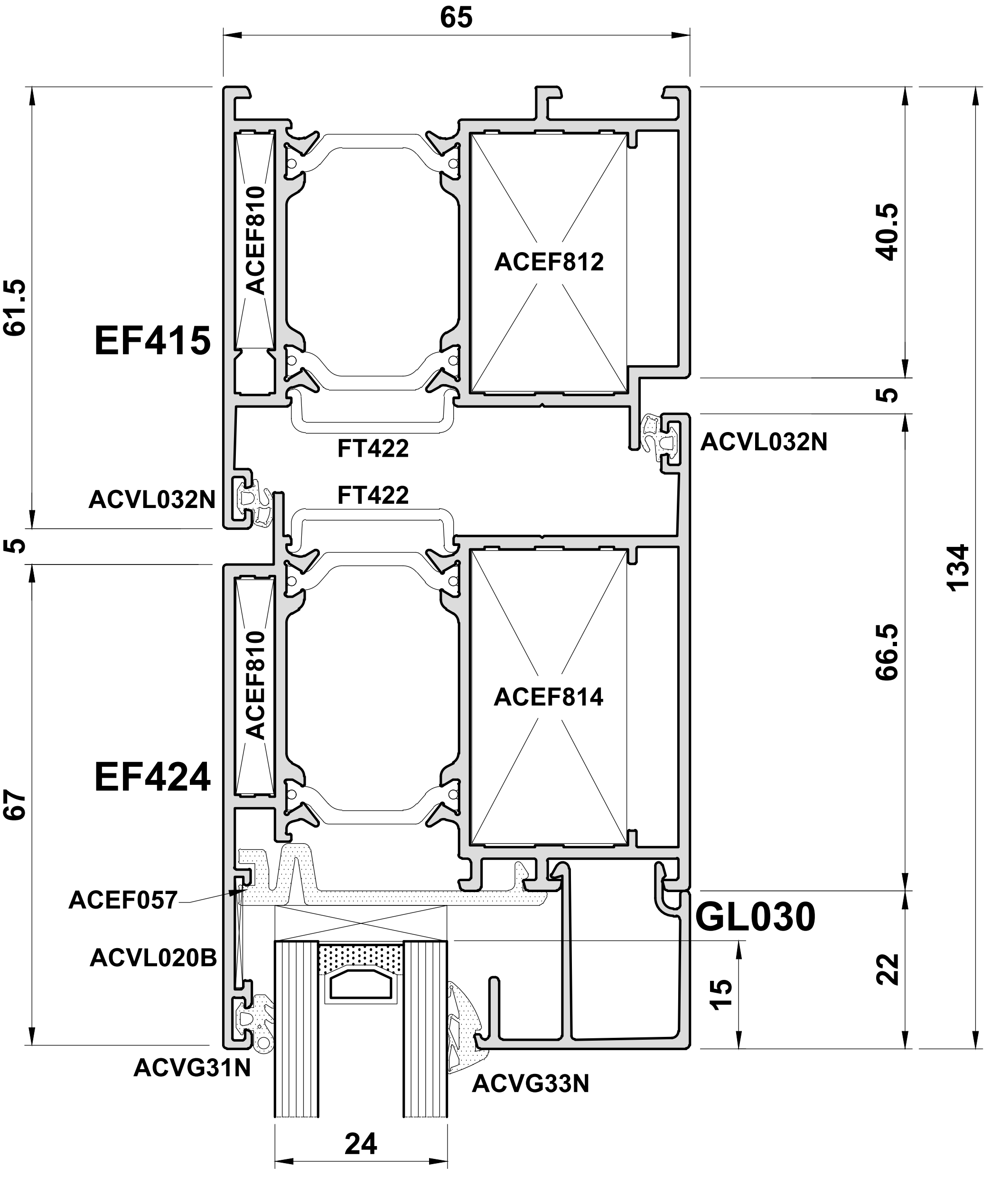
Open In Doors - Detail 32

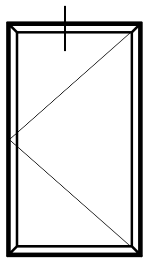




Do Not Scale From This Drawing

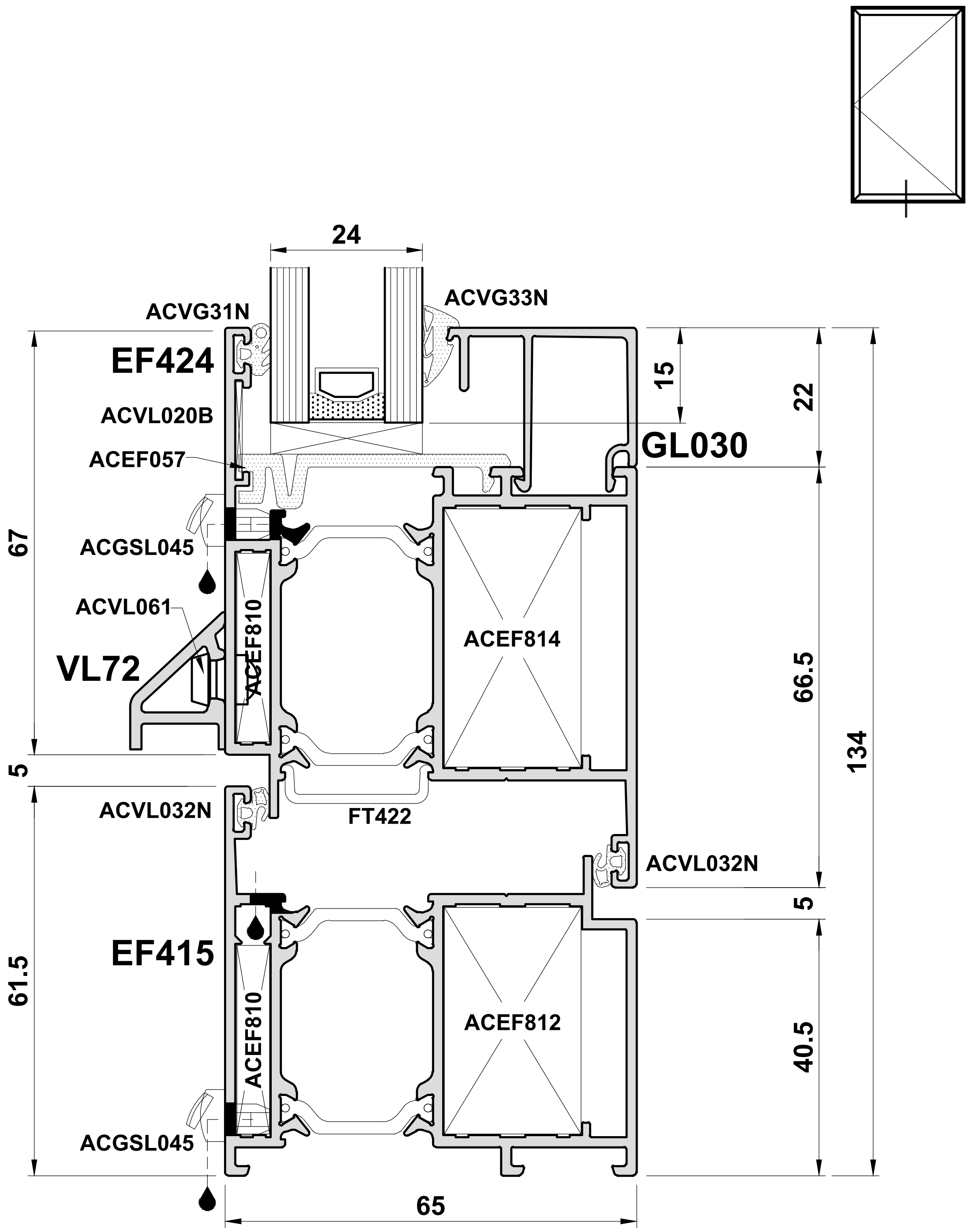
Open In Doors - Detail 33





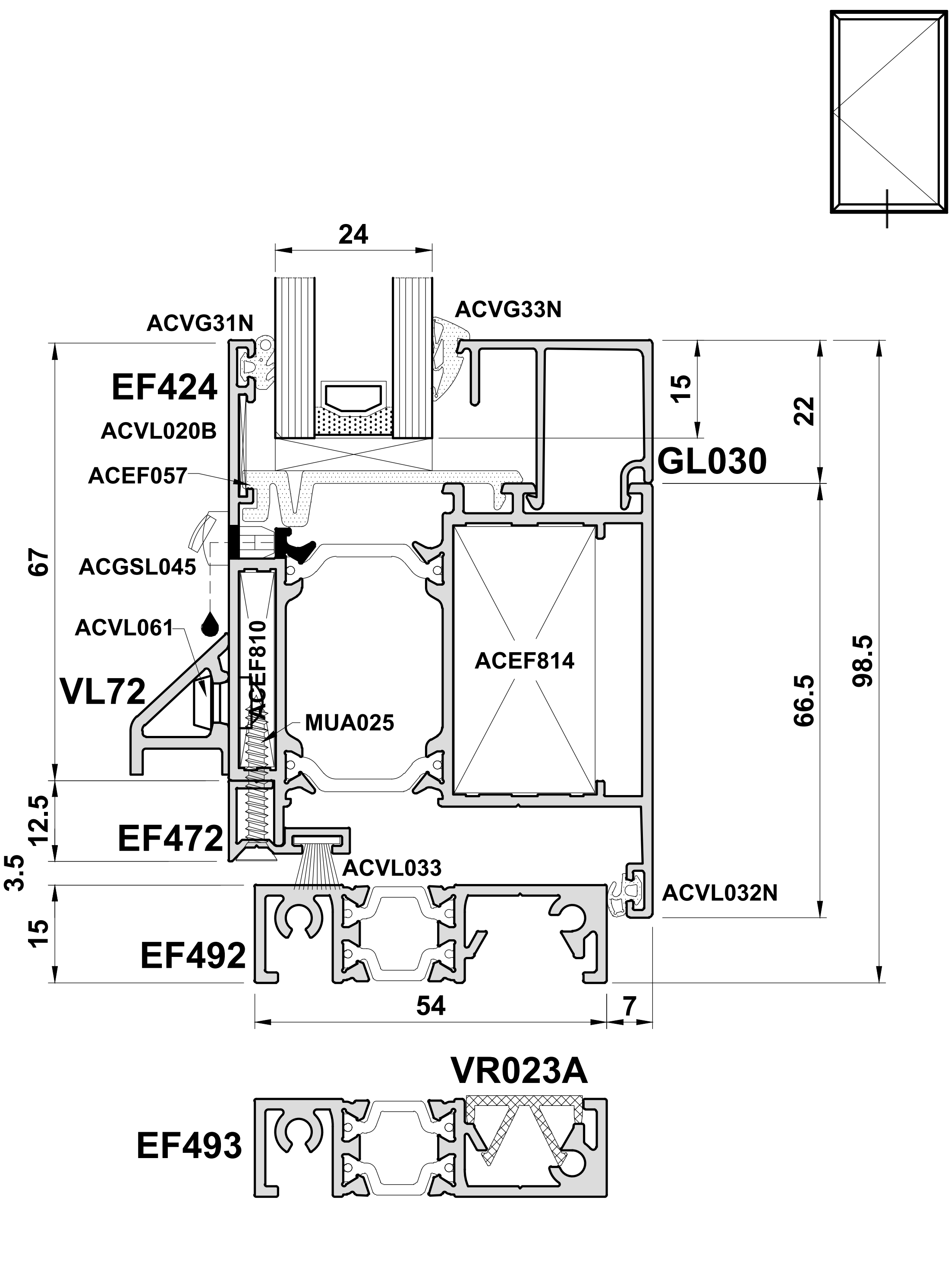
Do Not Scale From This Drawing

Open In Doors - Detail 34A



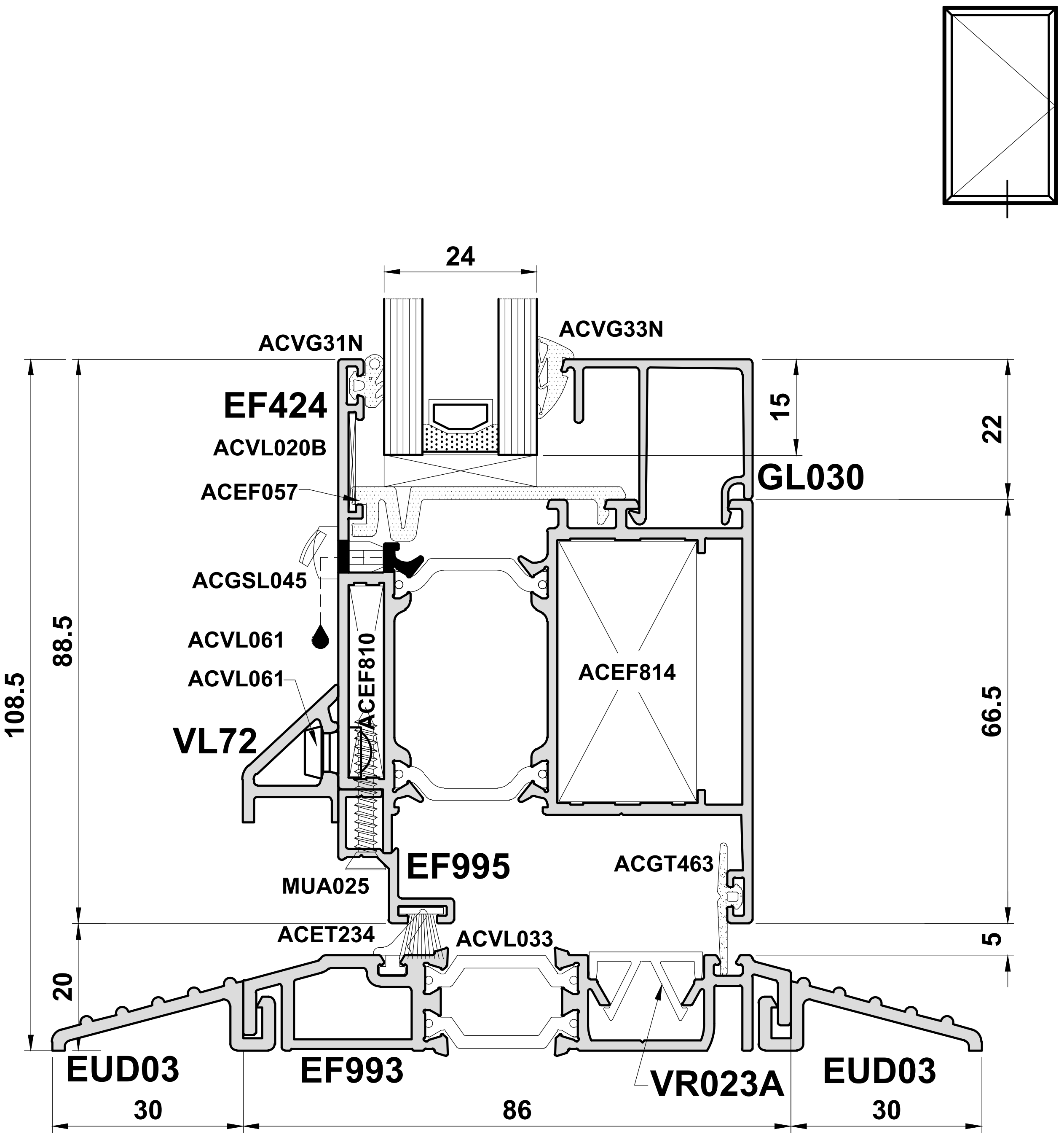
Do Not Scale From This Drawing

Open In Doors - Detail 34B



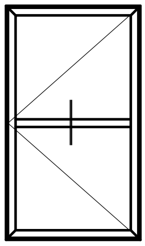
Do Not Scale From This Drawing

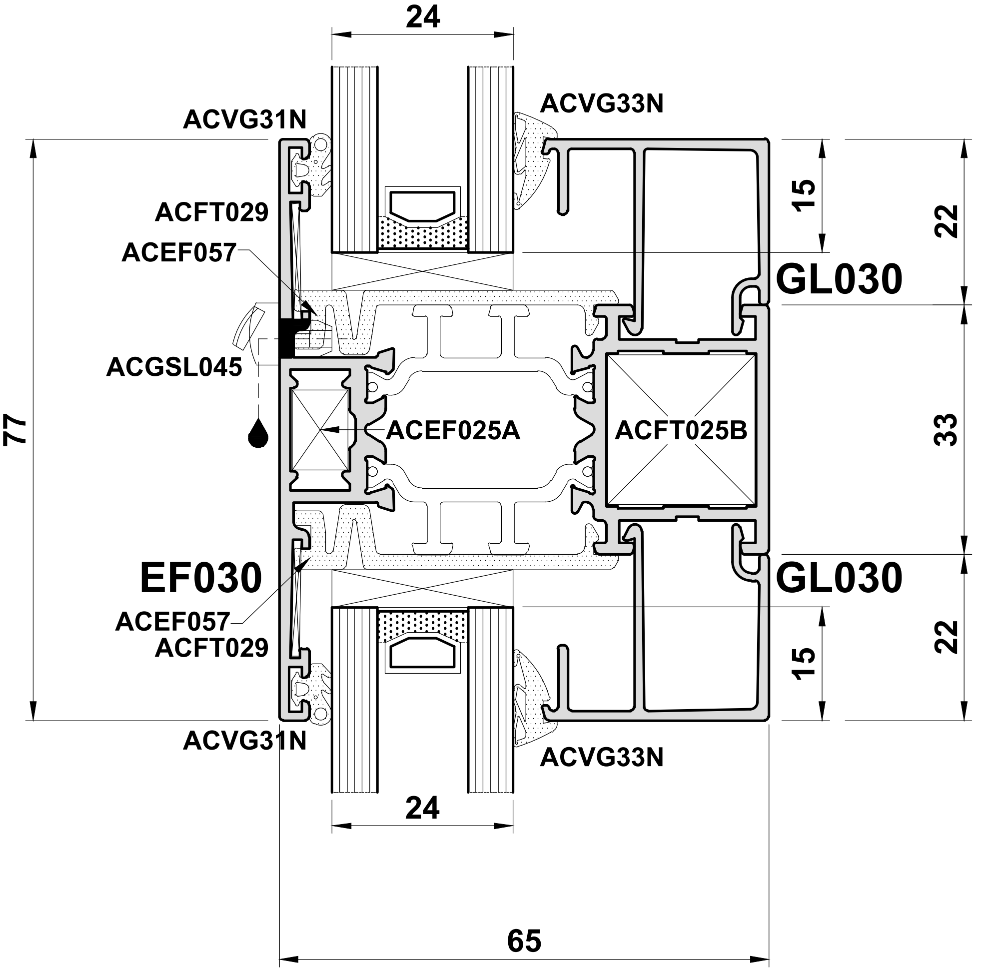
Open In Doors - Detail 34C



Do Not Scale From This Drawing

Open In Doors - Detail 35

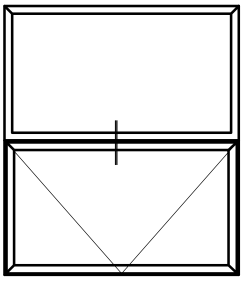


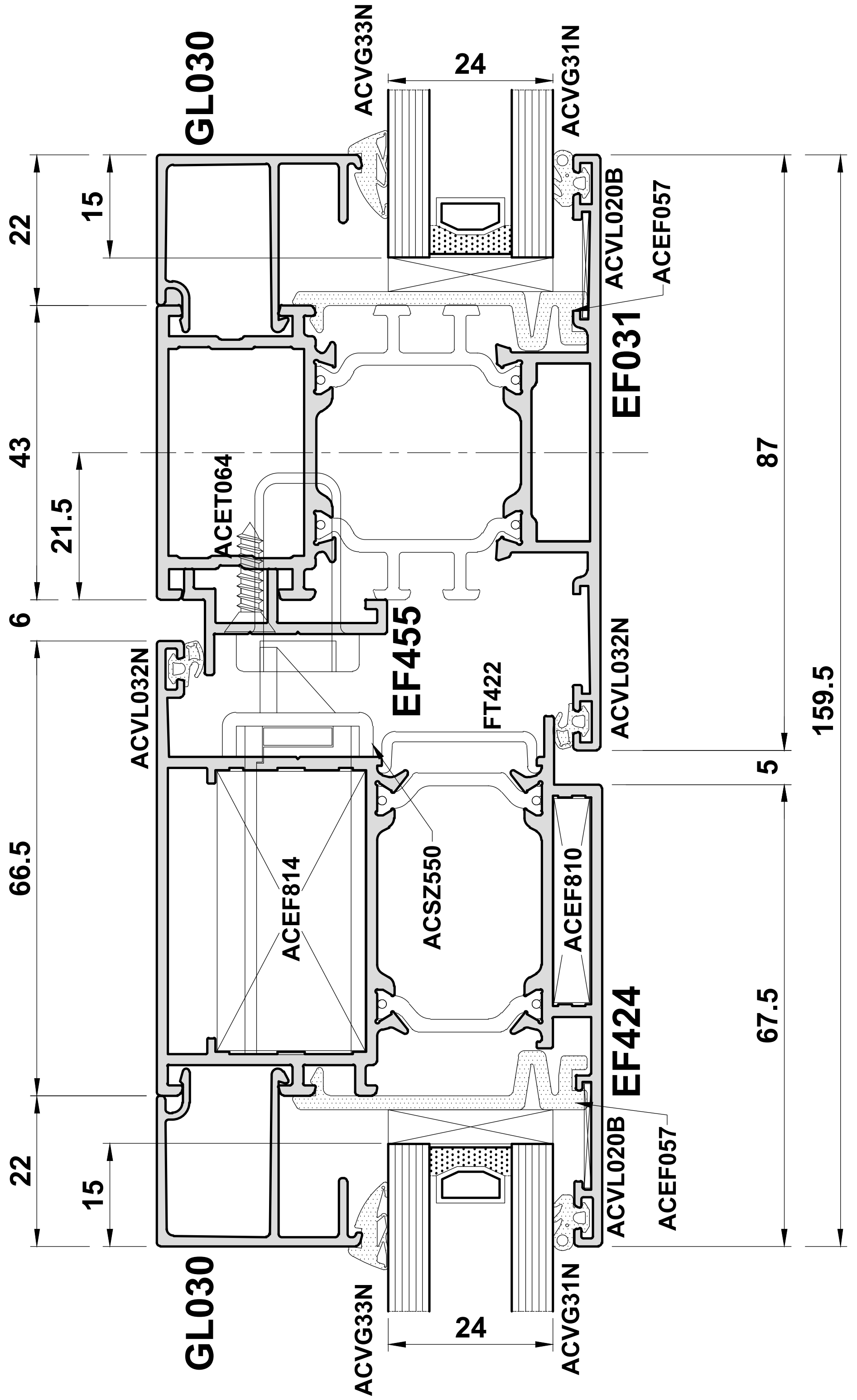


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

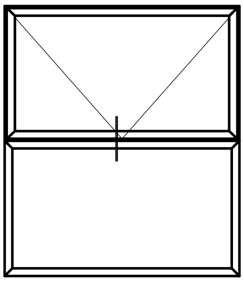
Open In Doors - Detail 36A

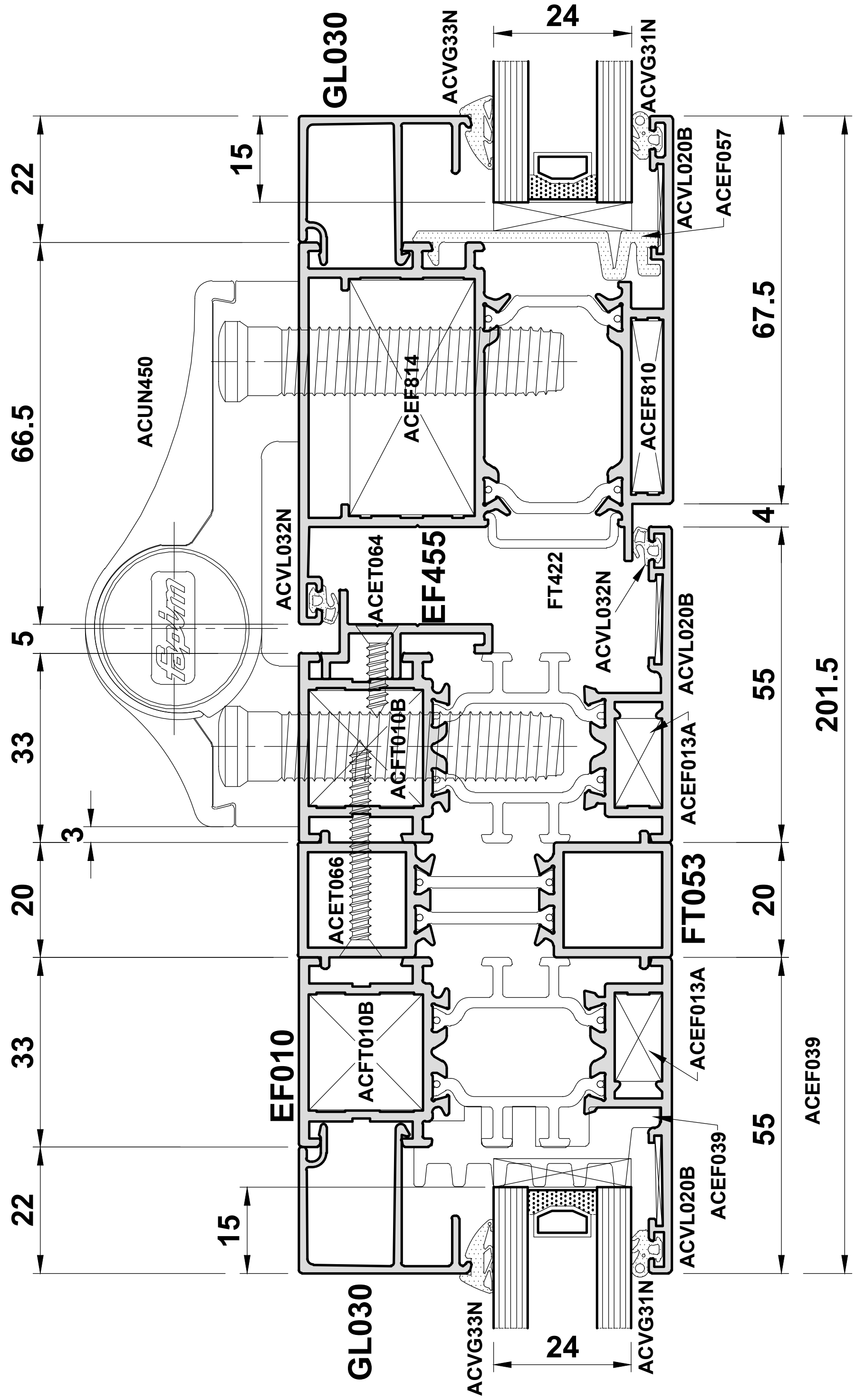




Do Not Scale From This Drawing

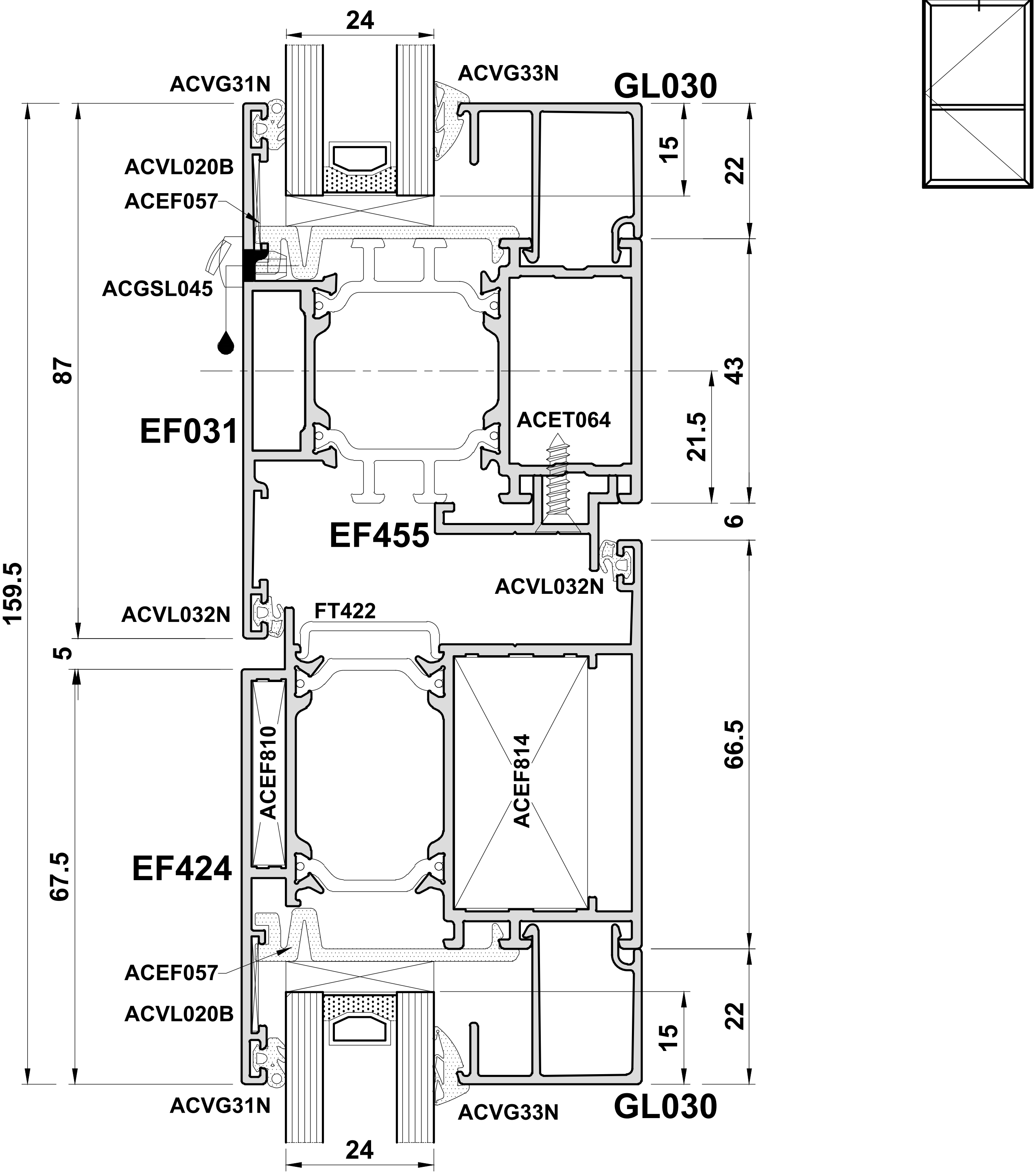
Open In Doors - Detail 36B





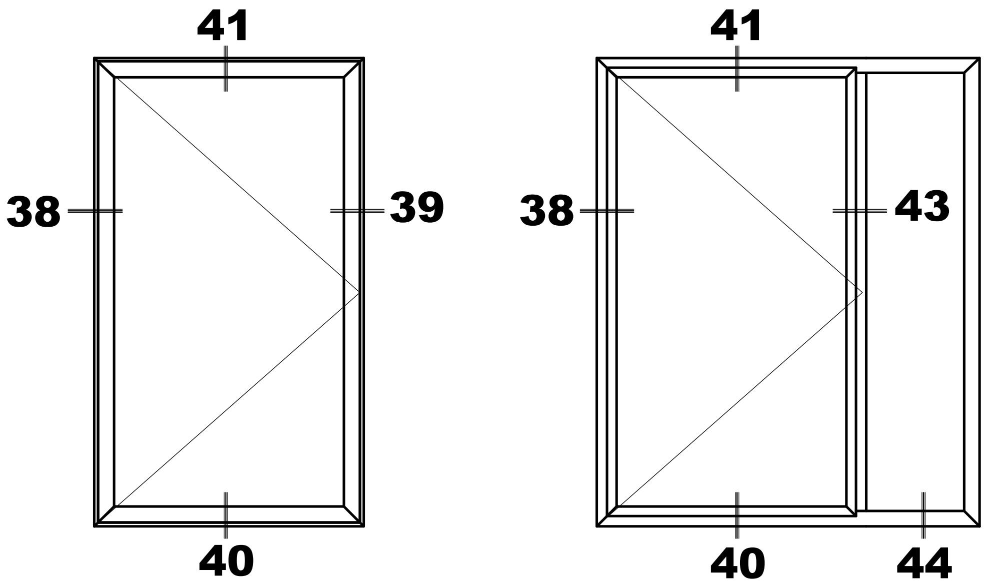
Do Not Scale From This Drawing

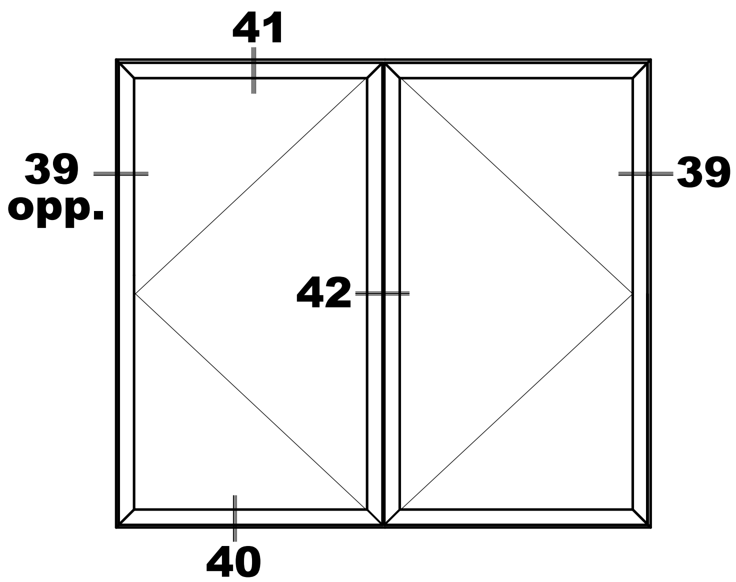
Open In Doors - Detail 37



Do Not Scale From This Drawing

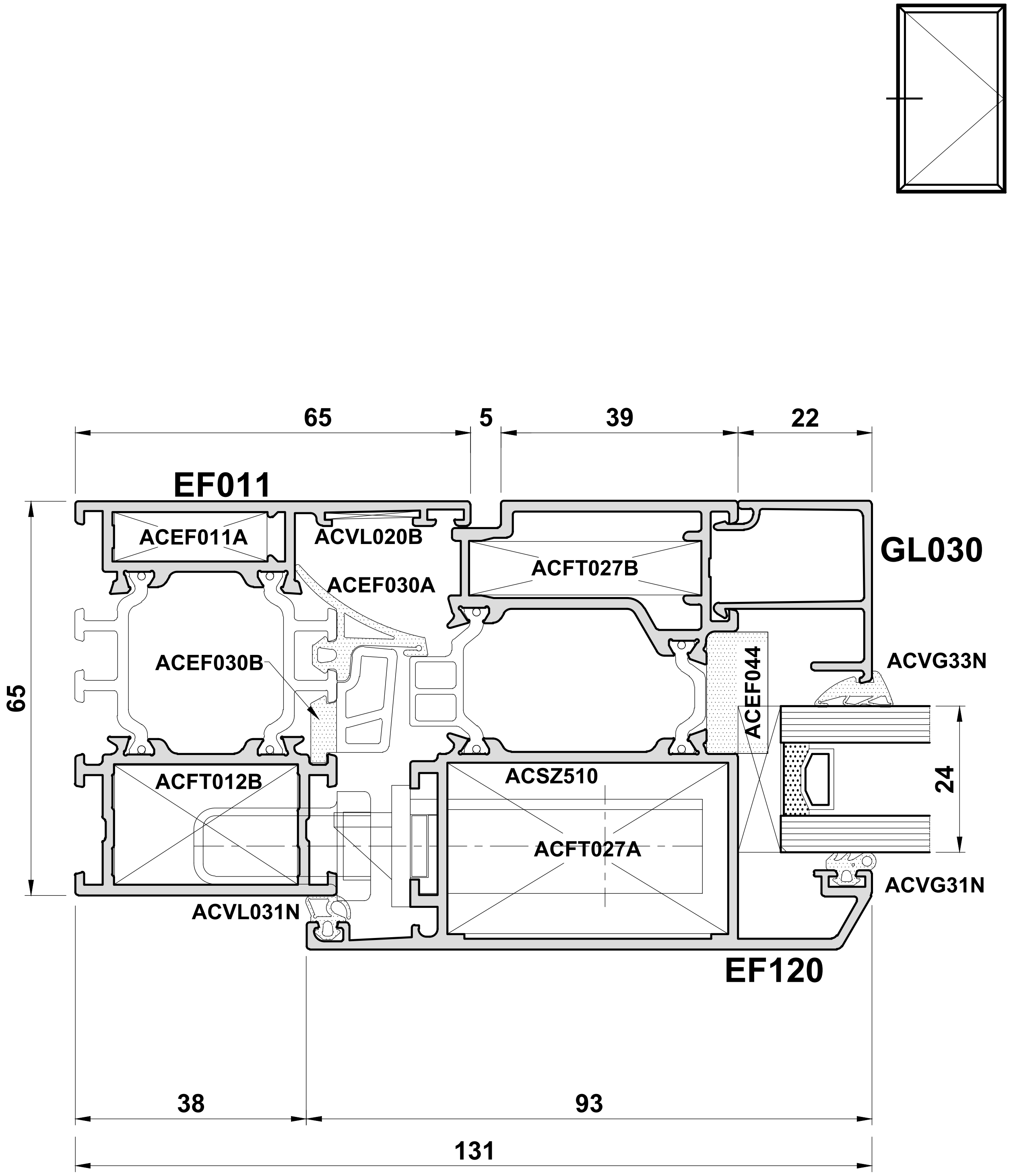
Open Out Doors - Scale Elevations





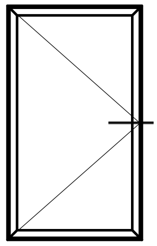
Do Not Scale From This Drawing

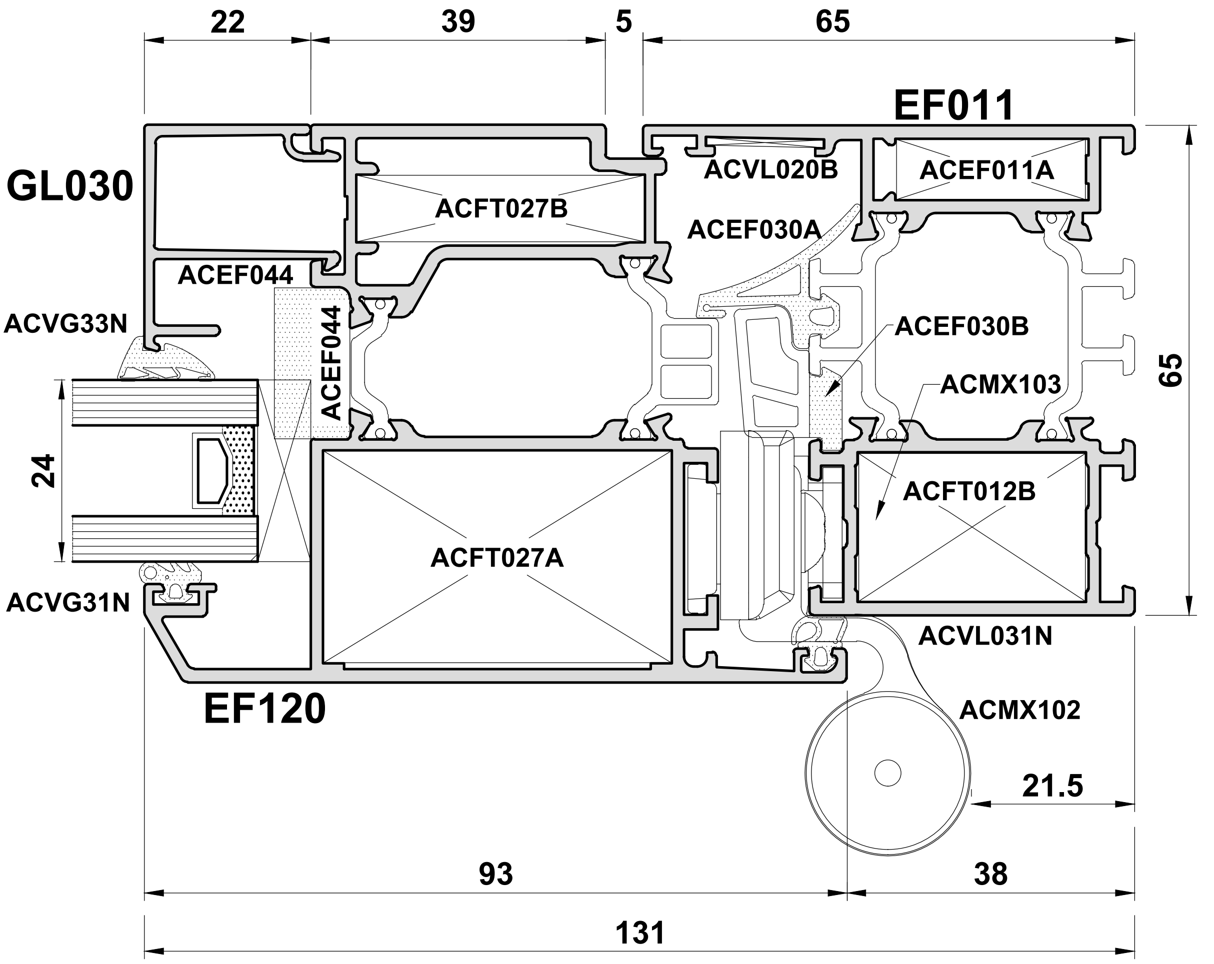
Open Out Doors - Detail 38



Do Not Scale From This Drawing

Open Out Doors - Detail 39

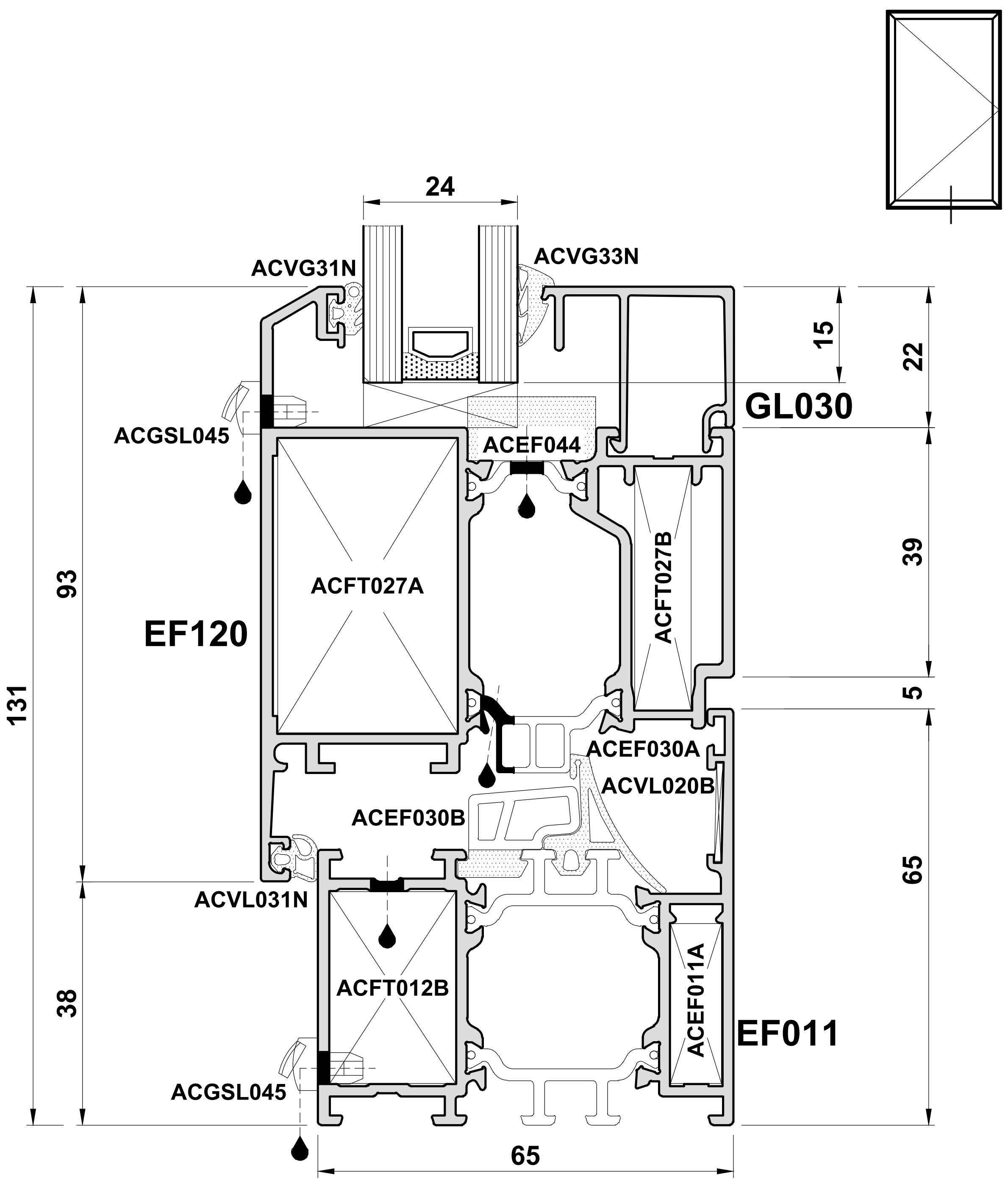




Do Not Scale From This Drawing

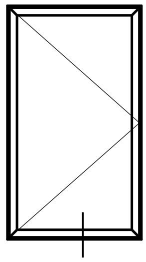
ISSUED: DECEMBER 2018

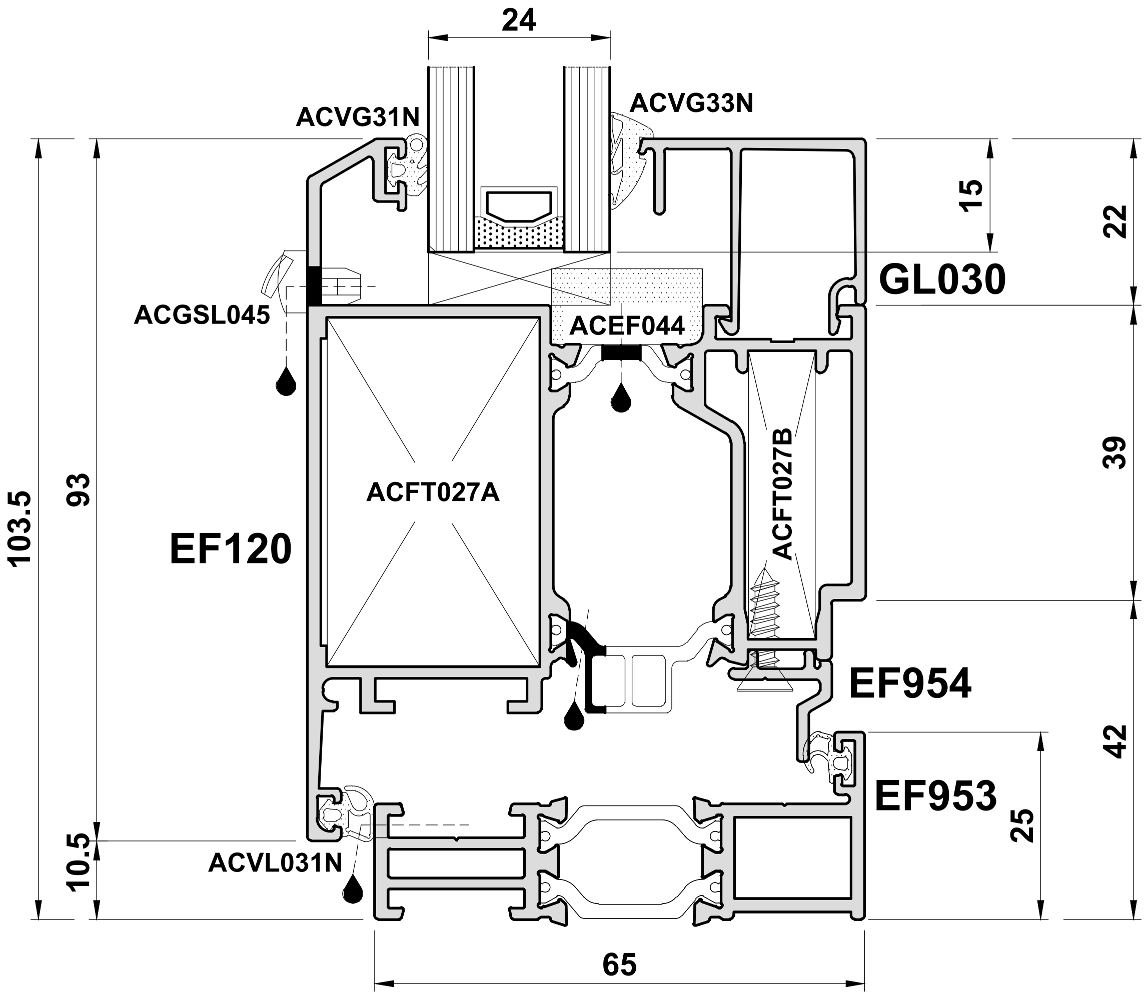
Open Out Doors - Detail 40A



Do Not Scale From This Drawing

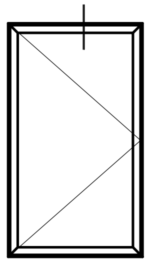
Open Out Doors - Detail 40B

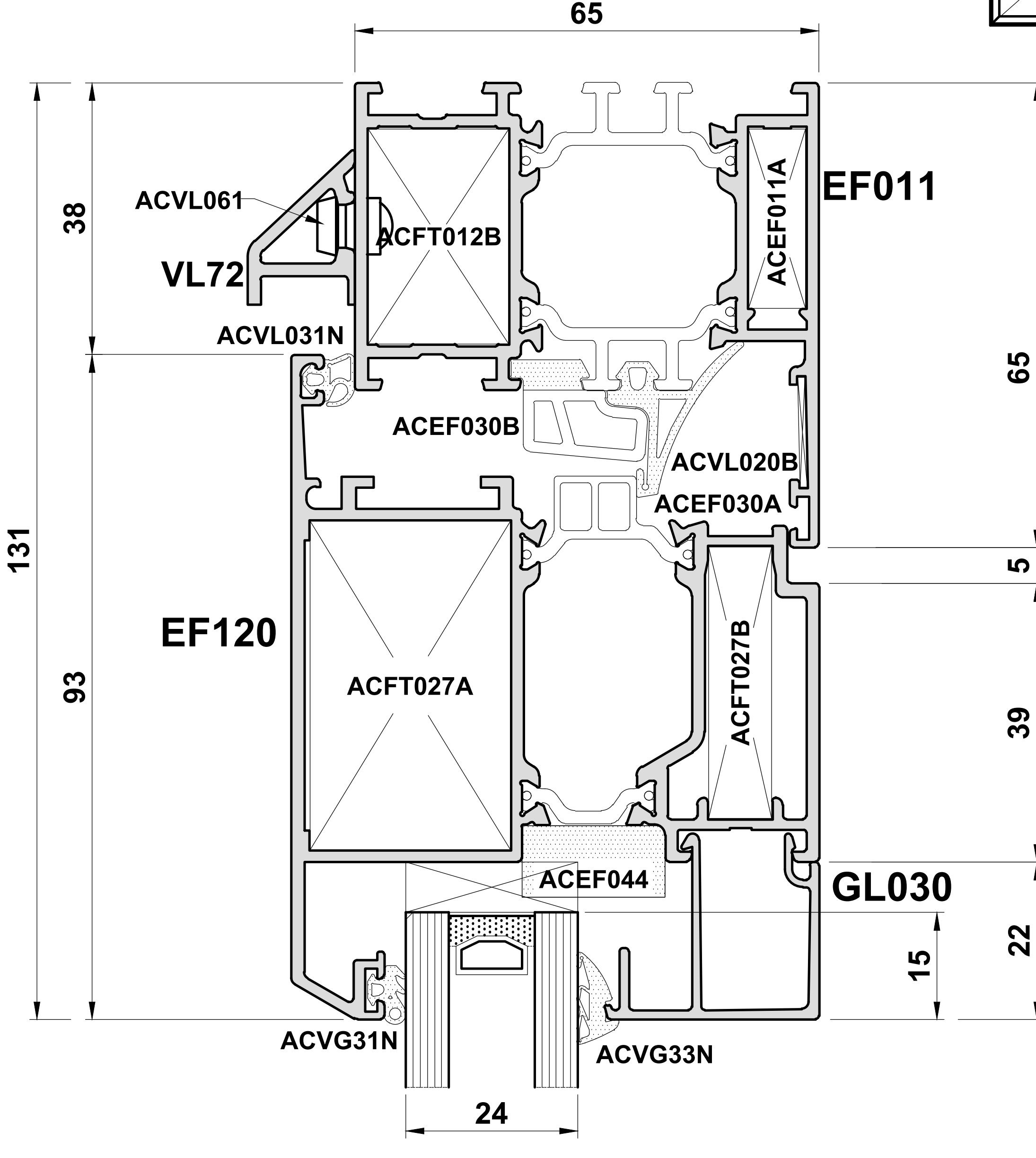




Do Not Scale From This Drawing

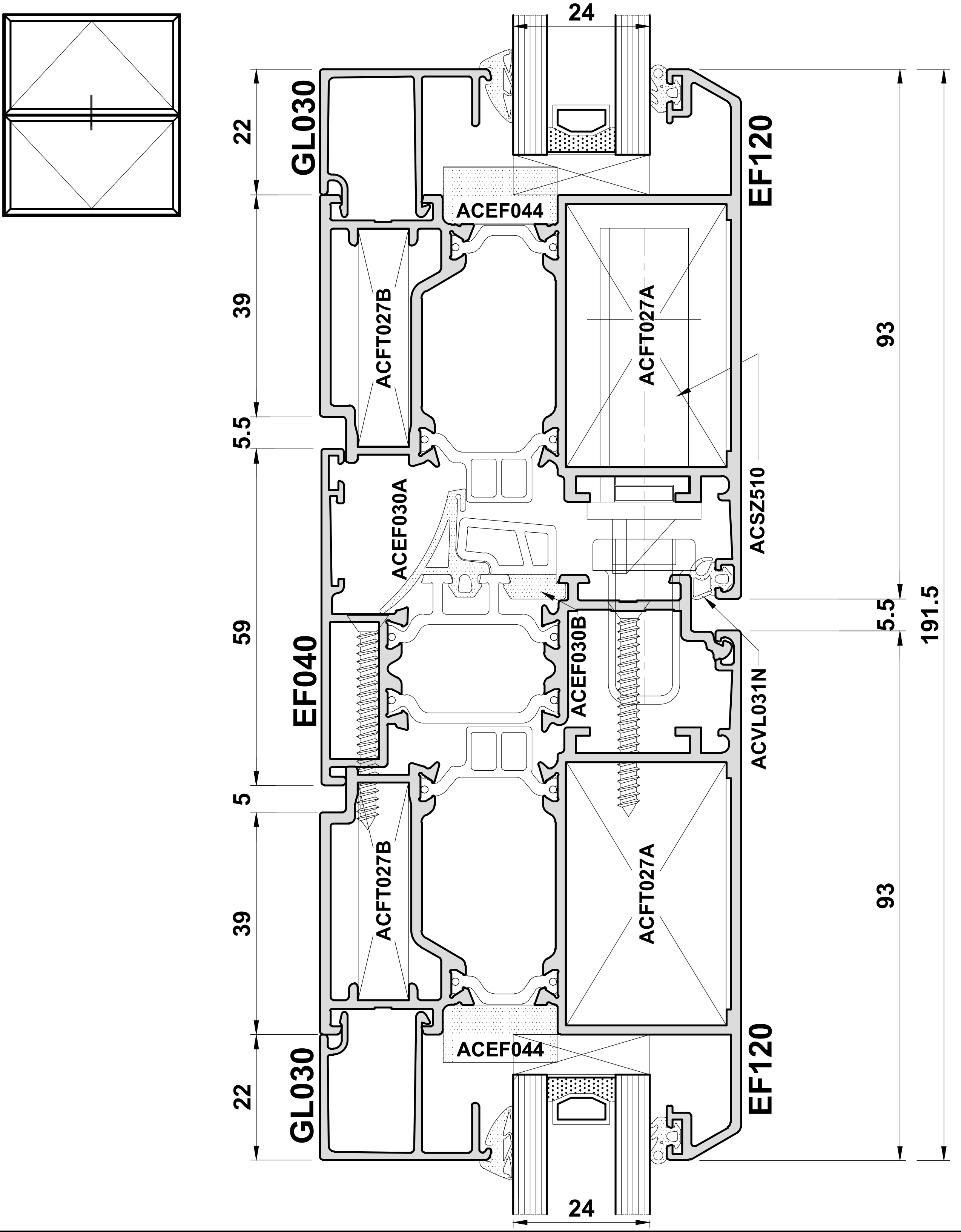
Open Out Doors - Detail 41





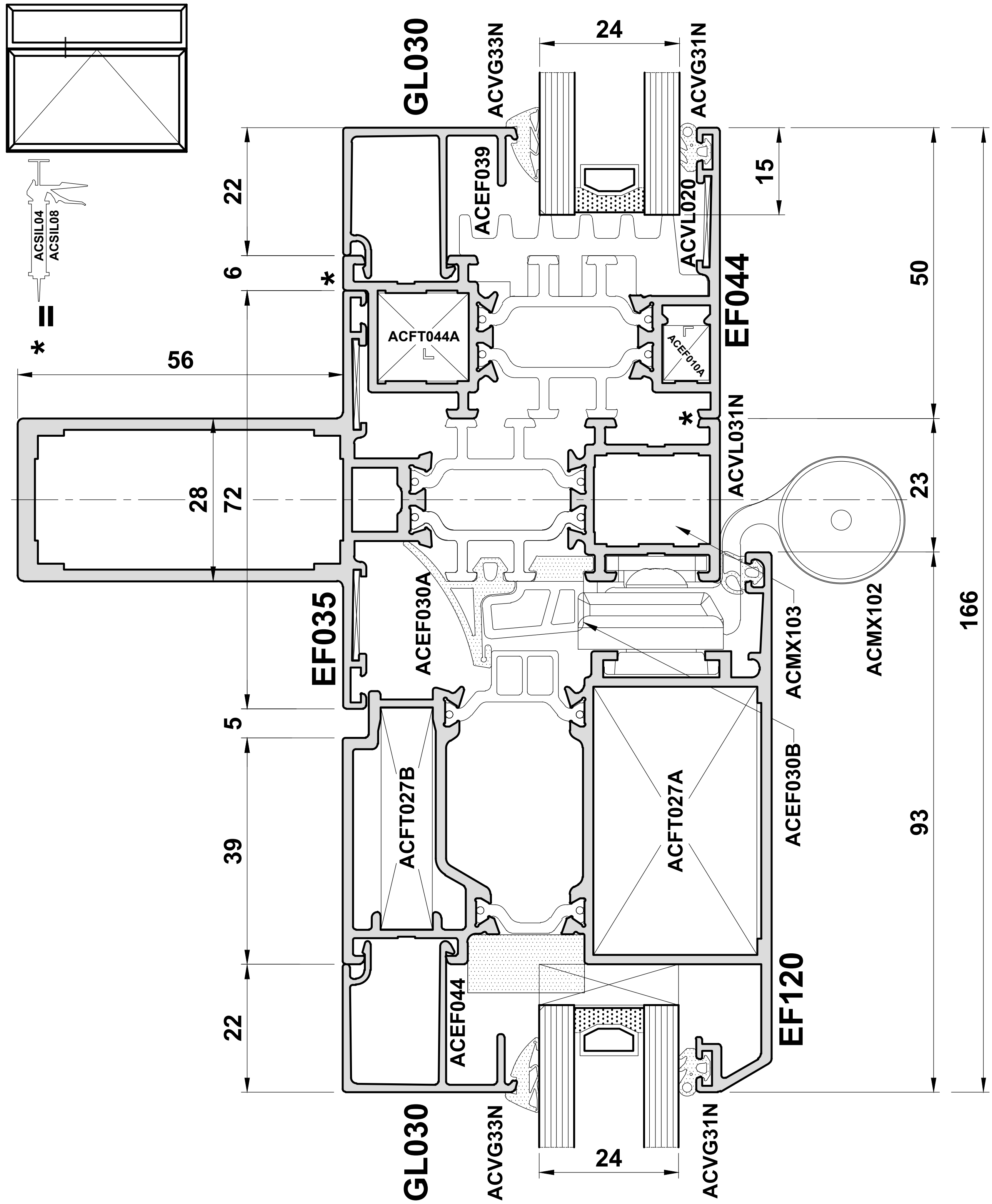
Do Not Scale From This Drawing

Open Out Doors - Detail 42



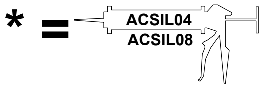
Do Not Scale From This Drawing

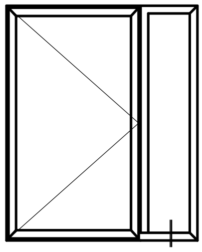
Open Out Doors - Detail 43

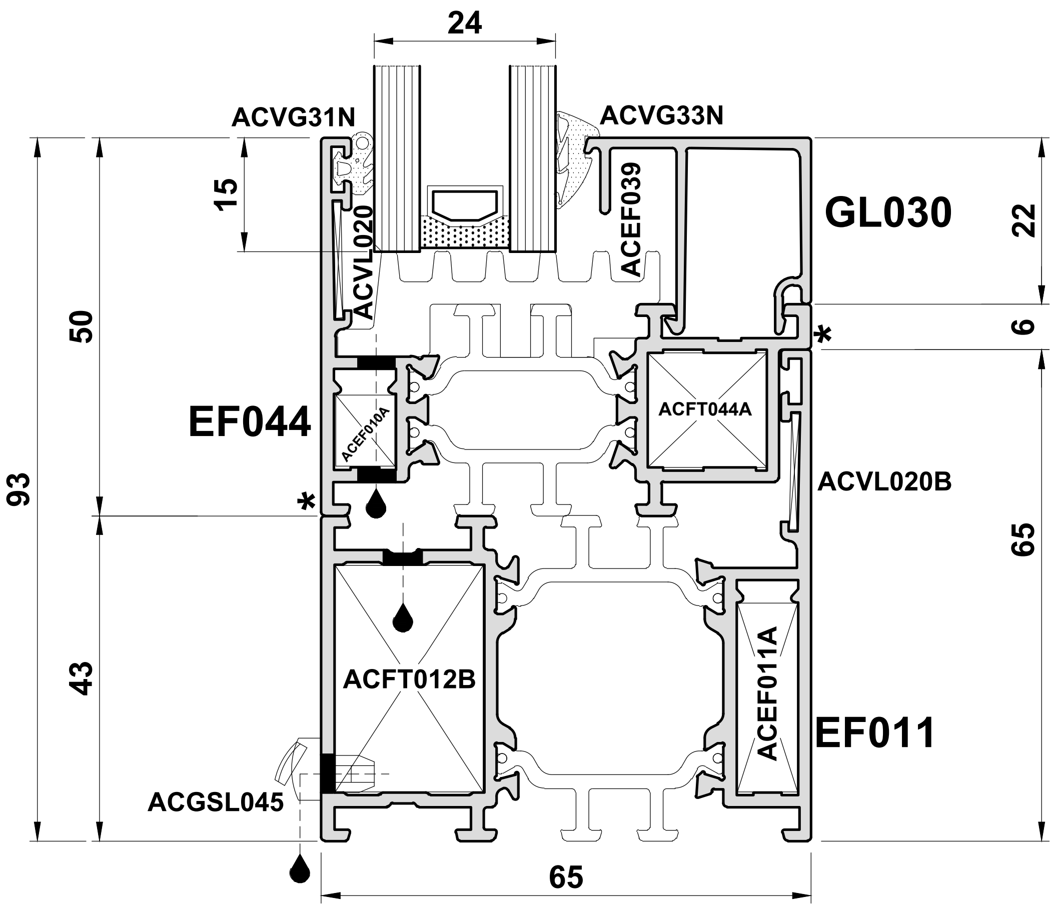


Do Not Scale From This Drawing

Open Out Doors - Detail 44

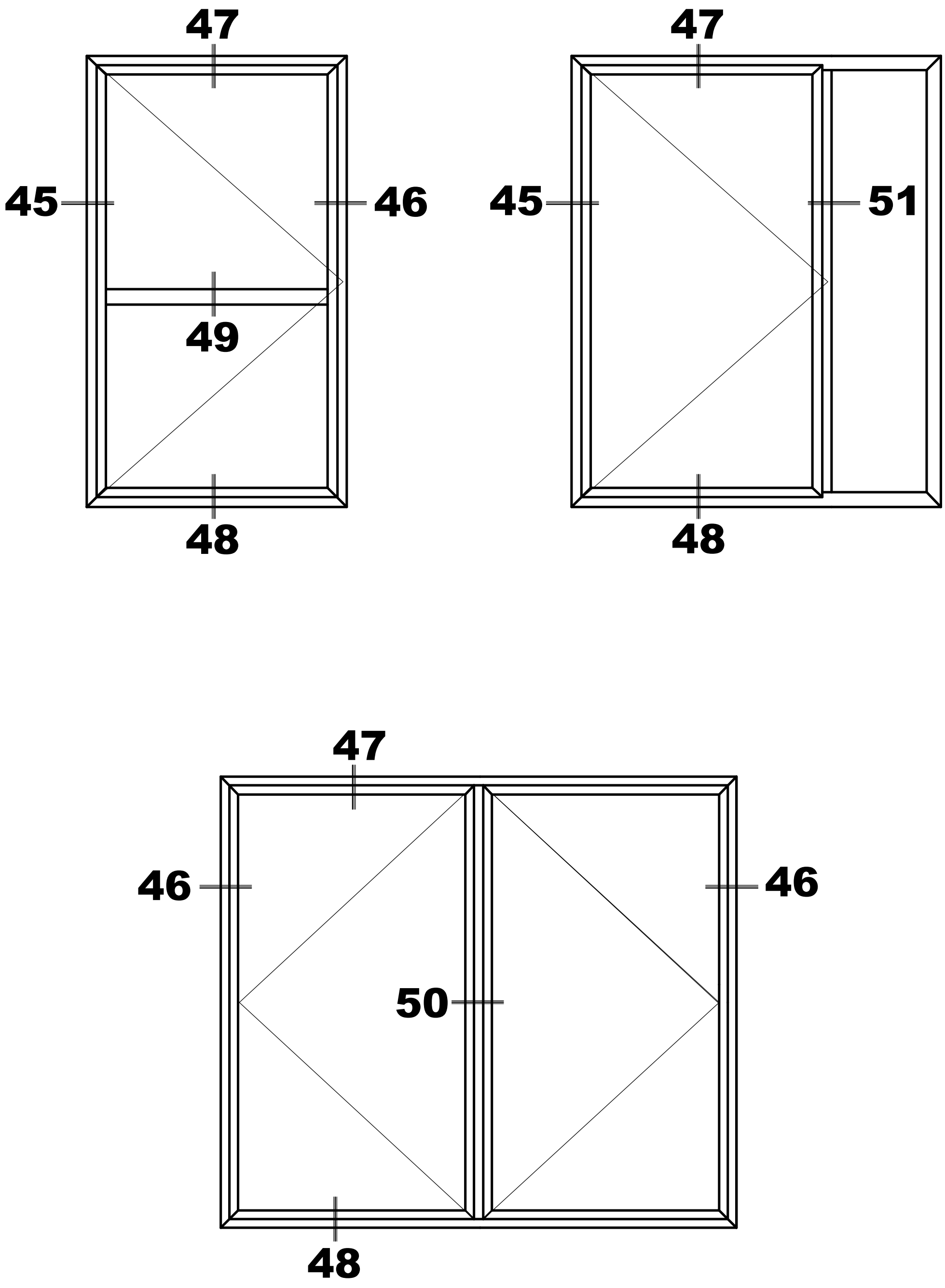






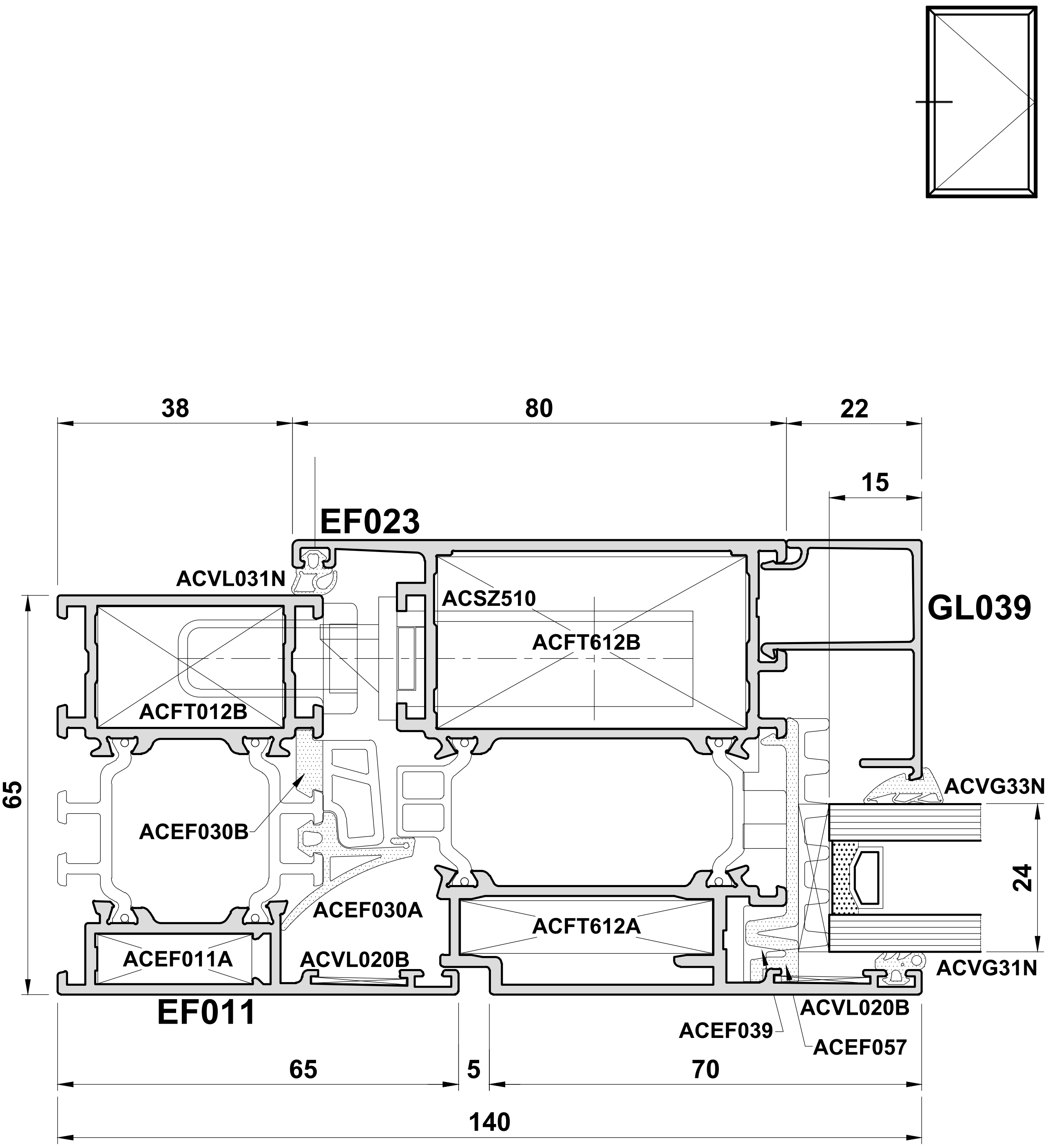
Do Not Scale From This Drawing

Open In Doors - Scale Elevations



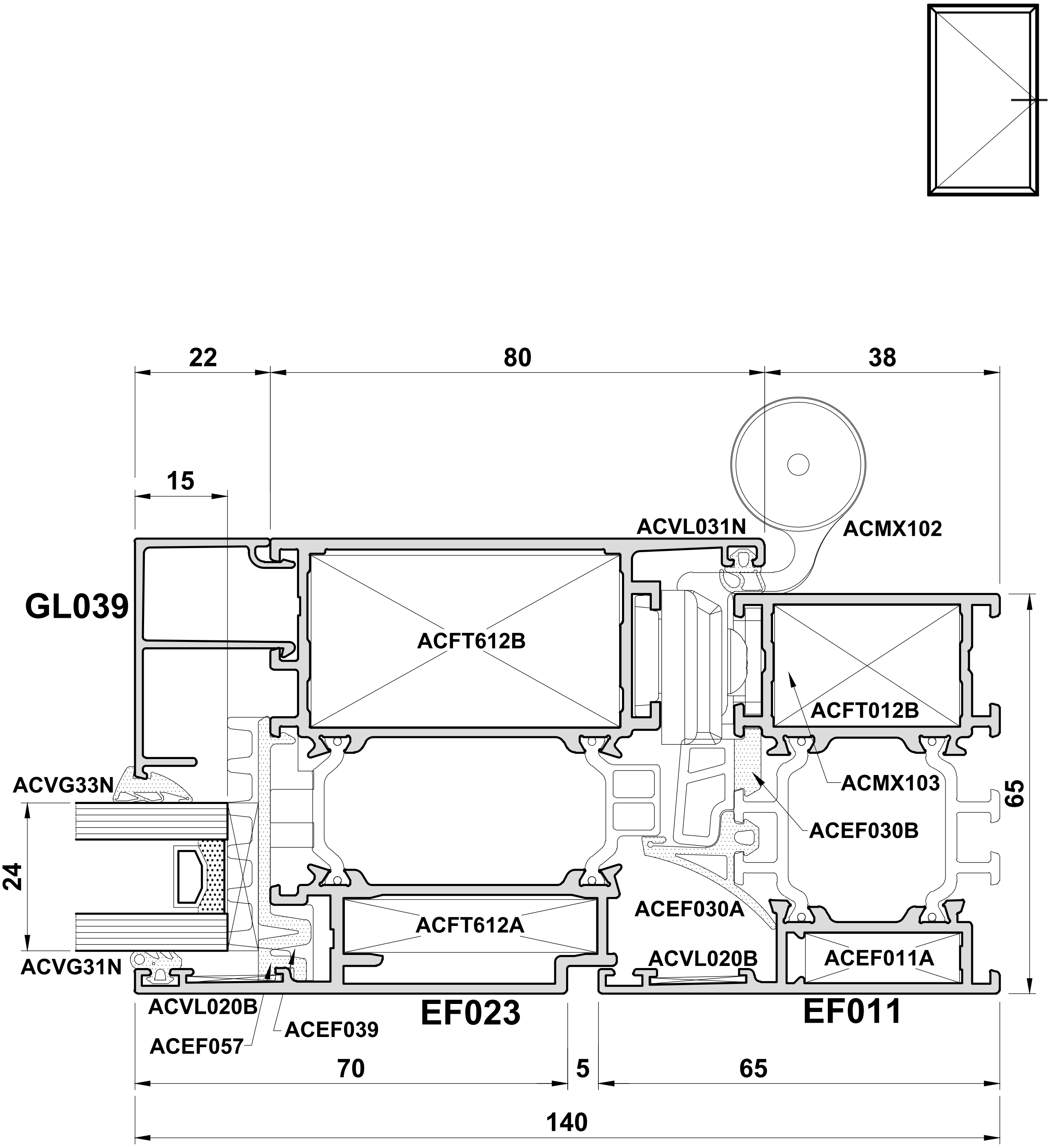
Do Not Scale From This Drawing

Open In Doors - Detail 45



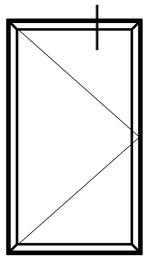
Do Not Scale From This Drawing

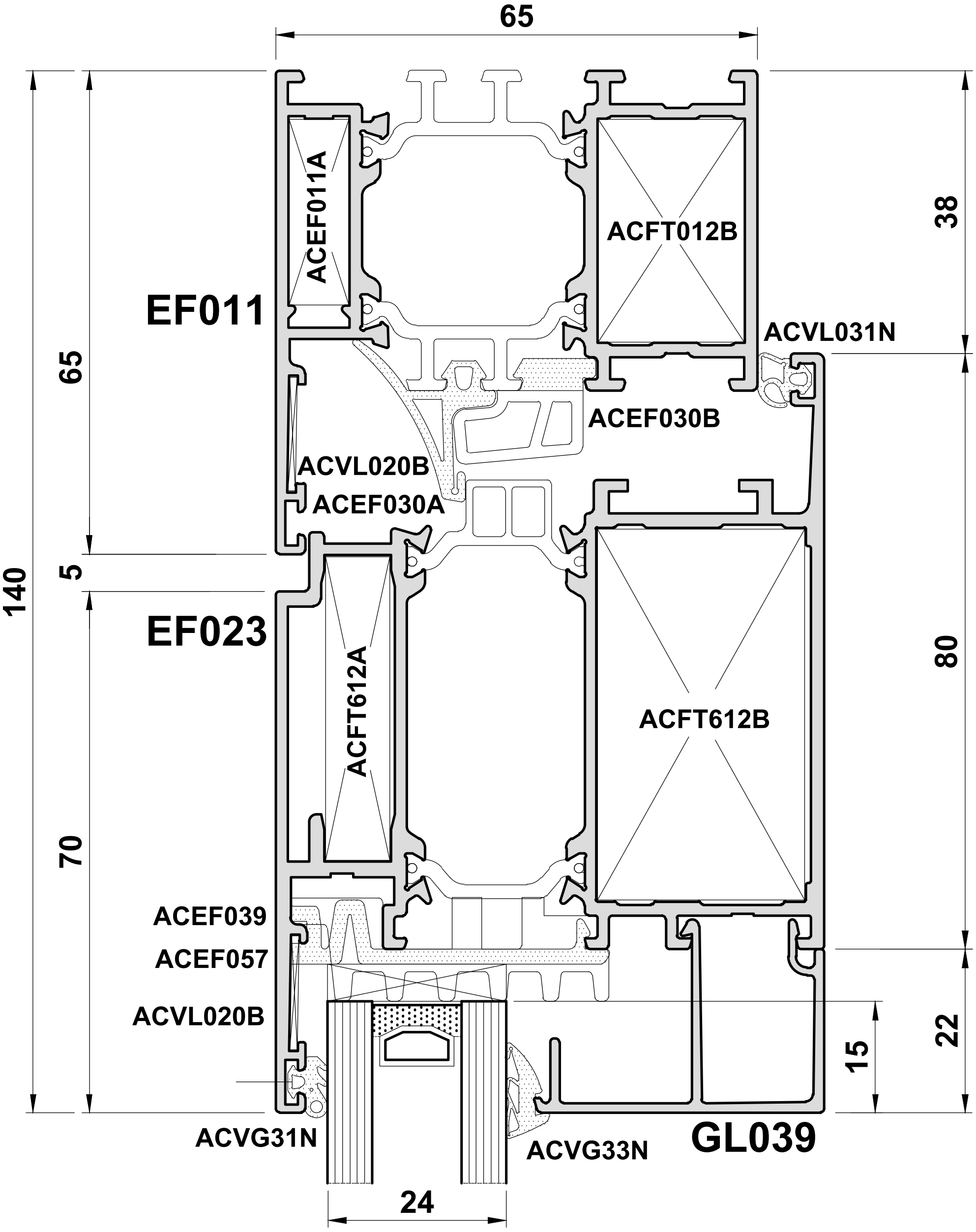
Open In Doors - Detail 46



Do Not Scale From This Drawing

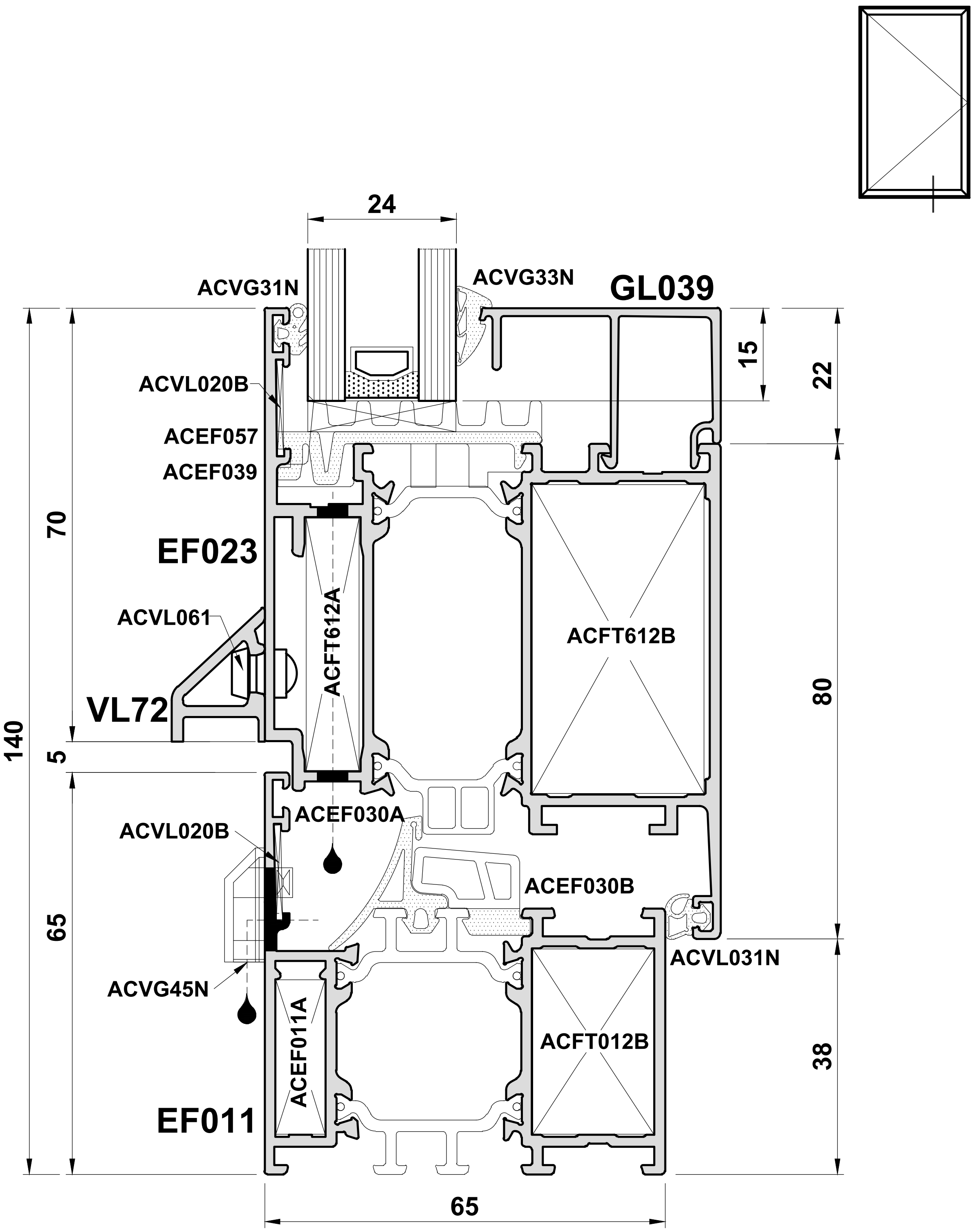
Open In Doors - Detail 47





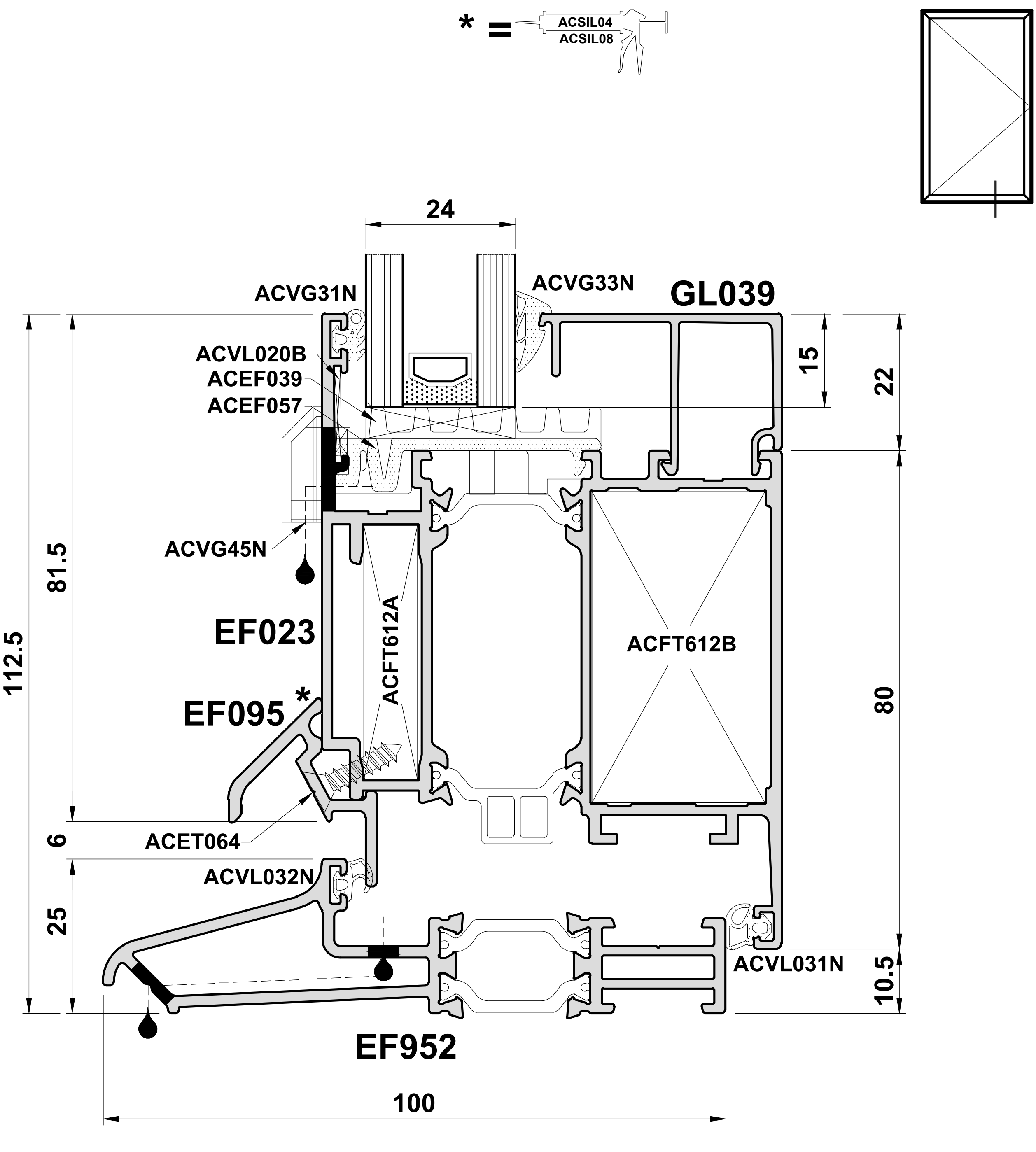
Do Not Scale From This Drawing

Open In Doors - Detail 48A



Do Not Scale From This Drawing

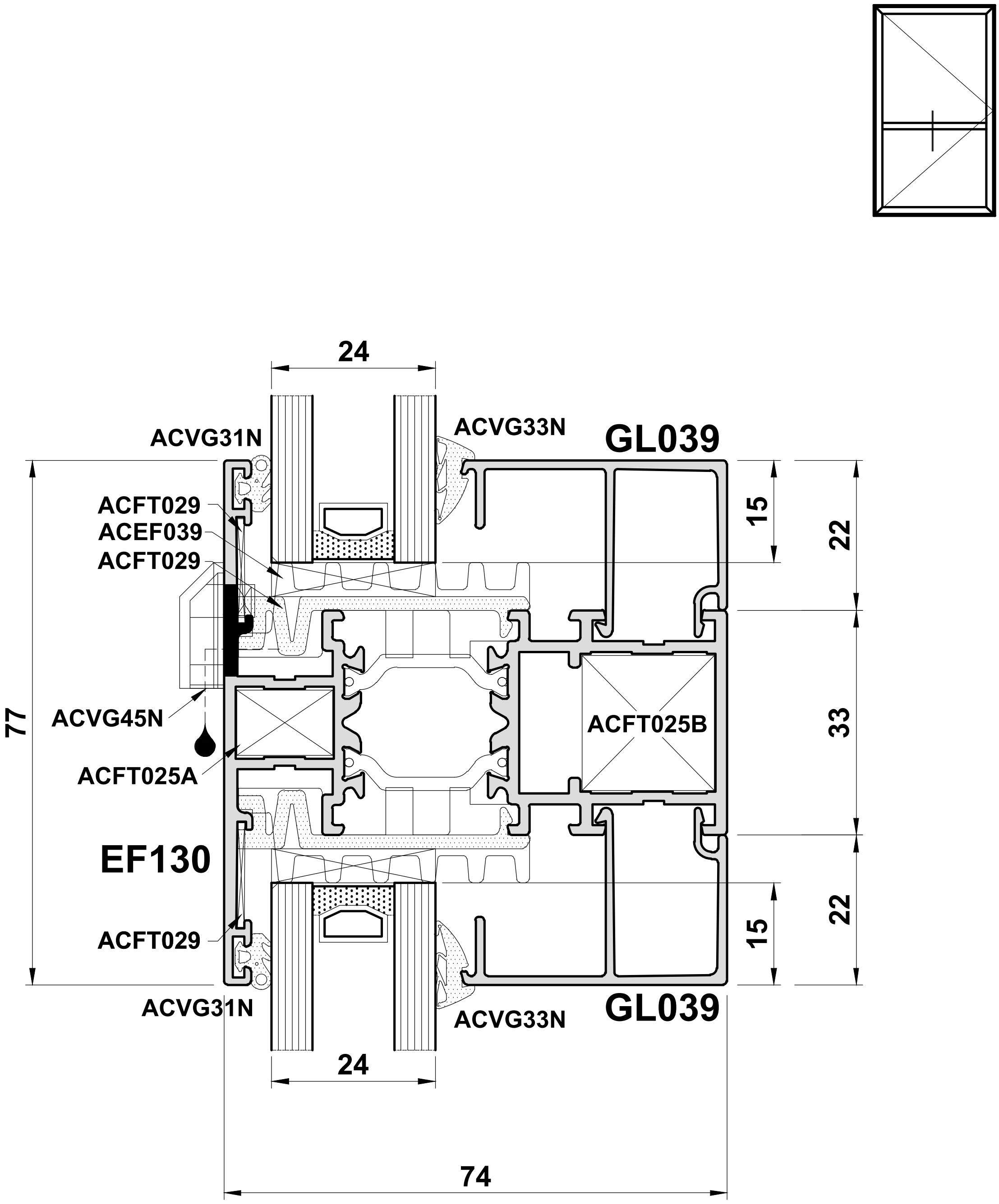
Open In Doors - Detail 48B



Do Not Scale From This Drawing

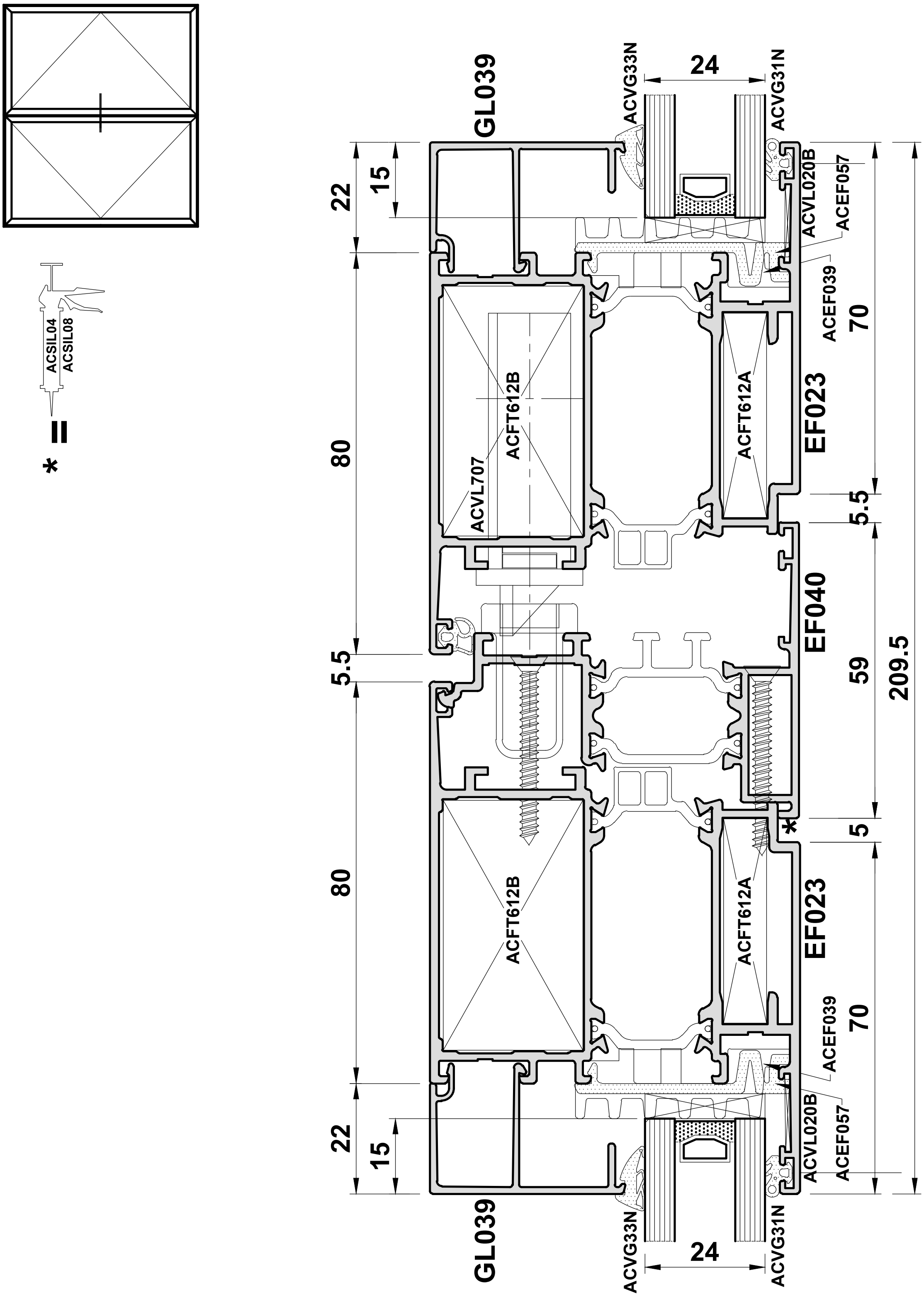
ISSUED: DECEMBER 2018

Open In Doors - Detail 49



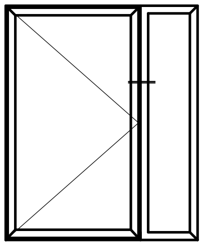
Do Not Scale From This Drawing

Open In Doors - Detail 50

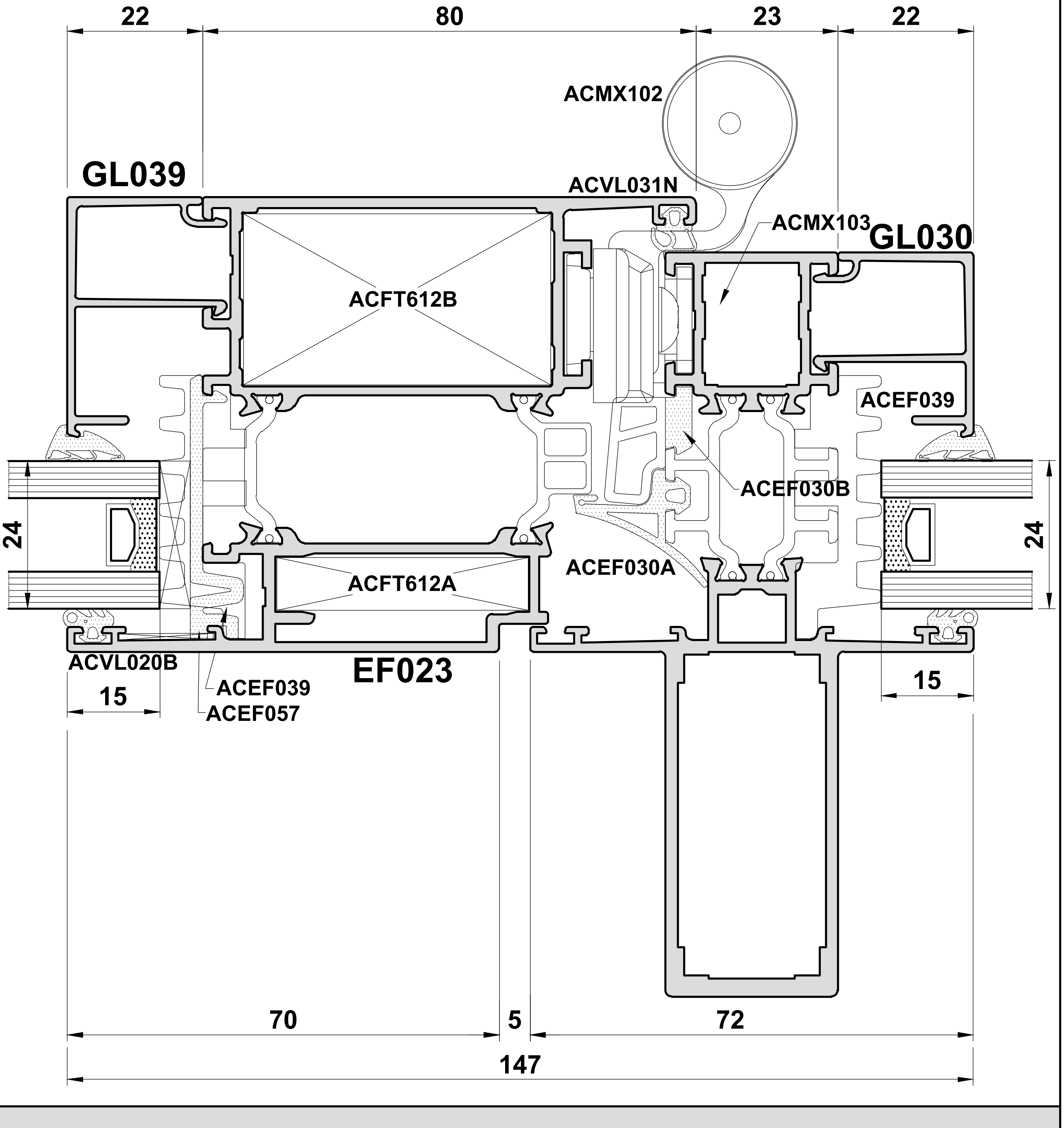


Do Not Scale From This Drawing

Open In Doors - Detail 51



Note: Mullion detail not compatible with EF952 threshold



Do Not Scale From This Drawing

This page is intentionally left blank

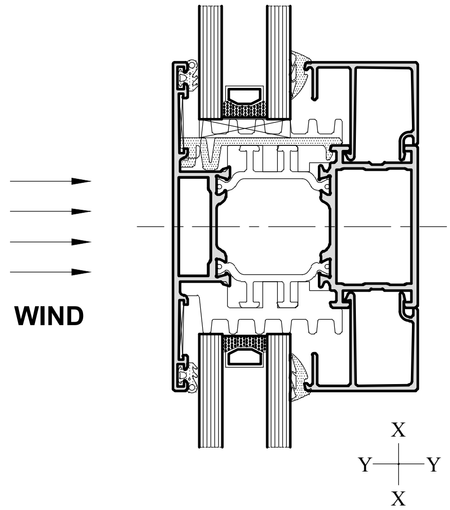
Do Not Scale From This Drawing

Section D

Statics

General Size Limitations are shown on Page A05.

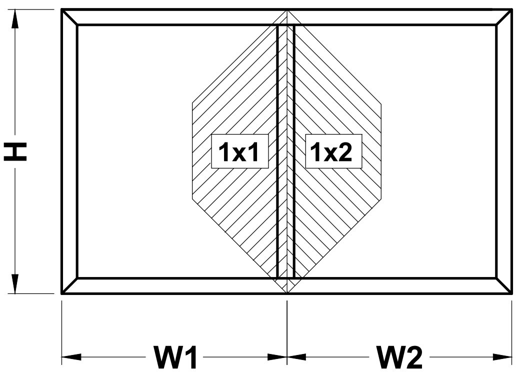
**For Additional Wind Loading Limitations,
Please Contact
The Technical Department - T: 01934 876100**



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 = 180cm

W1 = 120cm

W2 = 100cm

P = 1250 Pa (wind pressure)

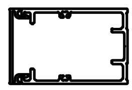
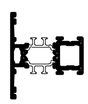
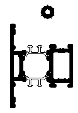
1) Determine Ixx value for the stiles (if required) using the Specification Wizard

Ixx = 29.8 cm4

2) **Determine suitability**

OK

E = Reinforcement Externally
I = Reinforcement Internally

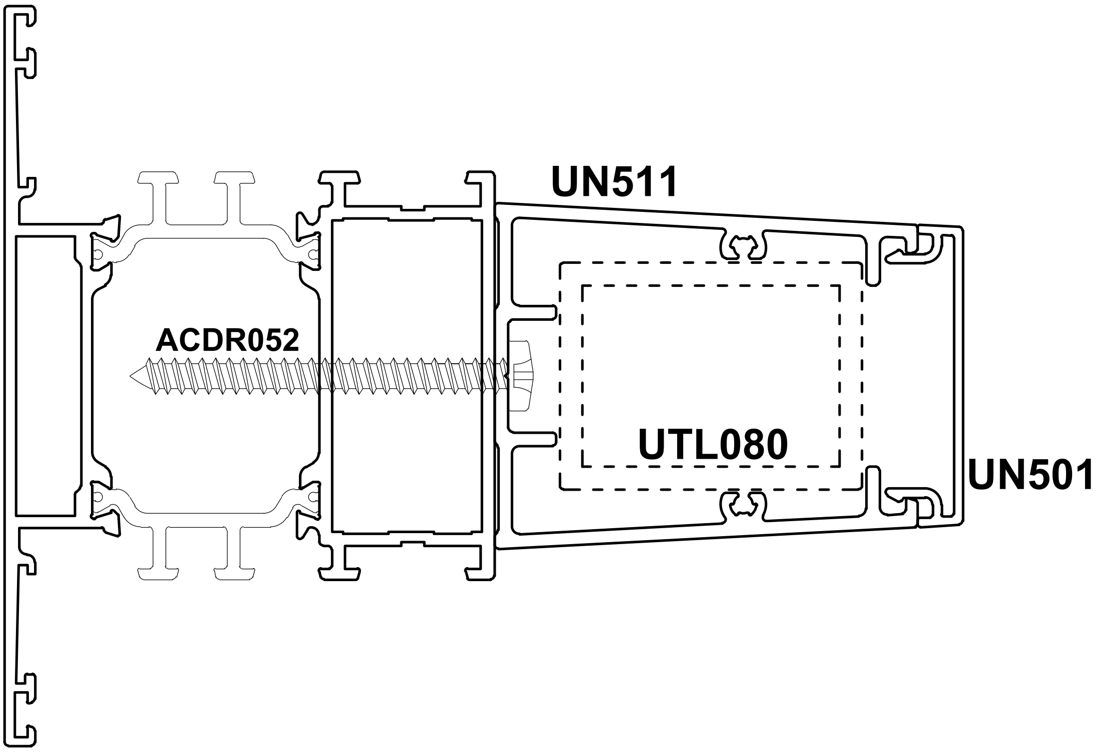
Section			Without Reinforcement Ix(cm4) wx(cm3)	Without Reinforcement Iy(cm4) wy(cm3)	UN510  Ix(cm4) wx(cm3)	UN510 Iy(cm4) wy(cm3)
EF030		E	28.33 / 7.44	10.93 / 2.83	89.63 / 14.51	20.37 / 5.29
		I			- / -	- / -
EF031		E	$\boxed{32.15}$ / 8.64	14.81 / 4.09	97.58 / 15.33	27.24 / 6.26
		I			119.68 / 17.21	27.24 / 6.26

Section D

Moments of Inertia Table

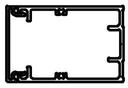
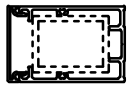
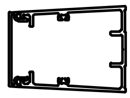
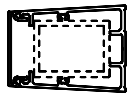
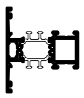
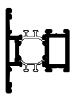
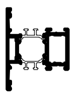
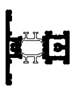
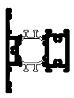
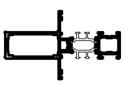
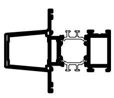
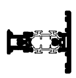
E = Reinforcement Externally
I = Reinforcement Internally

Reinforcement profiles shall be fixed at a maximum of 300mm centres and 100mm in from each end



Reinforcement profiles cannot be used where a hinge is used on the same mullion.

Section D

E = Reinforcement Externally I = Reinforcement Internally			Without Reinforcement		 UN510		 UN510 + UTL080		 UN511		 UN511 + UTL080	
Section			Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)
EF030		E	28.33 / 7.44	10.93 / 2.83	89.63 / 14.51	20.37 / 5.29	128.58 / 18.32	25.45 / 6.61	91.79 / 15.04	22.42 / 5.82	129.76 / 18.41	27.49 / 7.14
		I			- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
EF031		E	32.15 / 8.64	14.81 / 4.09	97.58 / 15.33	27.24 / 6.26	140.8 / 20.6	32.32 / 7.41	99.98 / 15.89	29.29 / 6.73	142.1 / 20.7	34.37 / 7.9
		I			119.68 / 17.21	27.24 / 6.26	175.15 / 27.24	32.32 / 7.43	- / -	- / -	- / -	- / -
EF032		E	36.67 / 9.95	28.45 / 5.81	105.5 / 16.13	37.87 / 7.73	153.04 / 42.95	42.95 / 8.76	108.13 / 16.72	39.9 / 6.14	154.51 / 23.11	45.0 / 9.18
		I			126.83 / 17.85	37.88 / 7.73	186.99 / 29.91	42.95 / 8.76	130.29 / 18.52	39.92 / 8.15	188.84 / 30.02	45.01 / 9.18
EF033		E	32.24 / 8.72	10.9 / 2.83	98.26 / 15.39	20.35 / 5.28	141.84 / 20.79	25.43 / 6.6	100.69 / 15.95	22.39 / 5.81	143.16 / 20.89	27.47 / 7.13
		I			- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
EF034		E	36.39 / 9.88	18.51 / 4.25	105.49 / 16.09	27.95 / 5.28	153.47 / 23.13	33.03 / 7.59	108.14 / 29.99	29.99 / 6.89	154.95 / 23.24	35.07 / 7.13
		I			156.51 / 19.98	29.06 / 6.68	239.03 / 36.61	34.14 / 7.84	130.43 / 18.53	29.99 / 6.89	189.54 / 30.23	35.07 / 8.06
EF035		E	103.36 / 15.95	12.79 / 3.55	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
		I			- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
EF036		E	95.69 / 17.21	25.44 / 5.85	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
		I			260.11 / 29.16	34.87 / 8.02	378.5 / 40.88	39.95 / 9.18	- / -	- / -	- / -	- / -
EF930		E	26.6 / 6.93	6.11 / 1.91	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
		I			86.07 / 14.16	15.58 / 4.87	122.15 / 17.23	20.66 / 6.48	88.12 / 14.52	17.62 / 5.51	123.26 / 17.31	22.70 / 7.09

Section E

Construction Drawings
Windows:

Section E

Construction Drawings
Doors:

Door & Window Corner Joint Details

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 make watertight

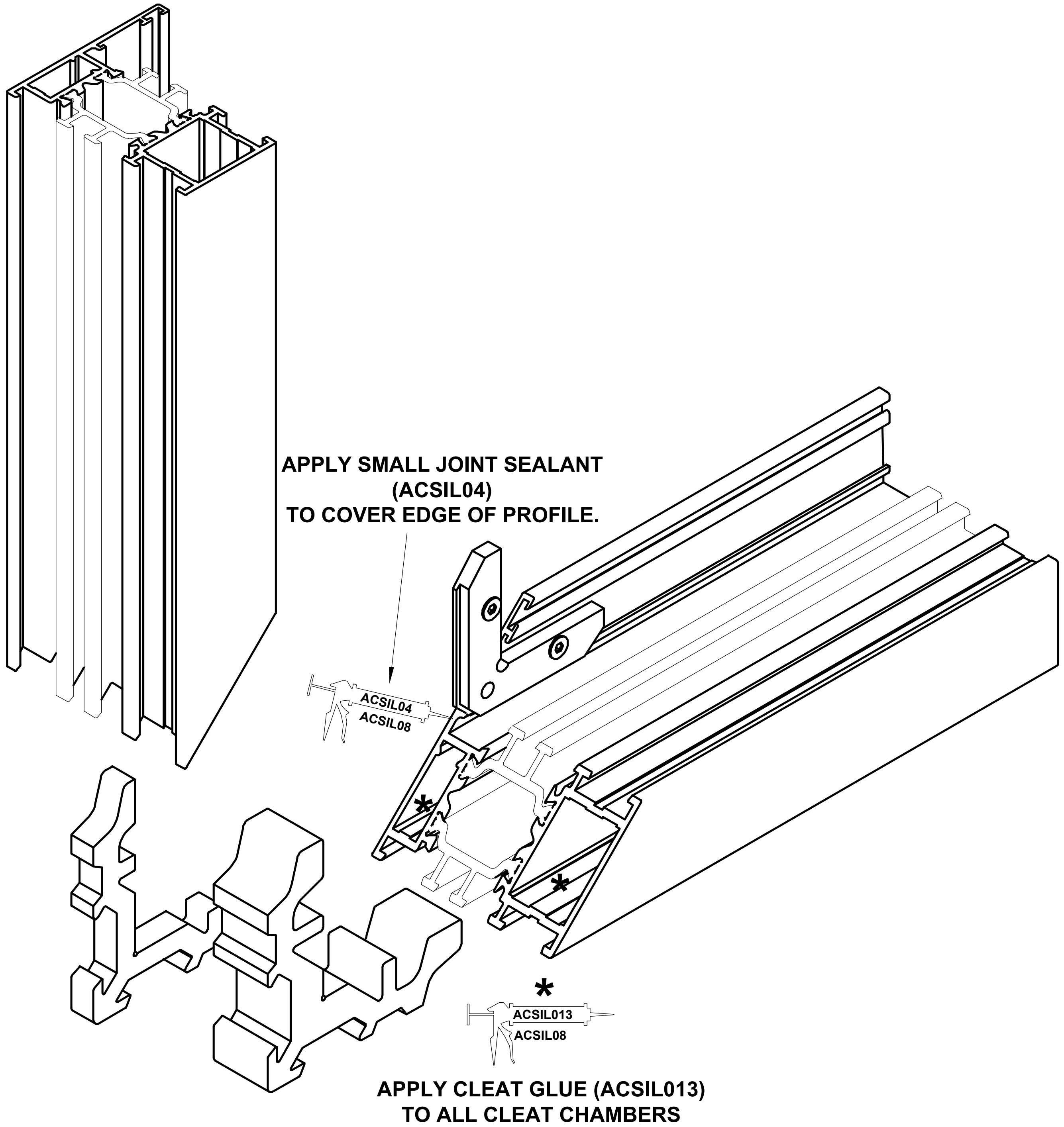
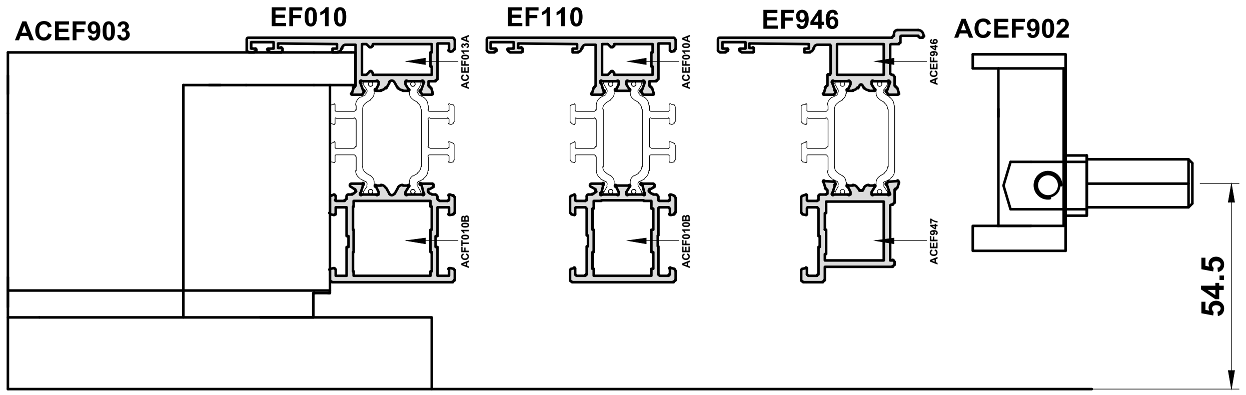


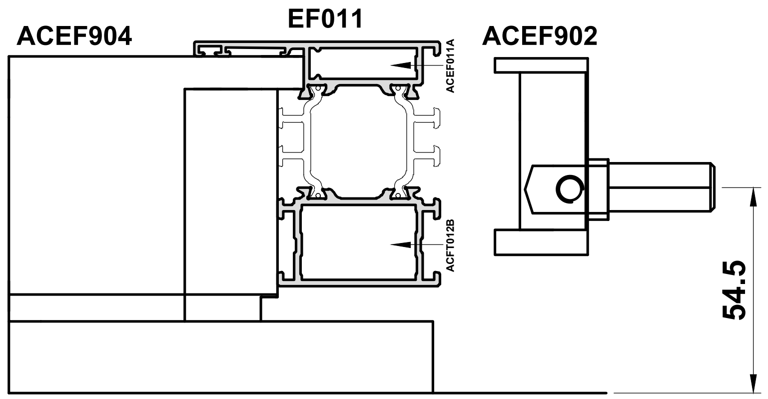
Table 1

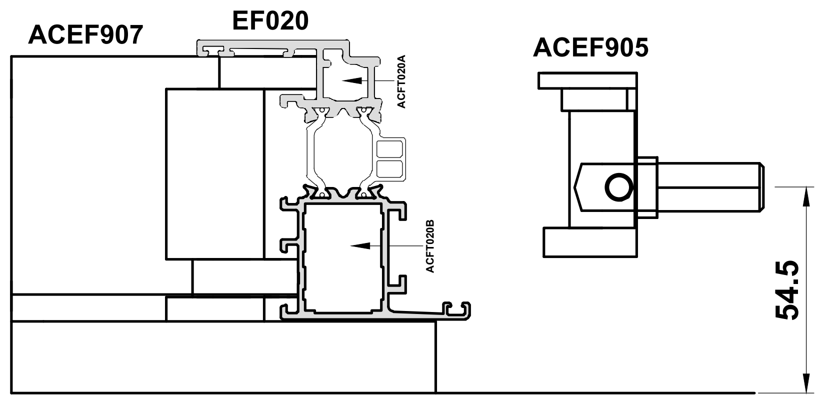
KL Colour	Sealant Part Number
Black	ACSIL04BL
White	ACSIL04WP
Clear	ACSIL04CL
KL001	ACSIL04KL001
KL002	ACSIL04KL002
KL003	ACSIL04KL003
KL004	ACSIL04KL004
KL005	ACSIL04KL005
KL006	ACSIL04KL006
KL007	ACSIL04KL007
KL010	ACSIL04KL010
KL011	ACSIL04KL011
KL012	ACSIL04KL012
KL013	ACSIL04KL013

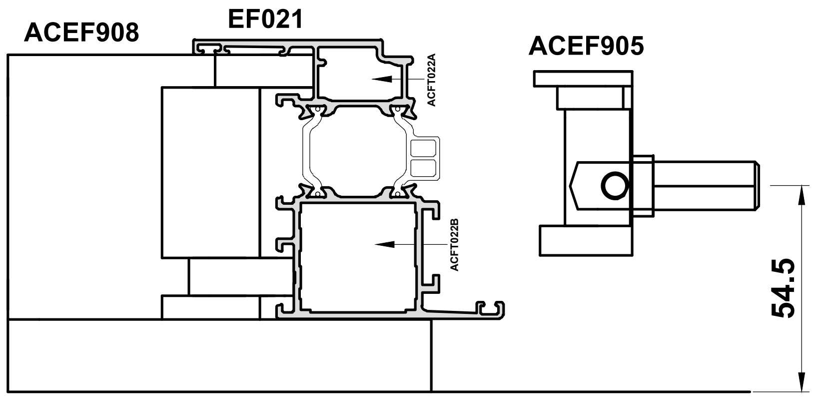
To ensure accurate corners, we recommend the use of support blocks (by others) whilst cutting.

Door & Window Crimping





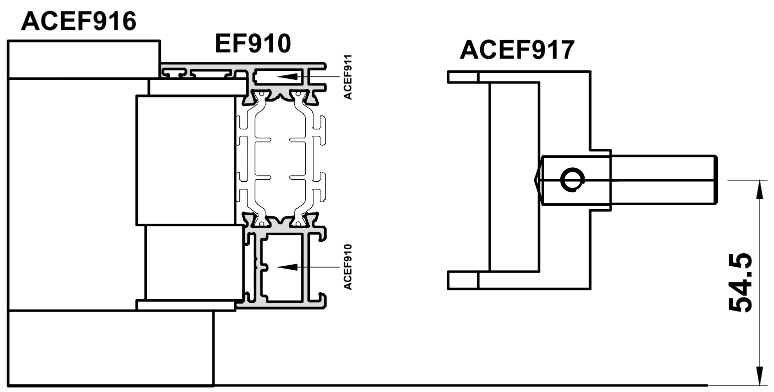


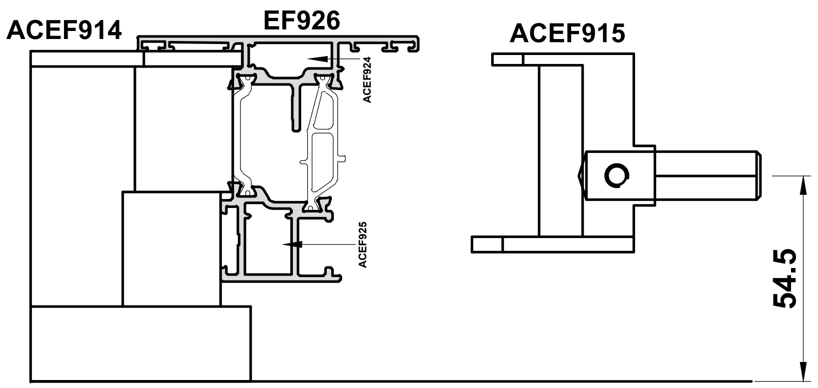


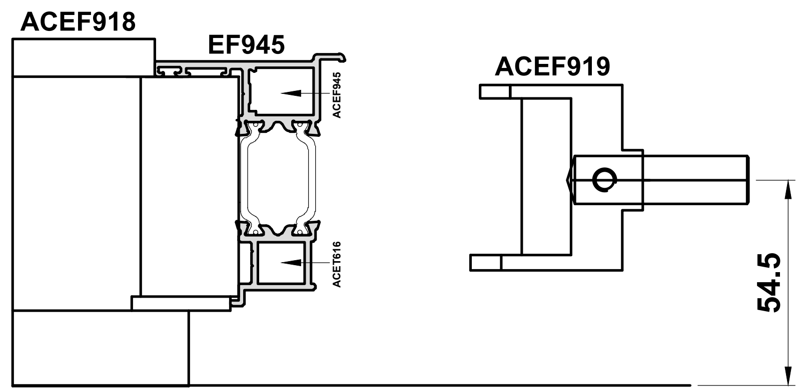
Manual Crimper = WUT024HSZA

Important Note:

The majority of Eco Futural sections require a pneumatic crimper with specific tooling designed for the sections and cleats. The tooling may be bought from your crimper manufacturer or via Jade Engineering Tel: 024 7636 5336 Email: sales@jade-eng.co.uk



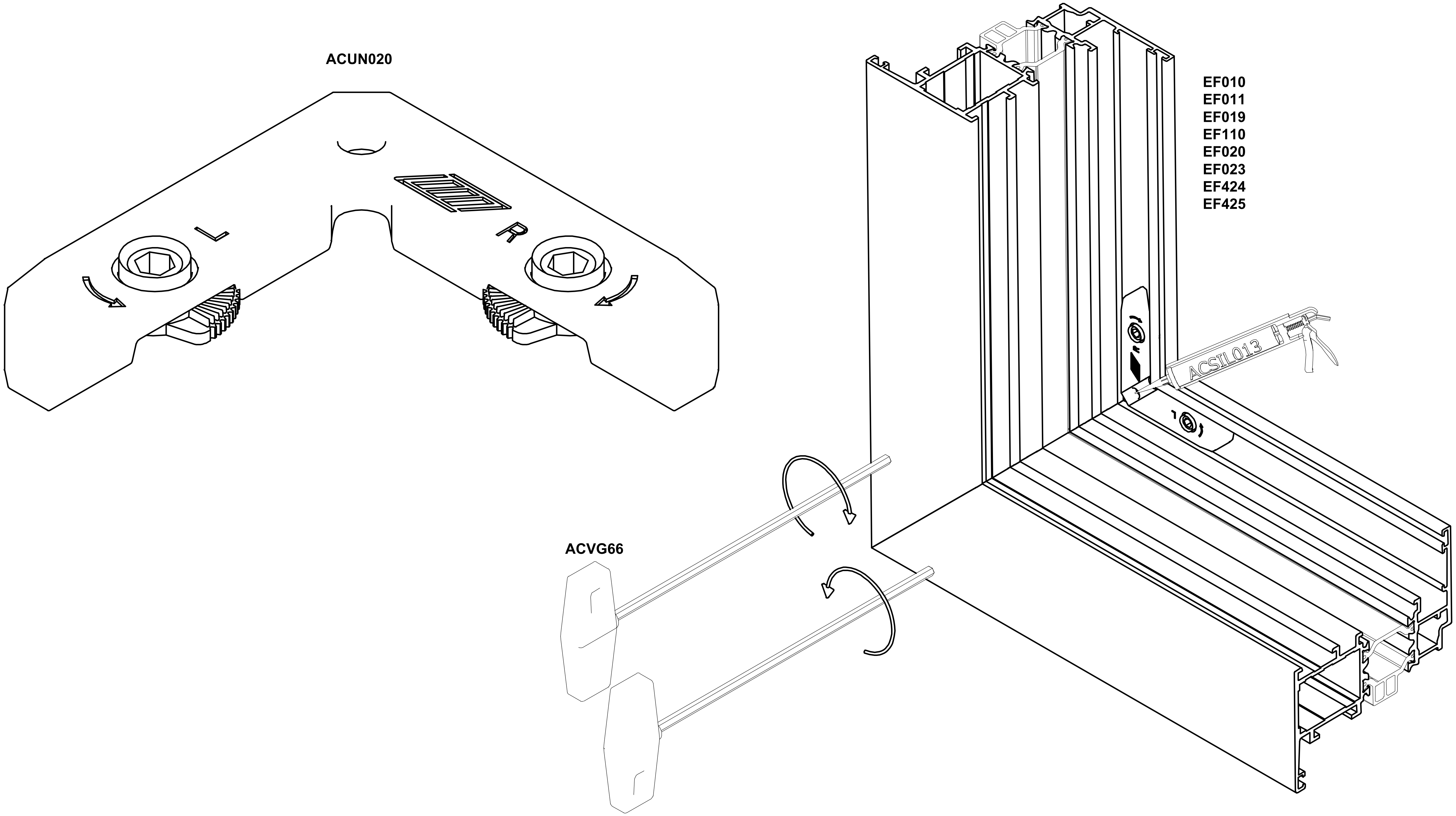




Do Not Scale From This Drawing

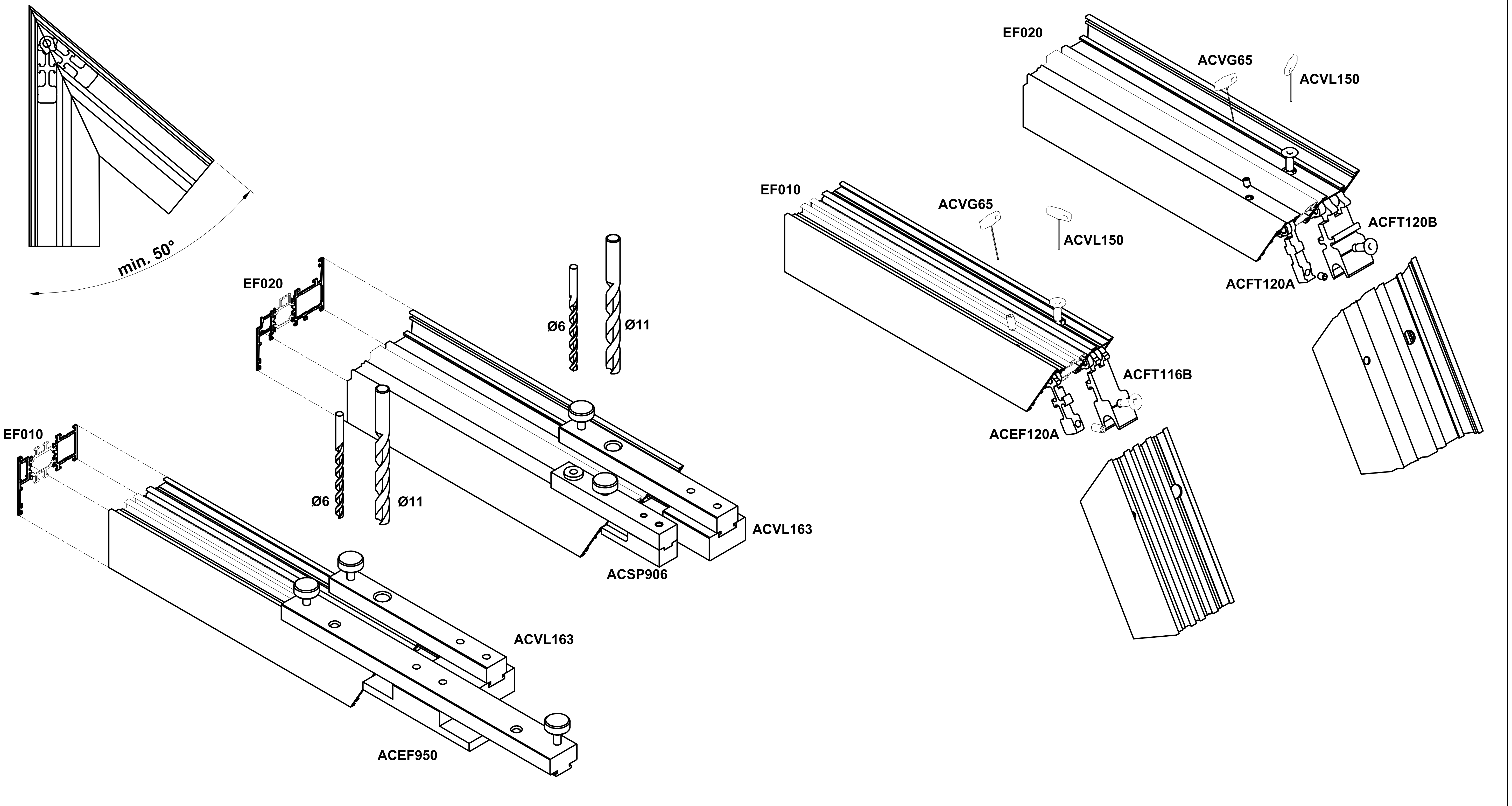
ISSUED: DECEMBER 2018

ACUN020



Do Not Scale From This Drawing

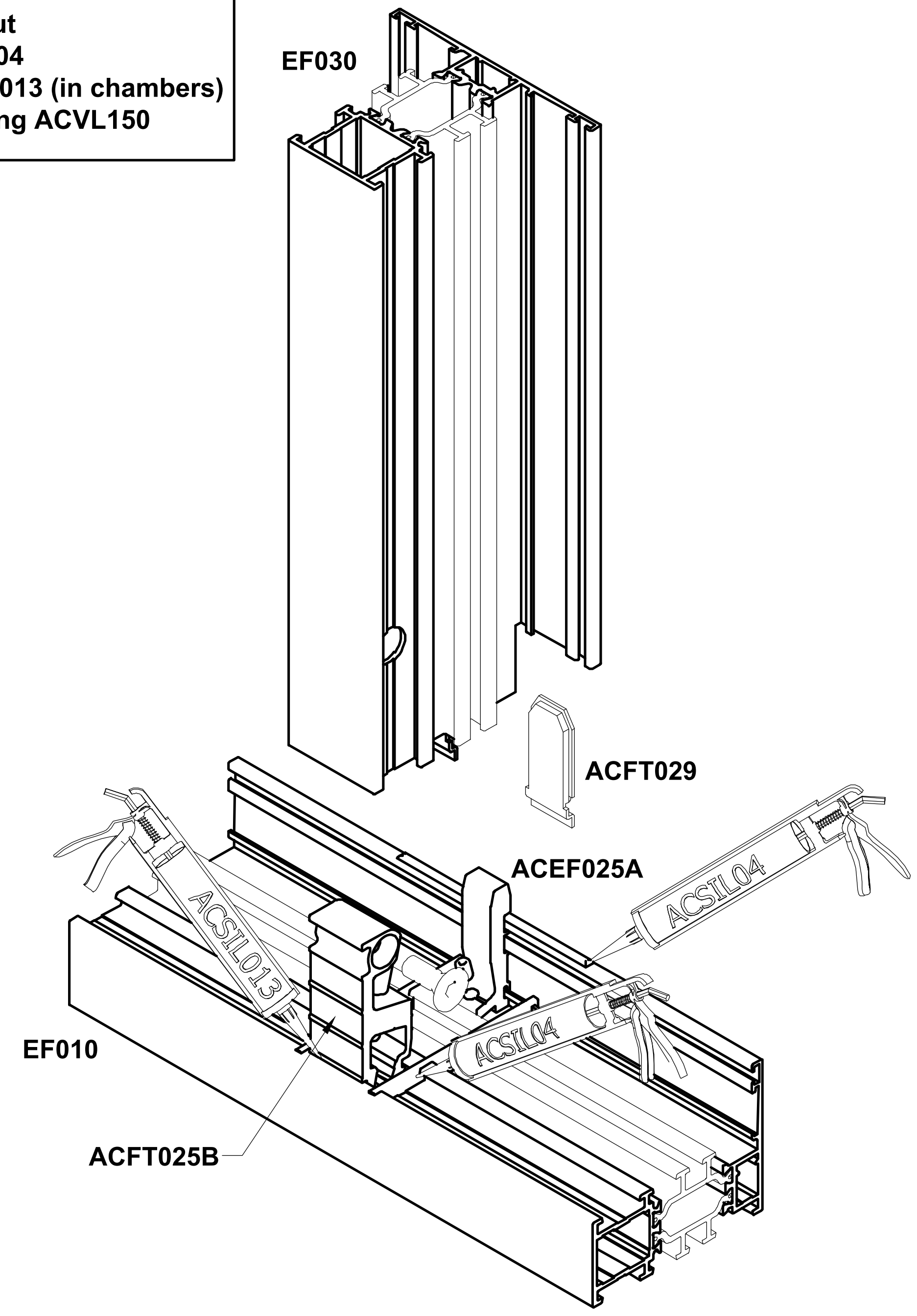
Variable Angle Cleats

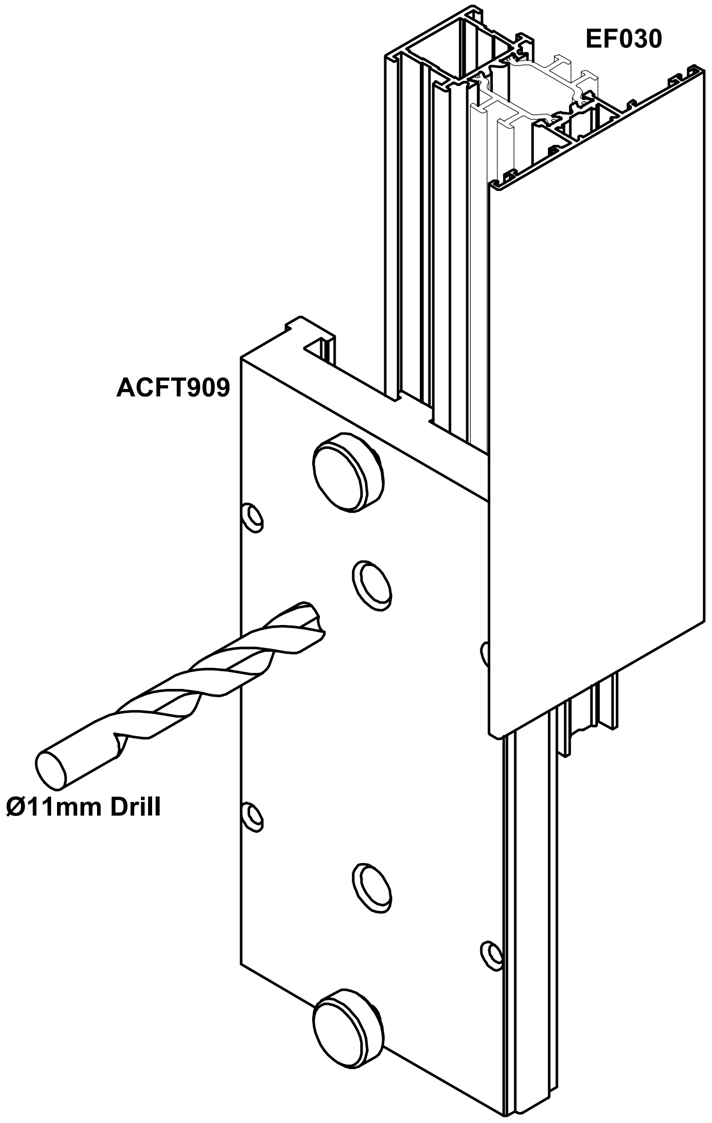


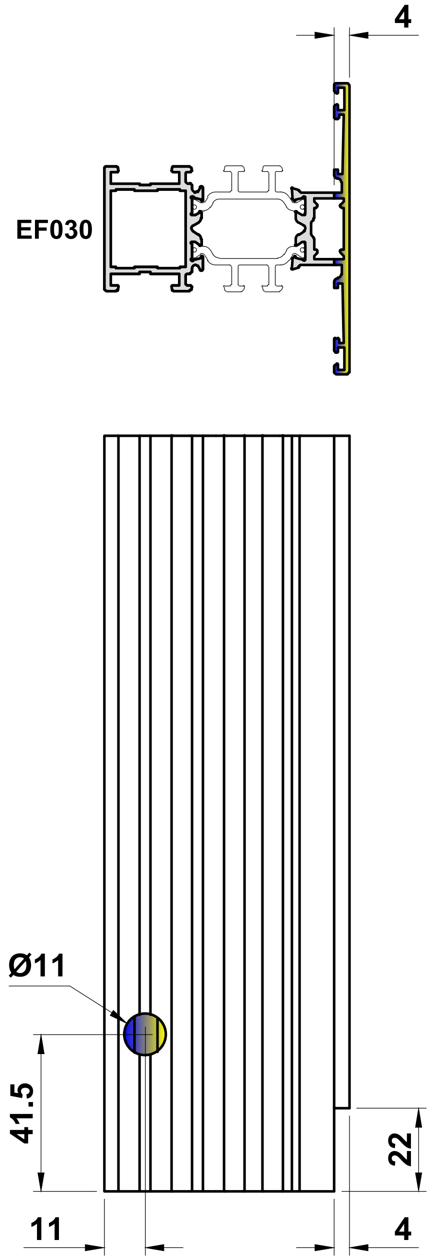
Do Not Scale From This Drawing

EF030 - EF010

Steps:
1. Degrease saw cut
2. Seal with ACSIL04
3. Glue with ACSIL013 (in chambers)
4. Secure cleat using ACVL150



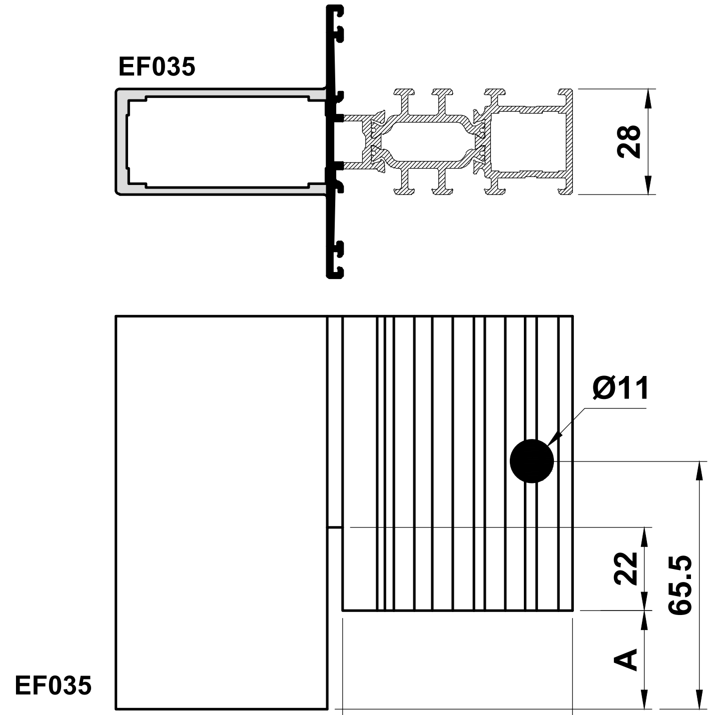




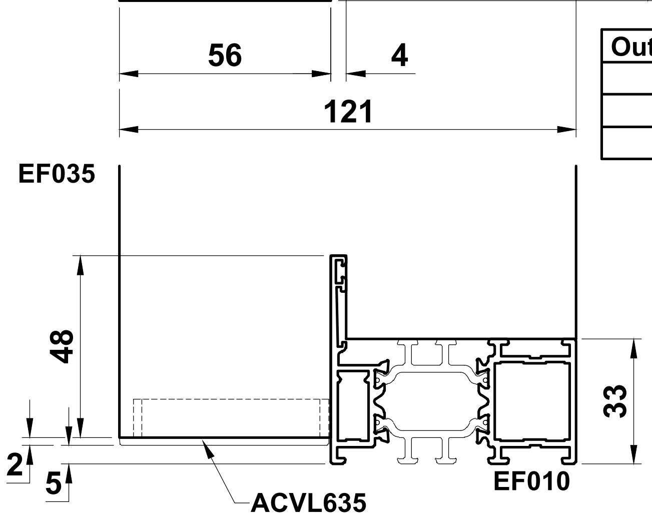
Do Not Scale From This Drawing

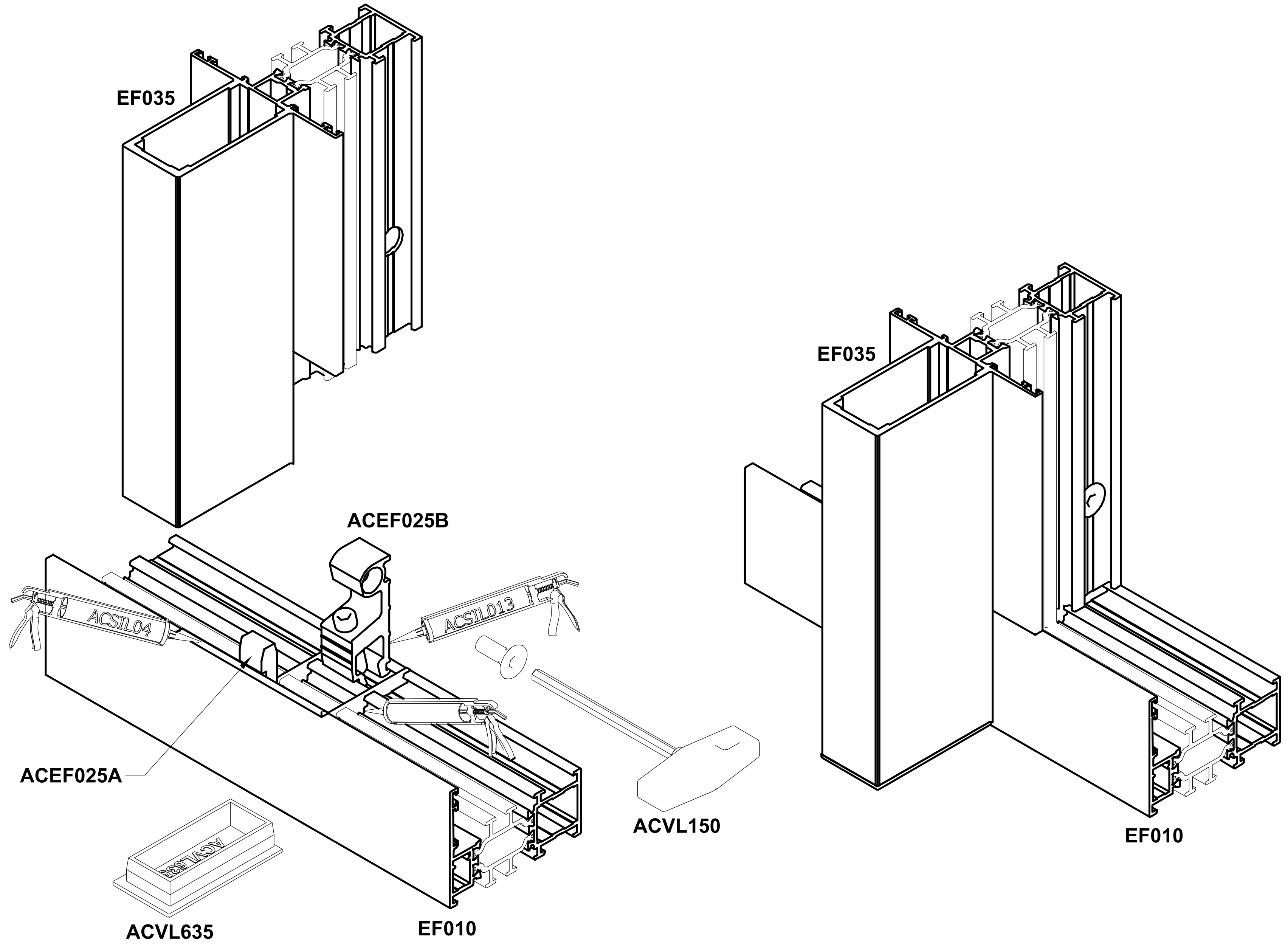
EF035 - EF010

Steps:
1. Degrease saw cut
2. Seal with ACSIL04
3. Glue with ACSIL013 (in chambers)
4. Secure cleat using ACVL150



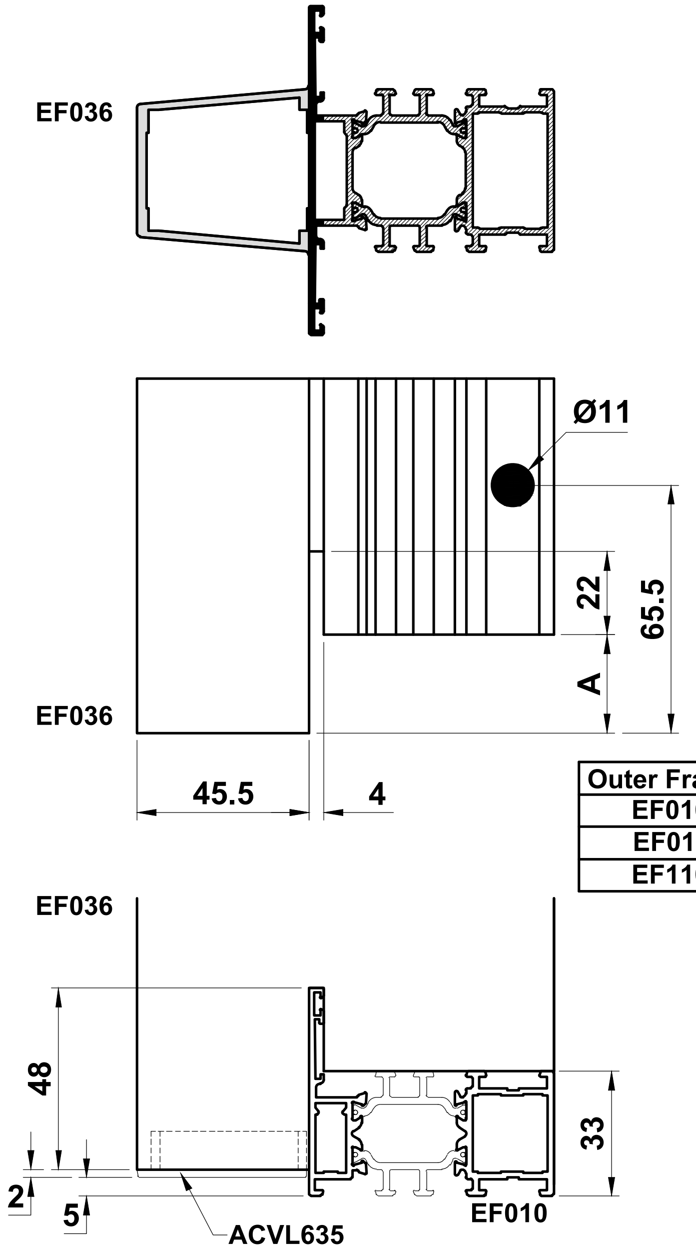
Outer Frame	Dim A
EF010	26
EF011	36
EF110	21



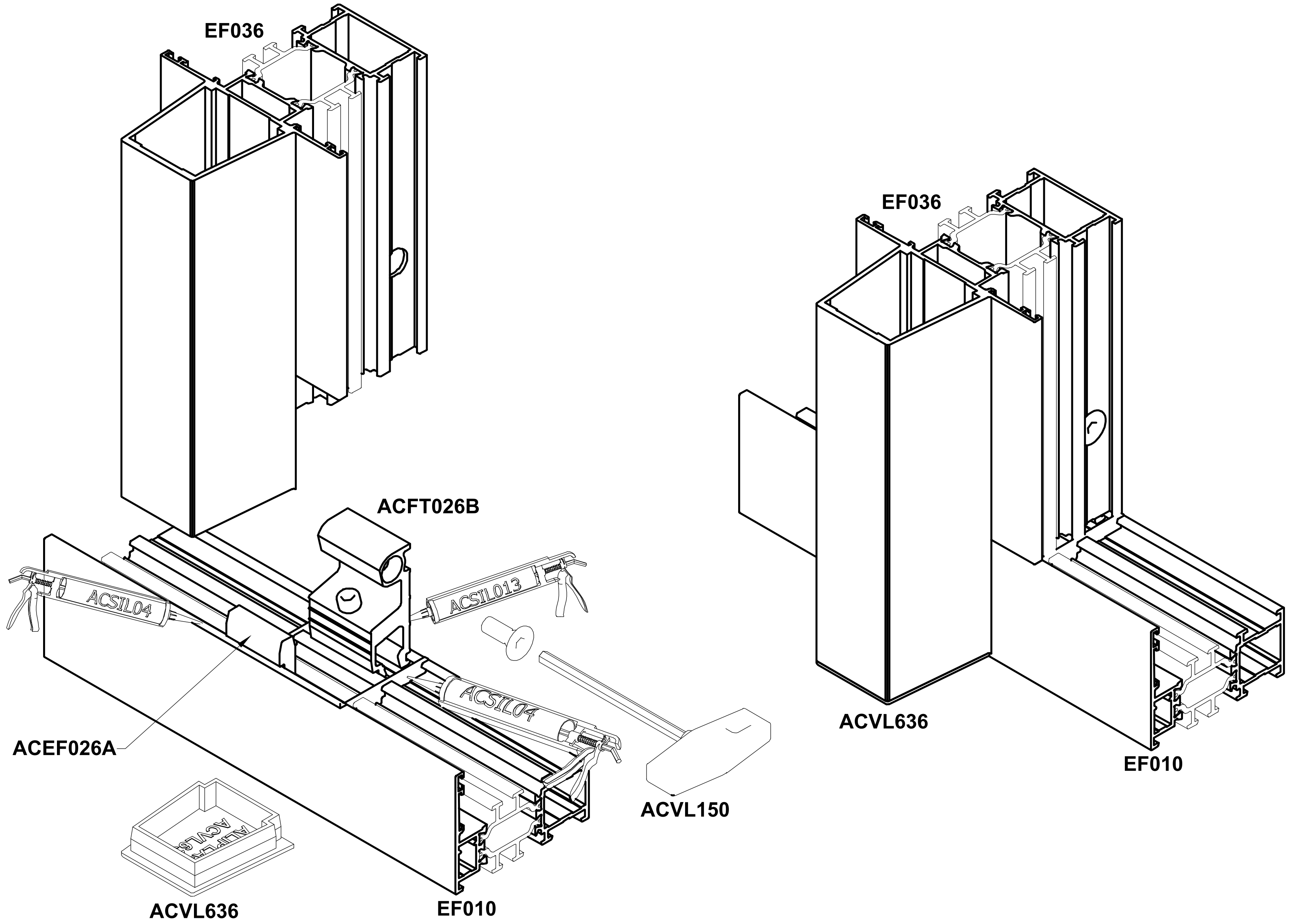


EF036 - EF010

Steps:
1. Degrease saw cut
2. Seal with ACSIL04
3. Glue with ACSIL013 (in chambers)
4. Secure cleat using ACVL150



Outer Frame	Dim A
EF010	26
EF011	36
EF110	21



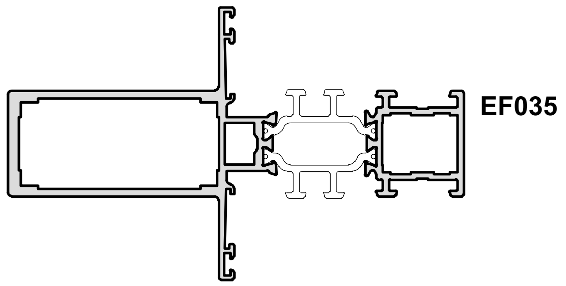
Do Not Scale From This Drawing

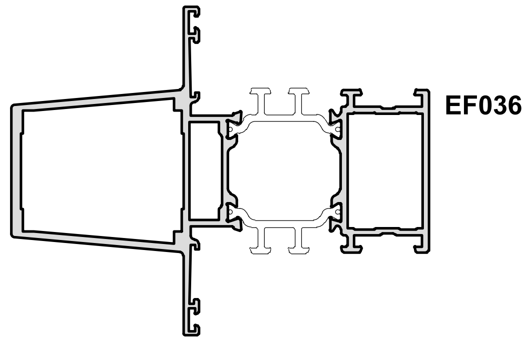
EF035 & EF036 - EF019

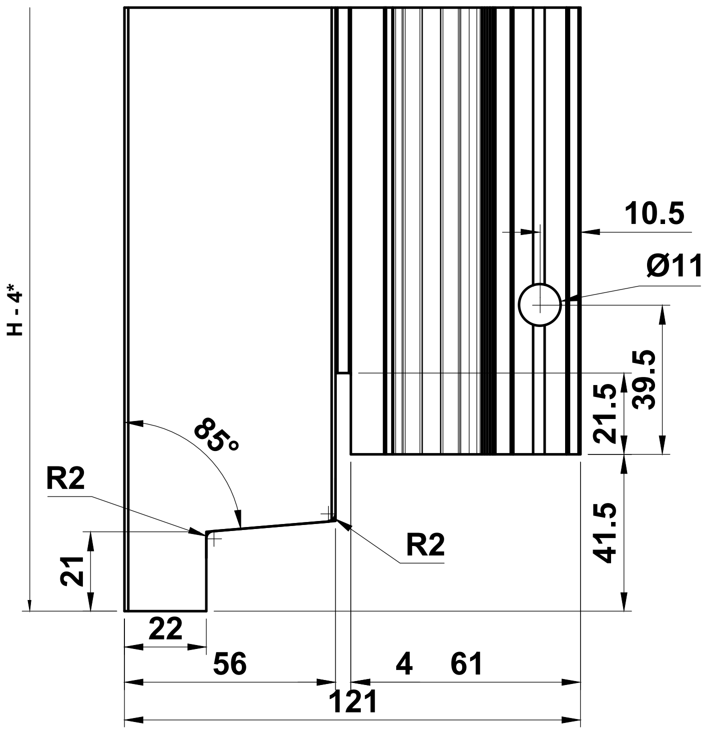
Important Note:

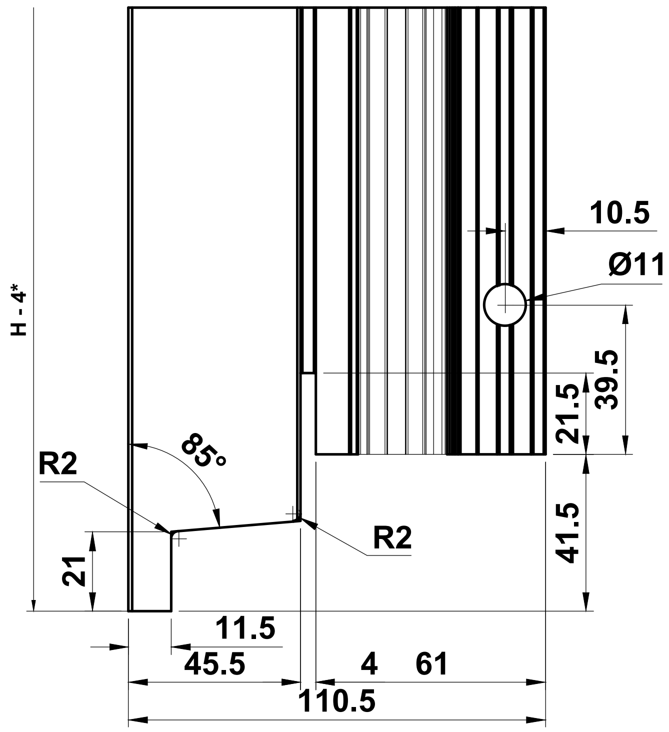
When fitting EF036 Reinforced Transom / Mullion to EF019 Outerframe, end mill EF036 as shown below. ACVL636 can be cut down to fit prepped EF036.

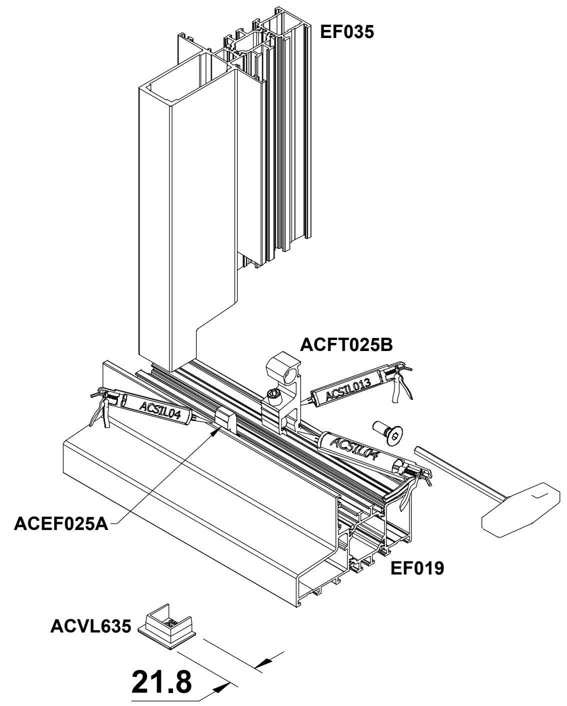
Steps:
1. Degrease saw cut
2. Seal with ACSIL04
3. Glue with ACSIL013 (in chambers)
4. Secure cleat using ACVL150

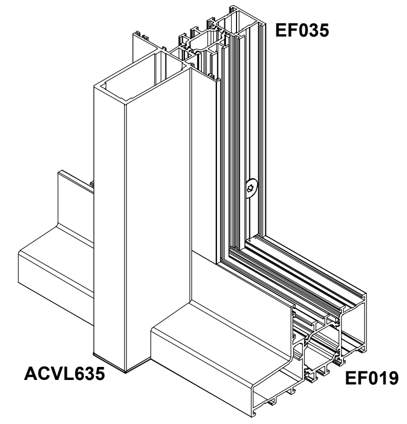


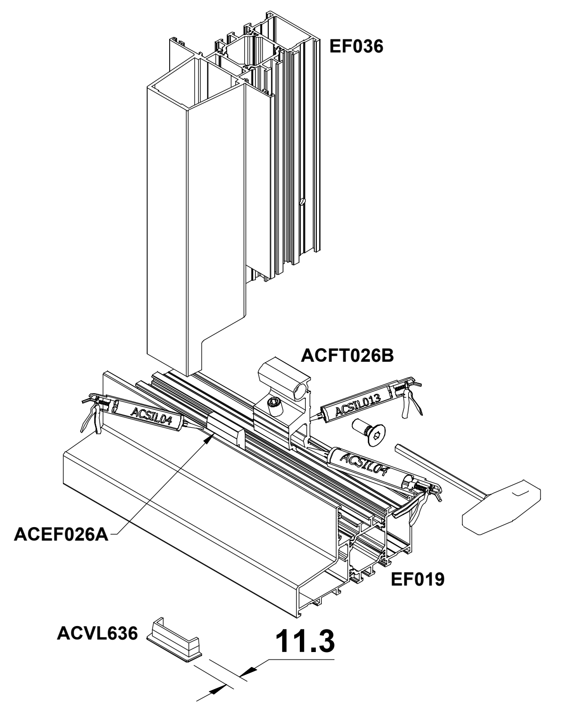


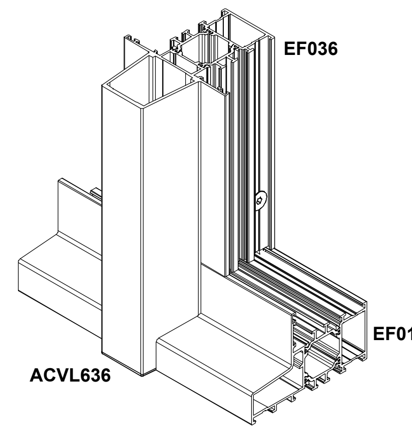








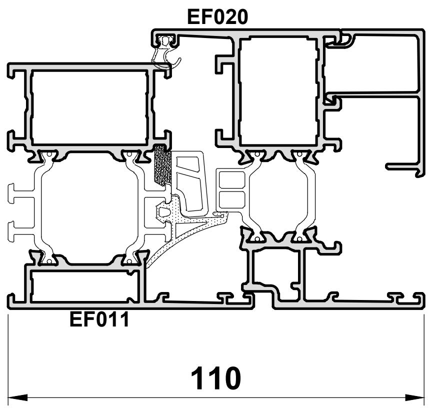


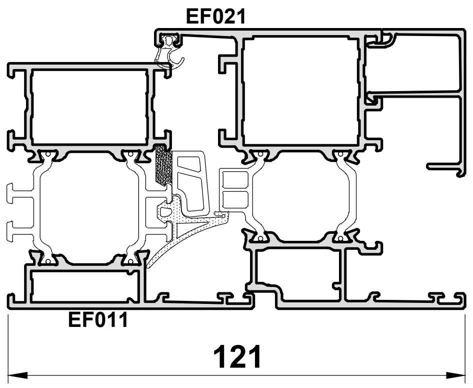


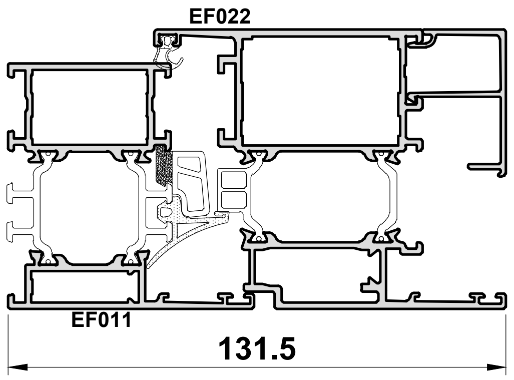
*** Allowing 2mm at top and bottom for ACVL635 / ACVL636 end cap**

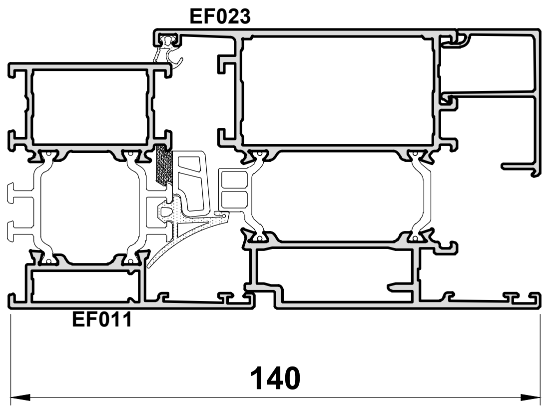
Do Not Scale From This Drawing

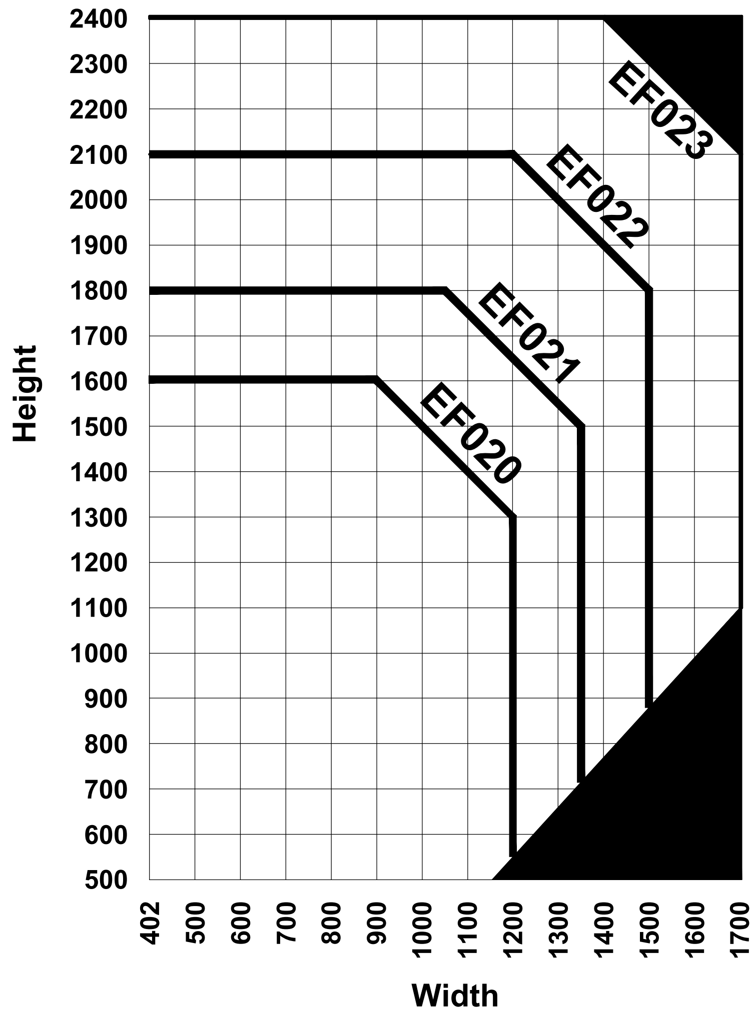
Tilt & Turn Limits

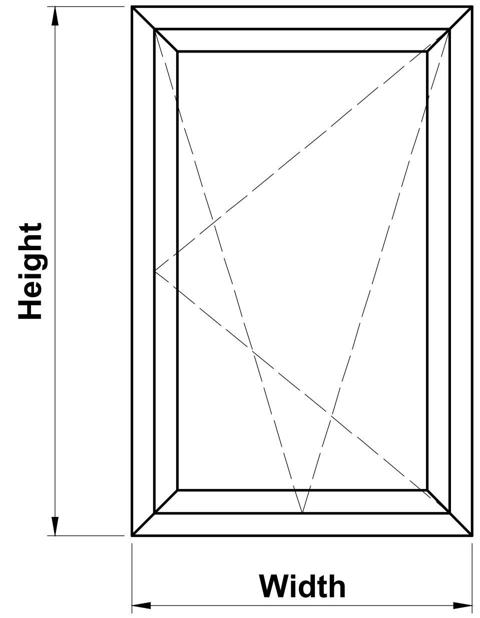










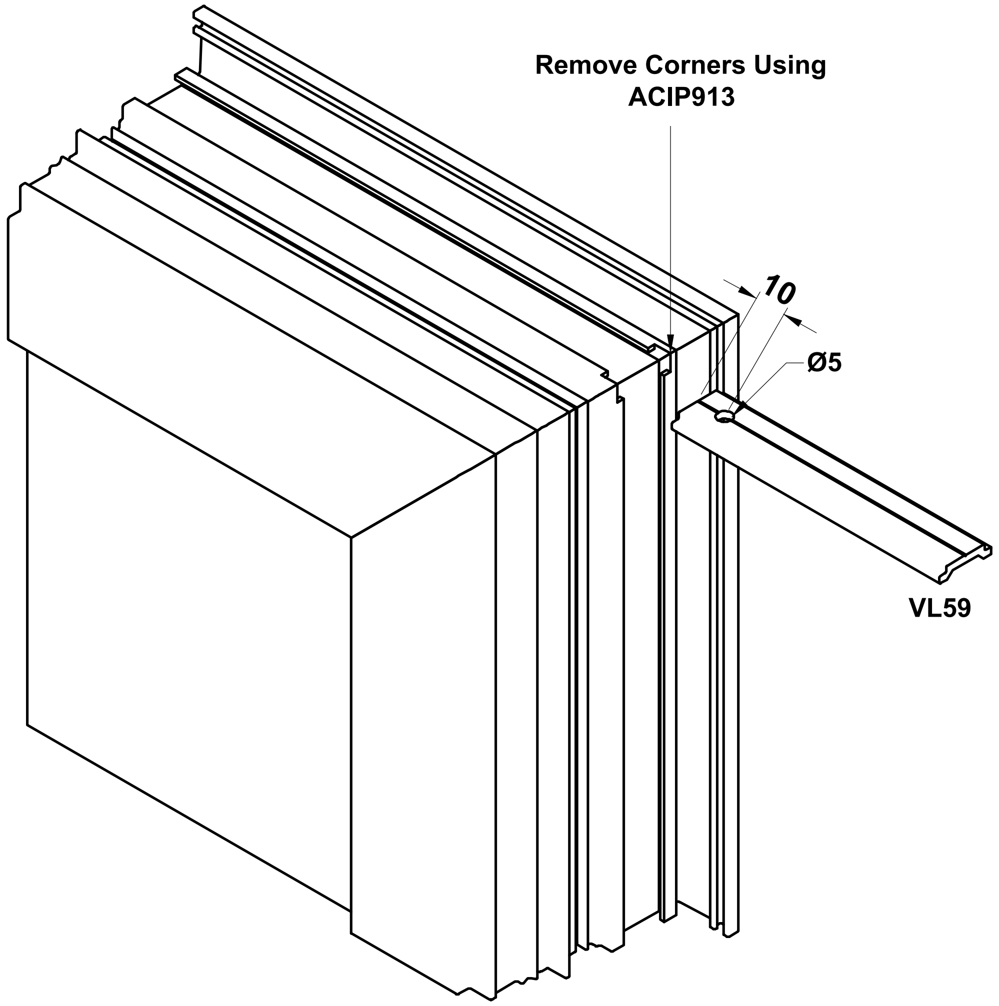


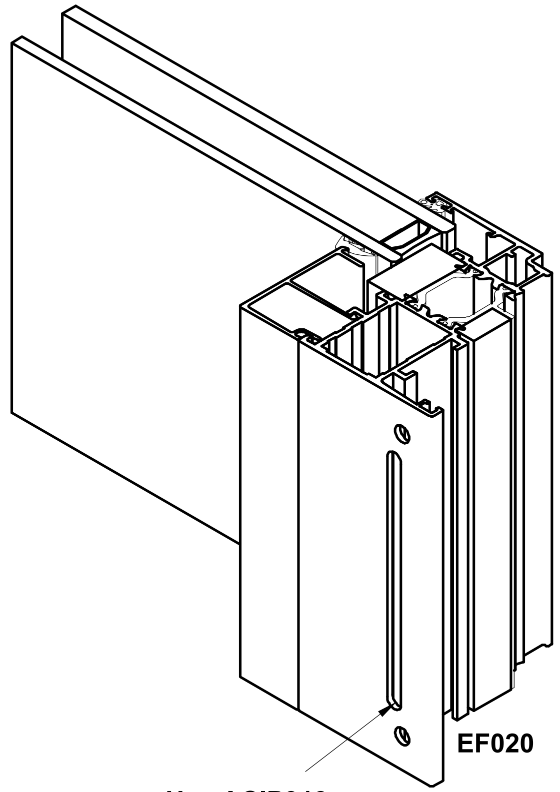
Important Notes:

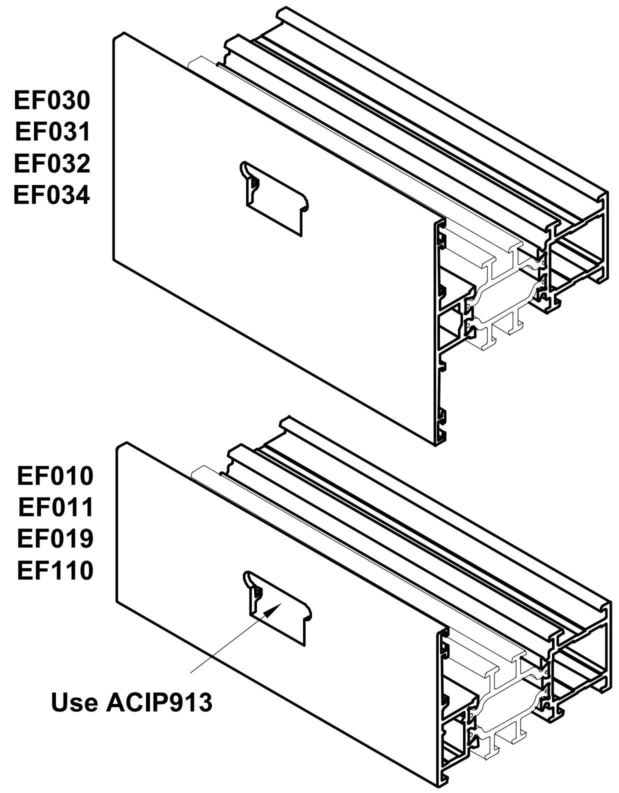
1. The size limitations of the chosen tilt & turn hardware must be adhered to
2. The width of the sash cannot be more than 1.5 times the height
3. Maximum sash weight = 90kg.

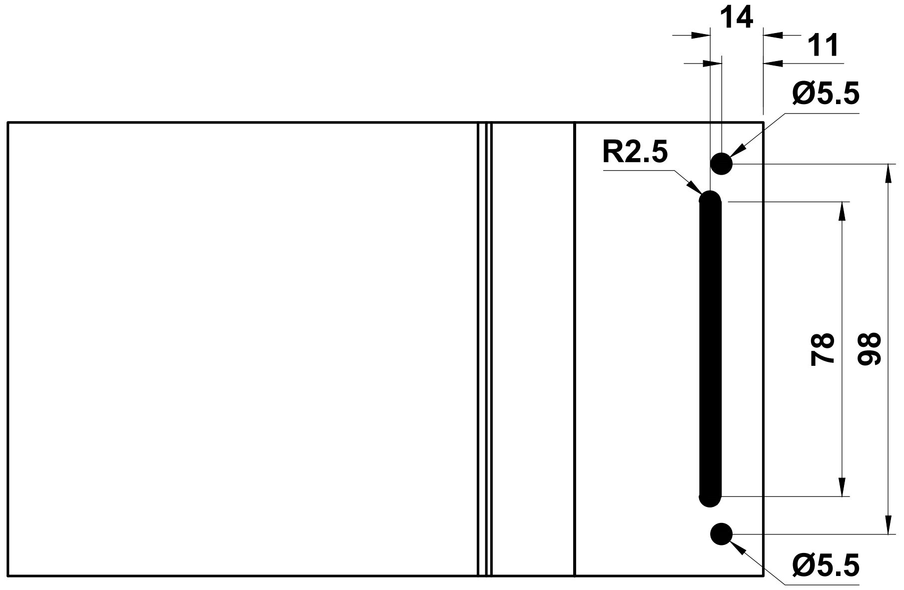
■ Hatched area indicates it is not possible to make tilt & turn at this size.

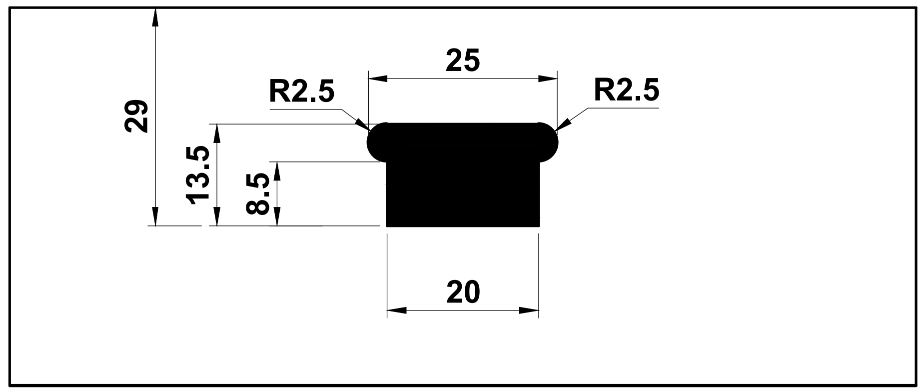
Tilt & Turn Handle & Drainage Preparation









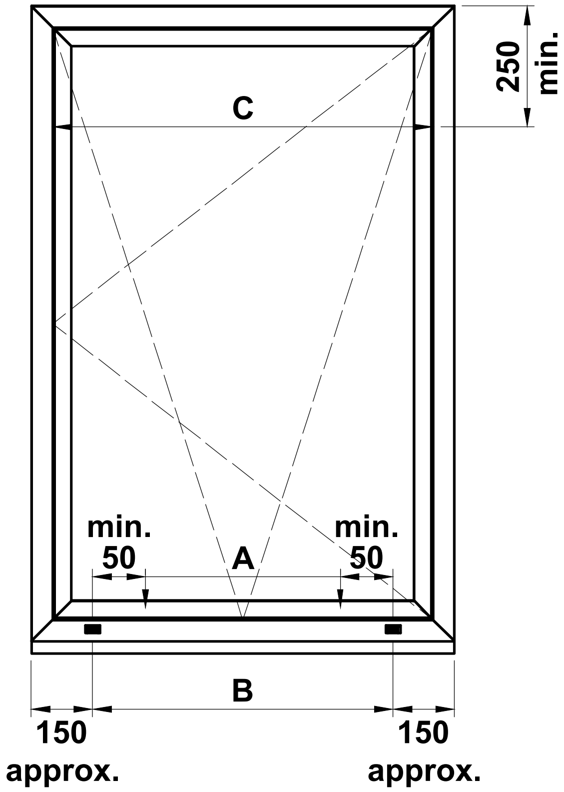


Detail to accept ACVL045 drainage cover cap

Do Not Scale From This Drawing

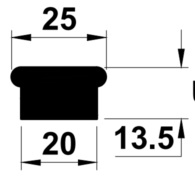
ISSUED: DECEMBER 2018

Drainage Details



A: Vent Drainage = 2 x Ø8

B1: Outer Frame Drainage = 2 x

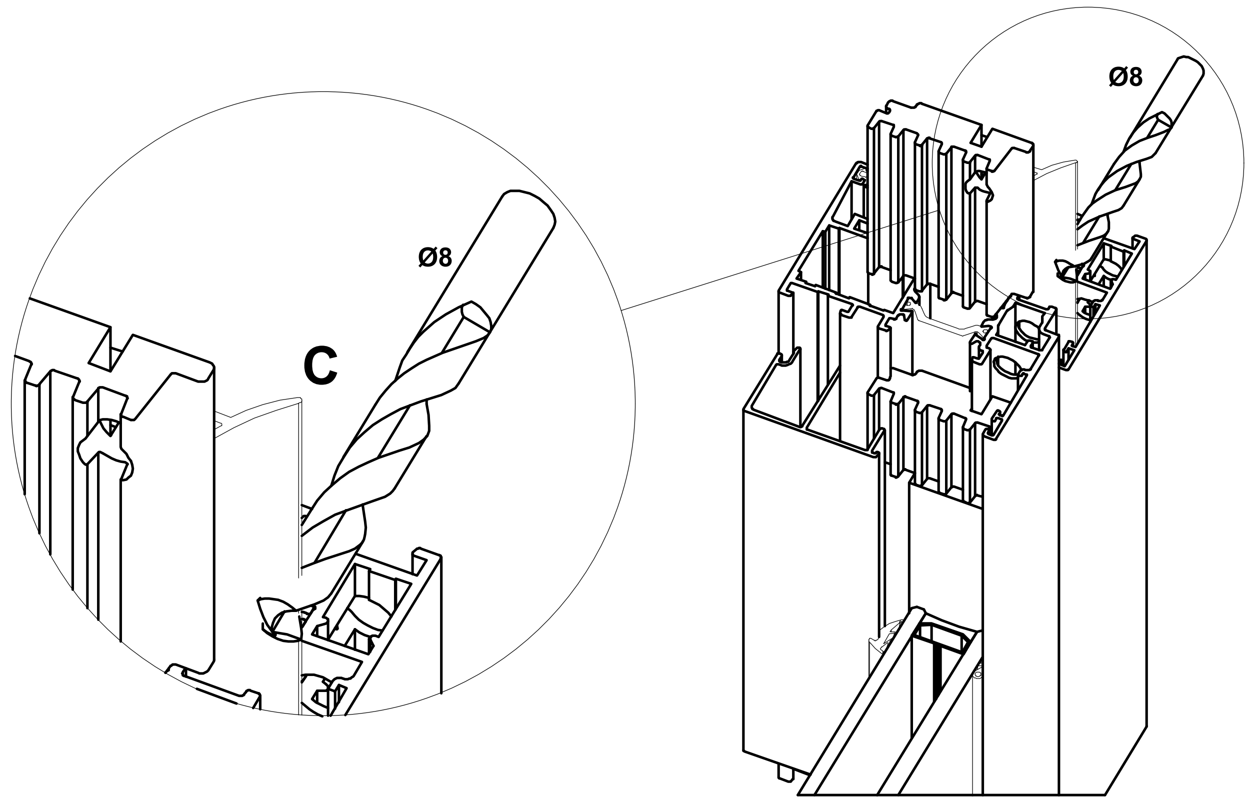


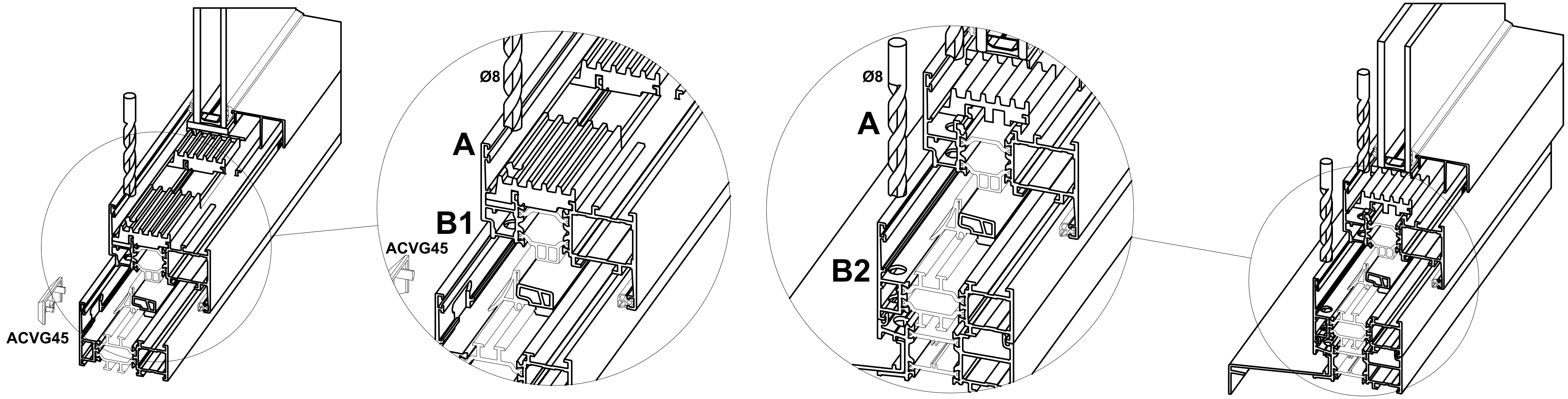
Use ACIP913

B2: Outer Frame Drainage = 2 x Ø8

C: Sash Ventilation Holes = 2 x Ø8

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

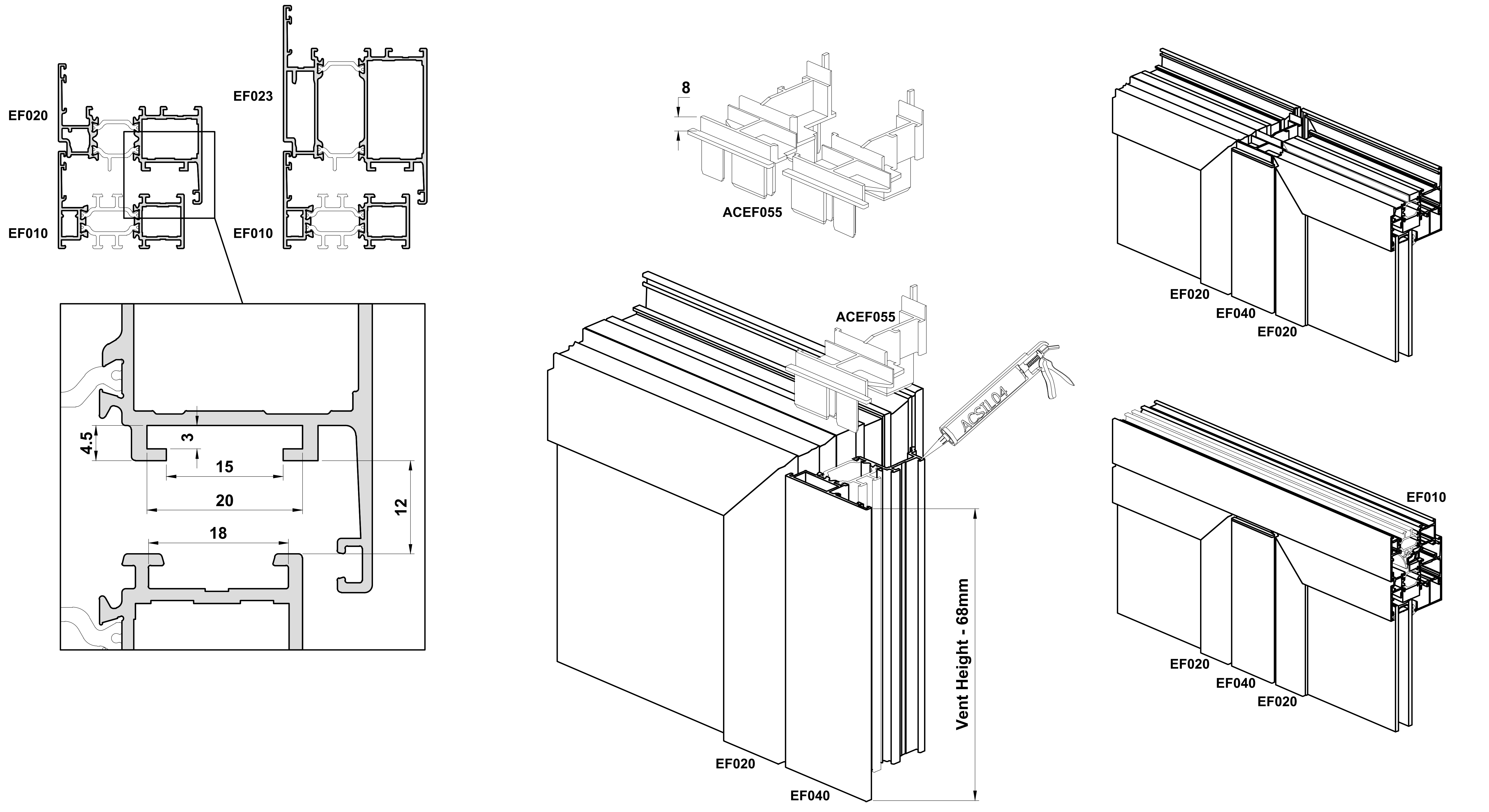




See page E21 for sub-cill drainage details

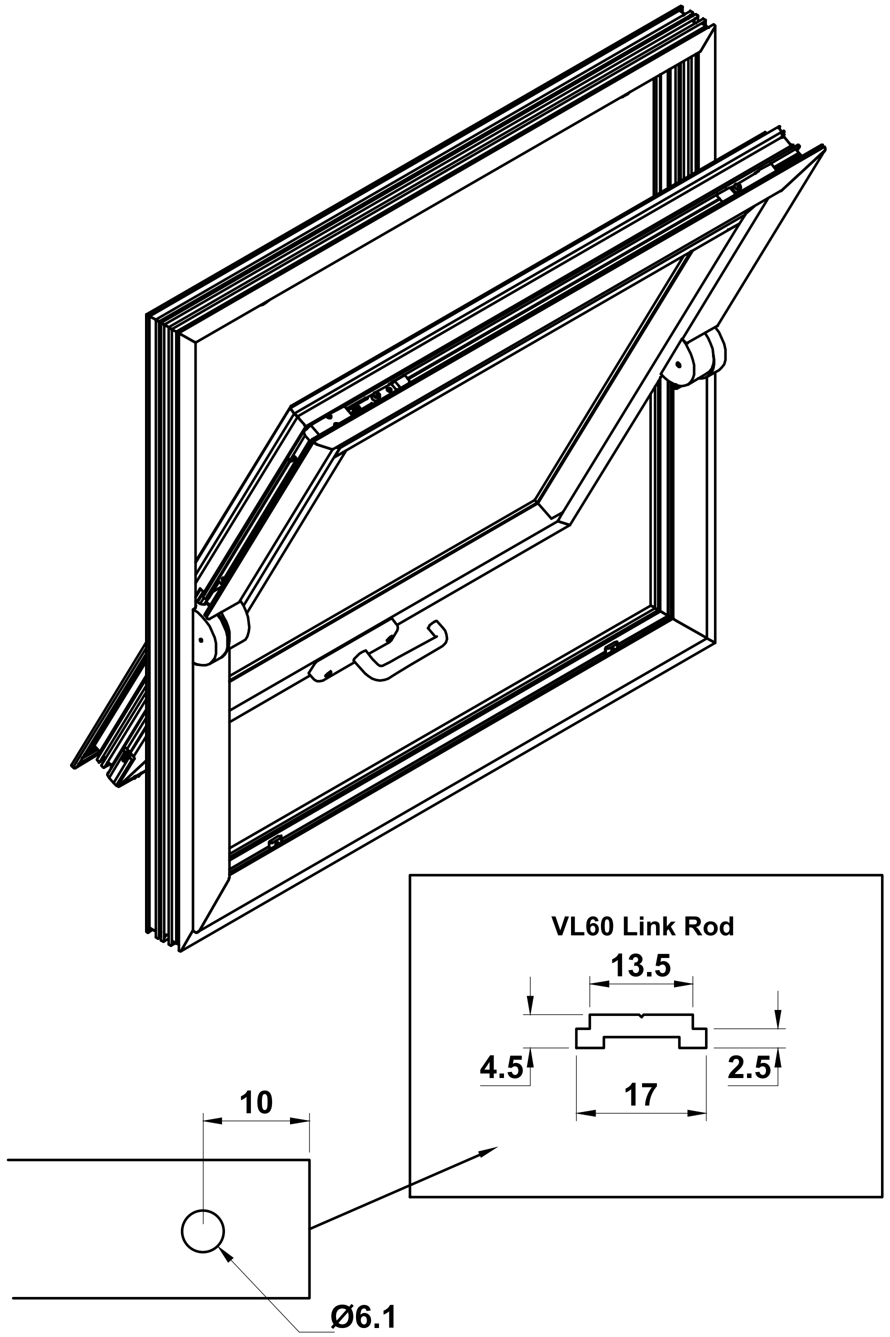
Do Not Scale From This Drawing

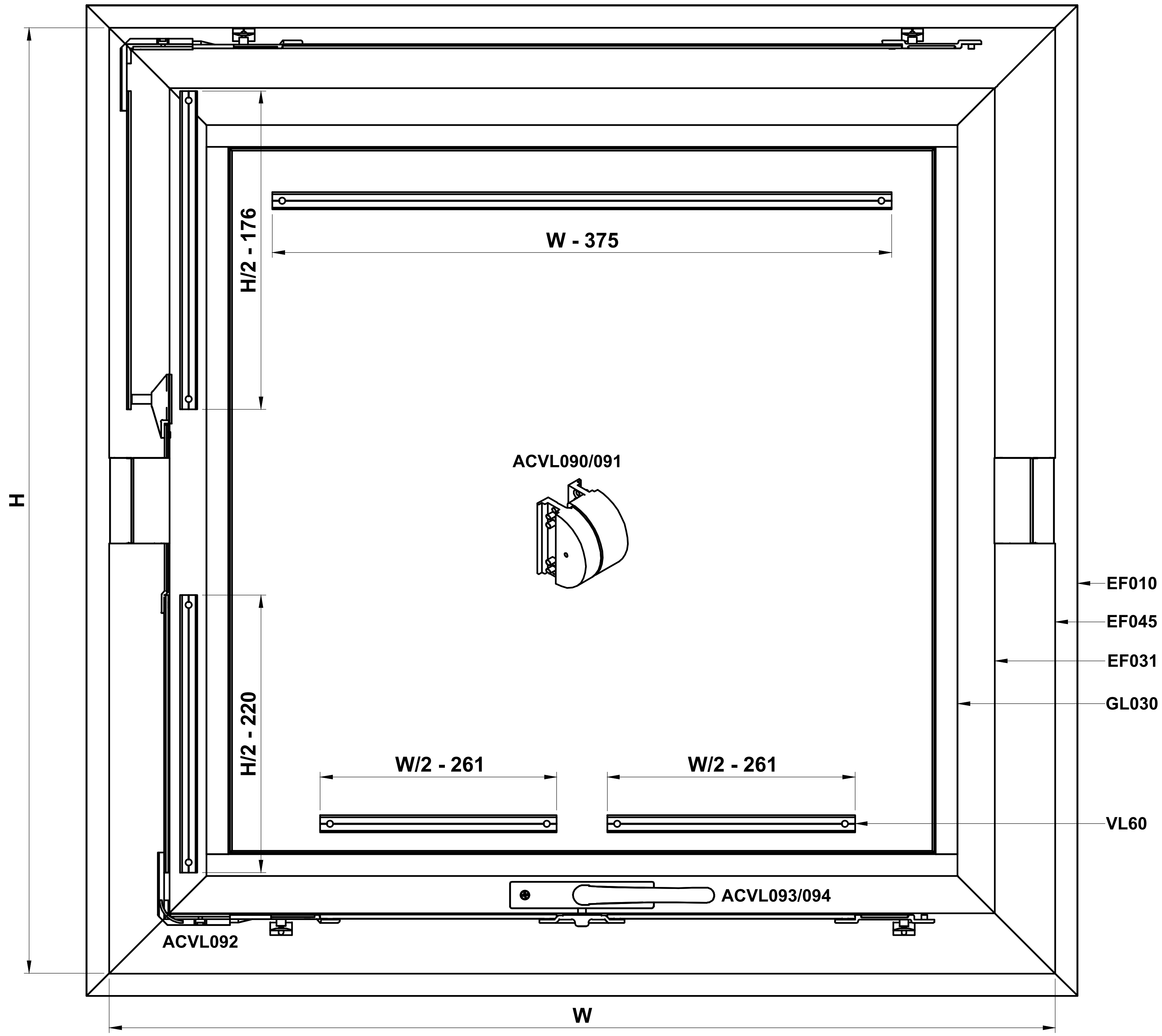
EF040 & ACEF055 Preparation



Do Not Scale From This Drawing

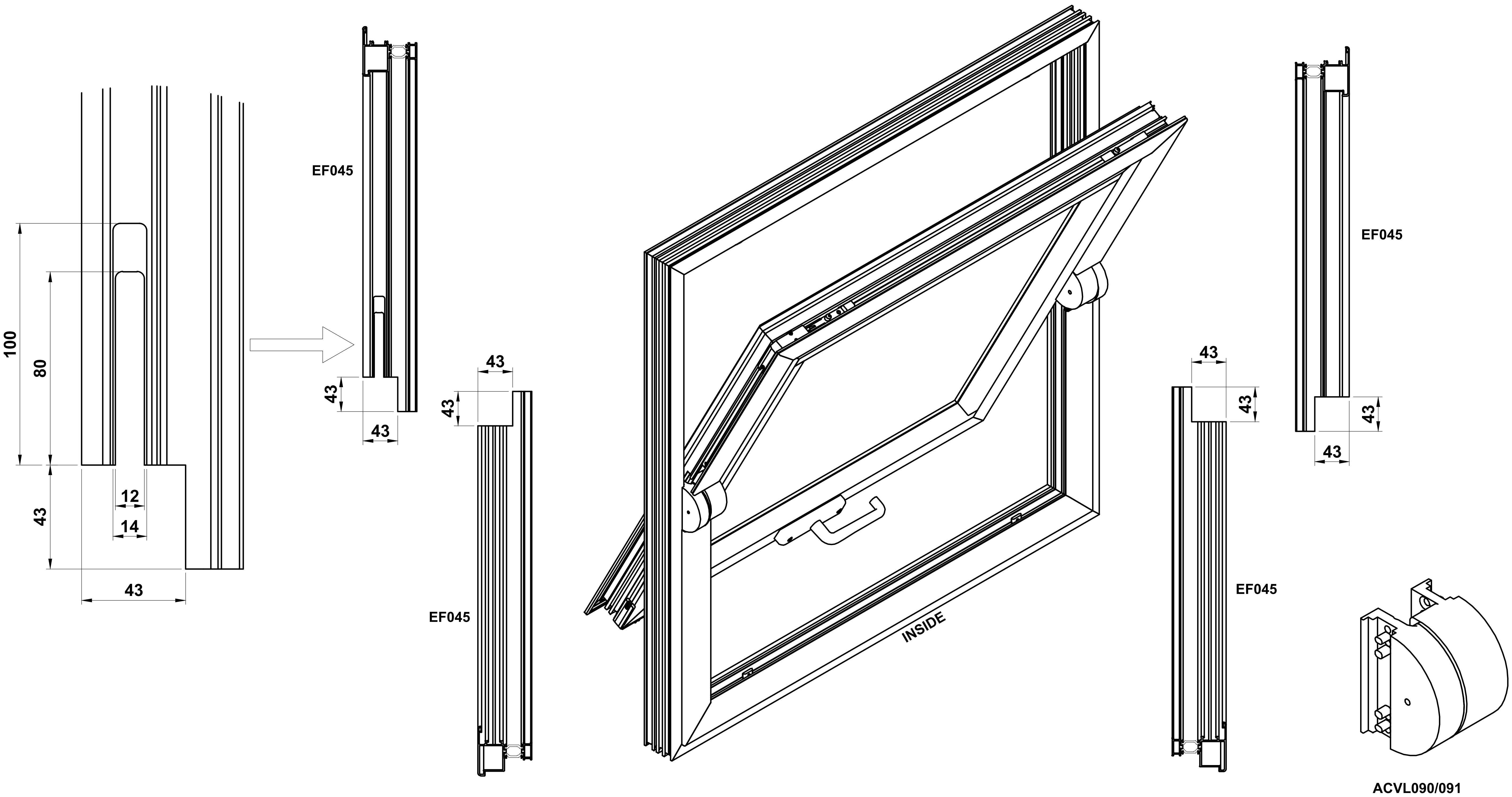
Pivot Window Overview





Do Not Scale From This Drawing

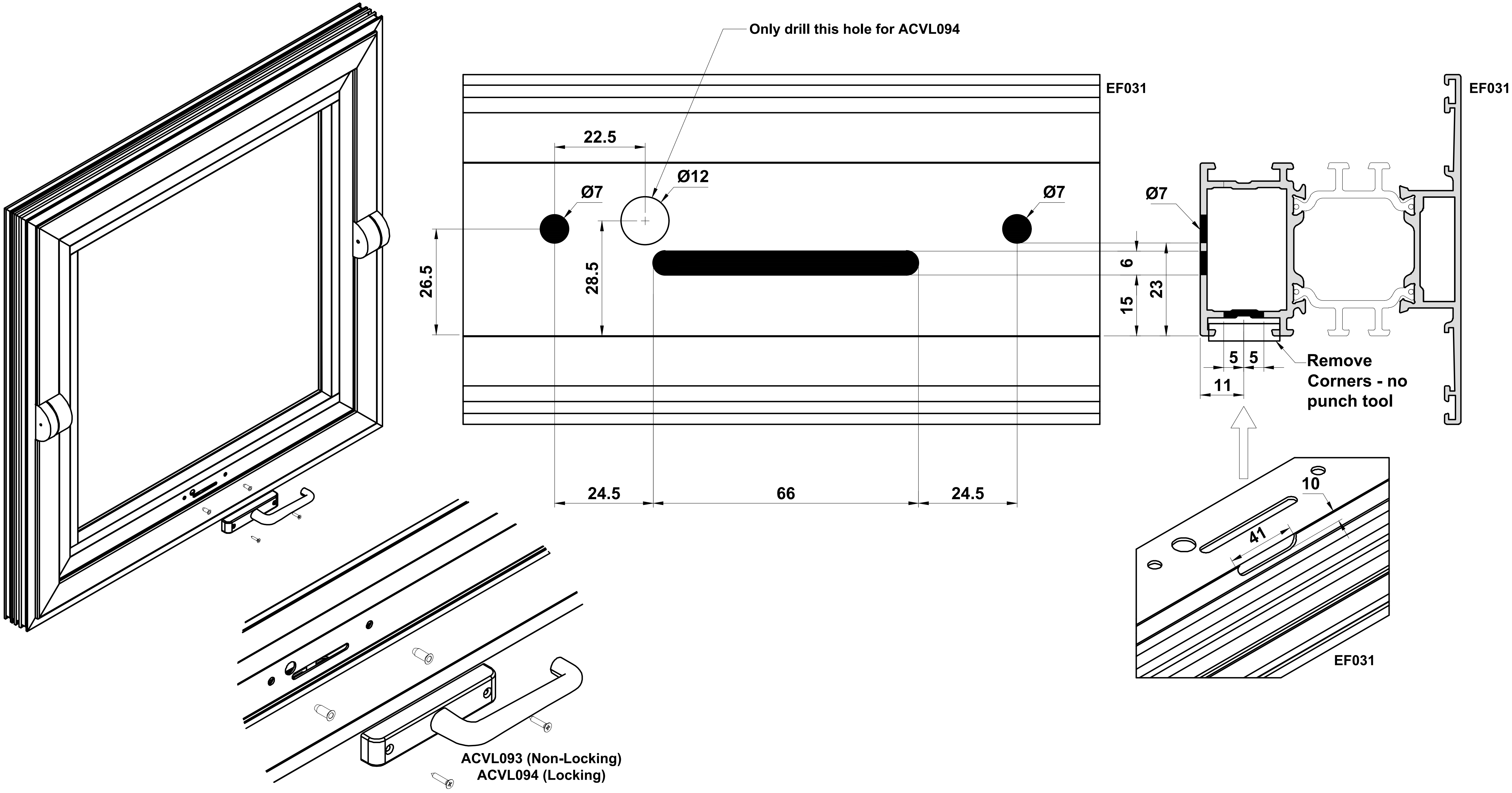
Pivot Window EF045 Preparation



Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

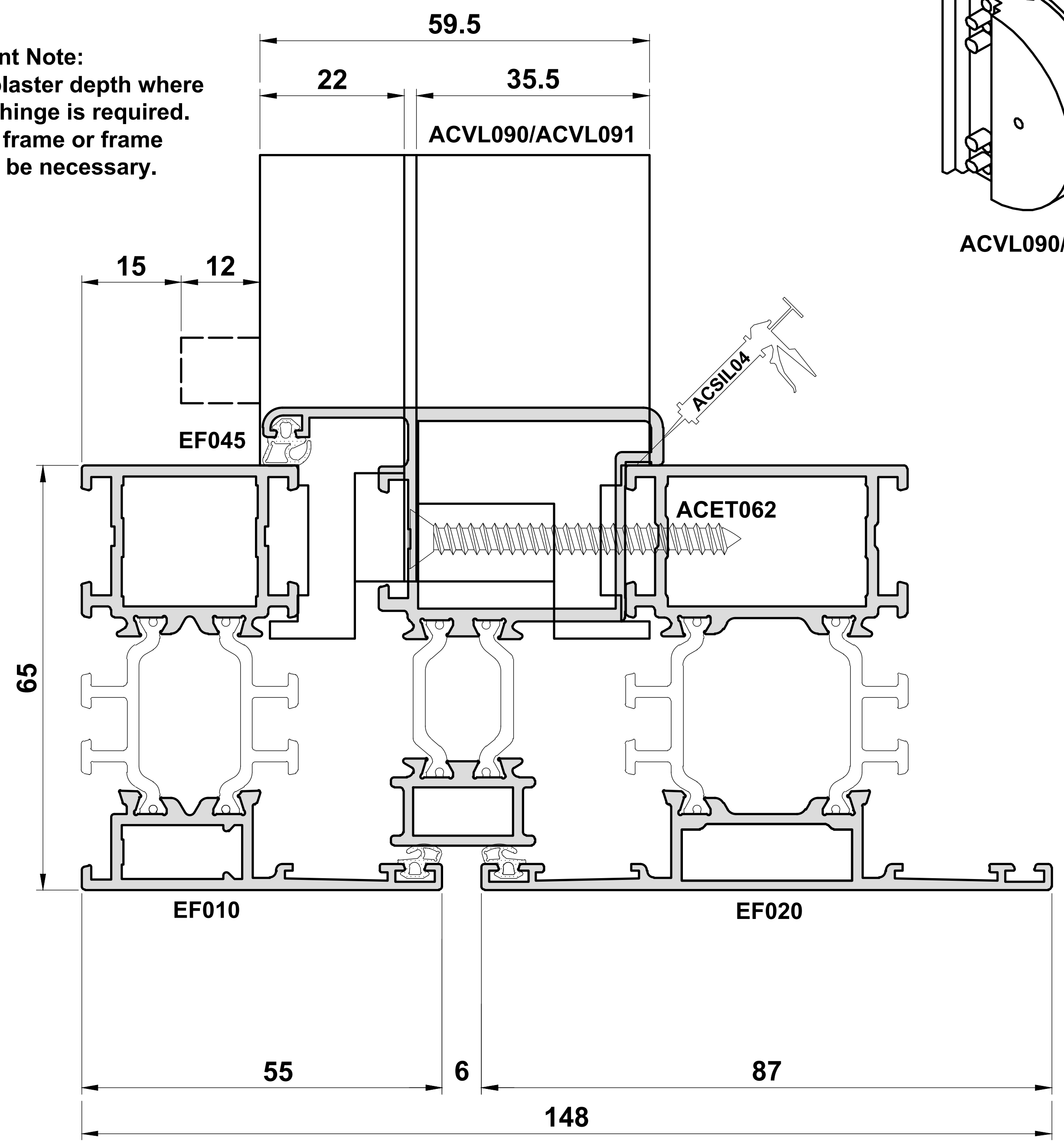
ACVL093 Preparation

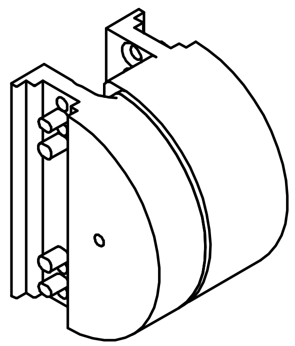


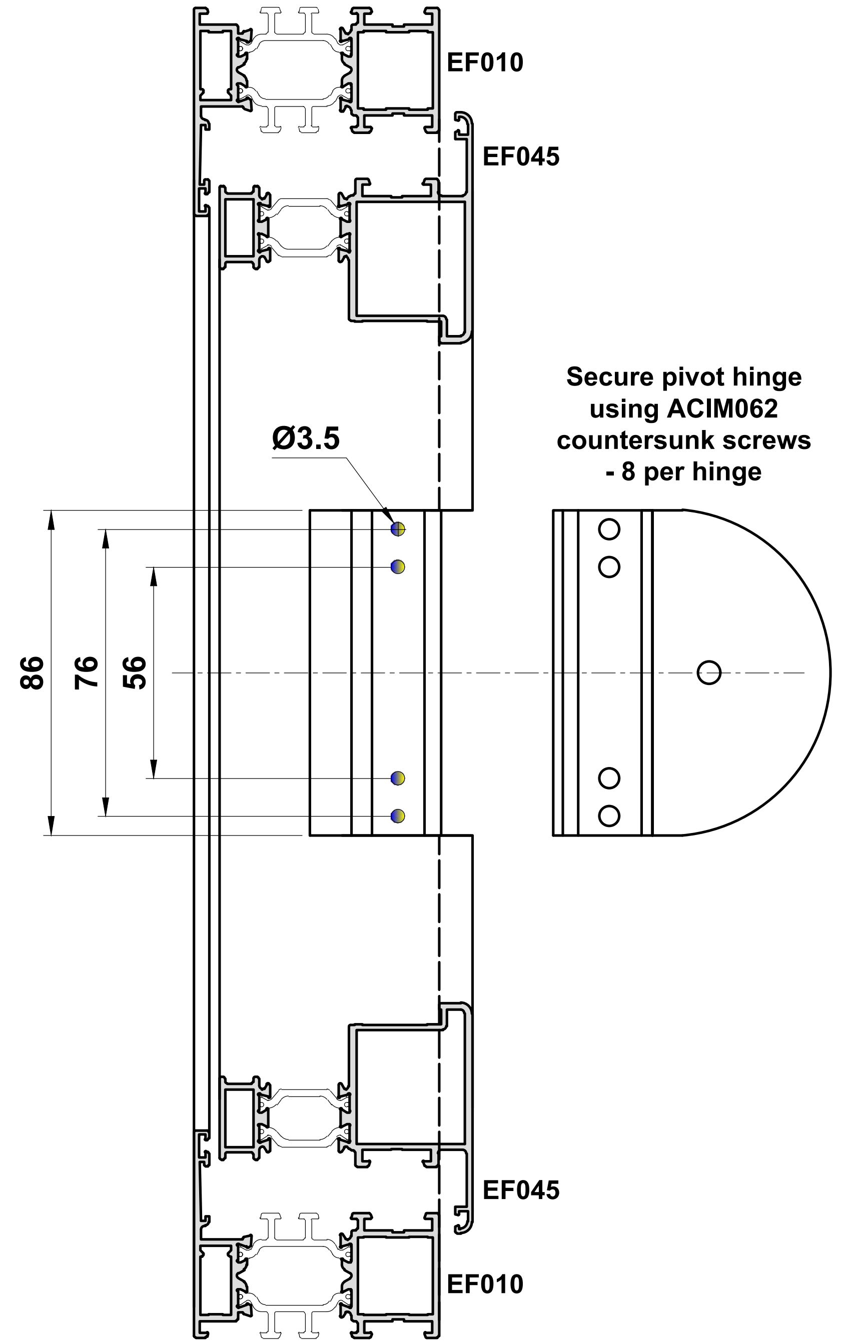
Do Not Scale From This Drawing

ACVL090 - ACVL091

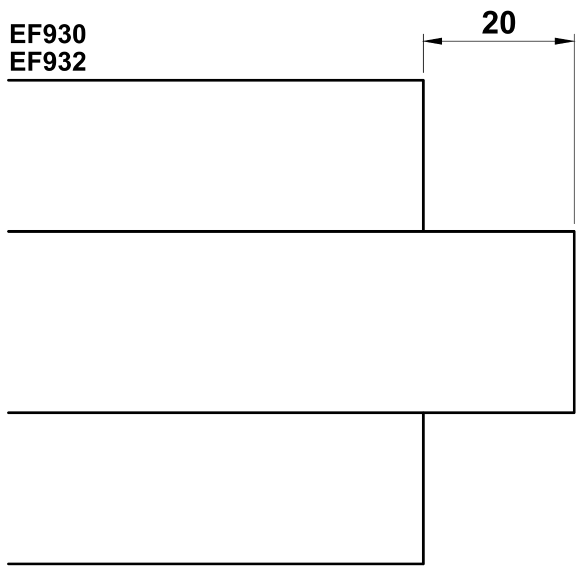
Important Note:
Consider internal plaster depth where a restricted pivot hinge is required. A deeper outer frame or frame extension may be necessary.



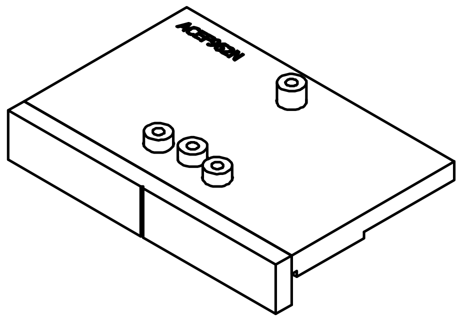




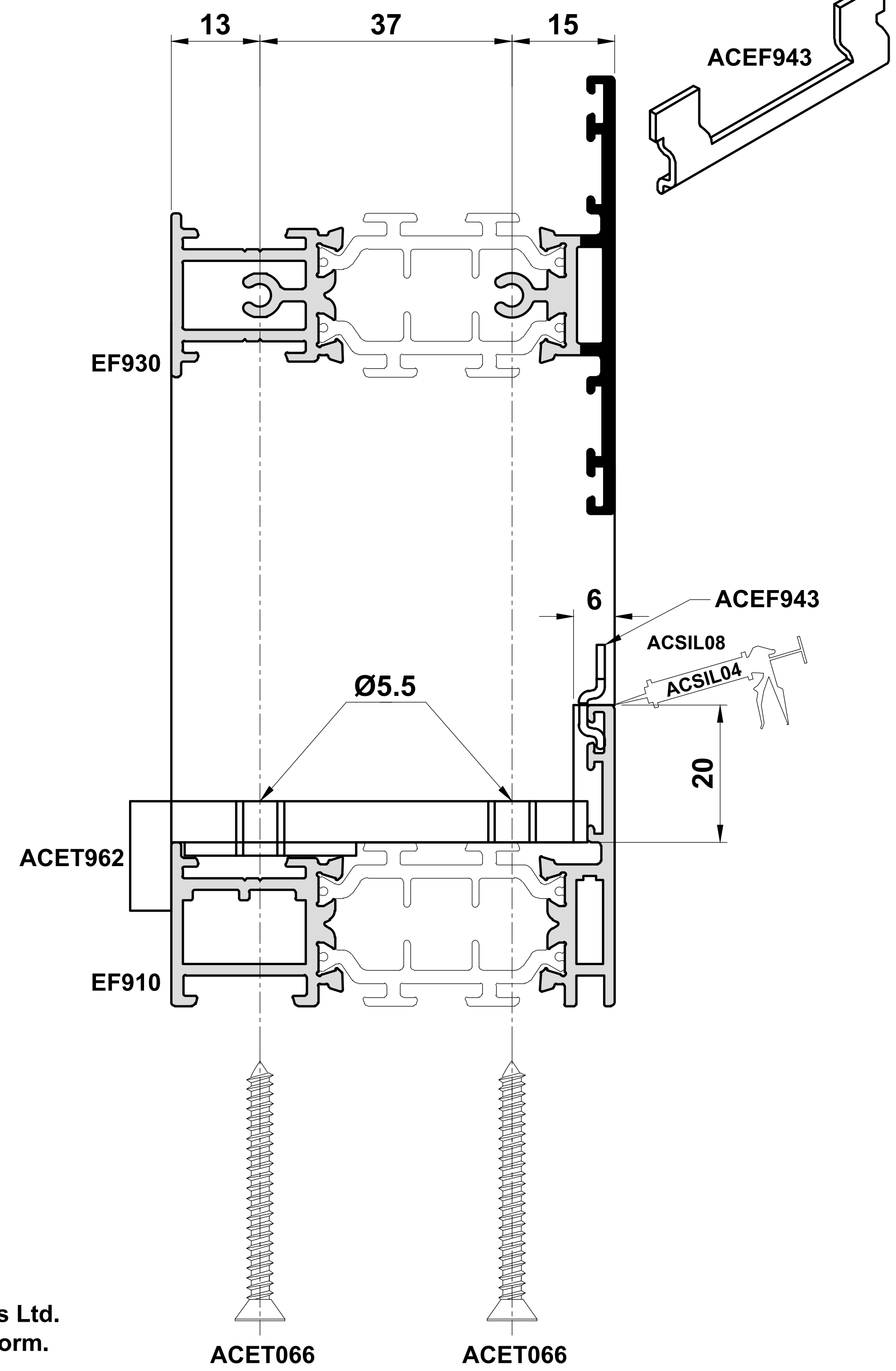
EF930 & EF932 Transom/Mullion Preparation

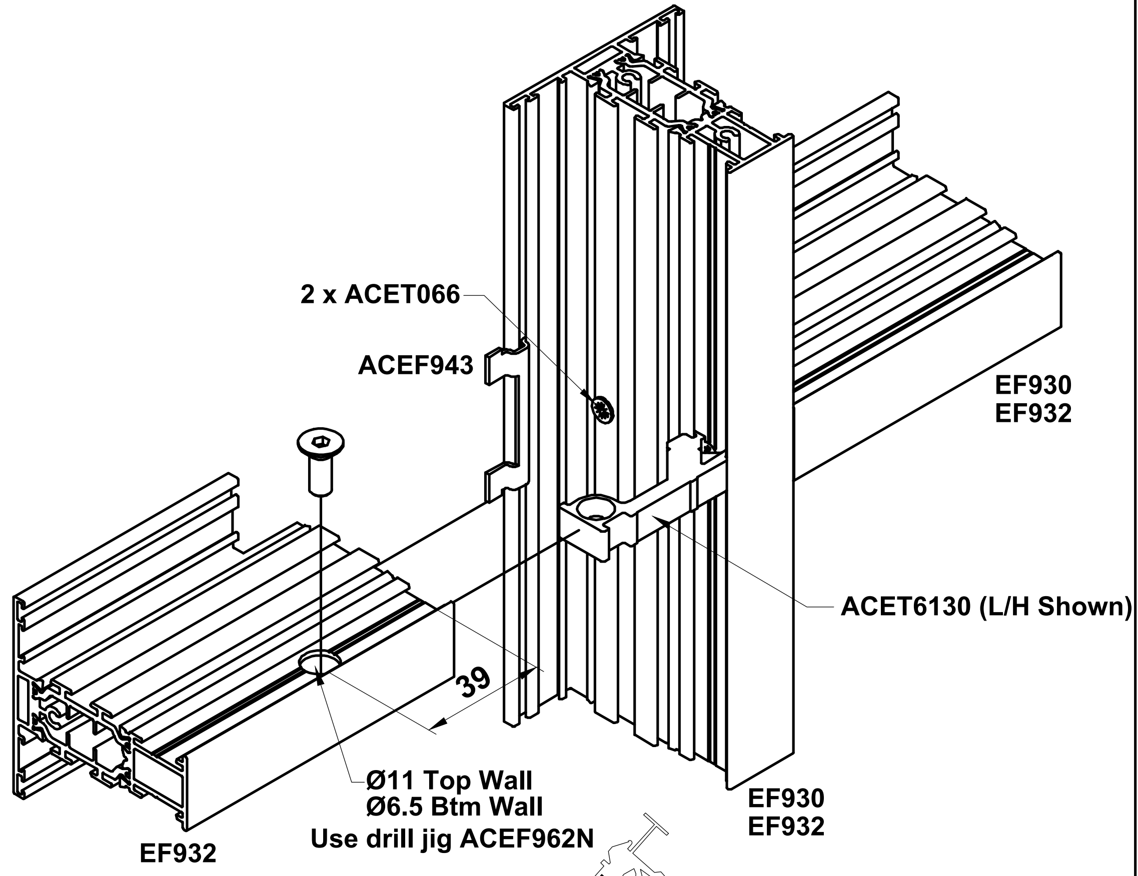


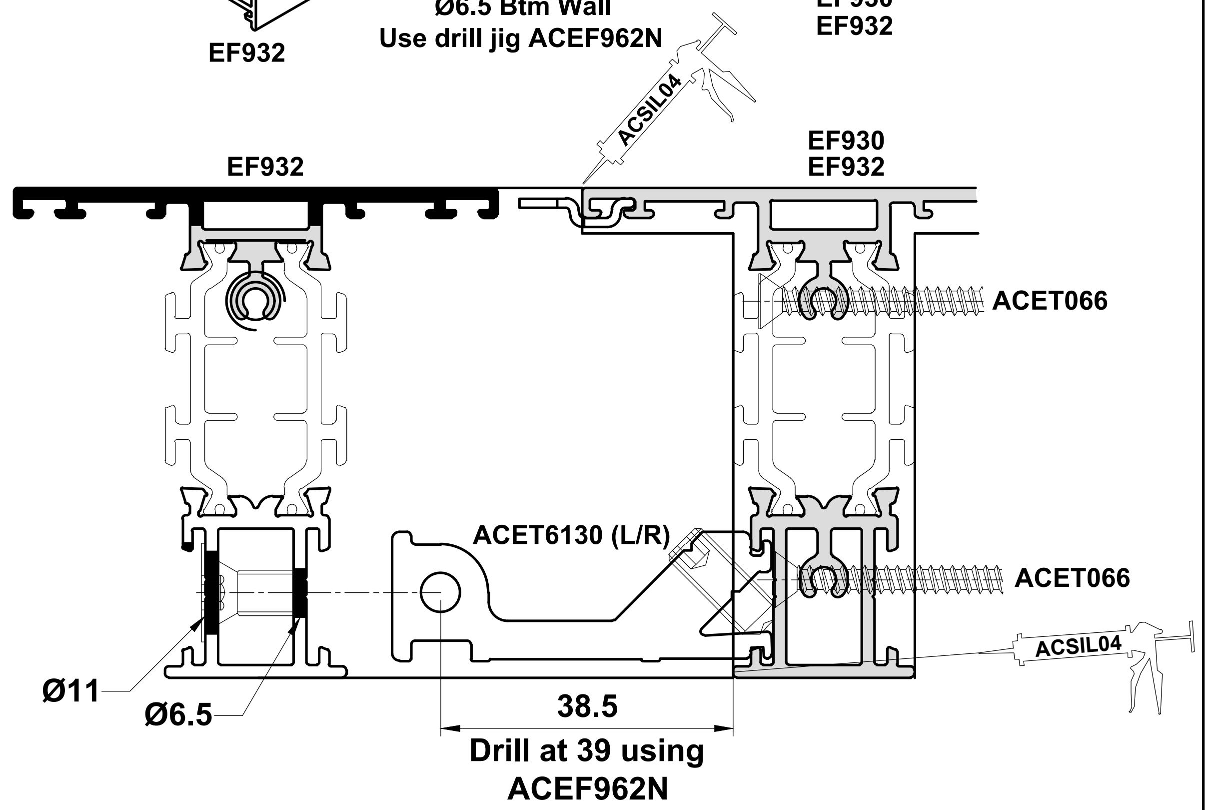
ACEF962N - Drill Jig
Note: Jig must be clamped in position to avoid risk of injury.



ACEF962N



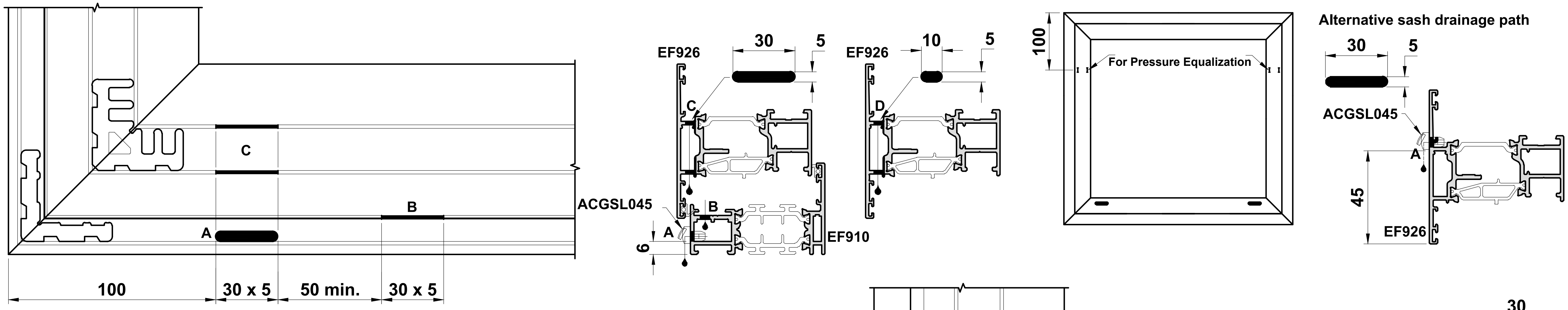




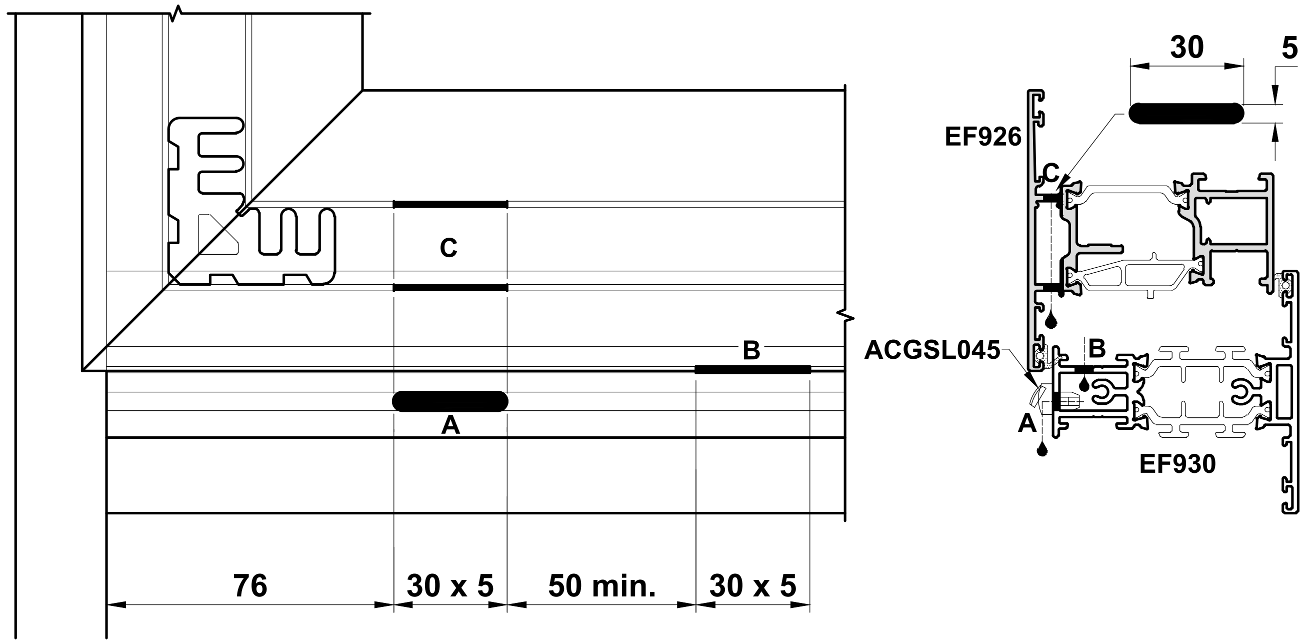
Note:
End mill cutters can be ordered through Smart Systems Ltd.
Please contact the Technical Department for an order form.
Standard delivery is 2-3 weeks approx.

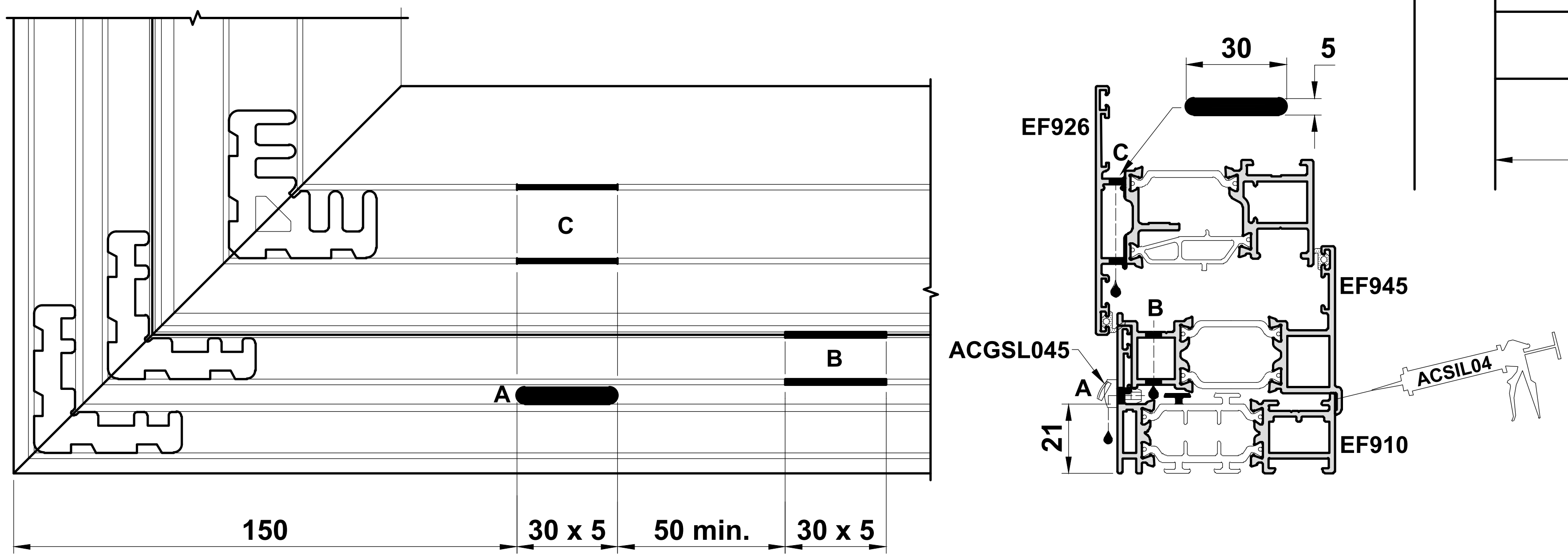
Do Not Scale From This Drawing

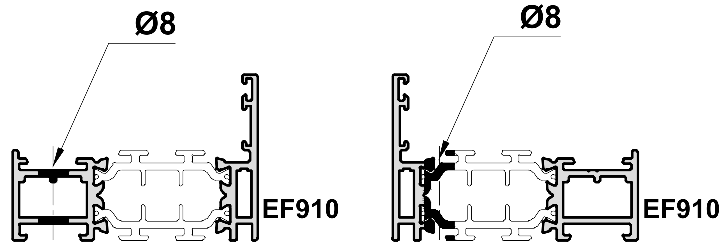
Casement Drainage



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





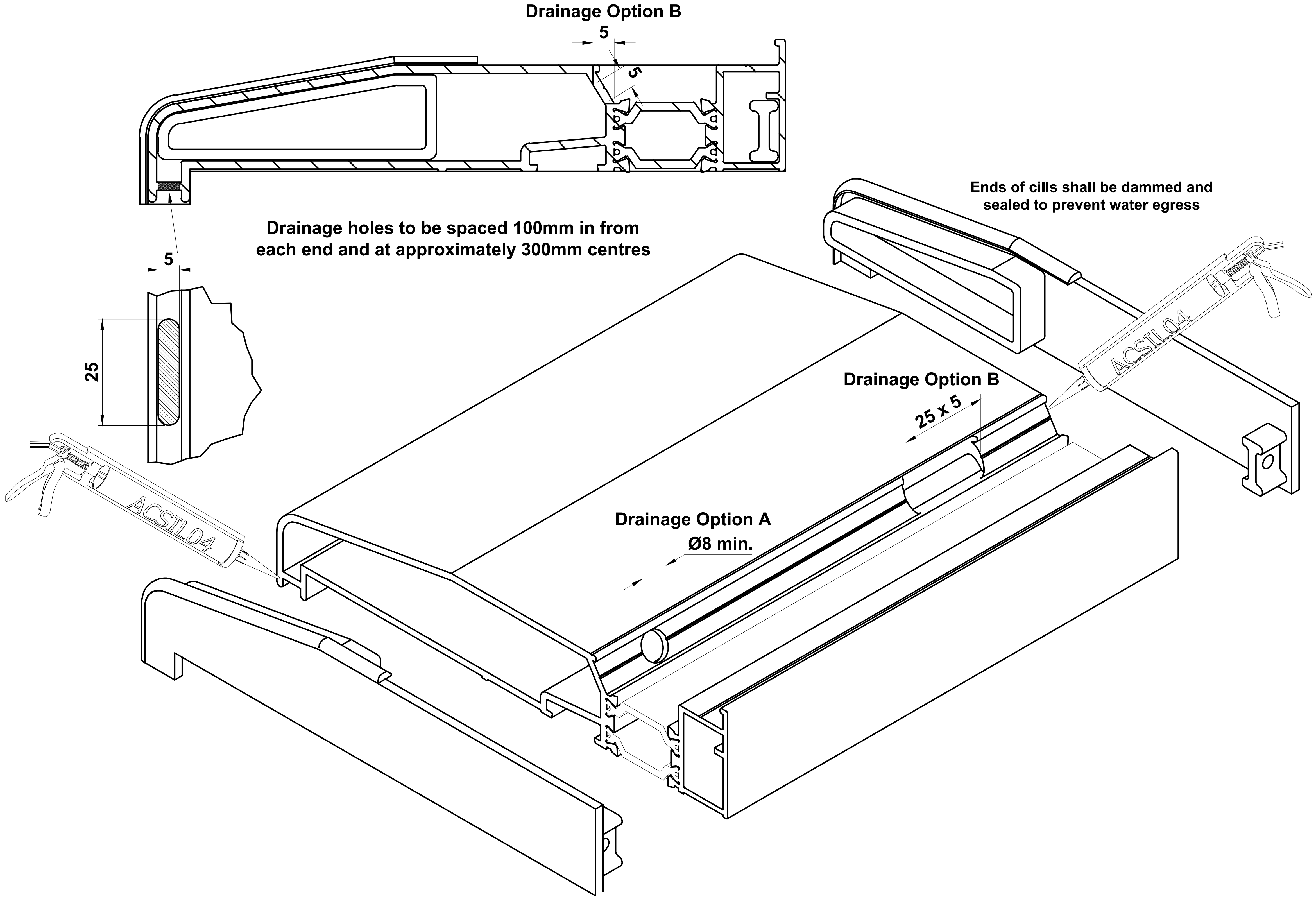


Optional drainage path when using cill

Do Not Scale From This Drawing

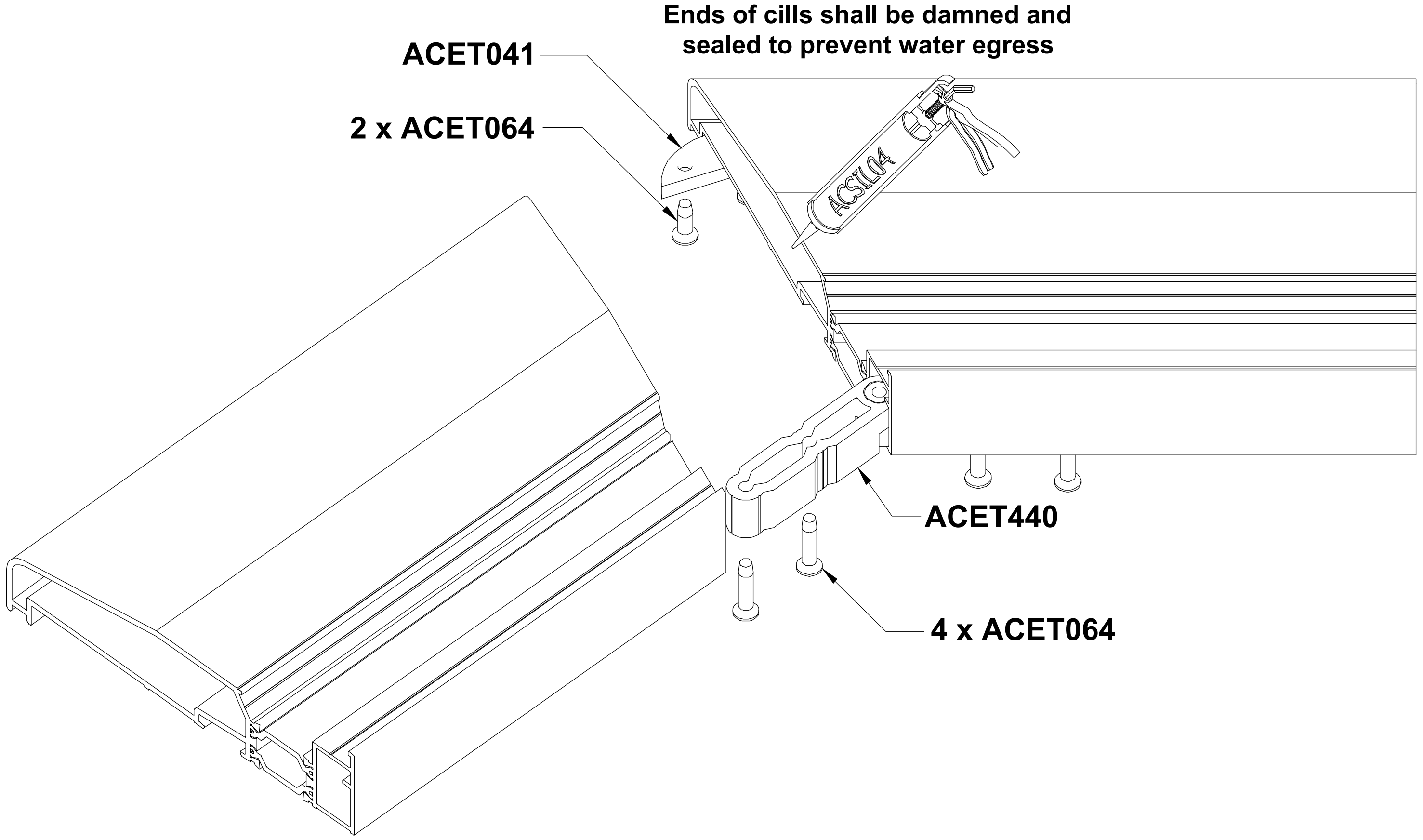
ISSUED: DECEMBER 2018

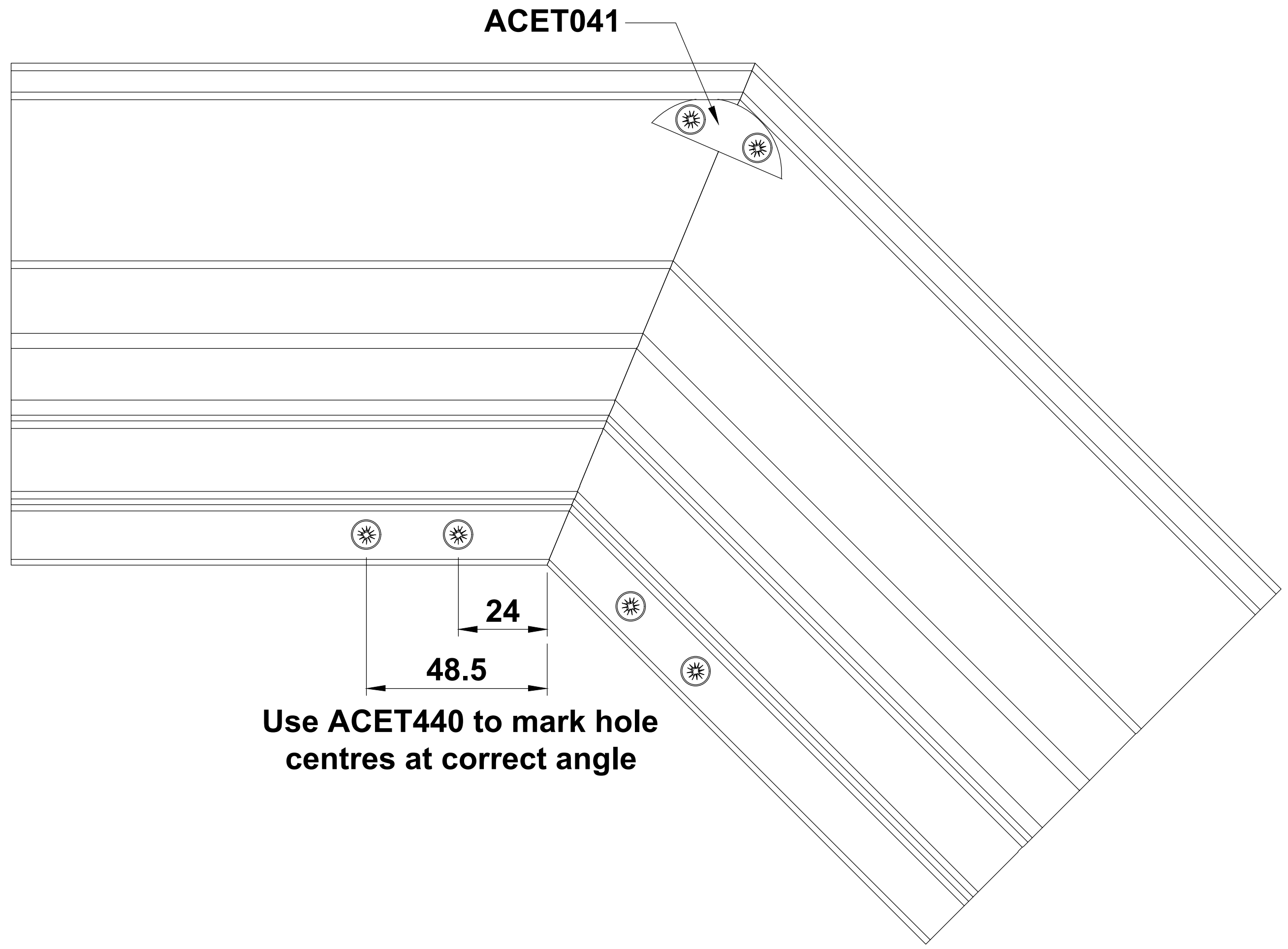
Sub Cill Drainage



Do Not Scale From This Drawing

Angled Sub Cill



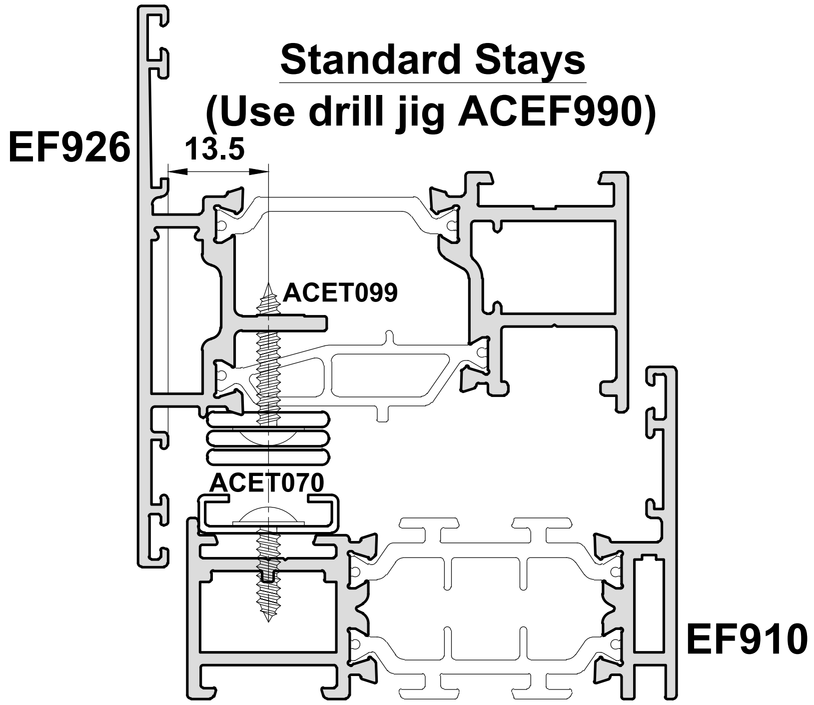


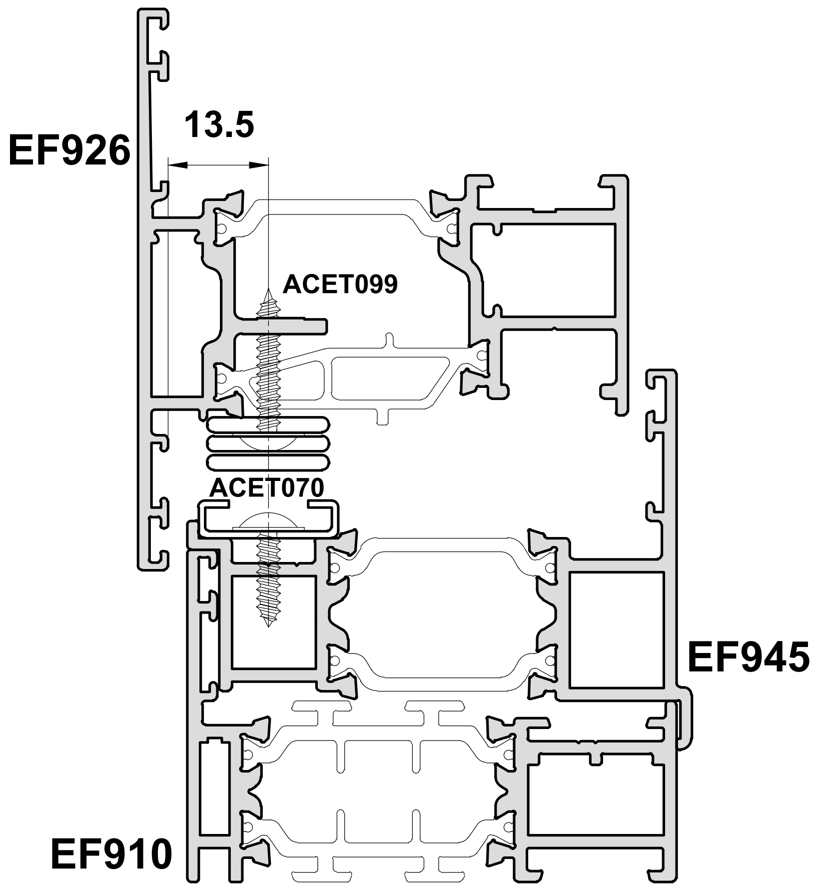
Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

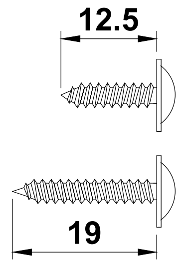
Friction Stay

Standard Stays
(Use drill jig ACEF990)



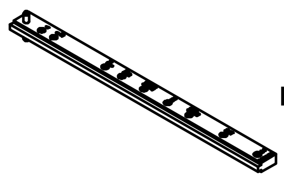


Vent Sizes 450mm or Smaller to be Reduced by 2mm

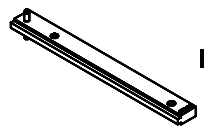


ACET070 = Recommended screw for fixing stay to outer frame

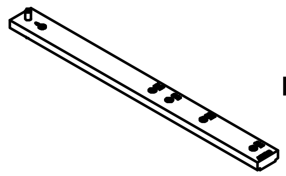
ACET099 = Recommended screw for fixing stay to sash



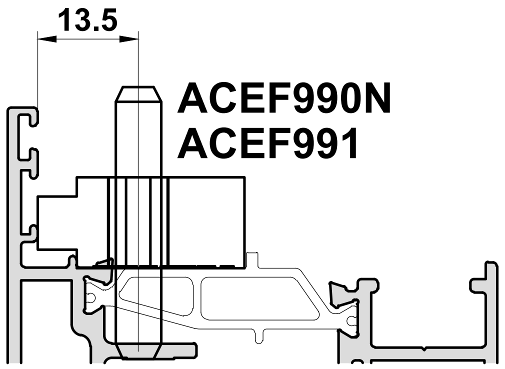
For standard hinges use drill jig = ACEF990N

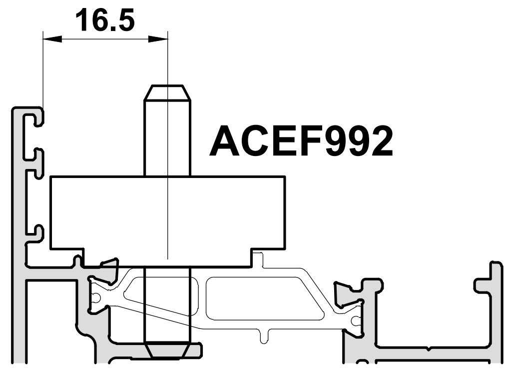


For egress hinges use drill jig = ACEF991

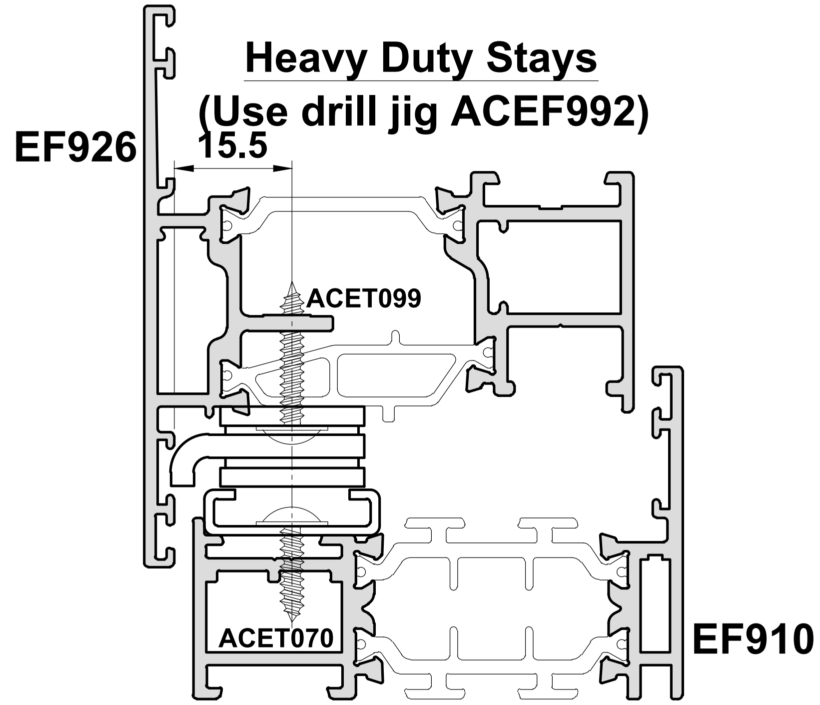


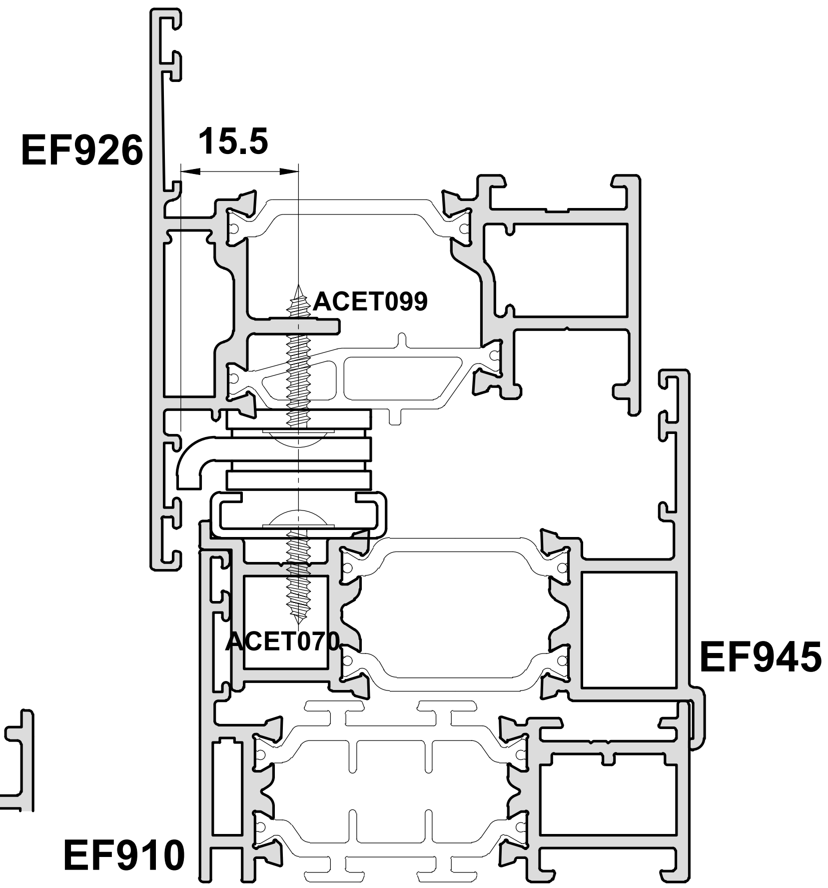
For heavy duty hinges use drill jig = ACEF992





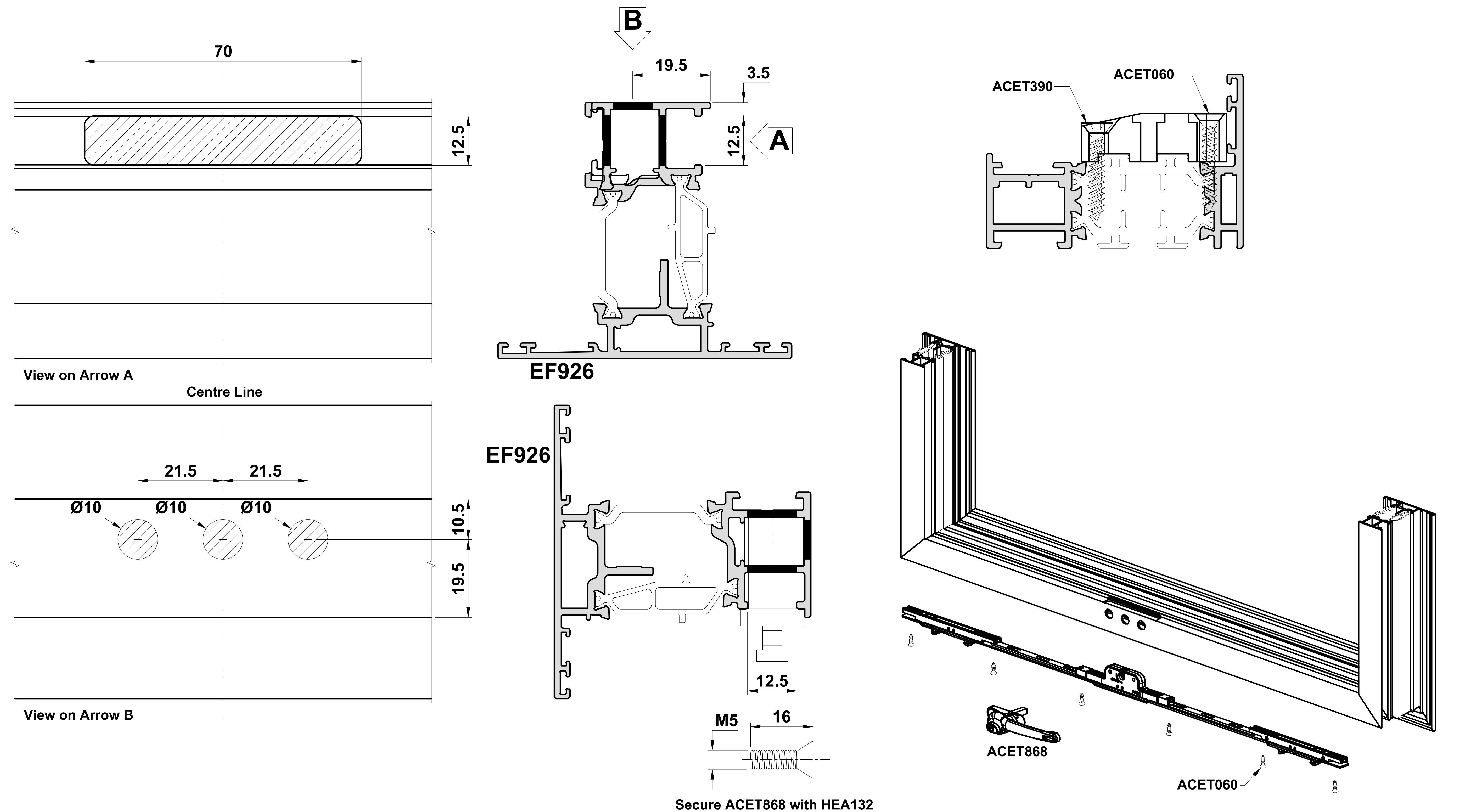
Heavy Duty Stays
(Use drill jig ACEF992)





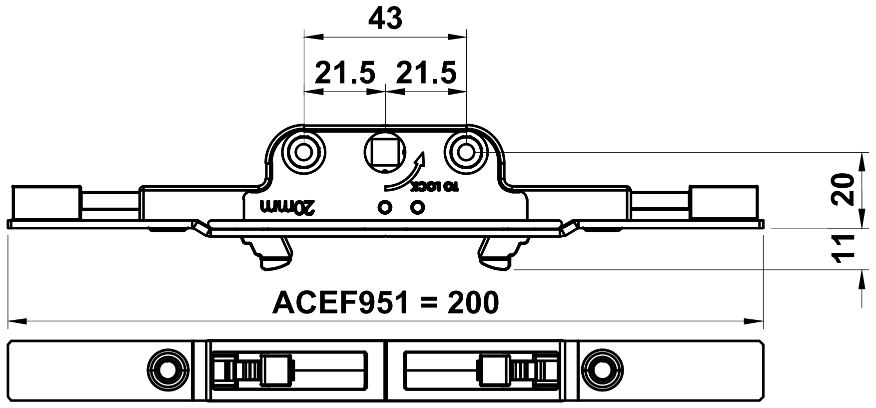
Do Not Scale From This Drawing

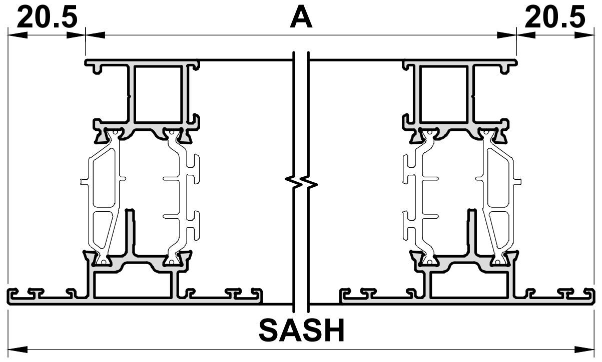
Retractable Locking Details with ACET868 Handle



Do Not Scale From This Drawing

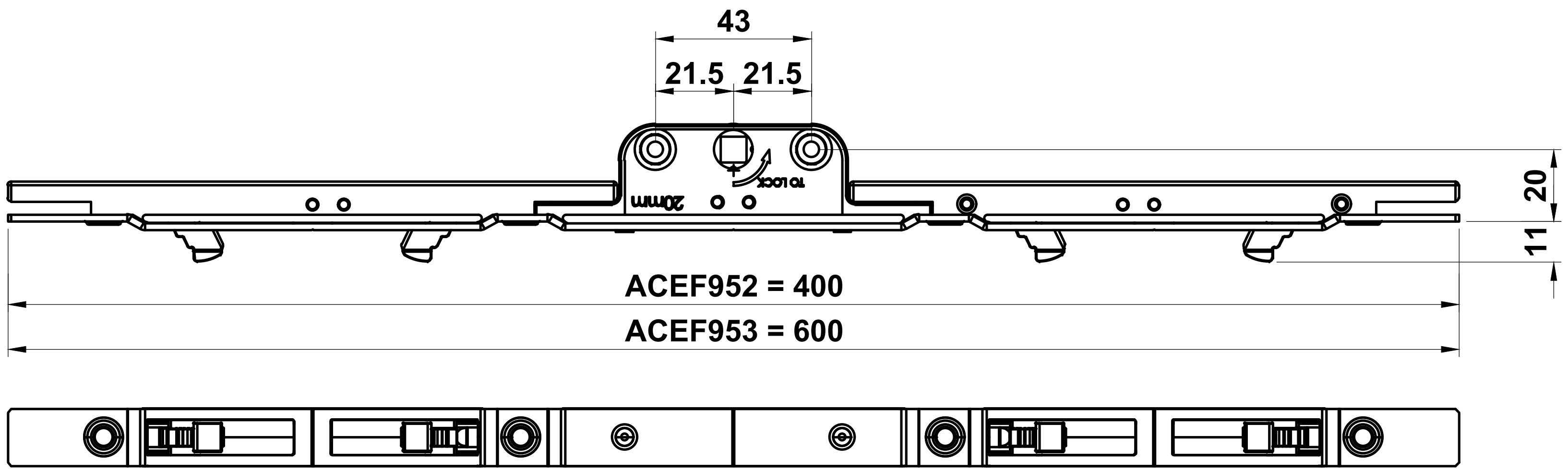
Lock Details



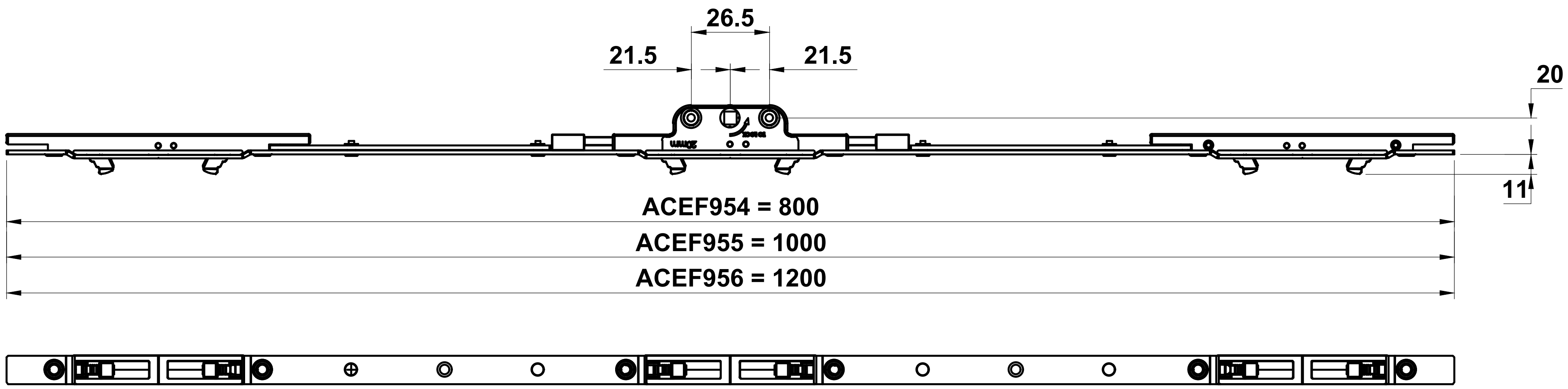


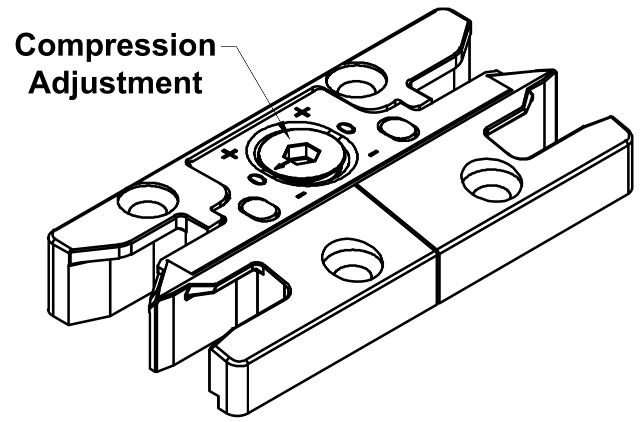
Part Code	Rod Length (mm)	Number of Keeps	Sash Rebate Size ('A')	
			Minimum	Maximum
ACEF951	200	1	200	400
ACEF952	400	2	400	600
ACEF953	600	2	600	800
ACEF954	800	3	800	1000
ACEF955	1000	3	1000	1200
ACEF956	1200	3	1200	1400

Note: To Suit Handle ACET868



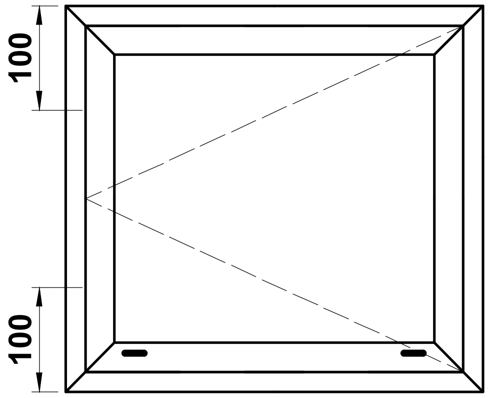
Scale 1:20



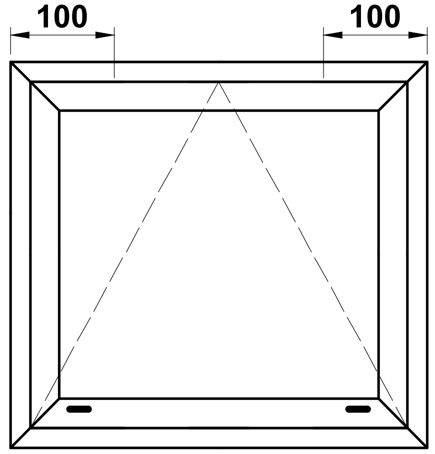


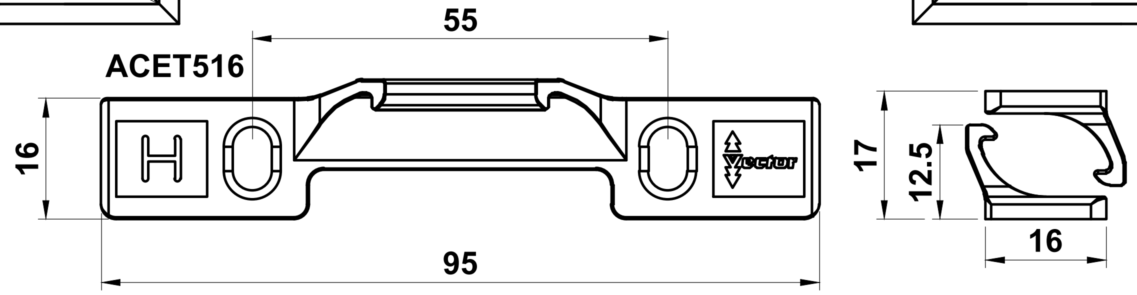
Do Not Scale From This Drawing

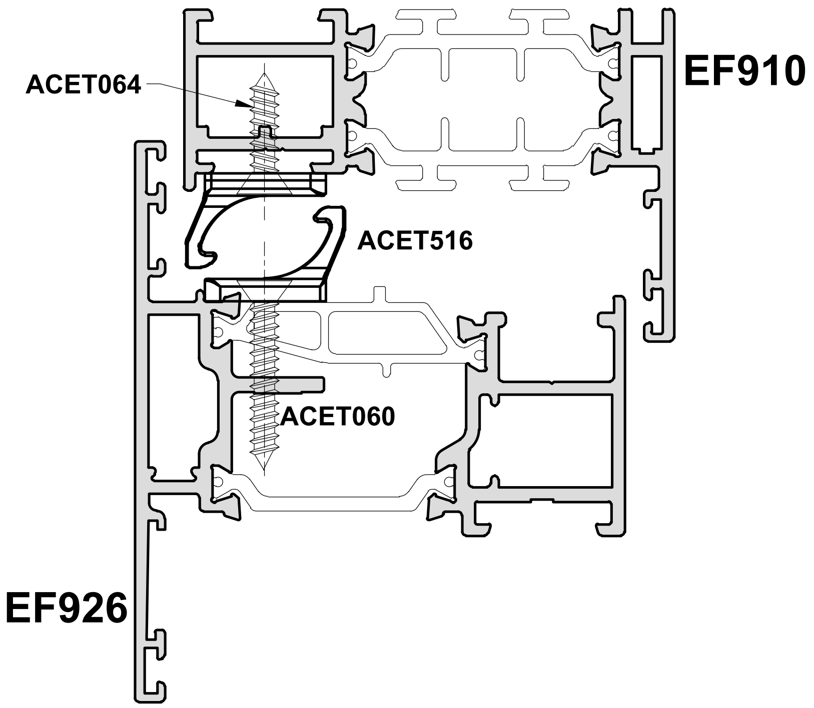
Security Hinge Protectors & Pull-In Blocks

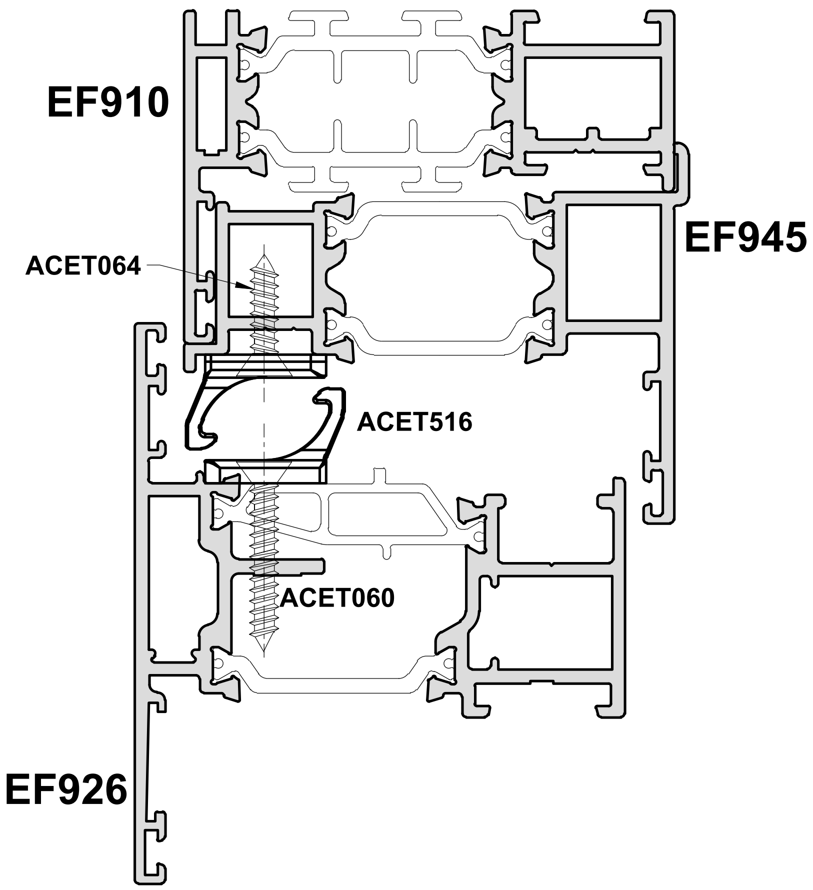


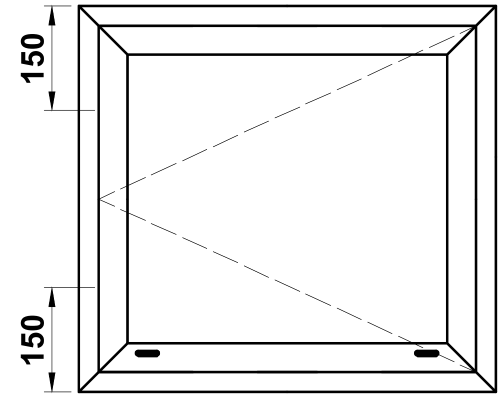
Please Note:
- 2 pairs per opening vent to be fitted to hinged side of window
- Each pair must be fitted with the hook centre within 100mm of each hinge



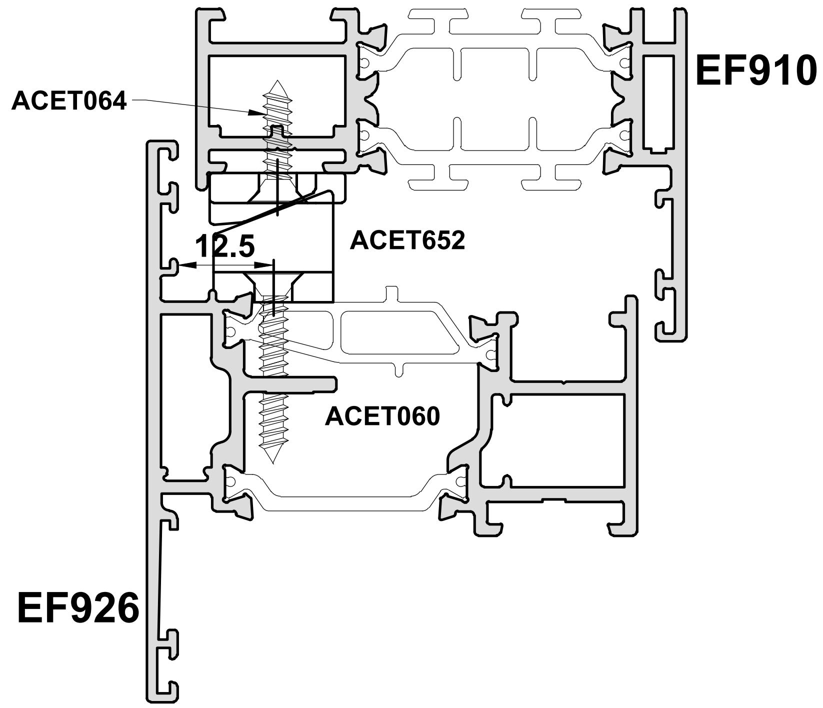






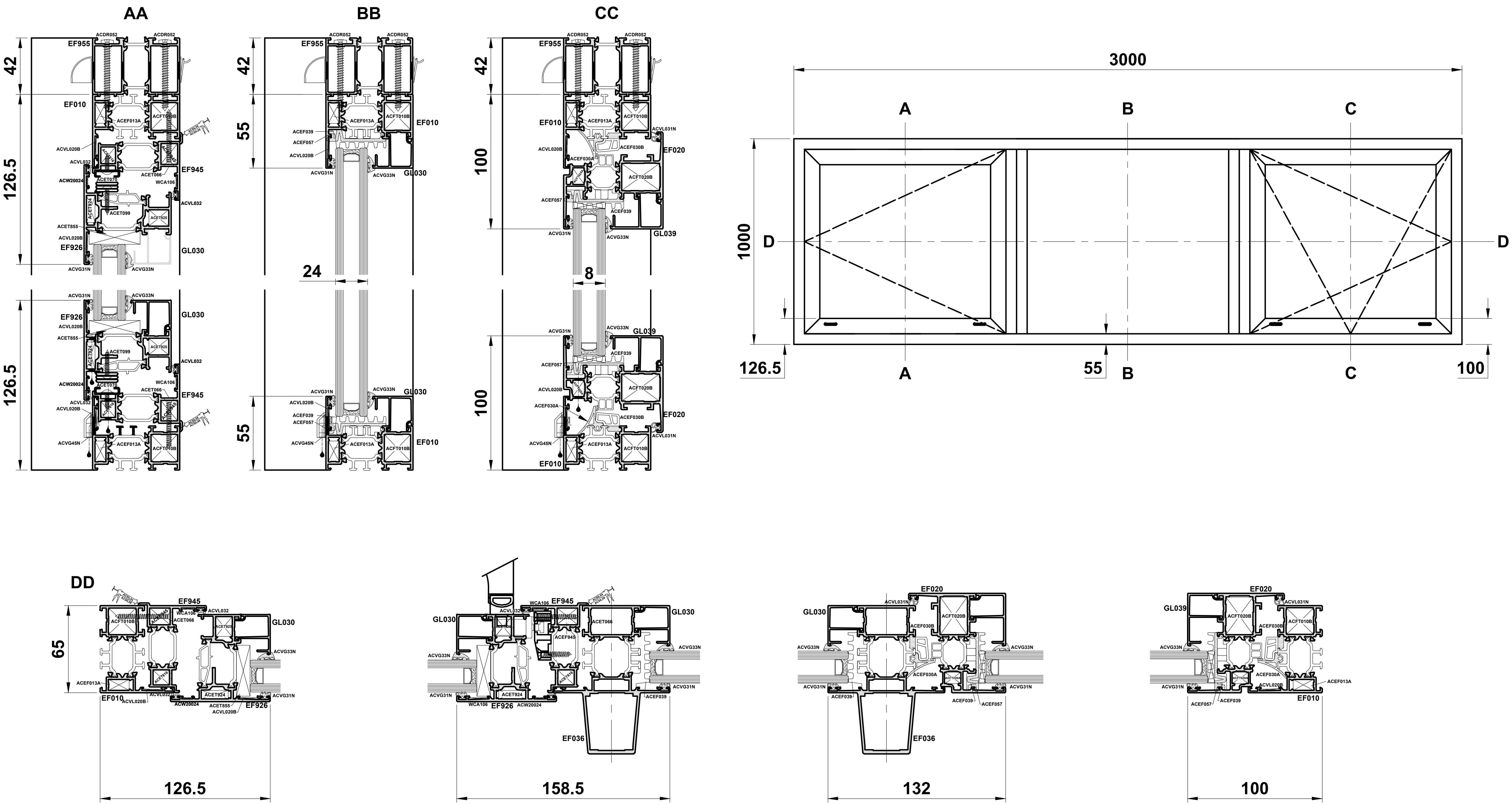


Please Note:
- 2 pairs per opening vent to be fitted to hinged side of window
- Each pair must be fitted with the wedge centre within 150mm of each hinge and in the centre of the window when sash height is greater than 800mm.



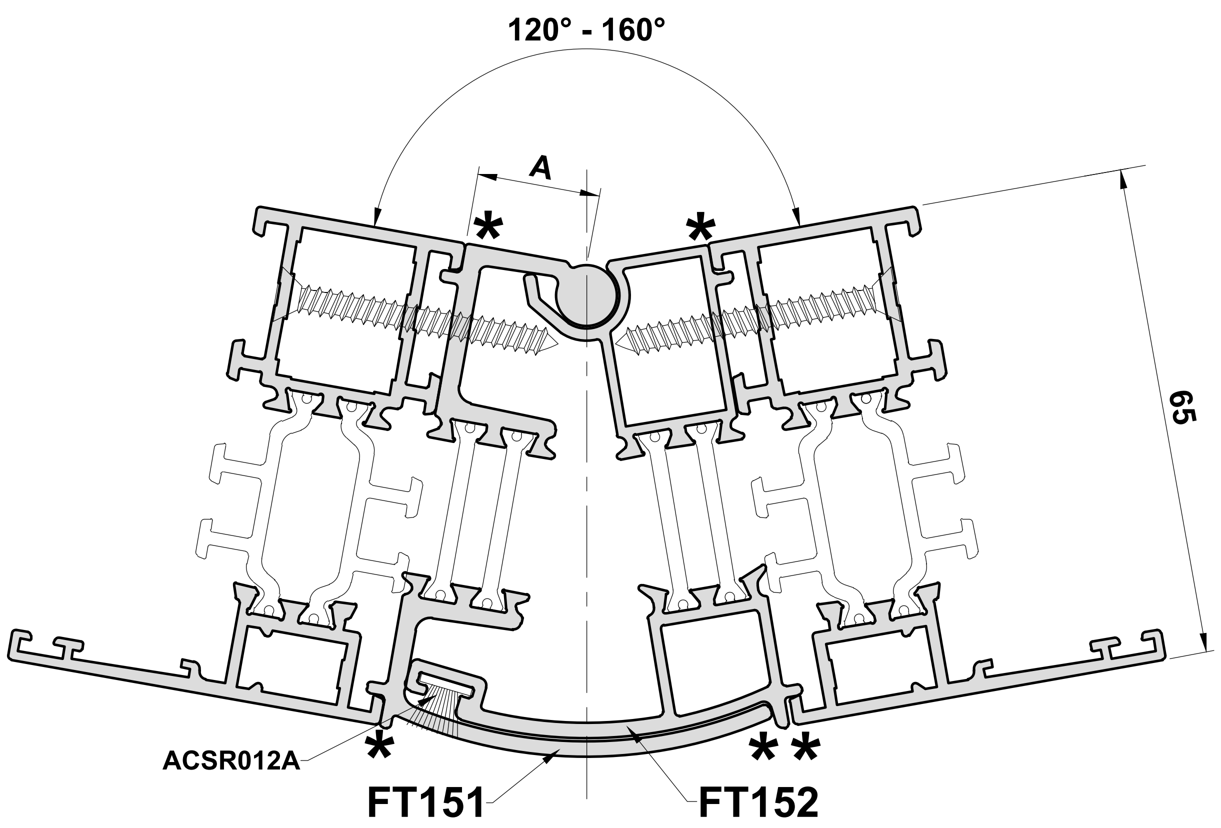
Do Not Scale From This Drawing

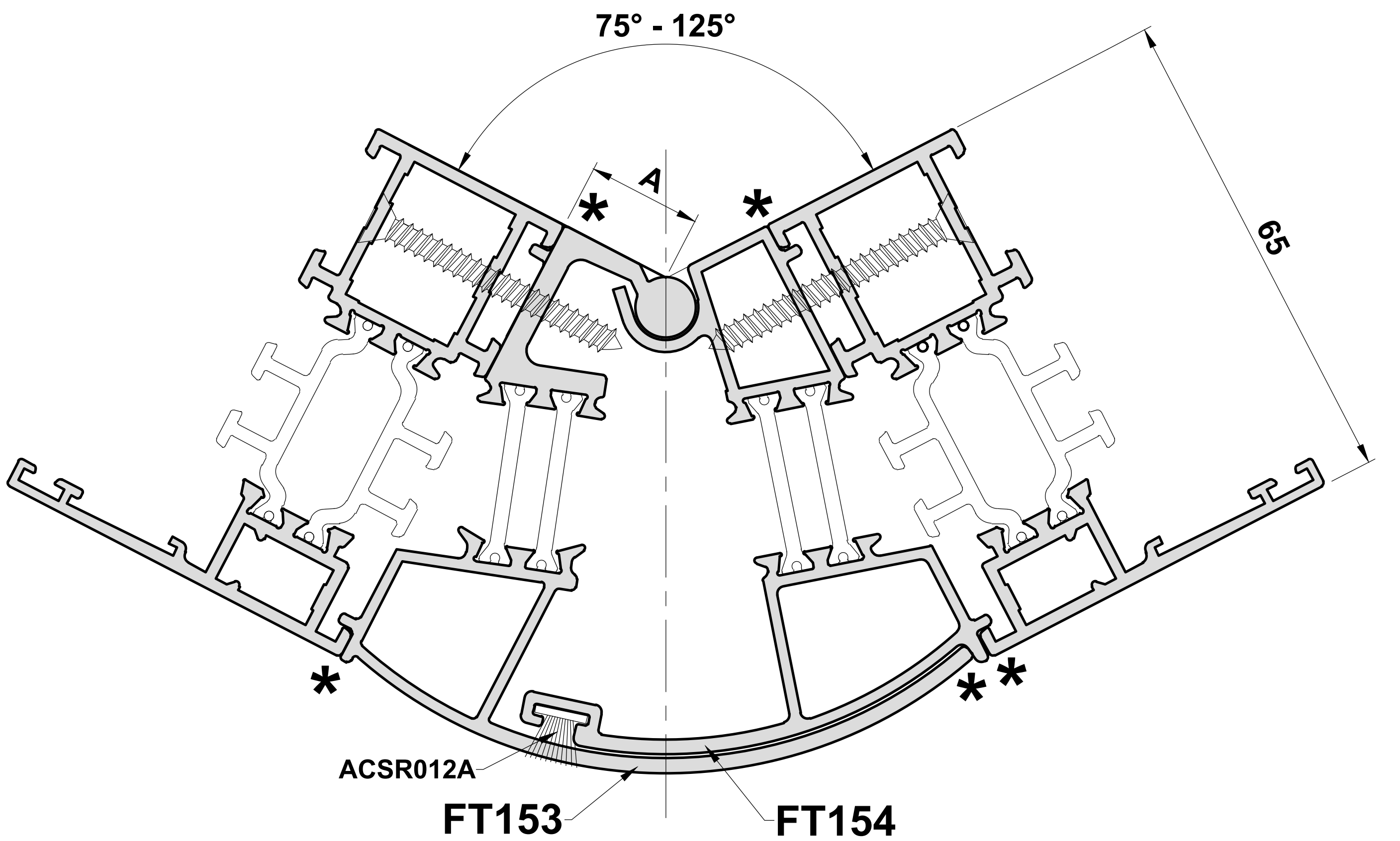
Example Layout



Do Not Scale From This Drawing

Bay Pole Deductions





ANGLE	DEDUCTION 'A'
120°	14.5
125°	15
130°	15
135°	15.5
140°	15.5
145°	15.5
150°	16
155°	16
160°	16.5

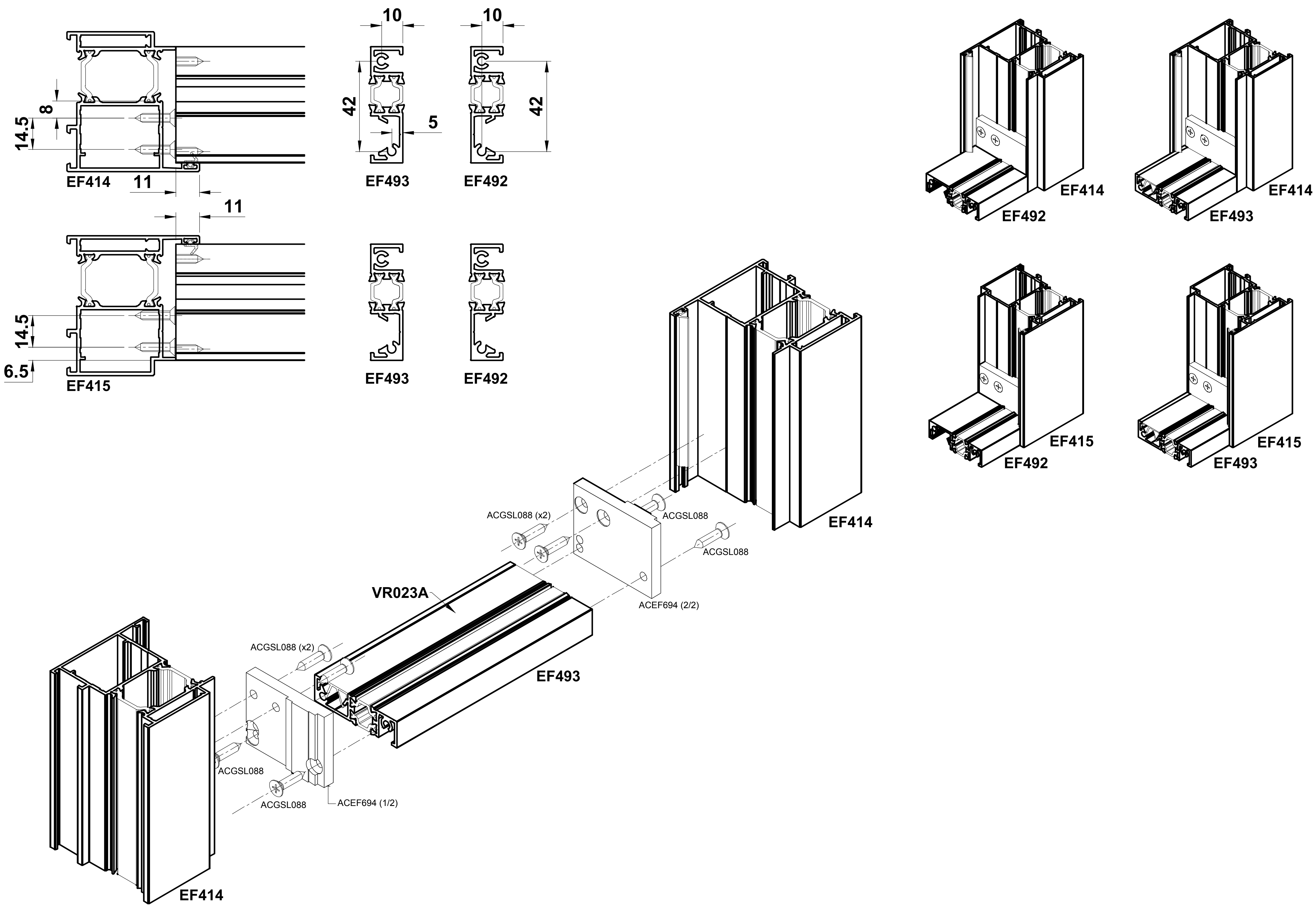
= *

ANGLE	DEDUCTION 'A'
75°	12.5
80°	13
85°	13
90°	13.5
95°	14
100°	14
105°	14.5
110°	14.5
115°	15
120°	15
125°	15

Do Not Scale From This Drawing

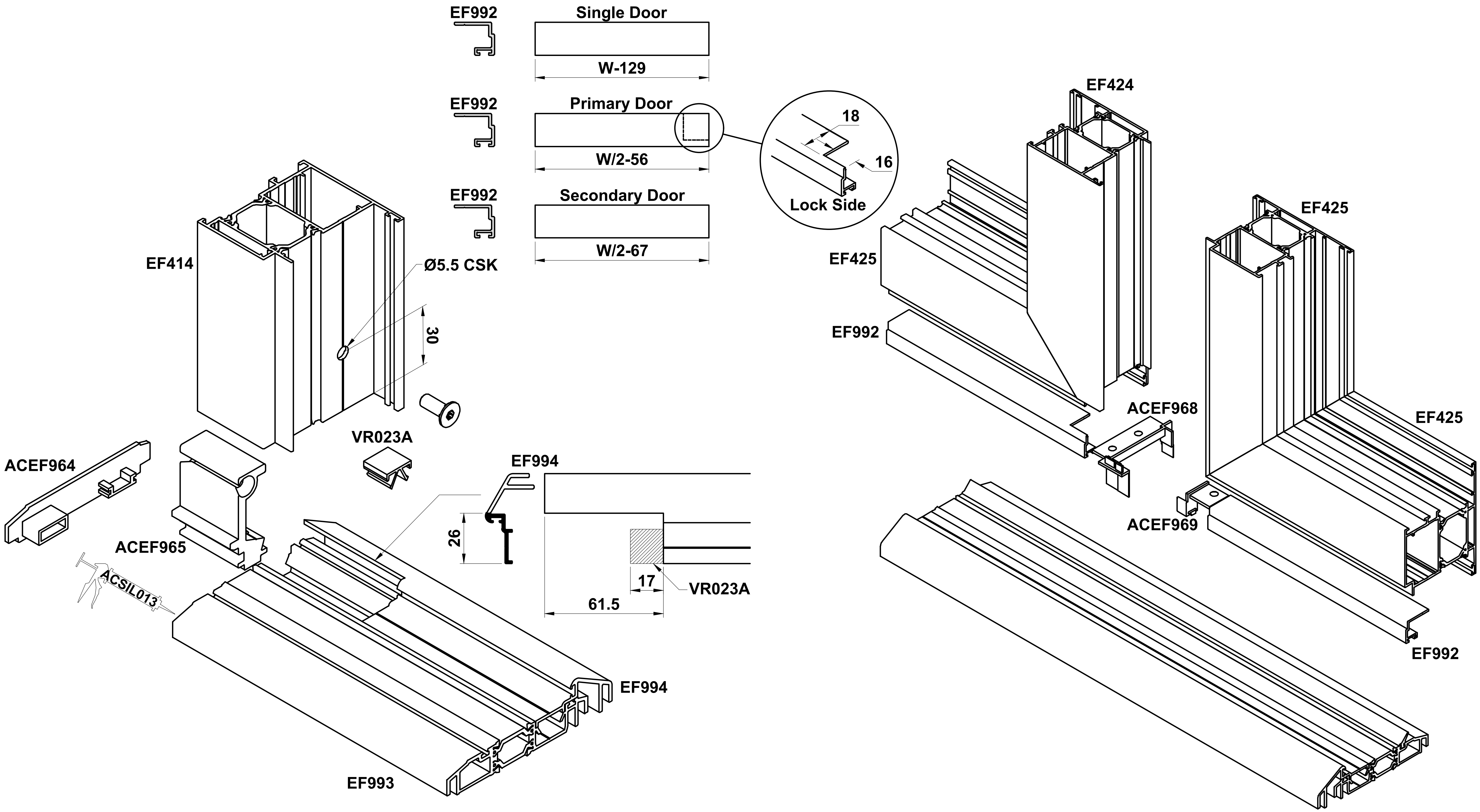
ISSUED: DECEMBER 2018

EF492 & EF493 Low Threshold Joint Details



Do Not Scale From This Drawing

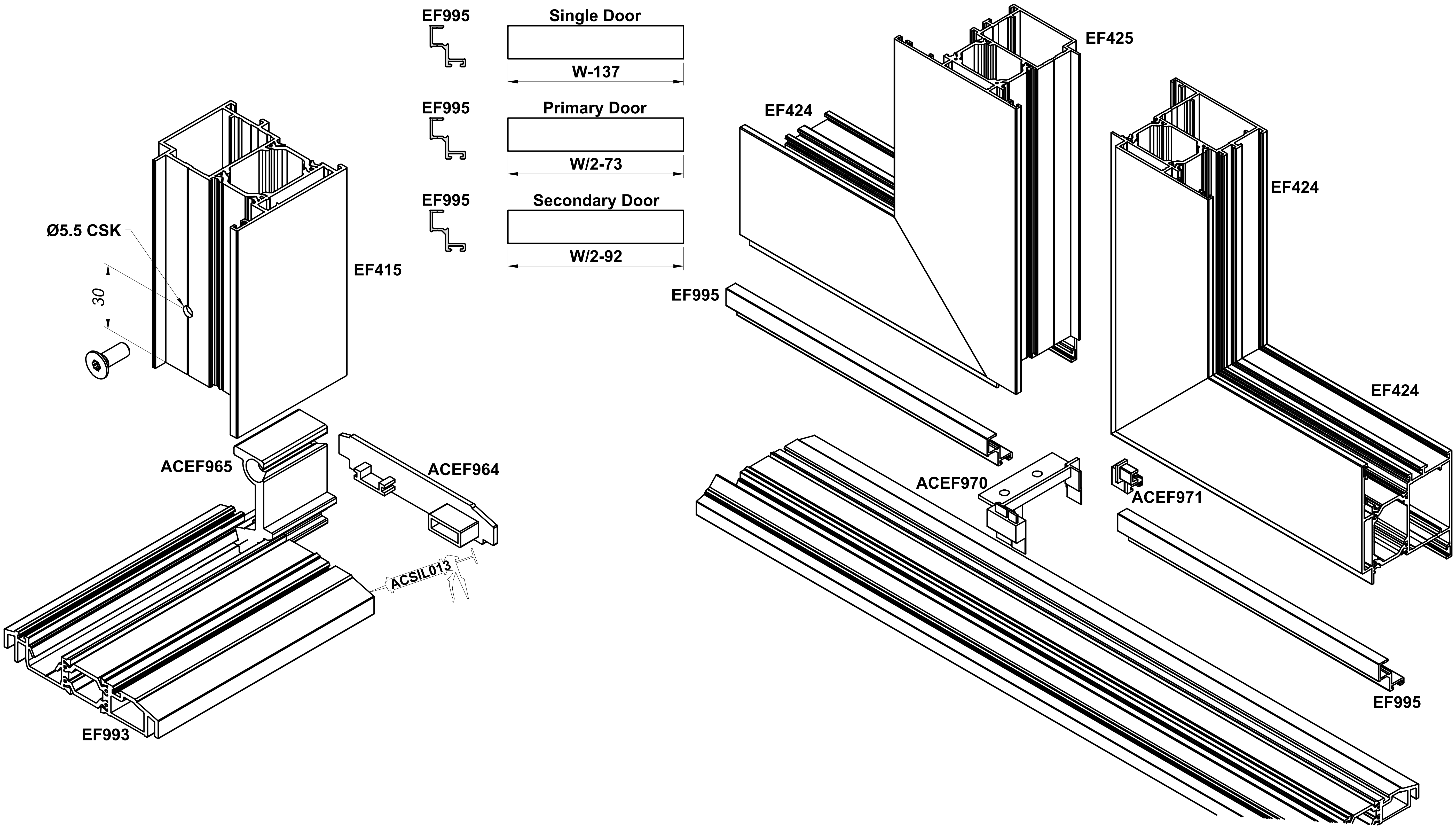
EF414 to EF993 Low Threshold Joint Details



Do Not Scale From This Drawing

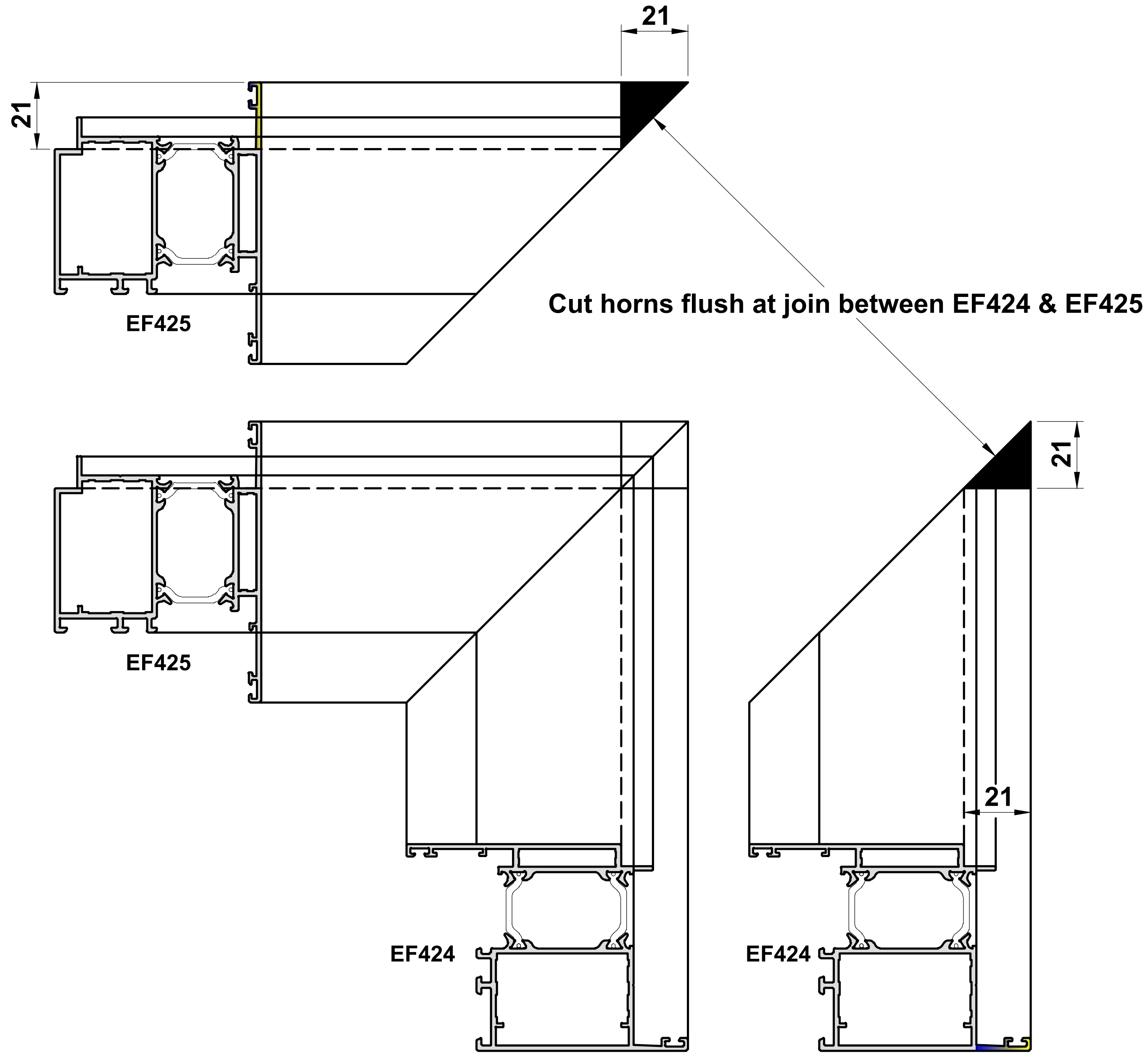
ISSUED: DECEMBER 2018

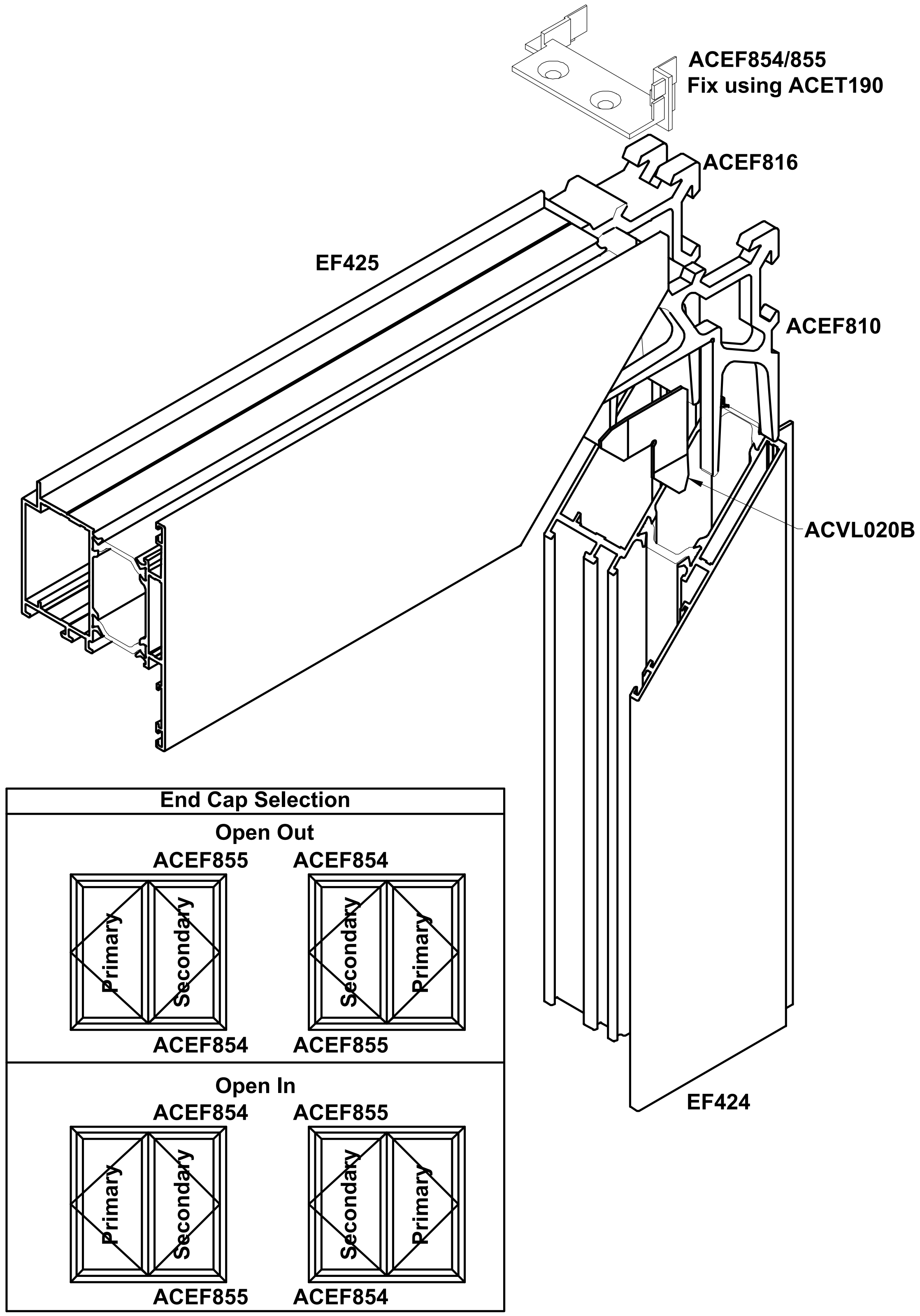
EF415 to EF993 Low Threshold Joint Details



Do Not Scale From This Drawing

EF424 & EF425 Join

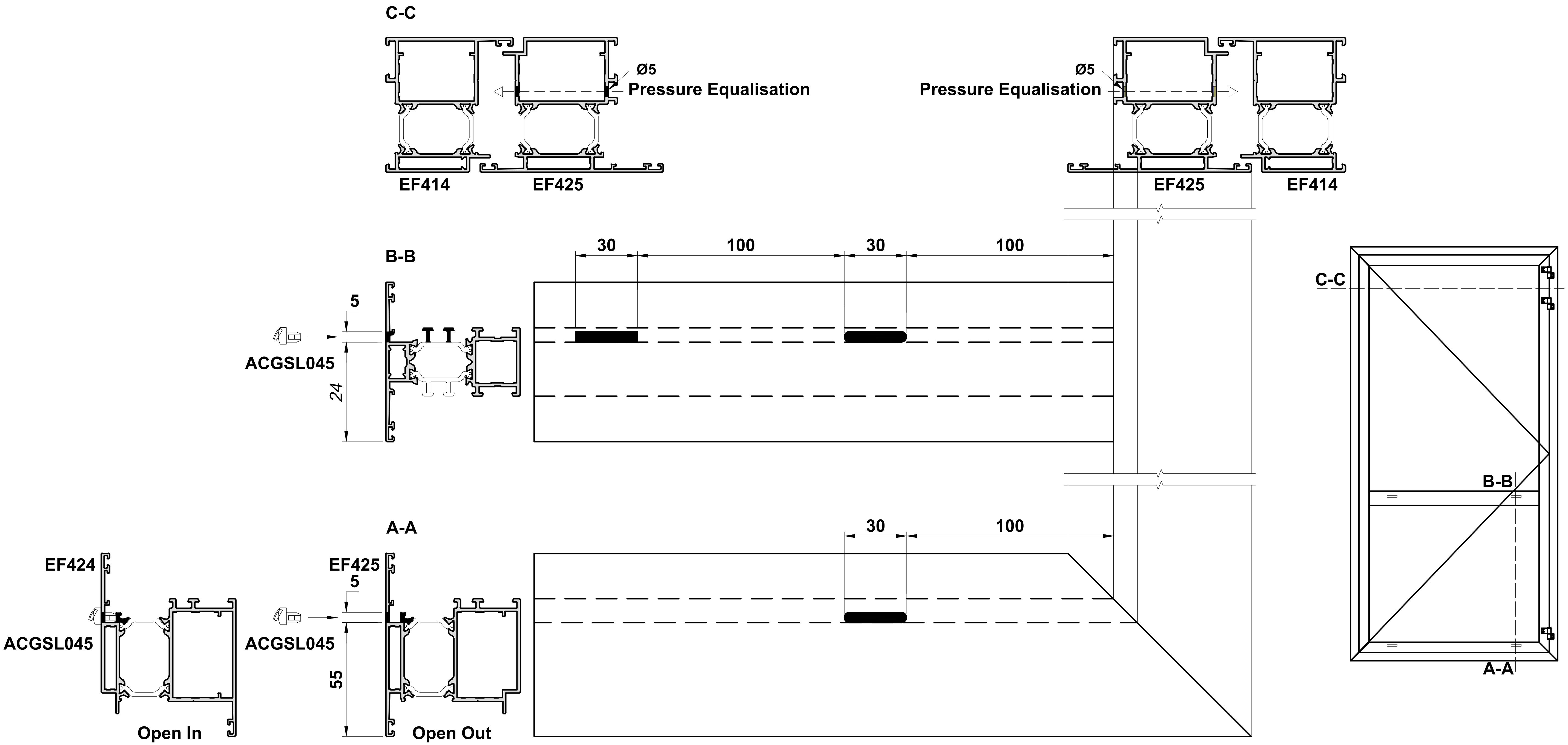




Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

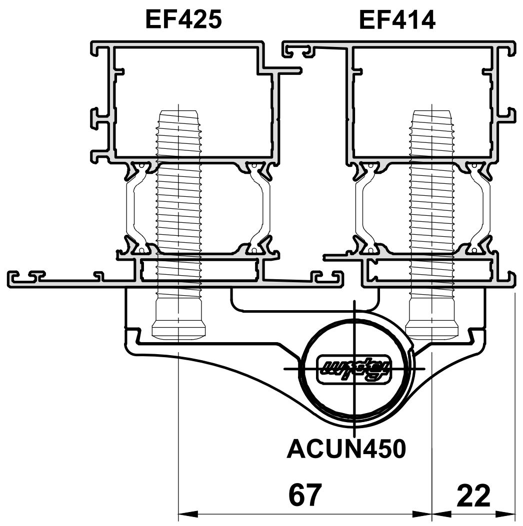
Door Drainage Details

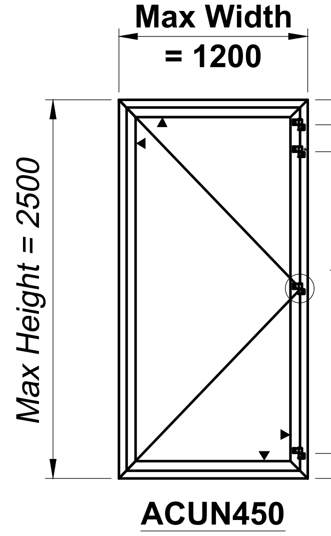


Do Not Scale From This Drawing

ACUN450 Door Hinge Details

Use Drill Jig = ACUN480

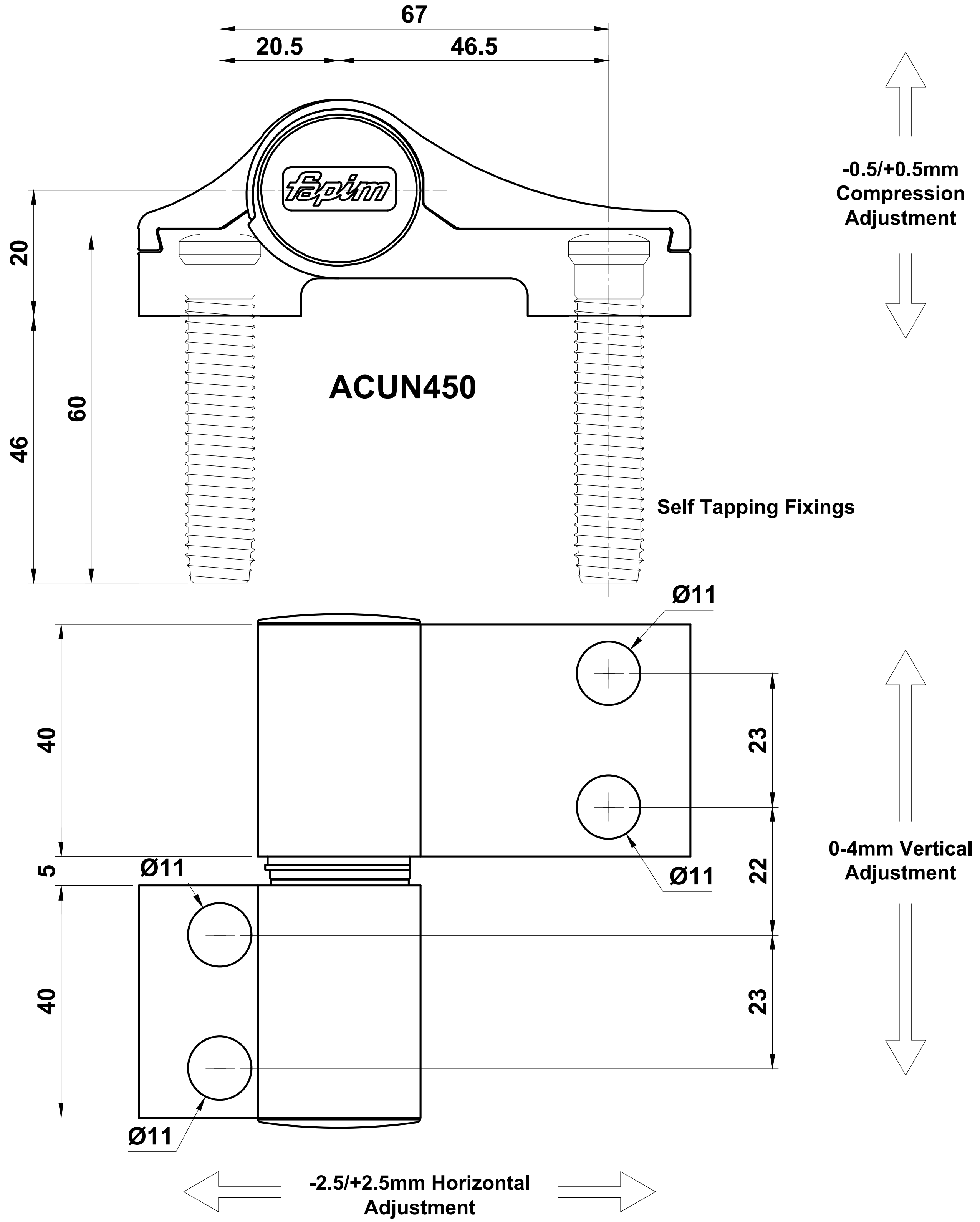


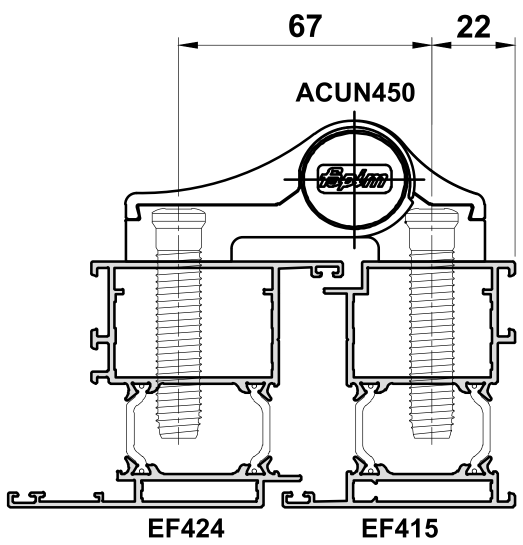


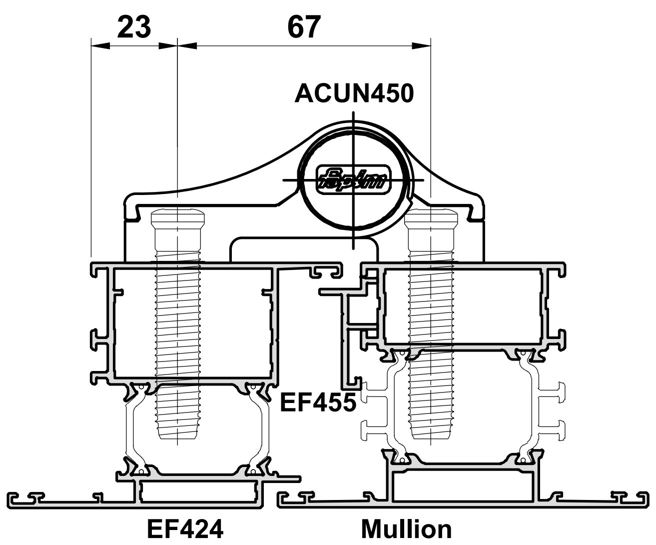
Important Note:
For improved weather performance use central hinge

Max Sash Weights (Based on 2 hinges)
Residential = 160kg
Commercial = 145kg
Commercial with closer = 115kg

By adding an additional hinge close to the top hinge the above limits may be increased by 15%. There is no capacity increase by having a hinge at the centre of the door.







Do Not Scale From This Drawing

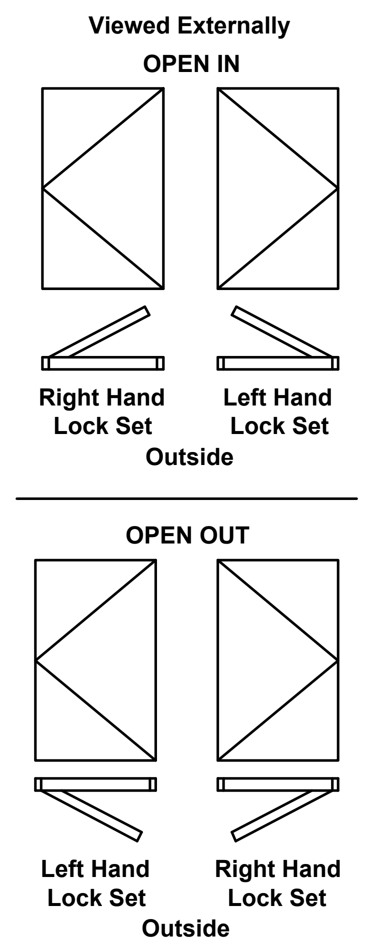
ISSUED: DECEMBER 2018

Flat Door - Single Open In Locking Options

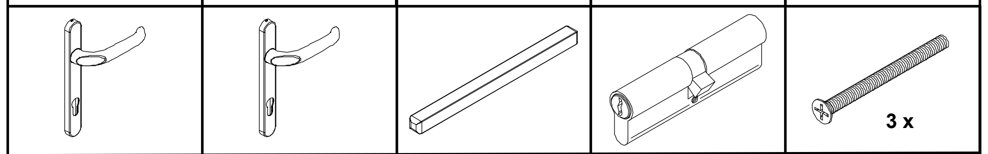
Lock Guide

Sash Height	Locks	Keeps: Middle	Keeps: Top / Bottom	Keeps: Continuous
2100-2300	ACSZ550	ACSZ650R	ACSZ651	ACSZ680R
1825-2100	ACSZ551			ACSZ681R
2300-2500	ACSZ552			ACSZ682R
1 Point Lock	ACSZ555			

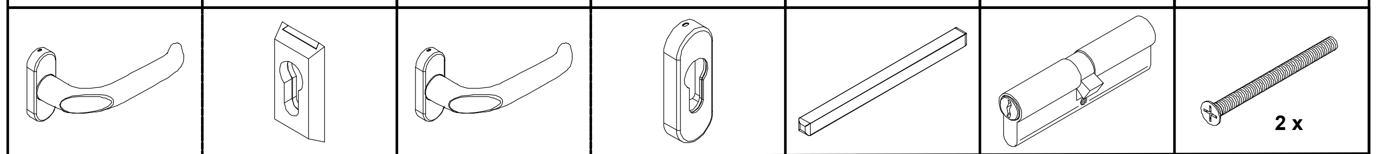
Keep Handing Guide



Handle With Large Backplate Guide

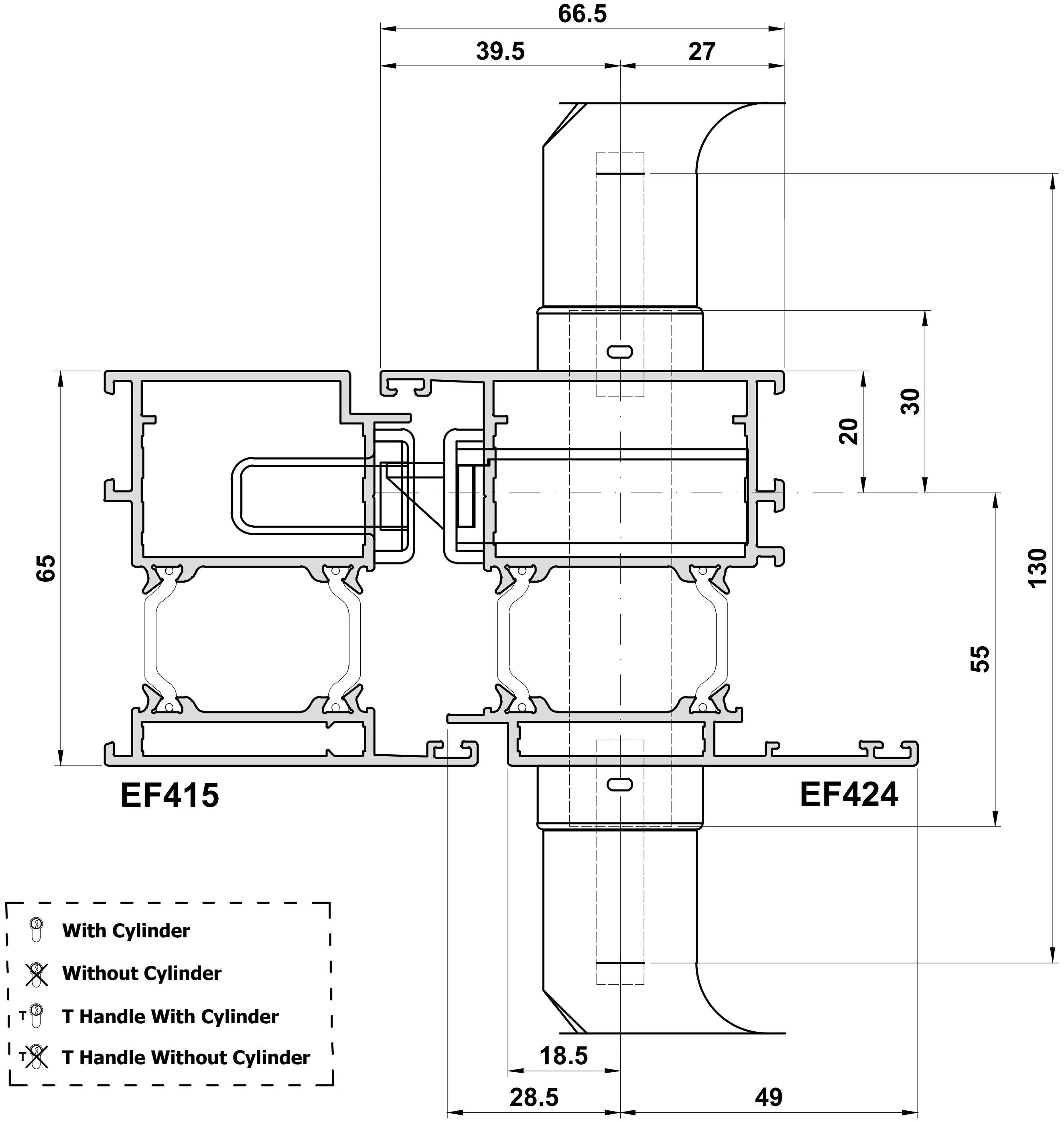
Ext. Handle	Int. Handle	Spindle	Cylinder	Screw
				3 x
ACSZ800	ACSZ801	ACMX309 Sq. Spindle 130mm	ACMX0030 Half Cylinder	ACMX861 M5 x 75mm
	ACSZ803			
	ACSZ830 T		ACMX01613 30/55 Cylinder	
ACSZ802	ACSZ803			
	ACSZ830			
ACSZ400 + 2 x ACVS061	ACSZ803	ACMX008 Sq. Spindle 60mm	ACMX01613 30/55 Cylinder	ACVS061 M5 x 40mm
	ACSZ830			

Handle with Small Backplate Guide

Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
						2 x
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX309 Sq. Spindle 130mm	ACMX01613 / ACMX0030	ACMX861 M5 x 75mm
	ACSZ400			ACMX008 Sq. Spindle 60mm	ACMX01613 / ACMX0030	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827 T		ACMX309 Sq. Spindle 130mm	ACMX01613 / ACMX0030	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

For PAS24 accessory options, please see page E49

EF415 - EF424



With Cylinder
Without Cylinder
T Handle With Cylinder
T Handle Without Cylinder

Do Not Scale From This Drawing

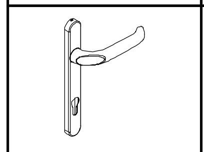
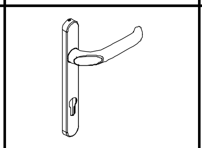
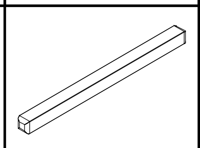
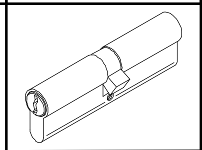
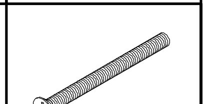
Flat Door - Double Open In Locking Options

Lock Guide

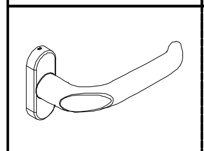
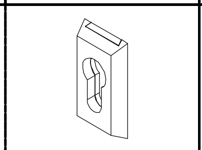
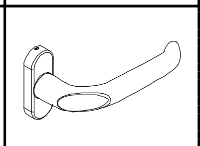
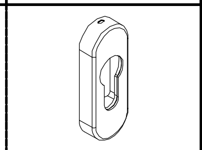
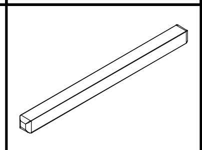
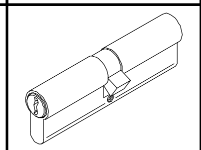
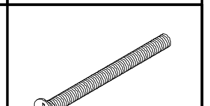
Sash Height	Locks	Keeps: Middle	Keeps: Top / Bottom	Keeps: Continuous
2100-2300	ACSZ550	ACSZ650R	ACSZ651	ACSZ680R
1825-2100	ACSZ551			ACSZ681R
*2300-2500	ACSZ552			ACSZ682R
1 Point Lock	ACSZ555			

*If using AVCL432 shoot bolts, use ACSZ550 up to 2500mm sash height

Handle With Large Backplate Guide

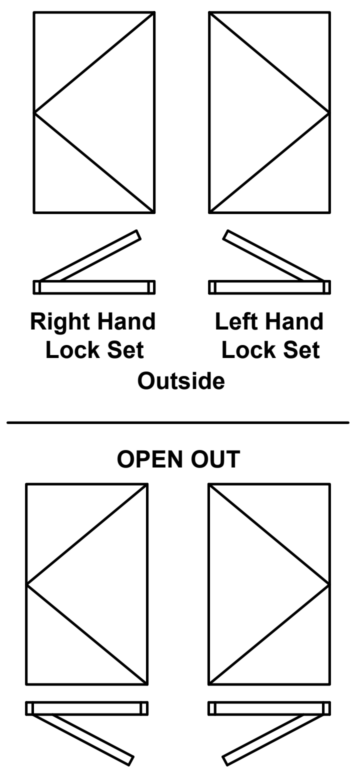
Ext. Handle	Int. Handle	Spindle	Cylinder	Screw
				 3 x
ACSZ800	ACSZ801 ACSZ803 ACSZ830 T	ACMX309 Sq. Spindle 130mm	ACMX0030 Half Cylinder	ACMX861 M5 x 75mm
ACSZ802	ACSZ803 ACSZ830		ACMX01613 30/55 Cylinder	
ACSZ400 + 2 x ACVS061	ACSZ803 ACSZ830	ACMX008 Sq. Spindle 60mm	ACMX01613 30/55 Cylinder	ACVS061 M5 x 40mm

Handle with Small Backplate Guide

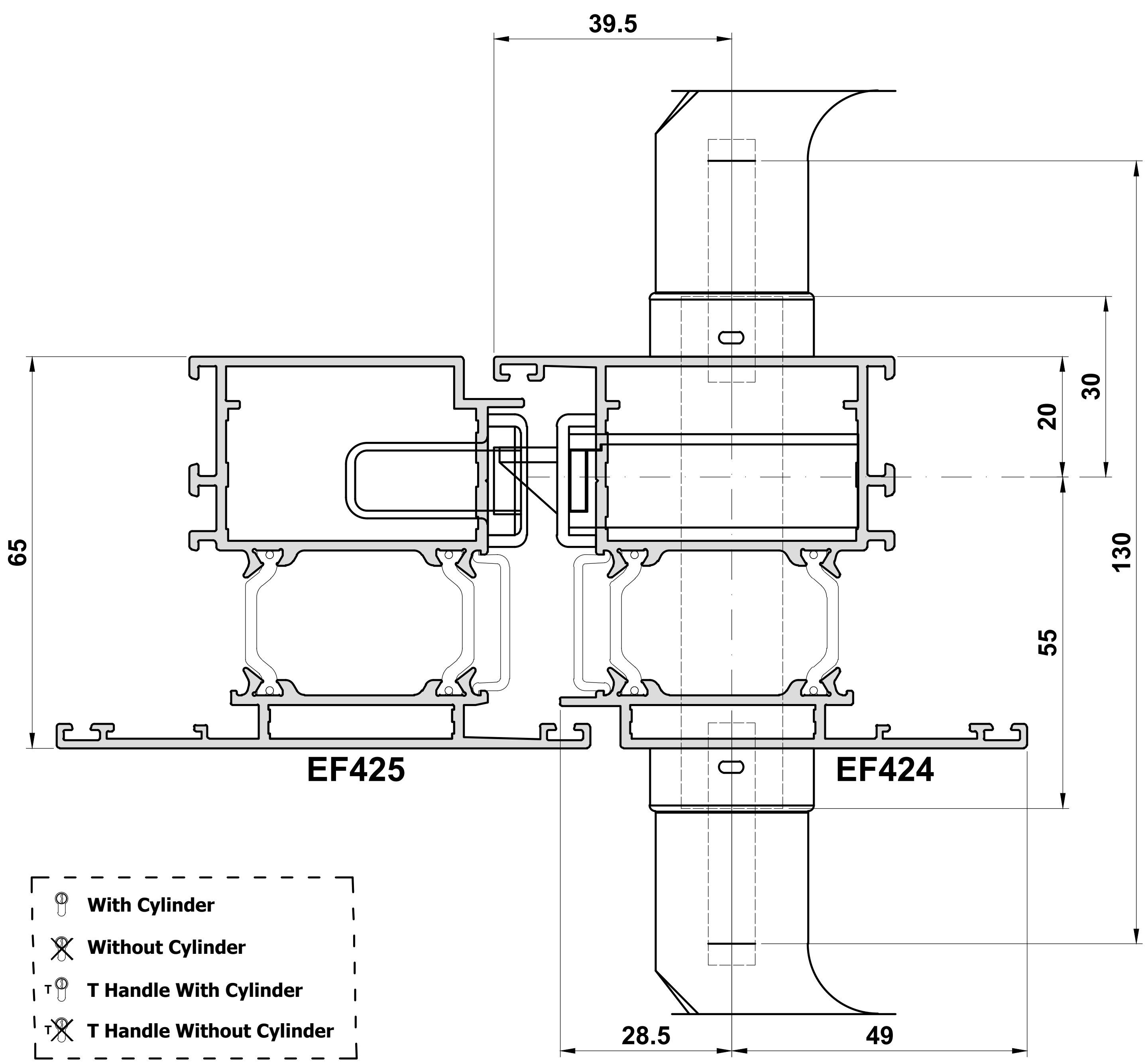
Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
						 2 x
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX309 Sq. Spindle 130mm	ACMX01613 ACMX0030	ACMX861 M5 x 75mm
	ACSZ400			ACMX008 Sq. Spindle 60mm	ACMX01613 ACMX0030	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827 T		ACMX309 Sq. Spindle 130mm	ACMX01613 ACMX0030	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

For PAS24 accessory options, please see page E49

Keep Handing Guide



EF425 - EF424

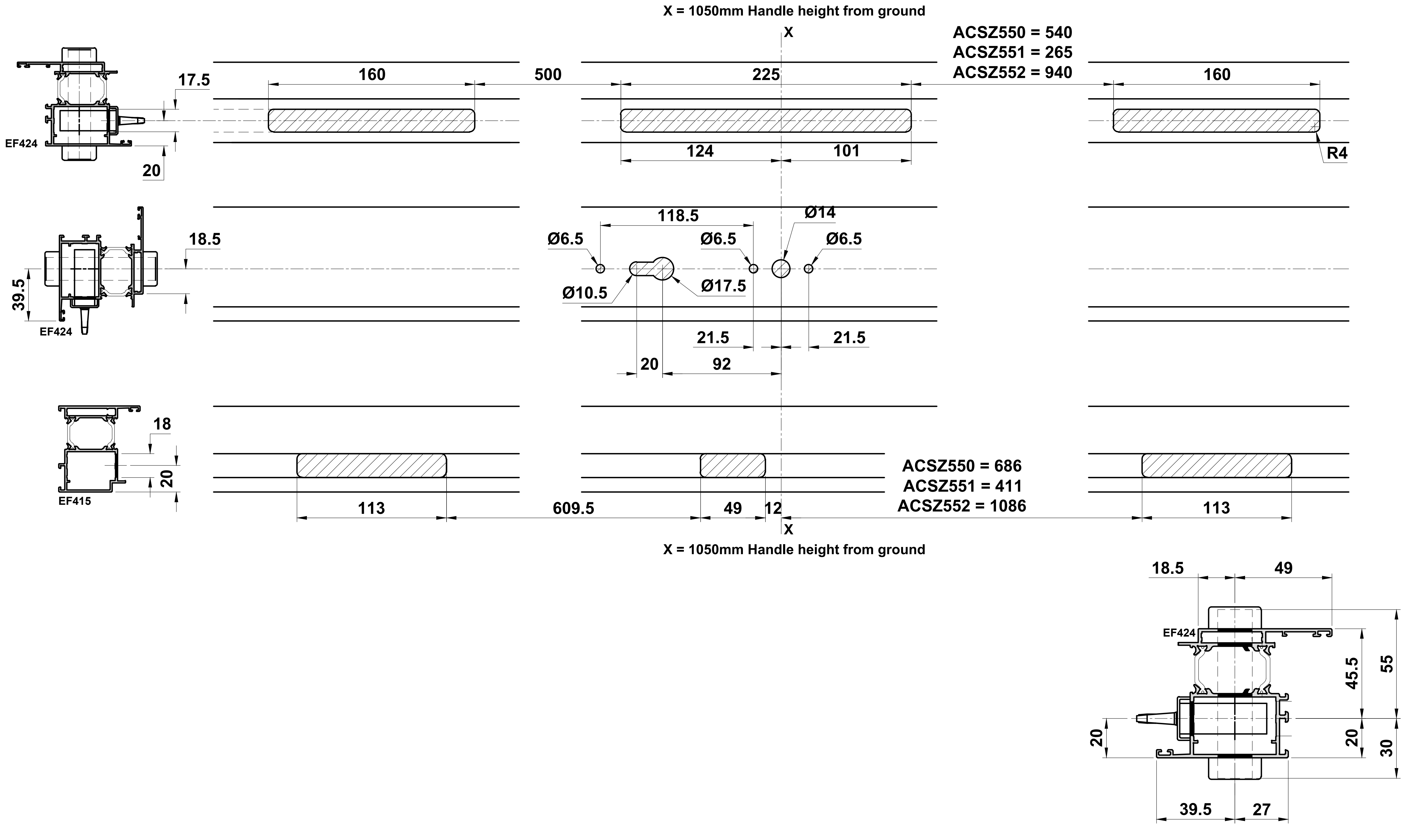


- With Cylinder
- Without Cylinder
- T Handle With Cylinder
- T Handle Without Cylinder

Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

ACSZ550/551/552 Preparation for EF424



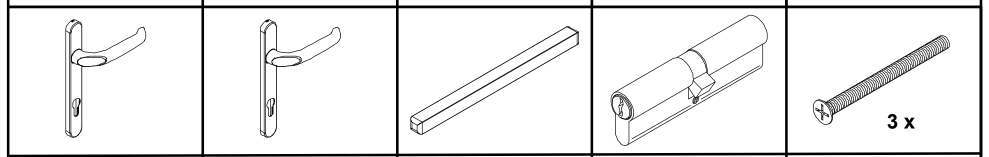
Do Not Scale From This Drawing

Flat Door - Single Open Out Locking Options

Lock Guide

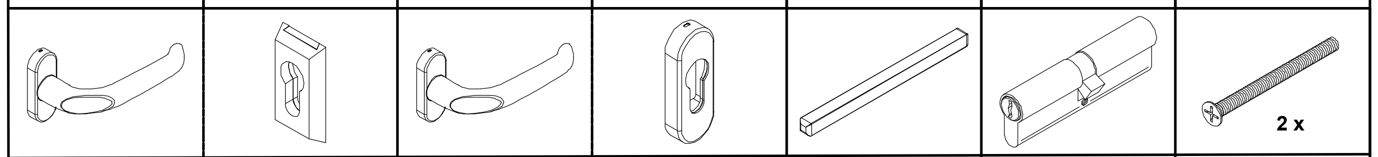
Sash Height	Locks	Keeps: Middle	Keeps: Top / Bottom	Keeps: Continuous
2100-2300	ACSZ550	ACSZ650R	ACSZ651	ACSZ680R
1825-2100	ACSZ551			ACSZ681R
2300-2500	ACSZ552			ACSZ682R
1 Point Lock	ACSZ555			

Handle With Large Backplate Guide



Ext. Handle	Int. Handle	Spindle	Cylinder	Screw
ACSZ800	ACSZ801	ACMX309 Sq. Spindle 130mm	ACMX0030 Half Cylinder	ACMX861 M5 x 75mm
	ACSZ803			
	ACSZ830 T			
ACSZ802	ACSZ803		ACMX01613 30/55 Cylinder	
	ACSZ830			
ACSZ400 + 2 x ACVS061	ACSZ803	ACMX008 Sq. Spindle 60mm	ACMX01613 30/55 Cylinder	ACVS061 M5 x 40mm
	ACSZ830			

Handle with Small Backplate Guide



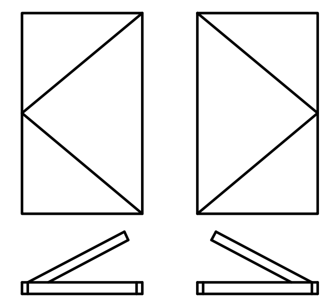
Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX309 Sq. Spindle 130mm	ACMX01613 ACMX0030	ACMX861 M5 x 75mm
	ACSZ400			ACMX008 Sq. Spindle 60mm	ACMX01613 ACMX0030	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827 T		ACMX309 Sq. Spindle 130mm	ACMX01613 ACMX0030	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

For PAS24 accessory options, please see page E49

Keep Handing Guide

Viewed Externally

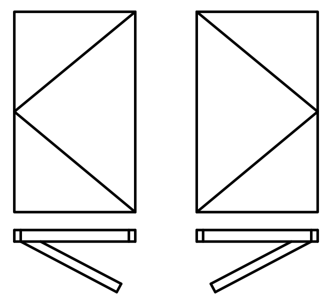
OPEN IN



Right Hand Lock Set | Left Hand Lock Set

Outside

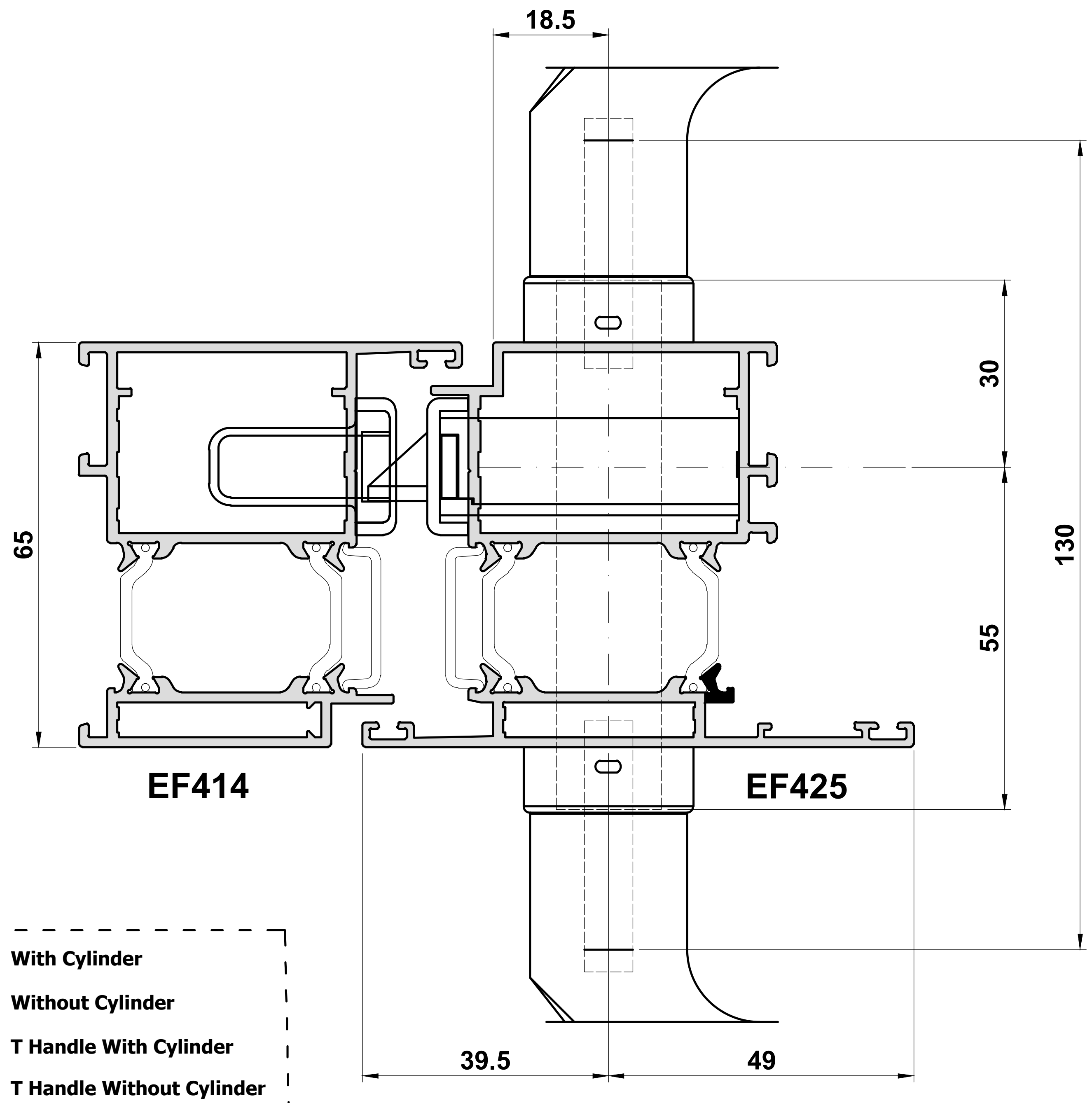
OPEN OUT



Left Hand Lock Set | Right Hand Lock Set

Outside

EF414 - EF425



- With Cylinder
- Without Cylinder
- T Handle With Cylinder
- T Handle Without Cylinder

Do Not Scale From This Drawing

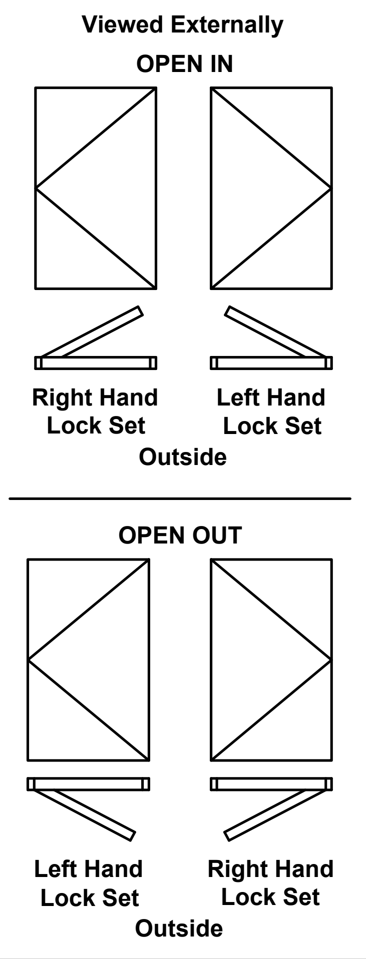
Flat Door - Double Open Out Locking Options

Lock Guide

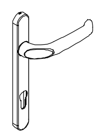
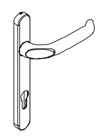
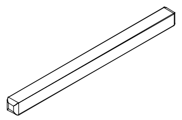
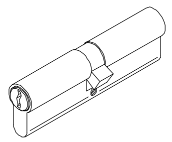
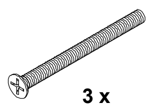
Sash Height	Locks	Keeps		
		Middle	Top / Bottom	Continuous
2100-2300	ACSZ550	ACSZ650R	ACSZ651	ACSZ680R
1825-2100	ACSZ551			ACSZ681R
*2300-2500	ACSZ552			ACSZ682R
1 Point Lock	ACSZ555			

*If using AVCL432 shoot bolts, use ACSZ550 up to 2500mm sash height

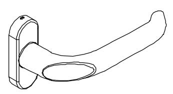
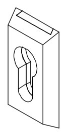
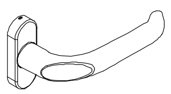
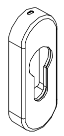
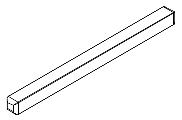
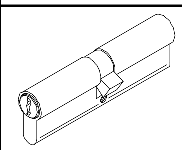
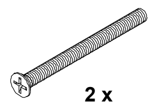
Keep Handing Guide



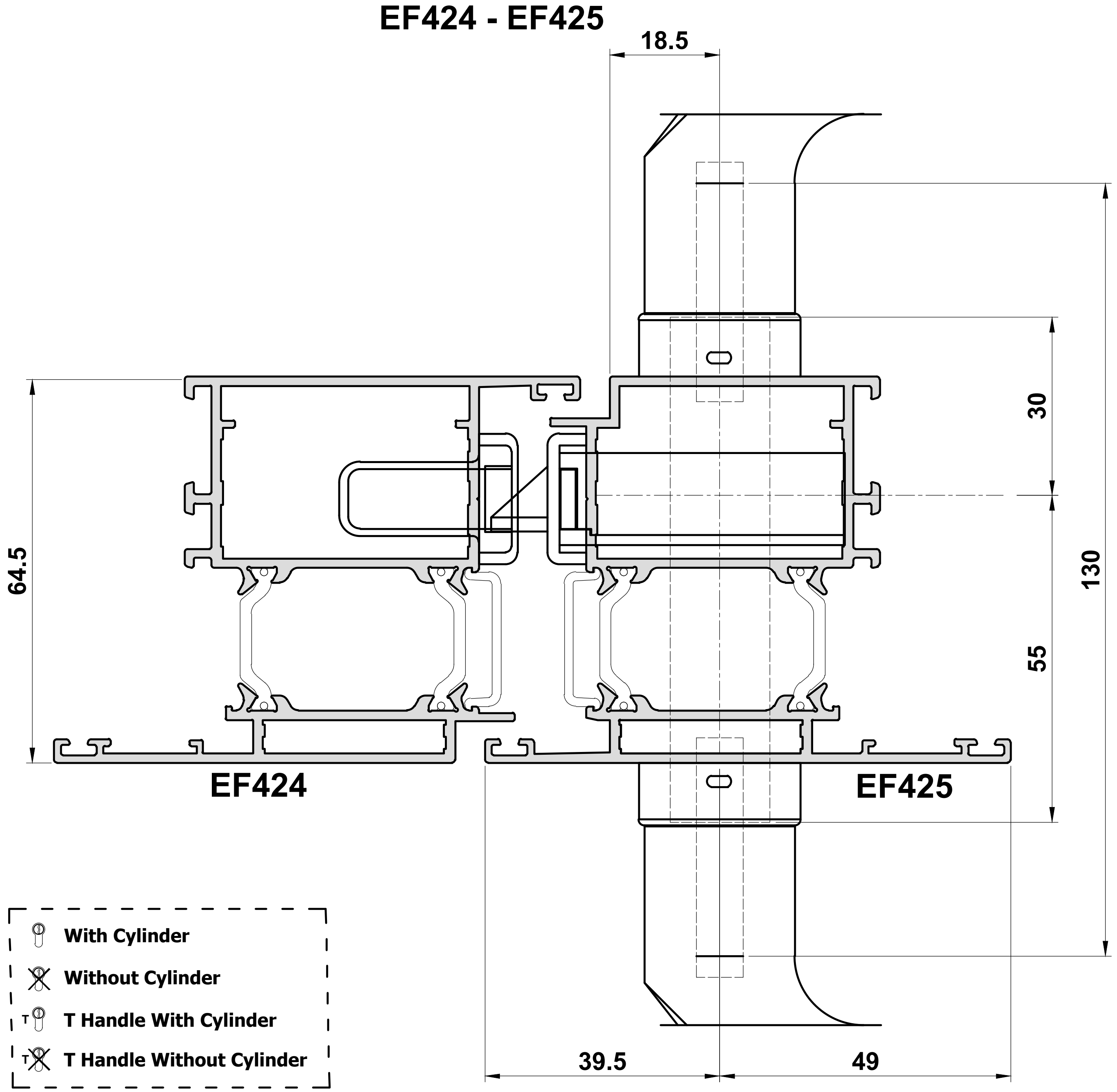
Handle With Large Backplate Guide

Ext. Handle	Int. Handle	Spindle	Cylinder	Screw
				 3 x
ACSZ800	ACSZ801	ACMX309 Sq. Spindle 130mm	ACMX0030 Half Cylinder	ACMX861 M5 x 75mm
	ACSZ803			
	ACSZ830 T			
ACSZ802	ACSZ803		ACMX01613 30/55 Cylinder	
	ACSZ830			
ACSZ400 + 2 x ACVS061	ACSZ803	ACMX008 Sq. Spindle 60mm	ACMX01613 30/55 Cylinder	ACVS061 M5 x 40mm
	ACSZ830			

Handle with Small Backplate Guide

Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
						 2 x
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX309 Sq. Spindle 130mm	ACMX01613	ACMX861 M5 x 75mm
					ACMX0030	
	ACSZ400			ACMX008 Sq. Spindle 60mm	ACMX01613	ACVS061 M5 x 40mm
					ACMX0030	
ACSZ837	ACSZ400	ACSZ827 T		ACMX309 Sq. Spindle 130mm	ACMX01613	ACMX861 M5 x 75mm
					ACMX0030	
	2 X ACVS061		2 X DIN965 M5 X 20			

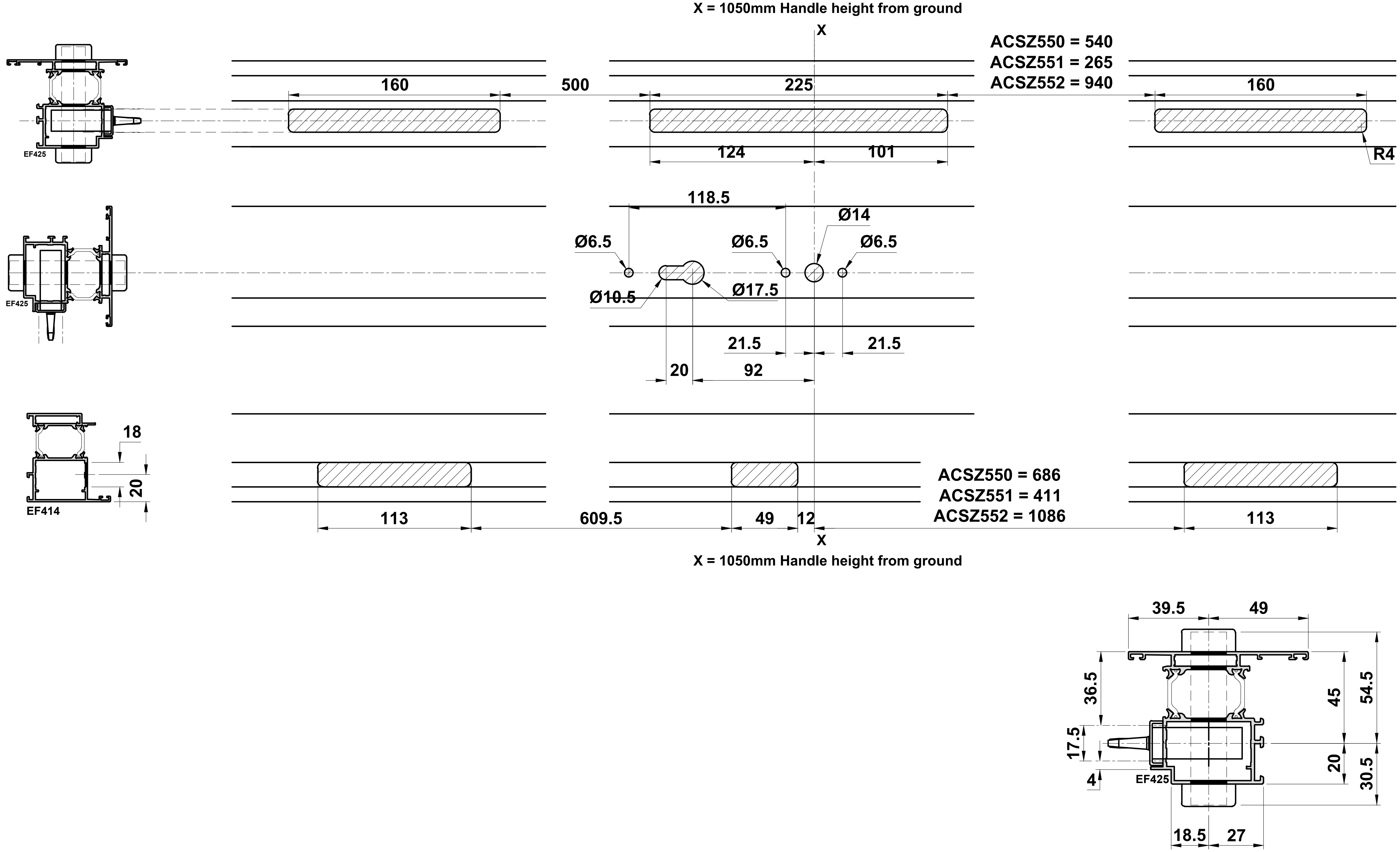
For PAS24 accessory options, please see page E49



- With Cylinder
- Without Cylinder
- T Handle With Cylinder
- T Handle Without Cylinder

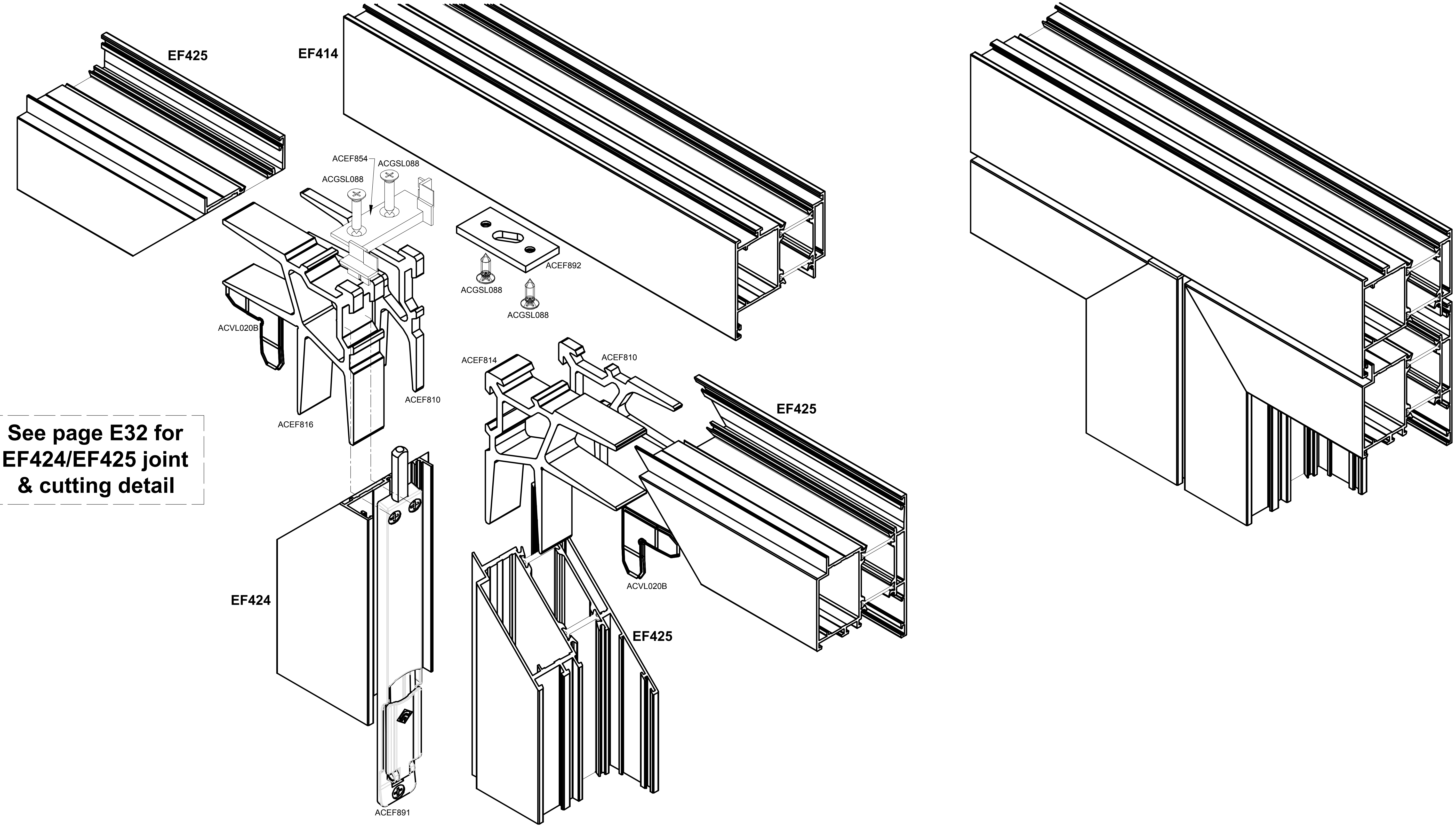
Do Not Scale From This Drawing

ACSZ550/551/552 Preparation for EF425



Do Not Scale From This Drawing

Double Door Assembly with ACEF891 Shootbolt

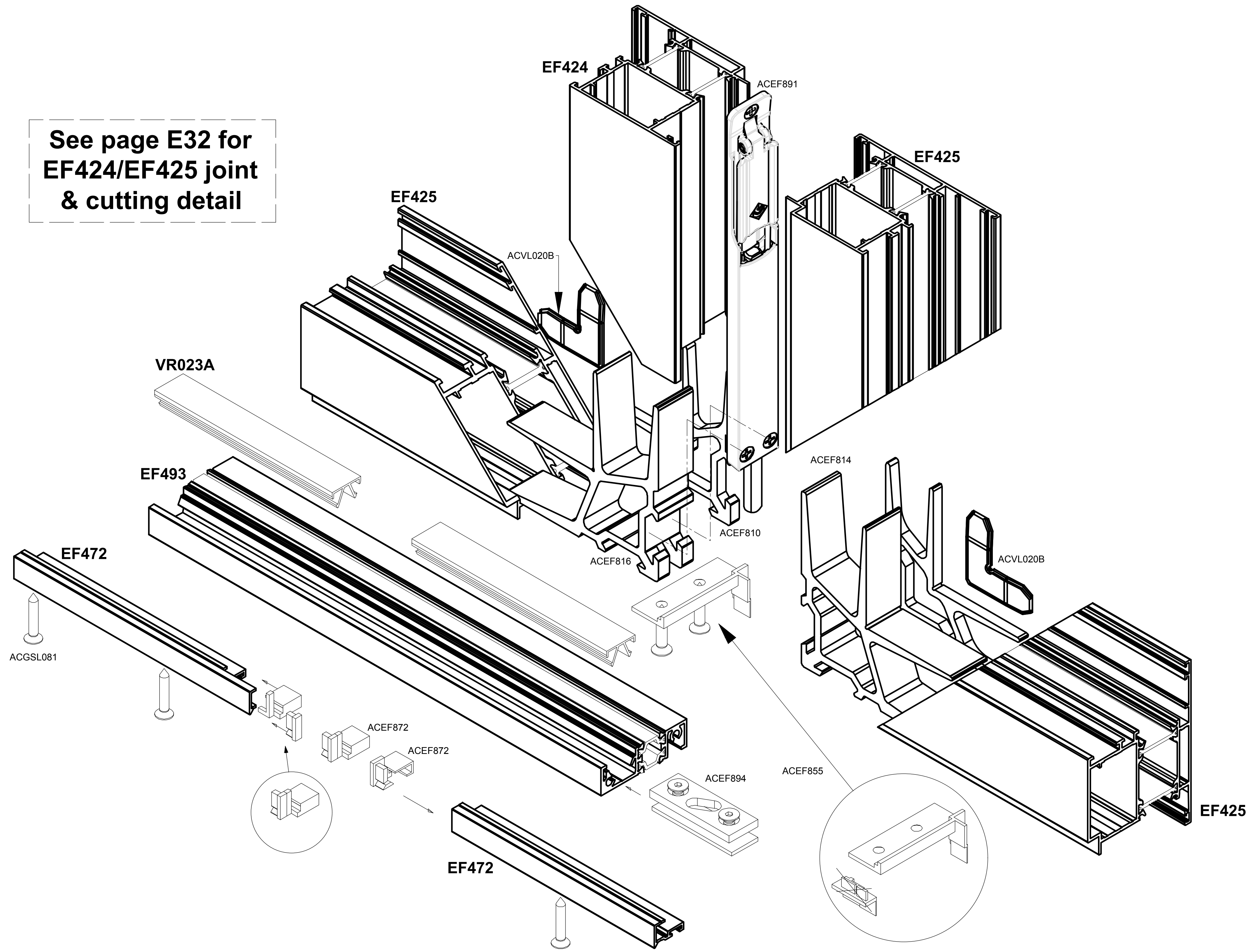


See page E32 for EF424/EF425 joint & cutting detail

Do Not Scale From This Drawing

Double Door Assembly with ACEF891 Shootbolt

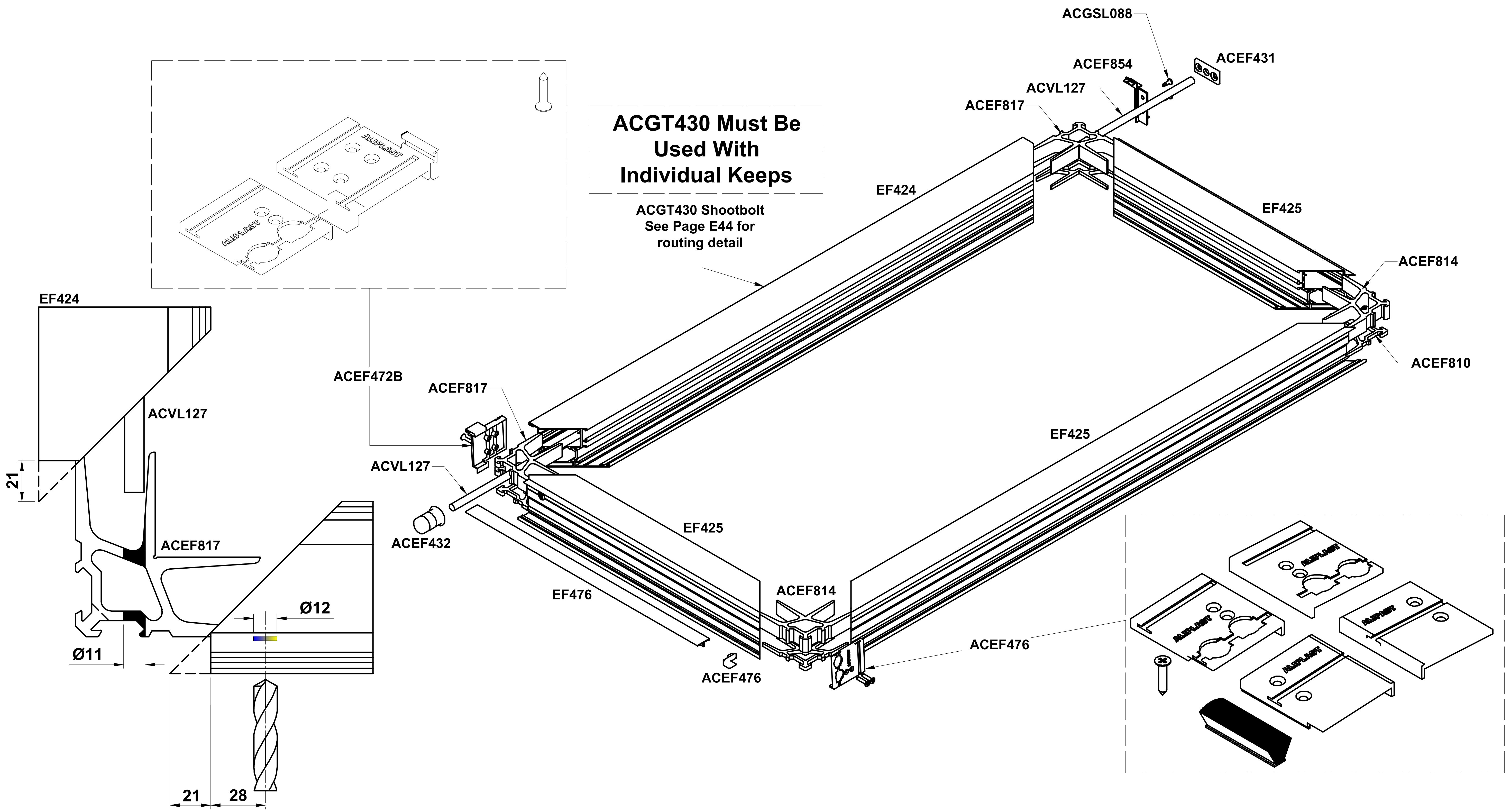
See page E32 for EF424/EF425 joint & cutting detail



Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

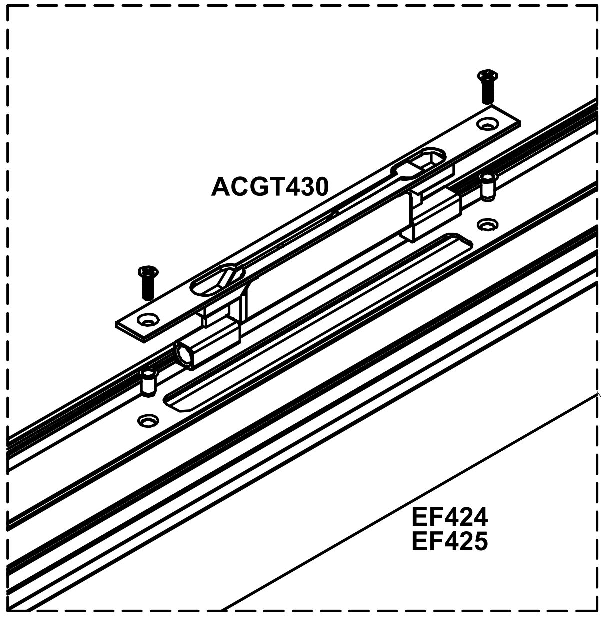
Double Door without Threshold

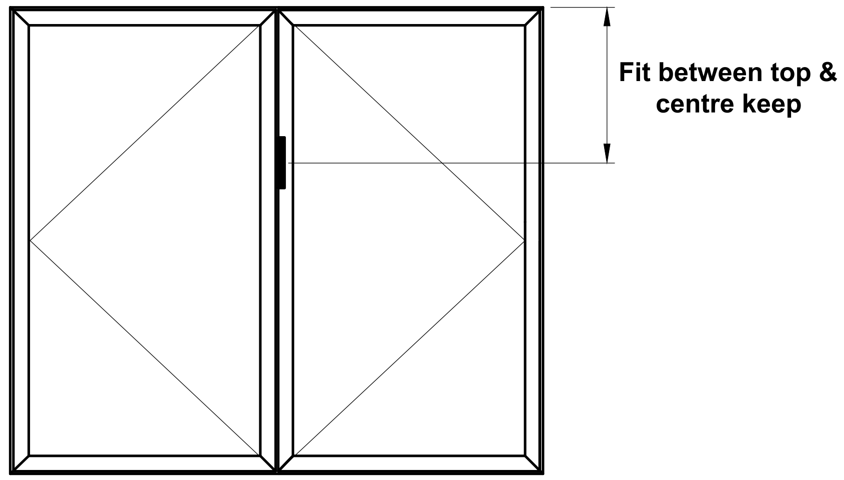


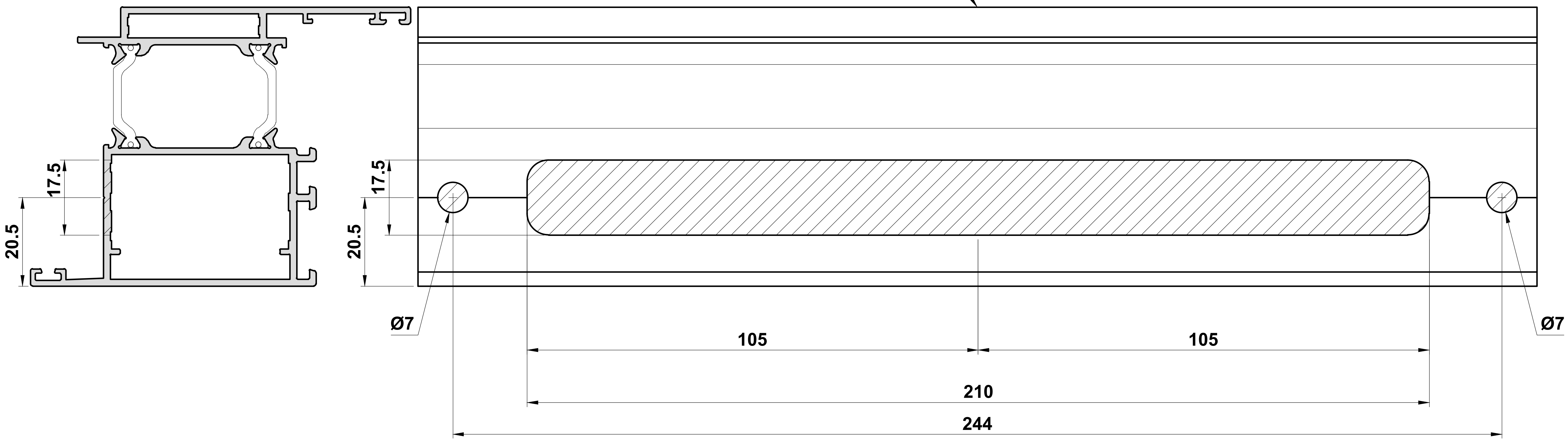
Do Not Scale From This Drawing

ACGT430 Routing Detail

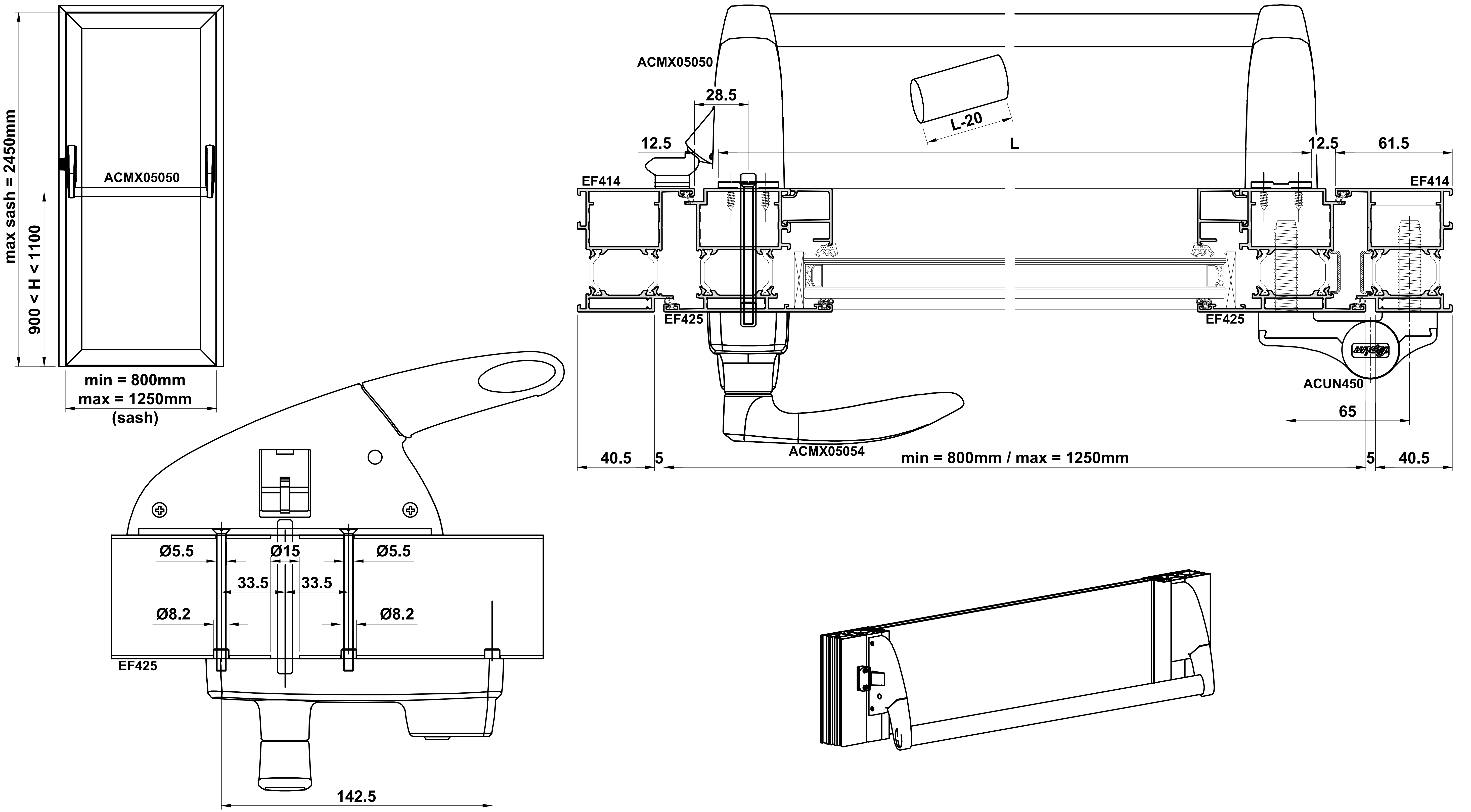
ACGT430 Must Be Used With Individual Keeps





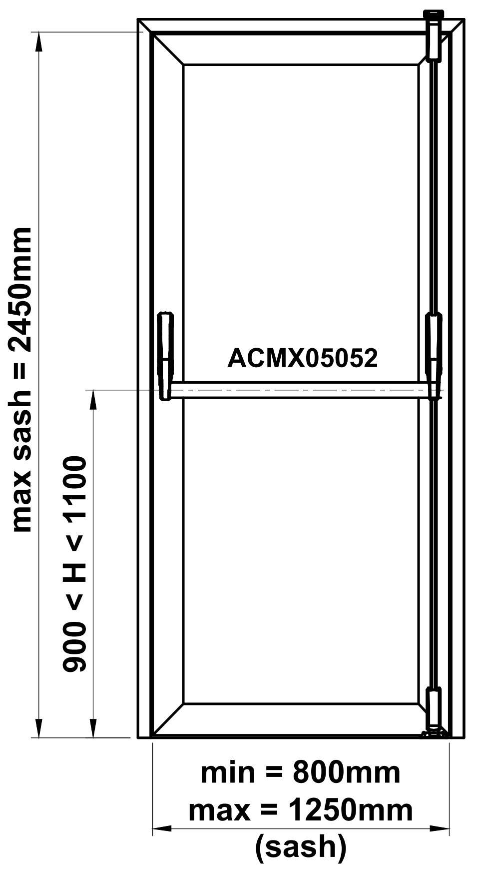


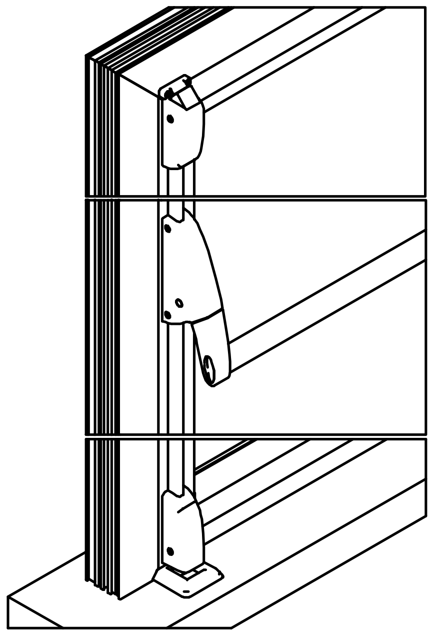
ACMX05050 Horizontal Panic Bar

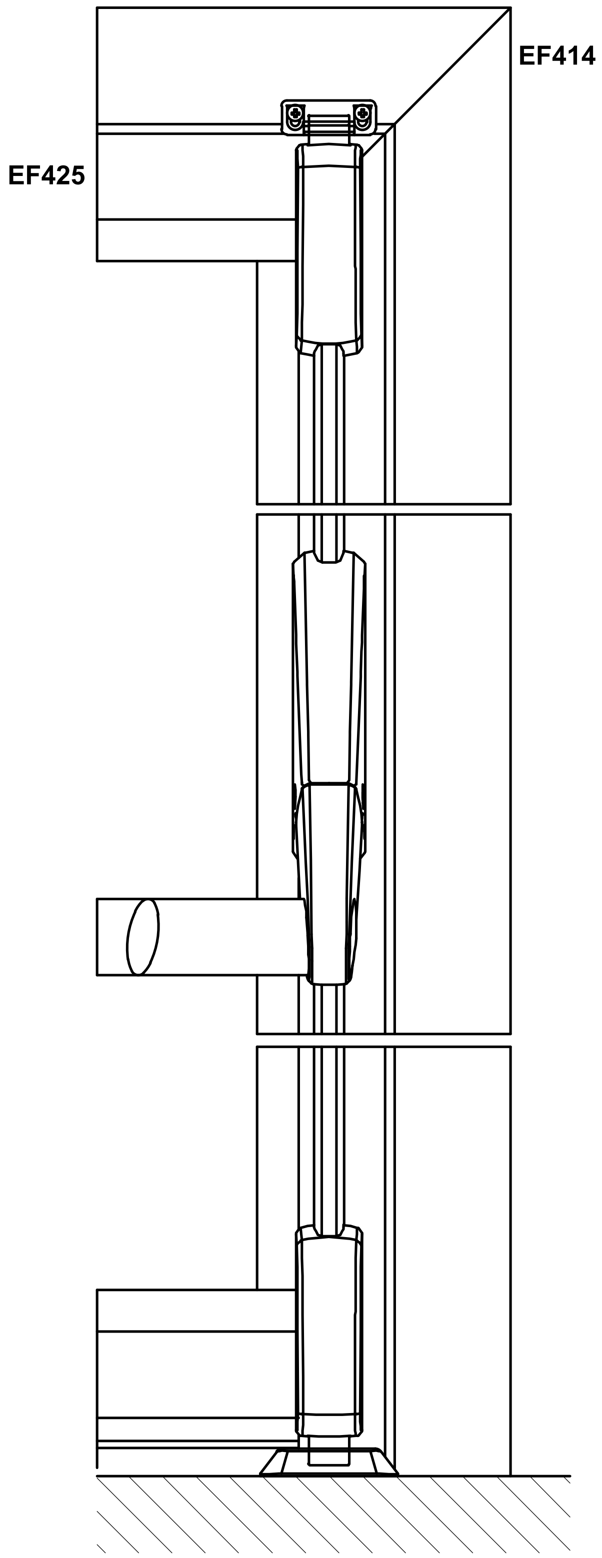


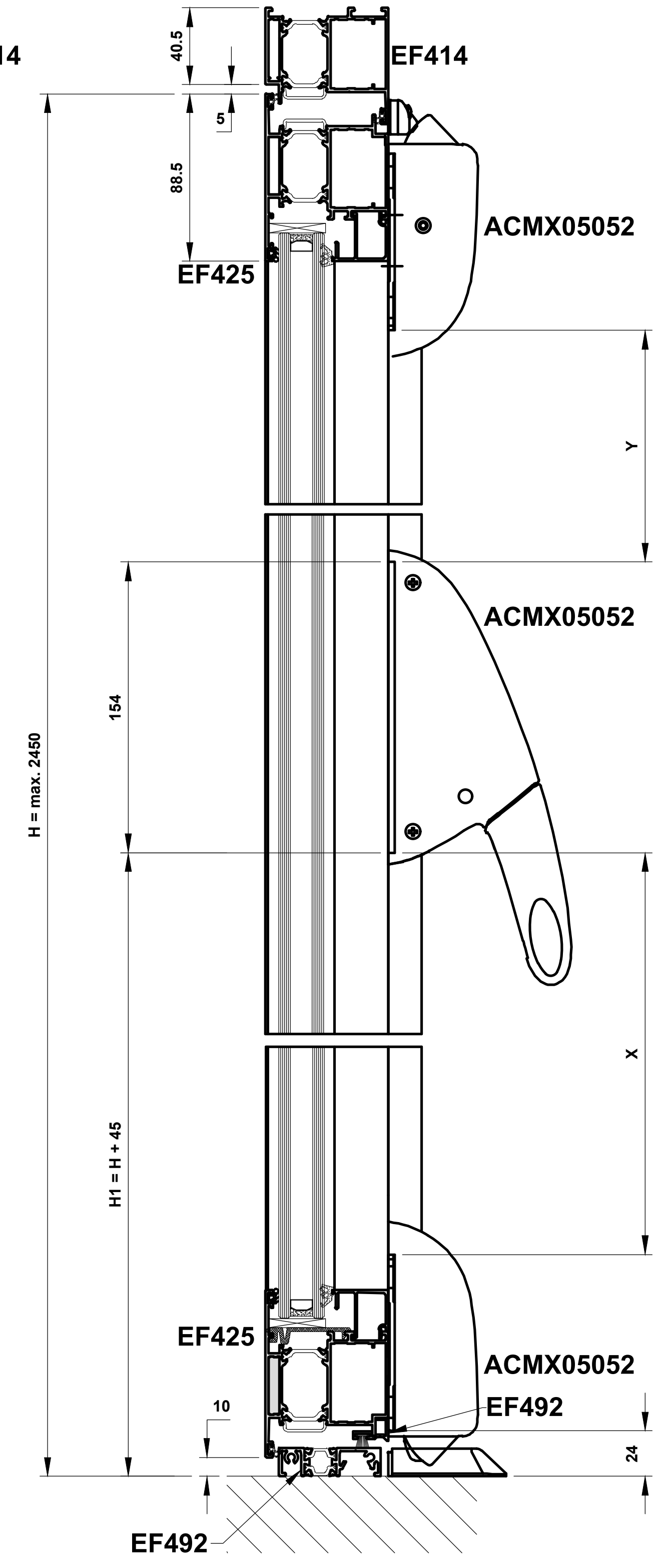
Do Not Scale From This Drawing

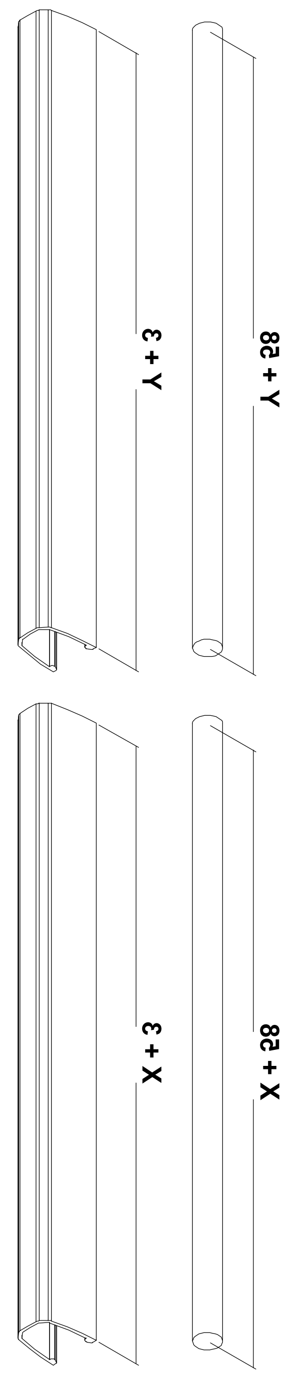
ACMX05052 Vertical Panic Bar







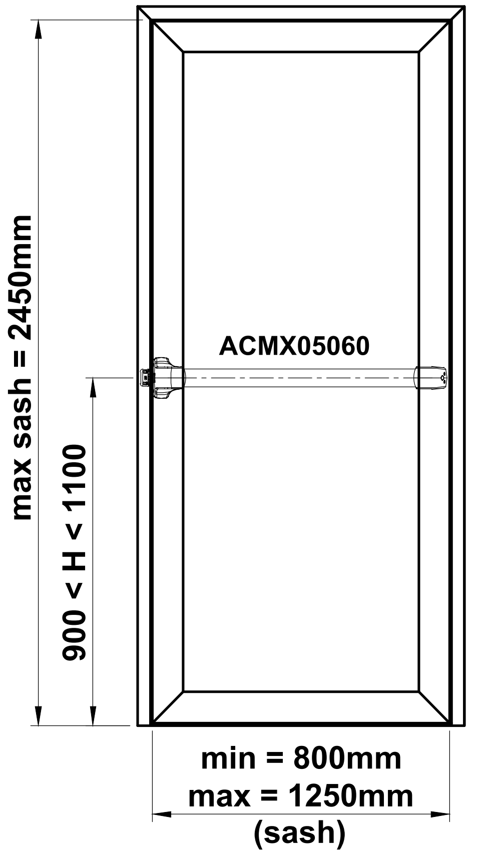


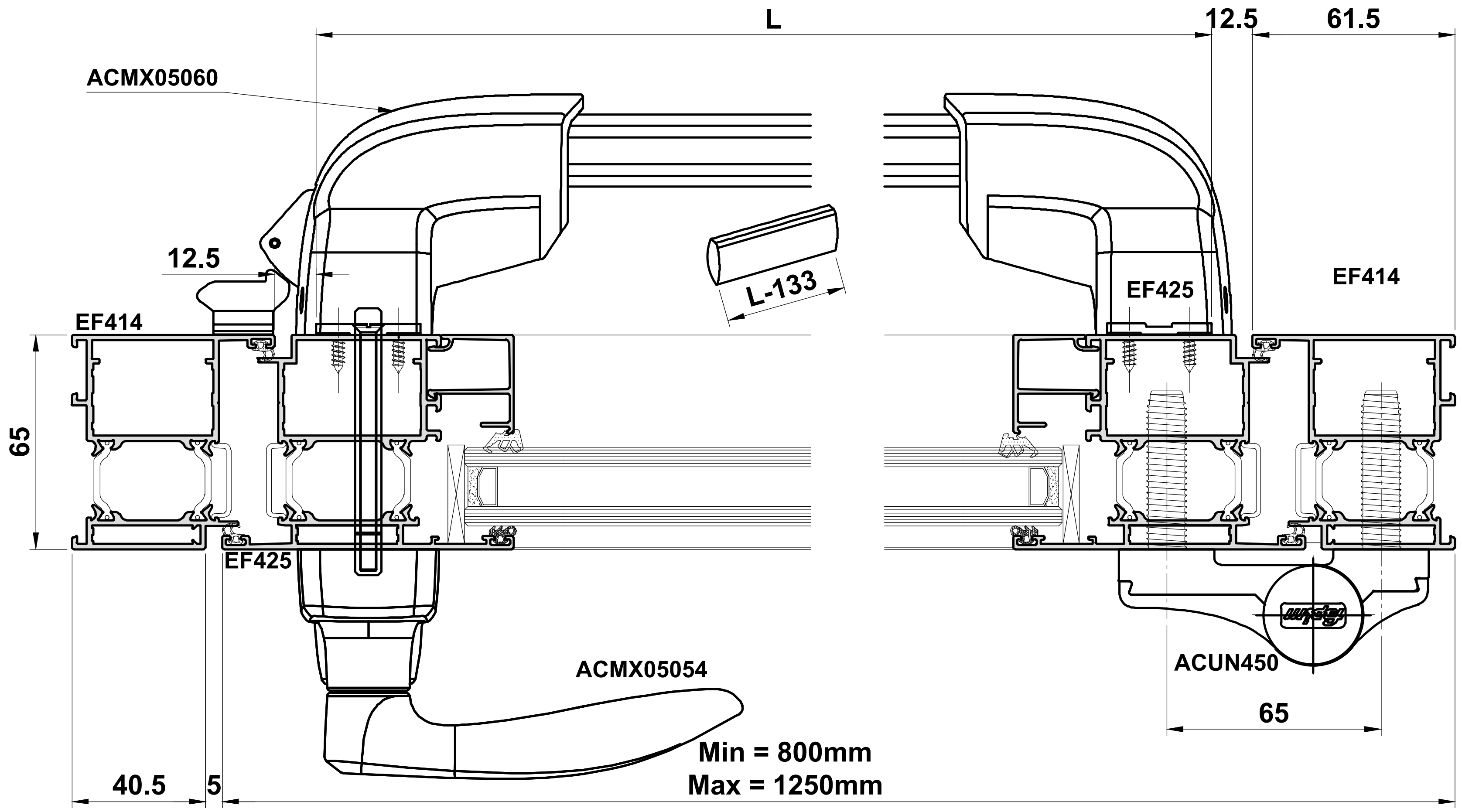


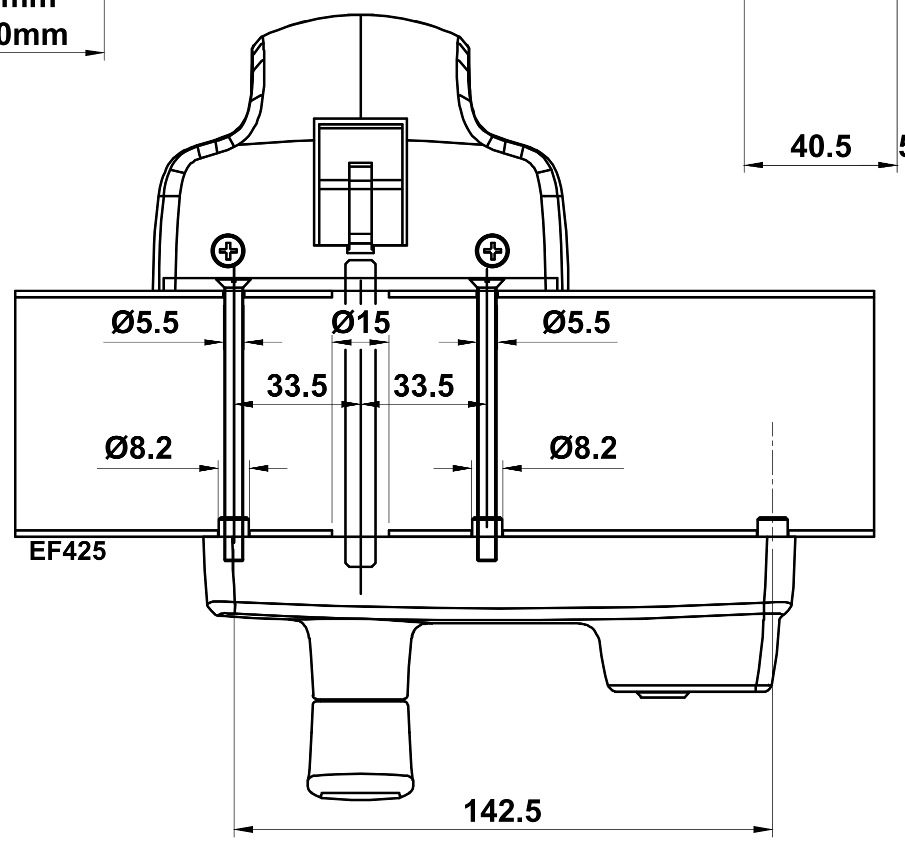
Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

ACMX05060 Horizontal Panic Pad

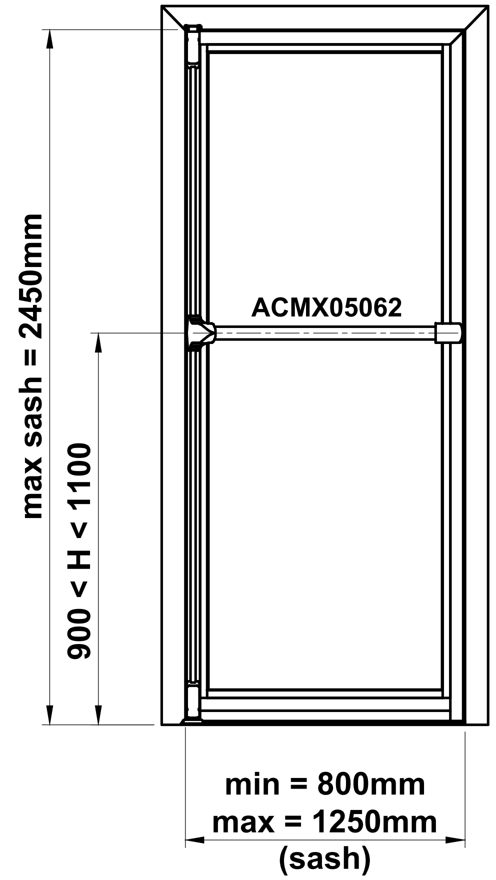


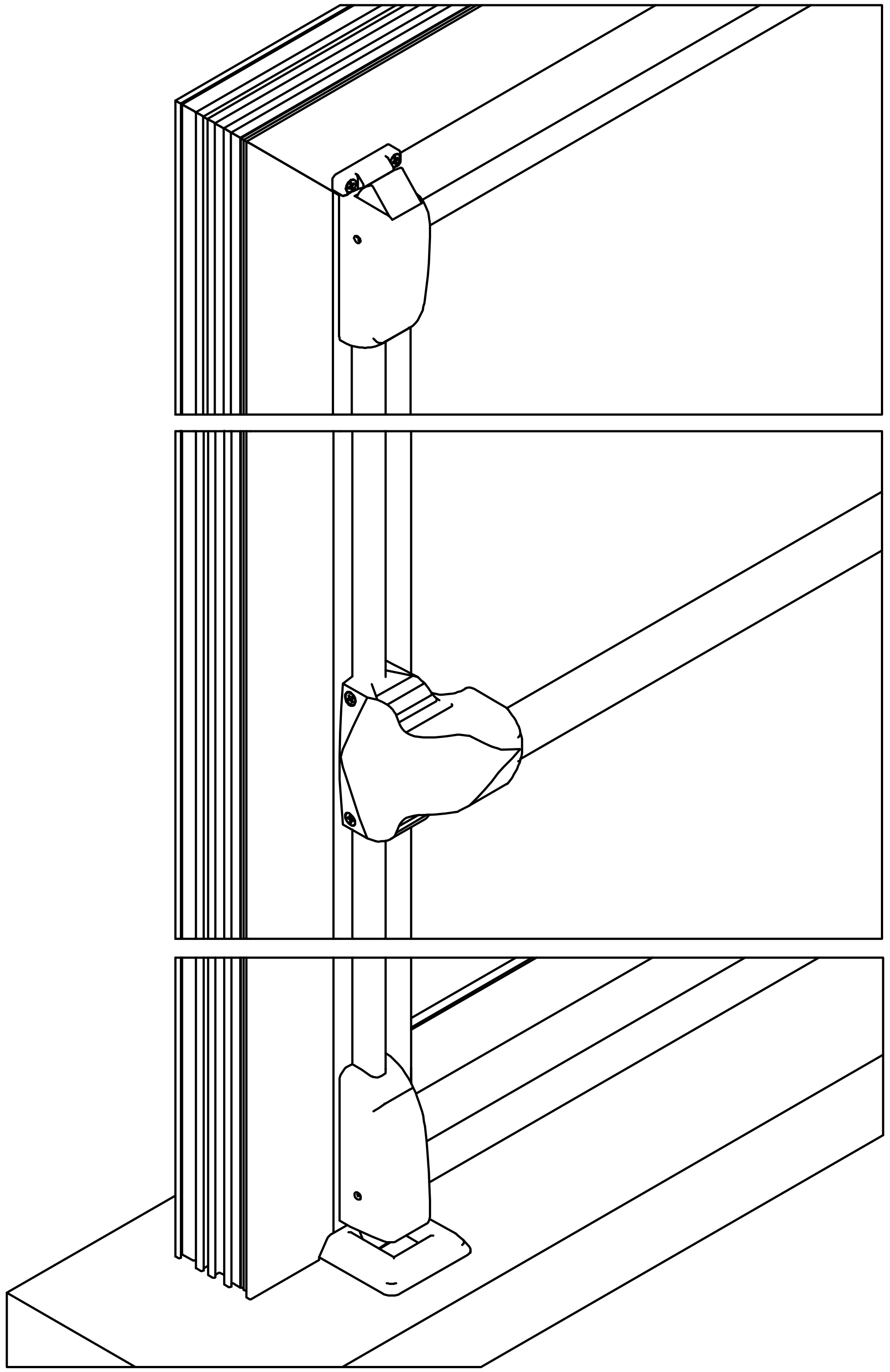


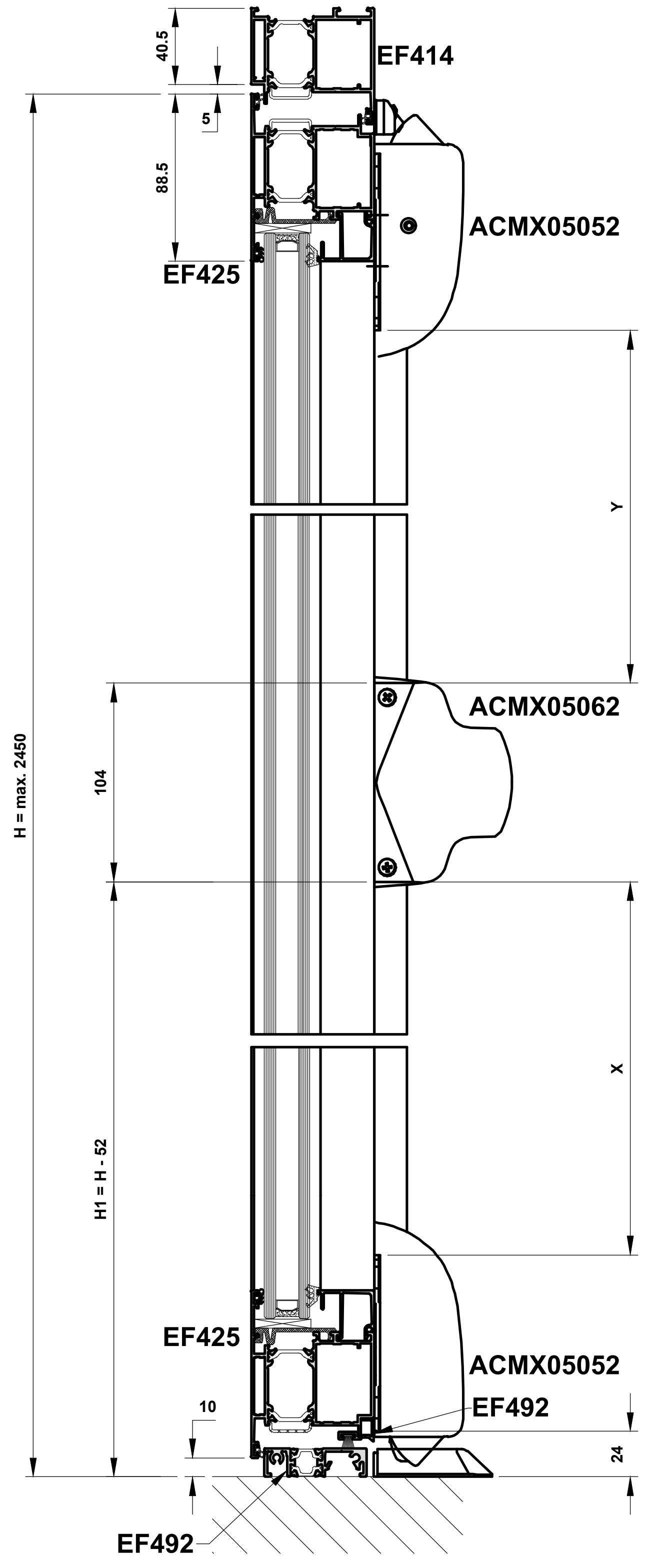


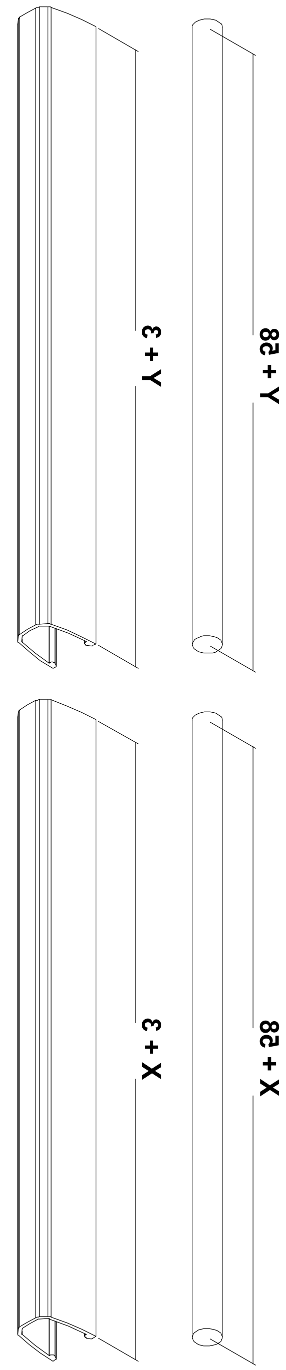
Do Not Scale From This Drawing

ACMX05062 Vertical Panic Pad





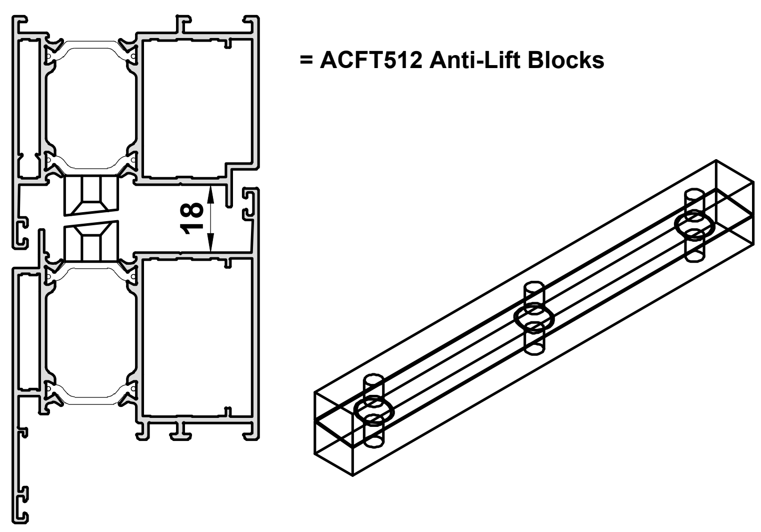


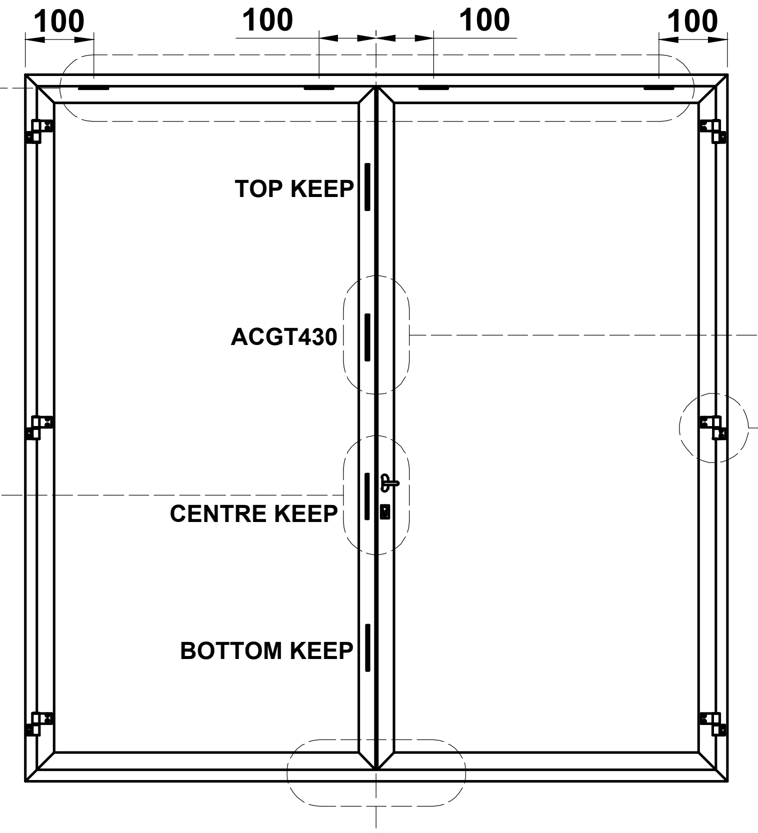


Do Not Scale From This Drawing

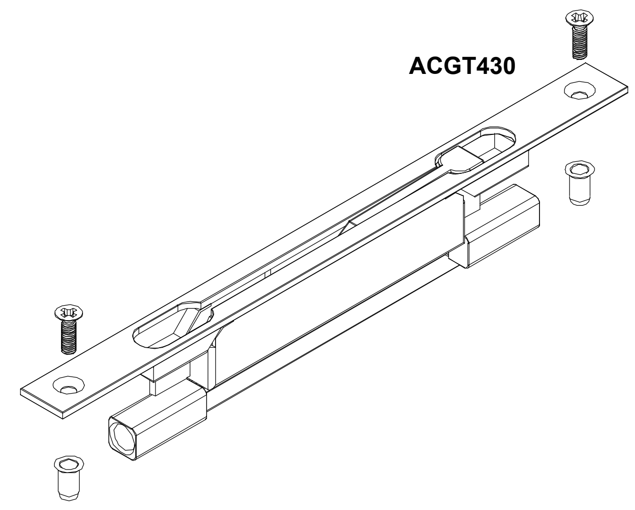
ISSUED: DECEMBER 2018

PAS24:2016 Overview - Flat Open In & Open Out Doors

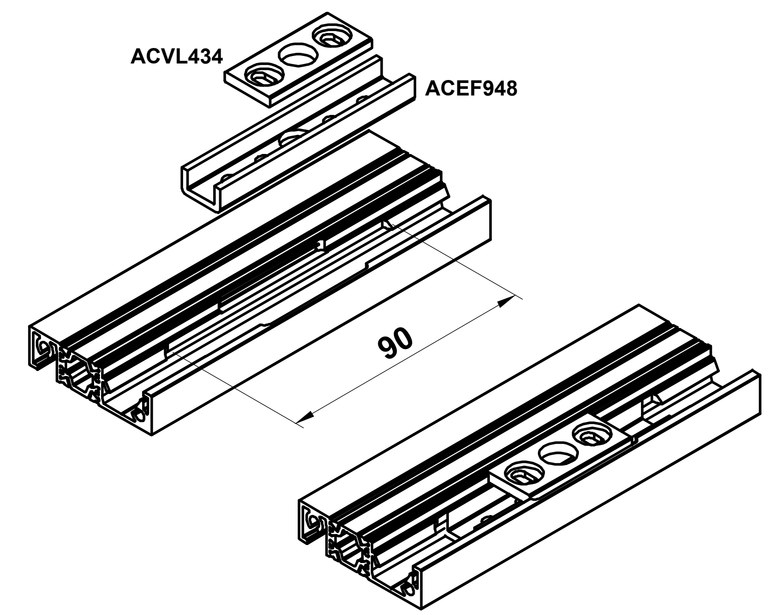




ACGT430 & ACEF961 with ACVL127 Rods



For improved weather performance use central hinge ACUN450

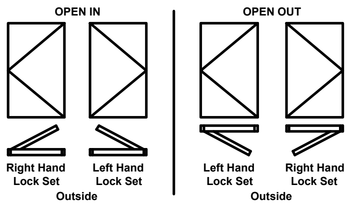


Lock Guide

Locks	Keeps: Middle	Keeps: Top / Bottom
ACSZ550	ACSZ650(L/R)	ACSZ651
ACSZ551		
ACSZ552		

Keep Handing Guide

Viewed Externally



Handle with Small Backplate Guide

Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX309 Sq. Spindle 130mm	ACMX01613 / ACMX0030	ACMX861 M5 x 75mm
	ACSZ400			ACMX008 Sq. Spindle 60mm	ACMX01613 / ACMX0030	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827		ACMX309 Sq. Spindle 130mm	ACMX01613 / ACMX0030	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

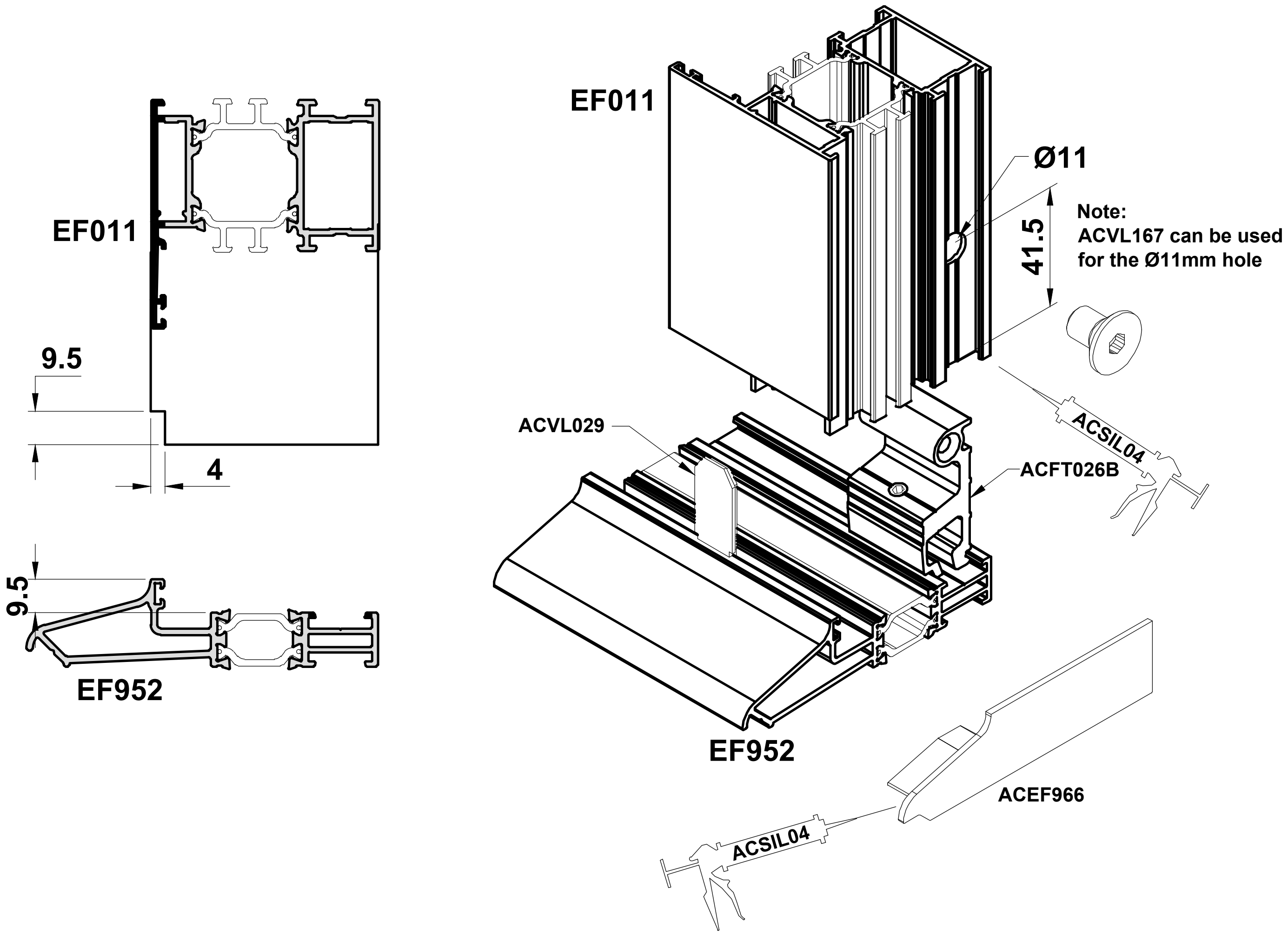
The details on this page show the specific hardware required to achieve PAS24:2016. Hardware not shown is standard.

See page E68 - E69 for Glazing Bead selection.

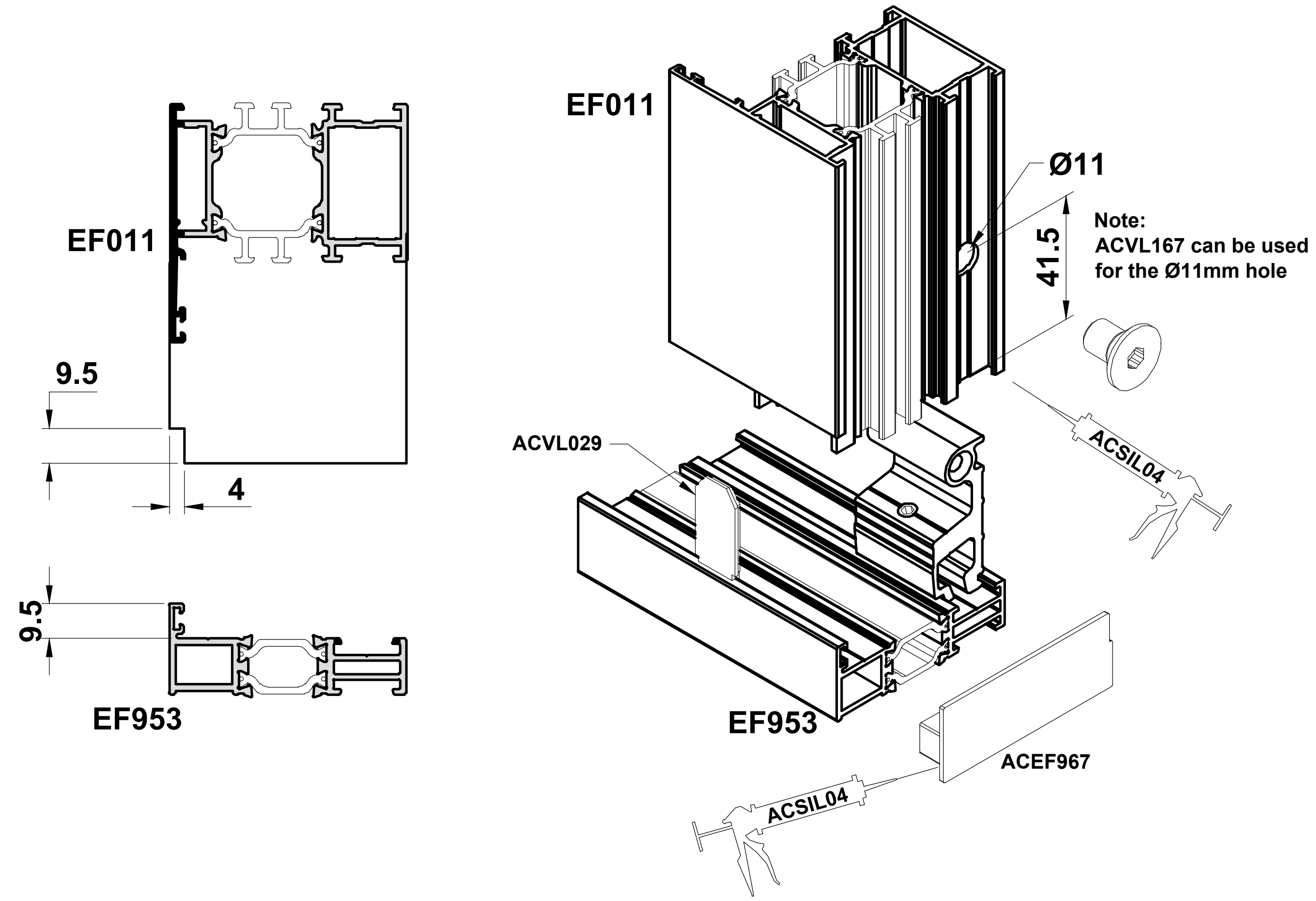
Do Not Scale From This Drawing

Stepped Door Low Threshold Joint Details

Open In



Open Out

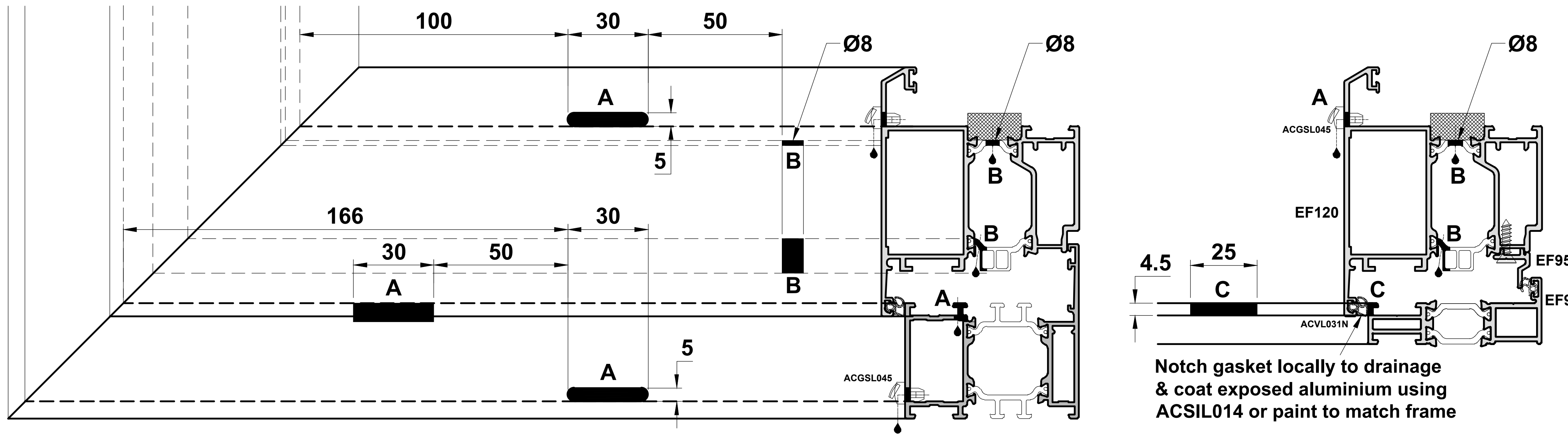


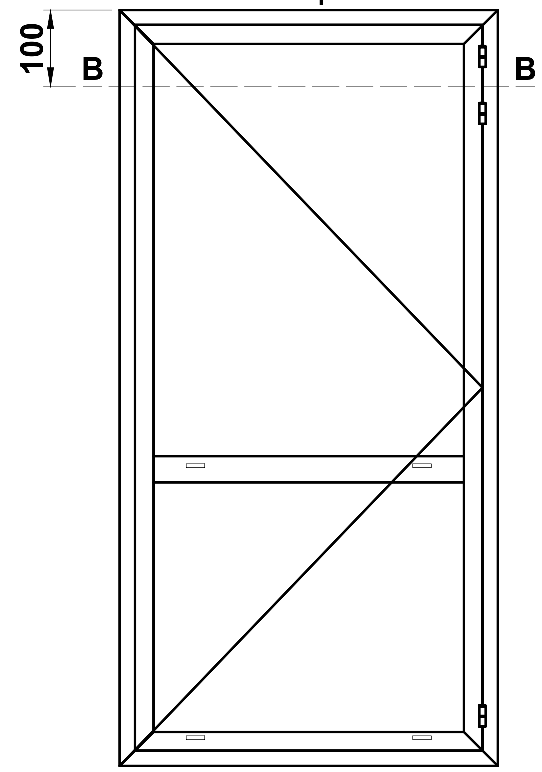
Note: The above connection details supersede ACEF094

Do Not Scale From This Drawing

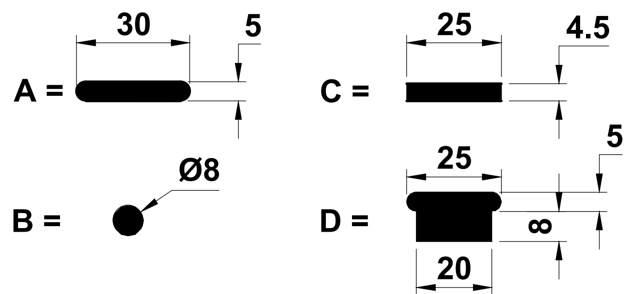
ISSUED: DECEMBER 2018

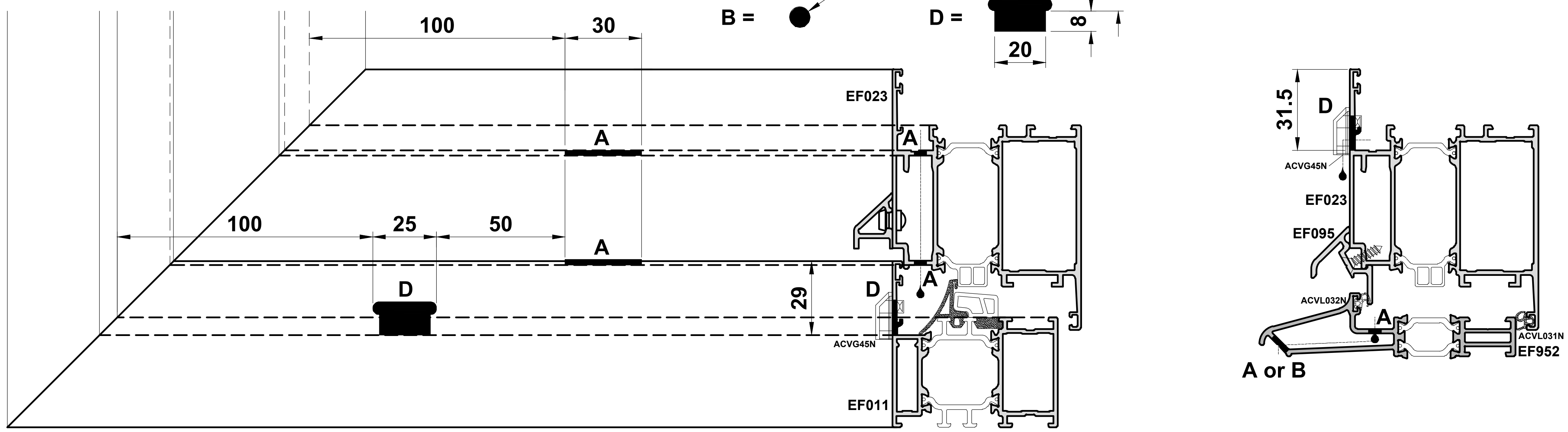
Stepped Door Drainage Details





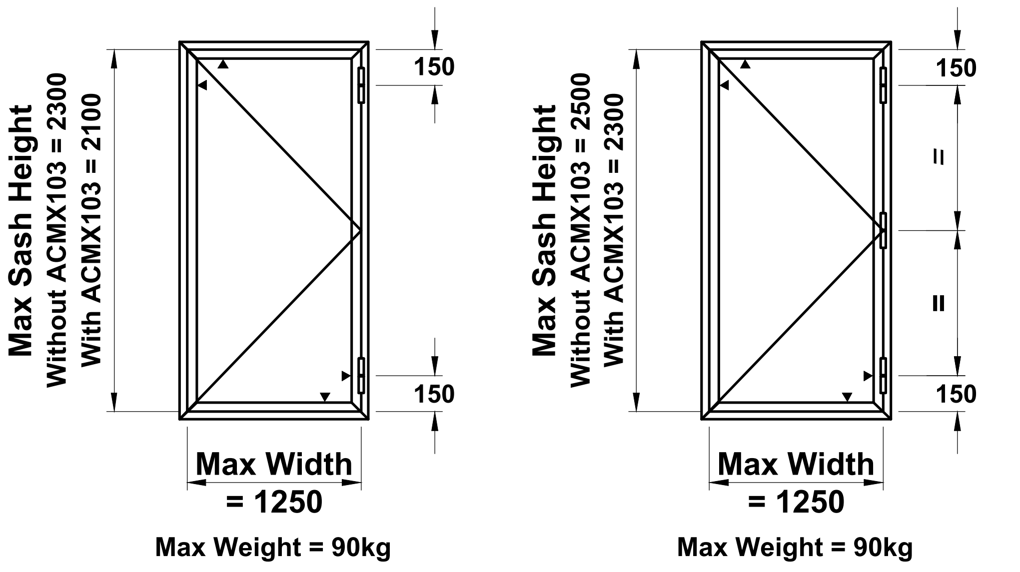
Drainage Slot Types



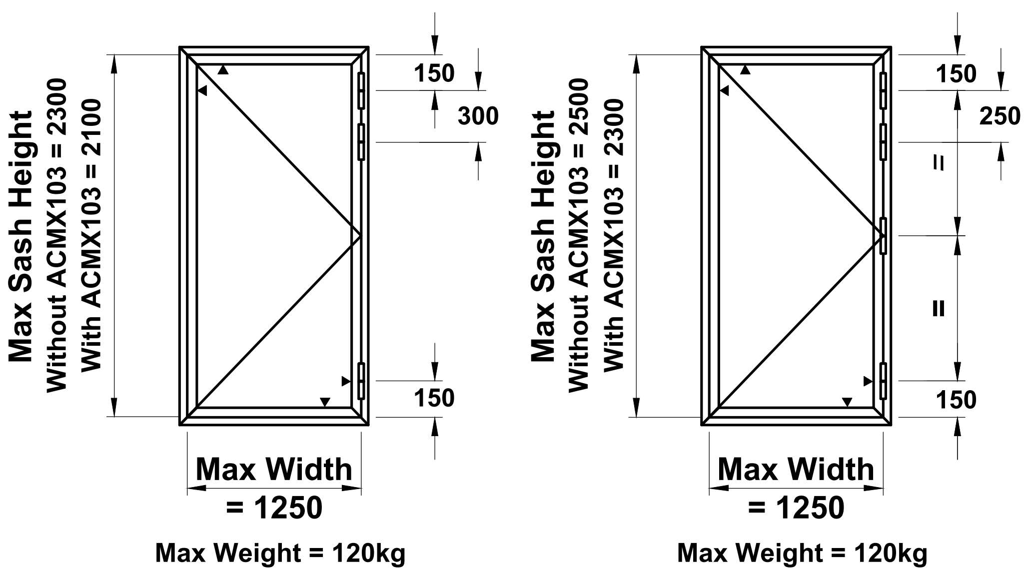


ACMX102 Two-Part Hinge Details

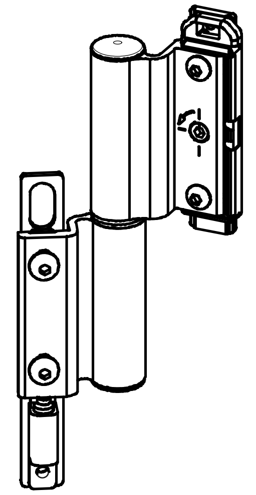
Residential - without closer

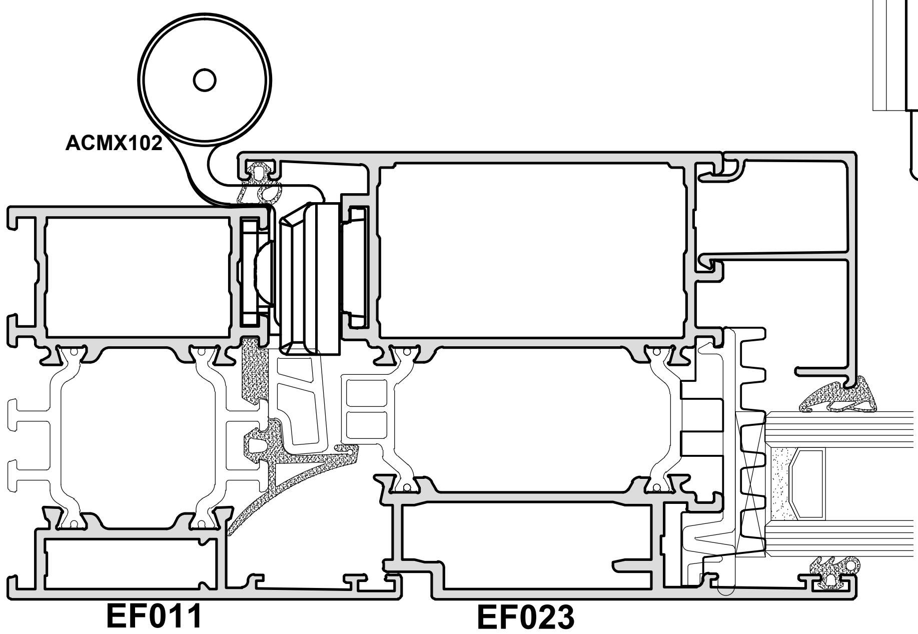


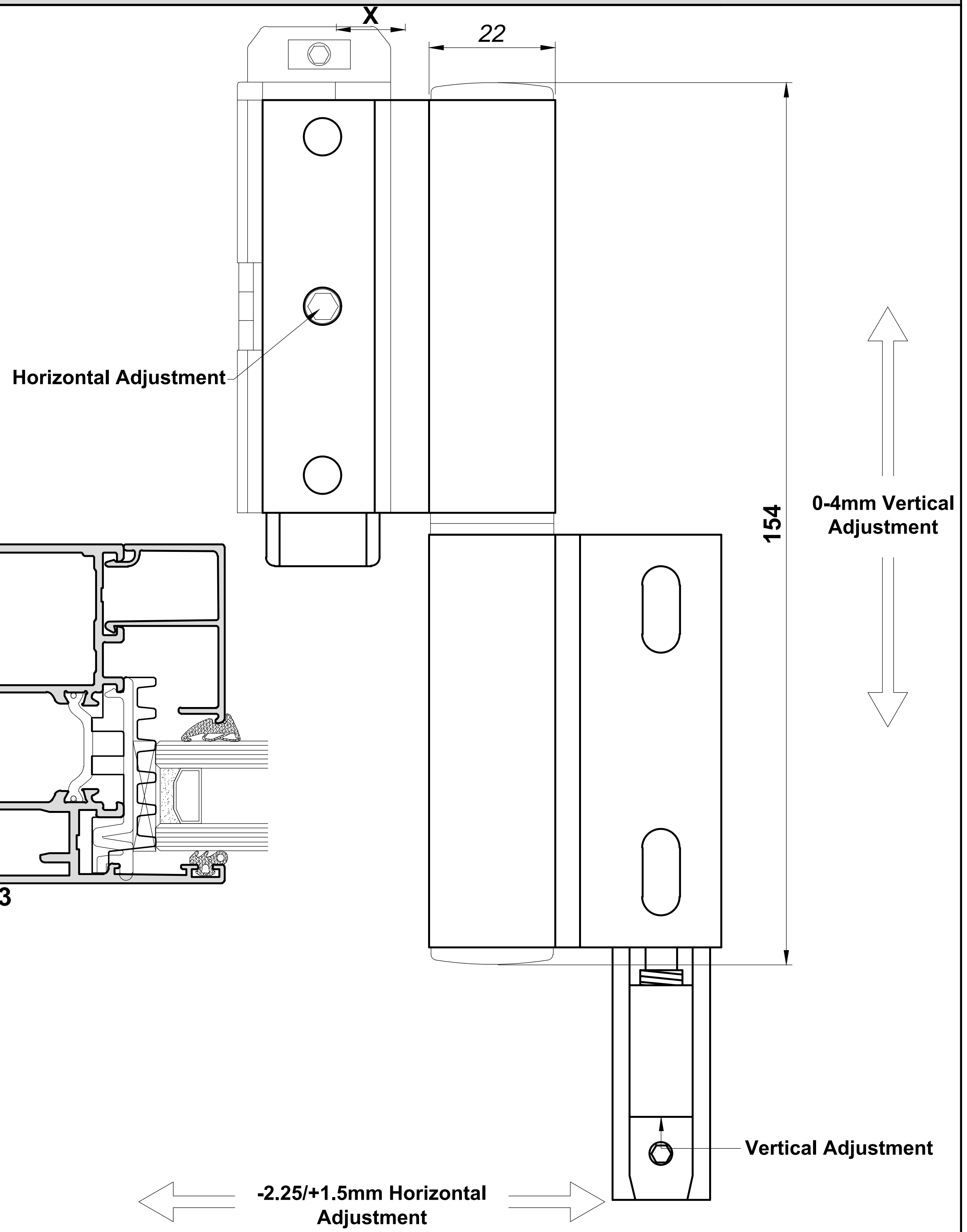
Light Commercial - without closer



ACMX102





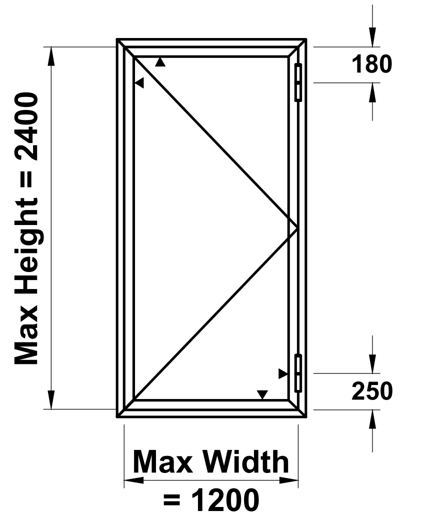


Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

ACUN102 Three-Part Hinge Details

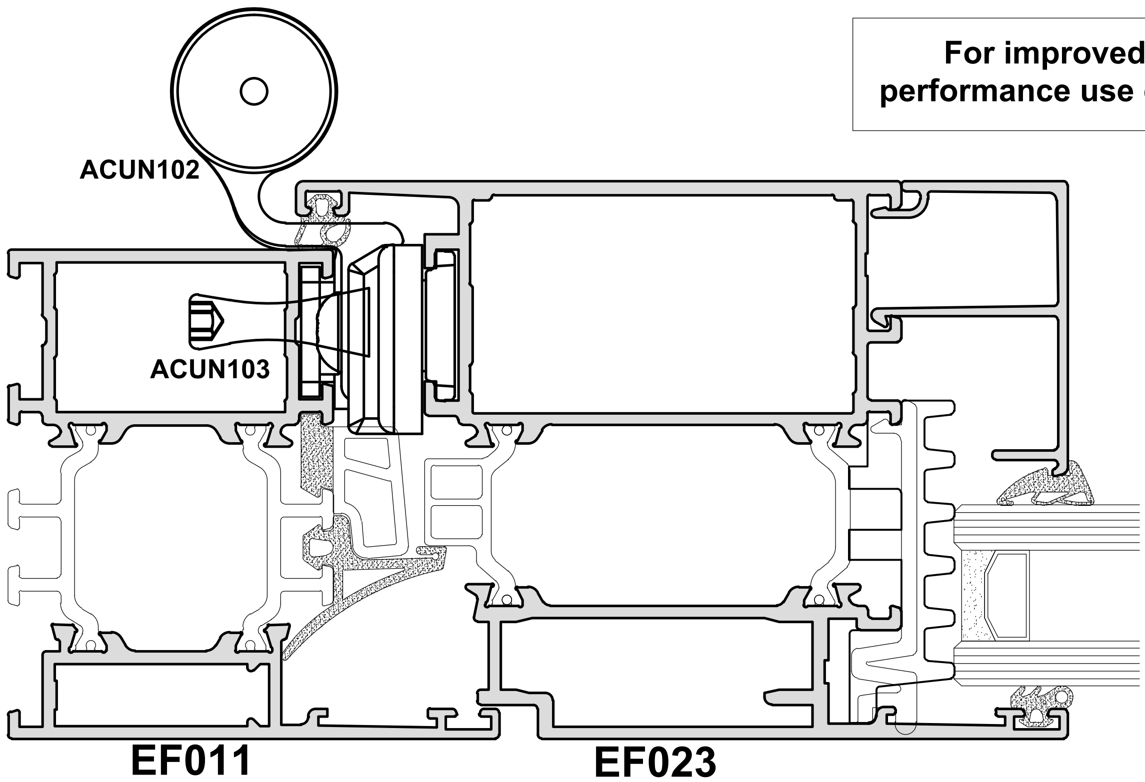
Residential - without closer



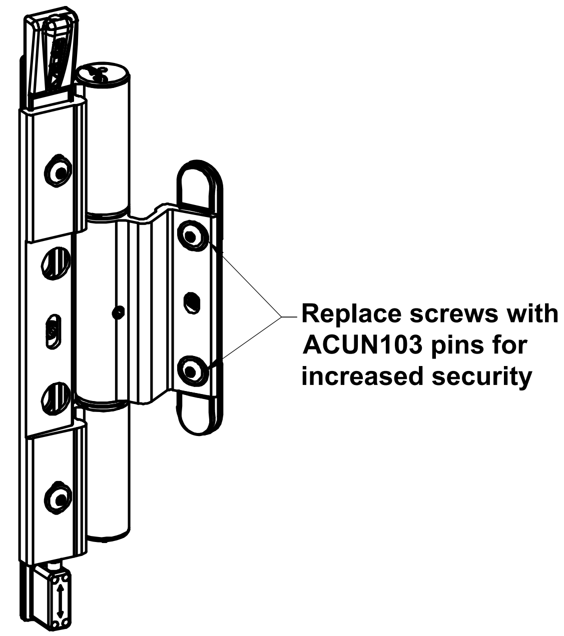
Min Height to Width Ratio = 1.4
Max Weight = 90kg

Min Height to Width Ratio = 1.85
Max Weight = 120kg

For improved weather performance use central hinge

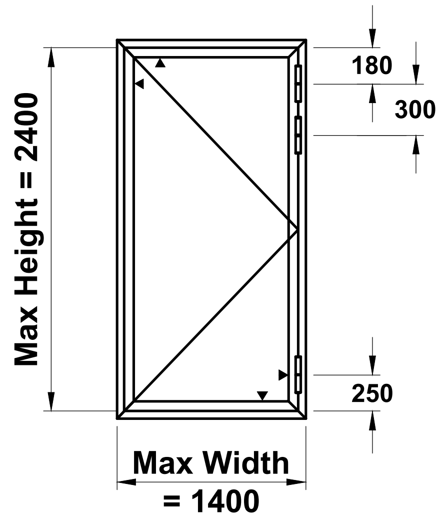


ACUN102

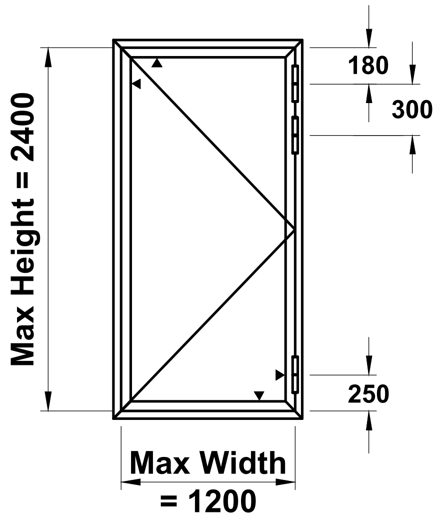


See two-part hinge for adjustment details

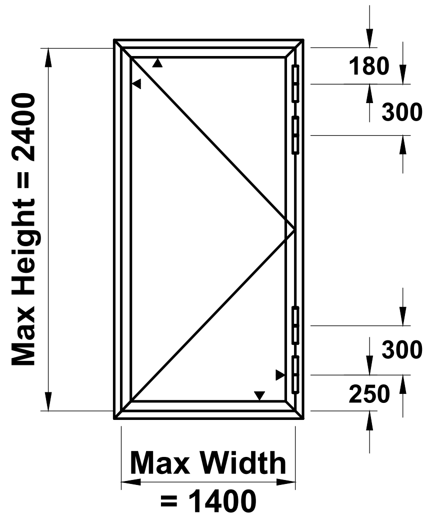
Light Commercial - with closer



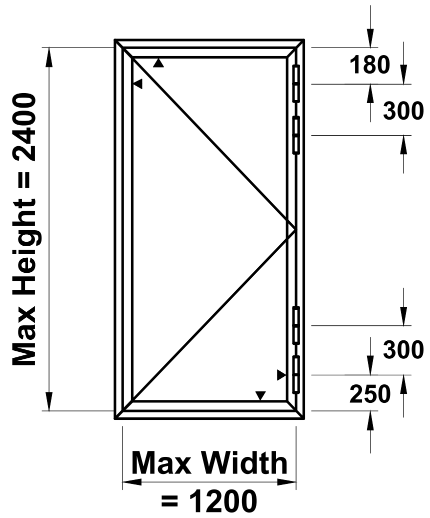
Min Height to Width Ratio = 1.4
Max Weight = 90kg
Min Height to Width Ratio = 1.6
Max Weight = 120kg



Min Height to Width Ratio = 1.6
Max Weight = 150kg

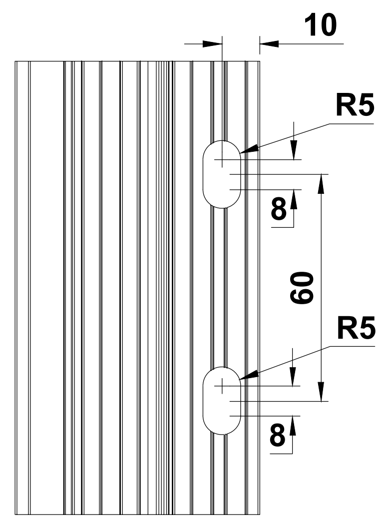


Min Height to Width Ratio = 1.6
Max Weight = 150kg



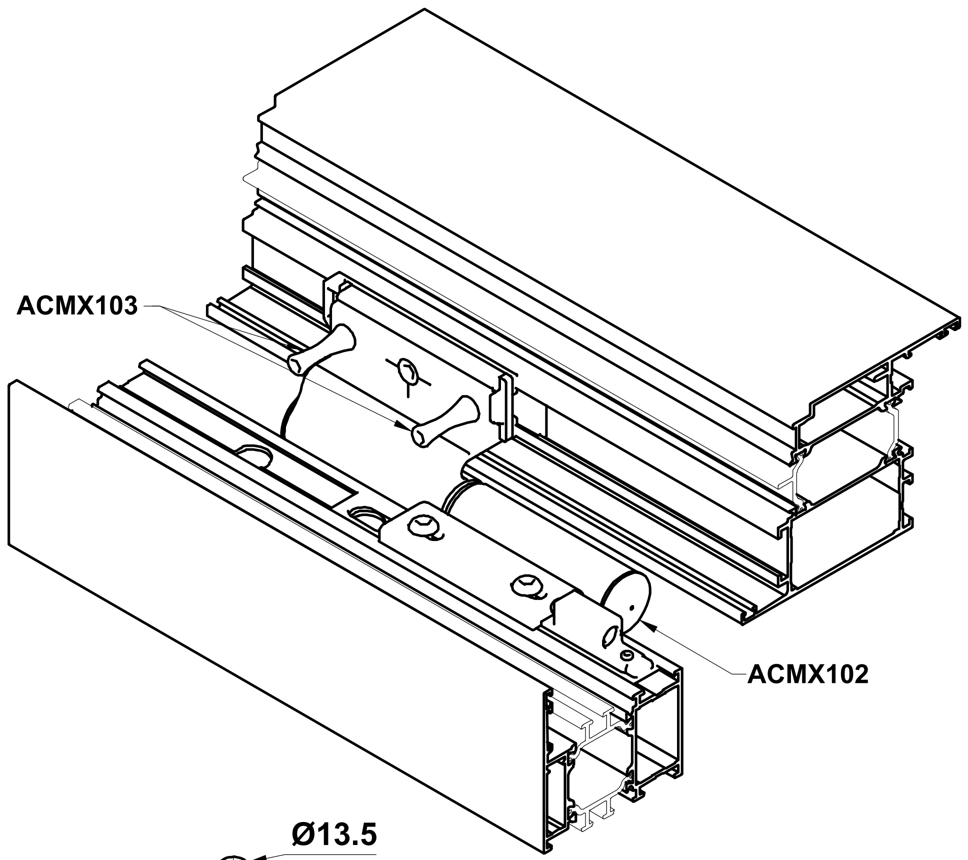
Min Height to Width Ratio = 1.9
Max Weight = 180kg

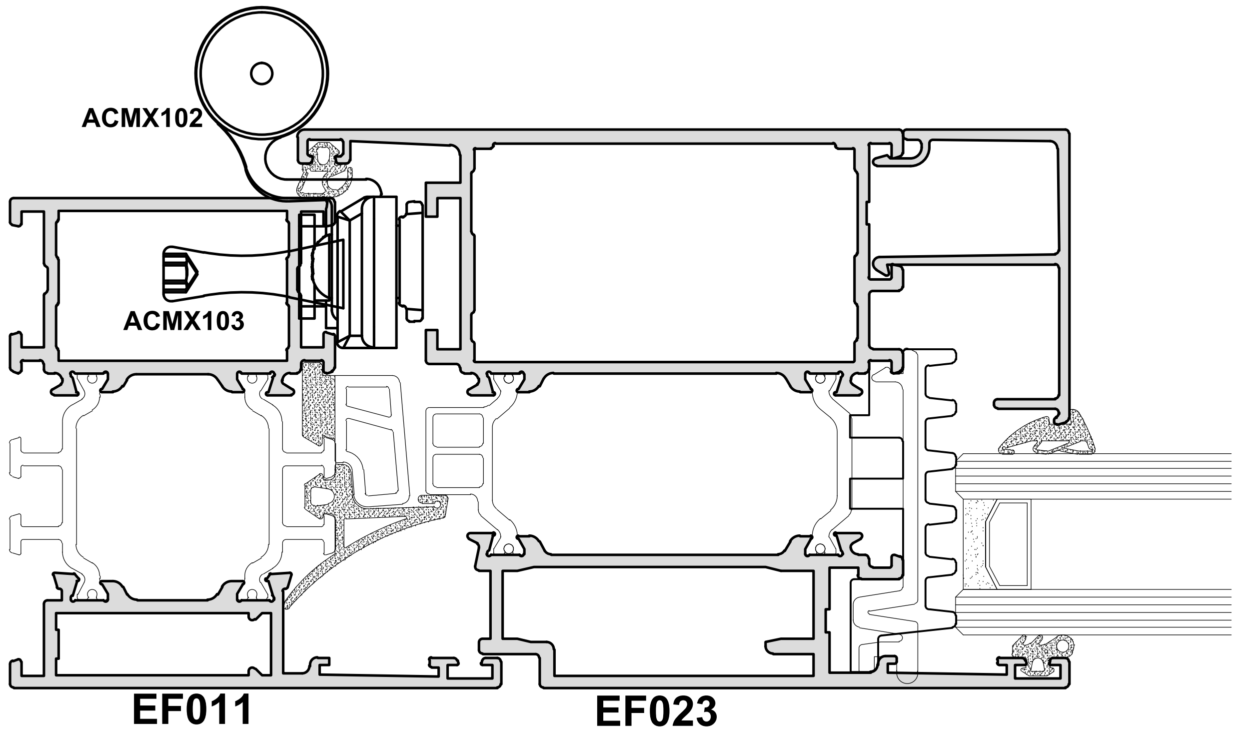
ACUN103 Security Pin Preparation
(Required for PAS24:2016)

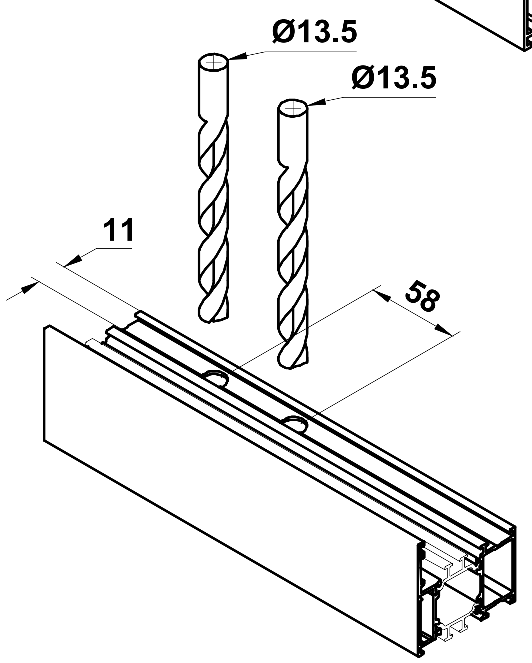


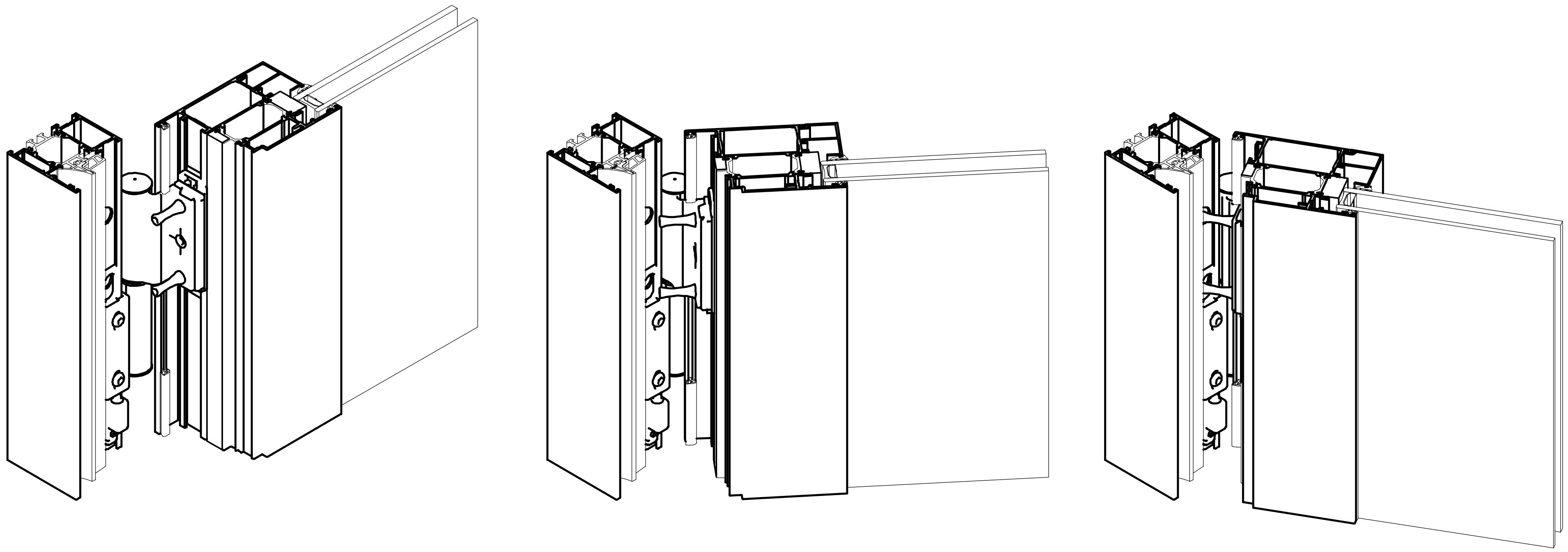
Do Not Scale From This Drawing

ACMX102 Hinge with ACMX103 Security Pin Preparation









Do Not Scale From This Drawing

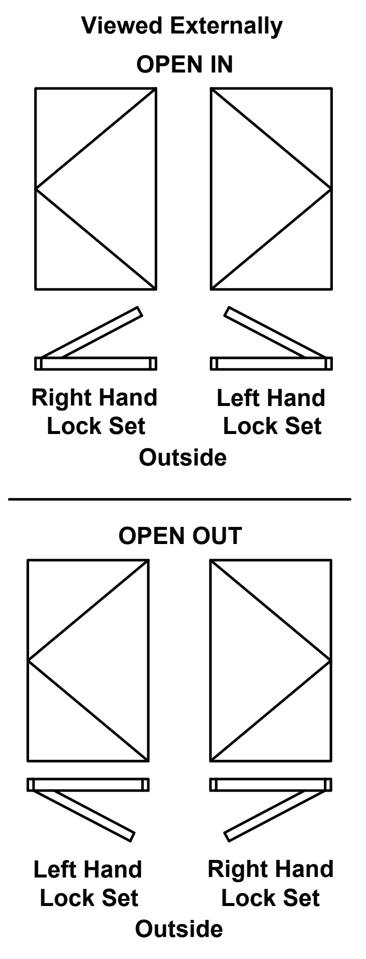
ISSUED: DECEMBER 2018

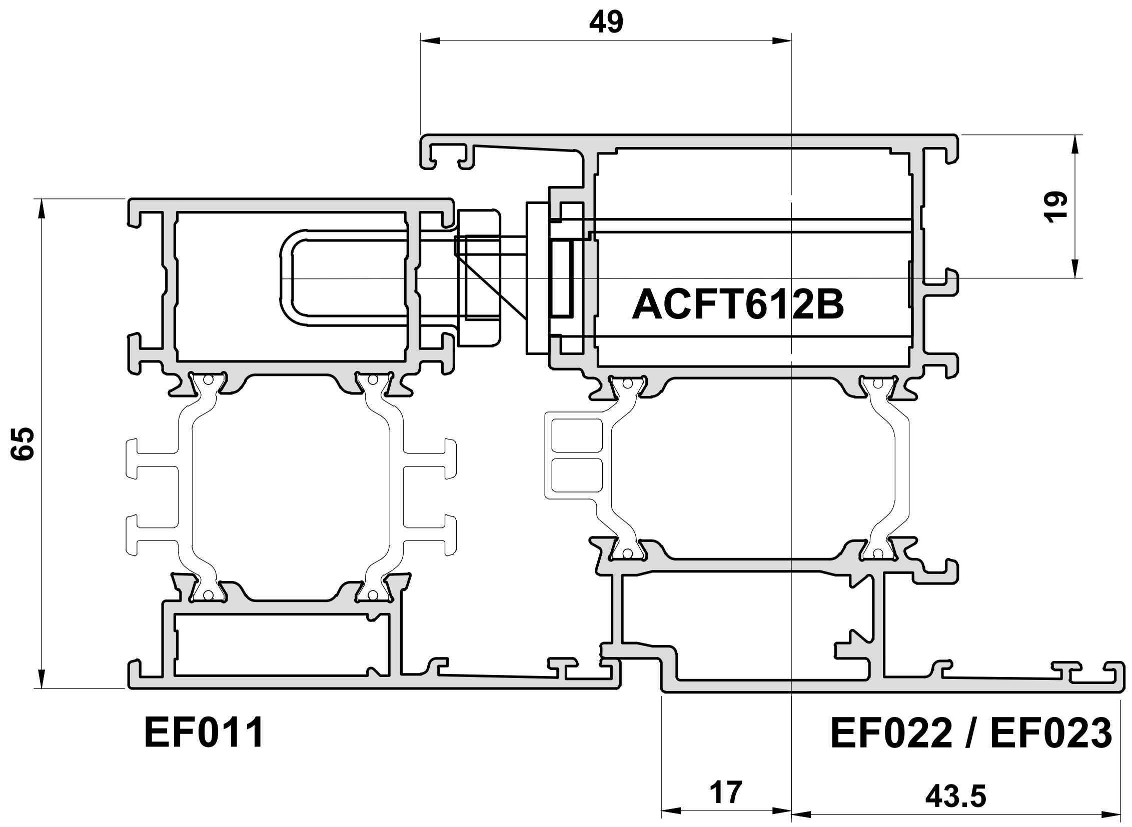
Stepped Door - Locking Options

Lock Guide

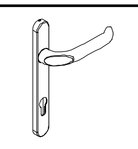
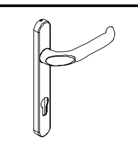
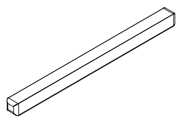
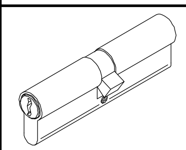
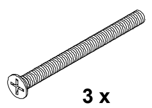
Sash Height	Locks	Keeps: Middle	Keeps: Top / Bottom	Keeps: Continuous
2100-2300	ACSZ510	ACSZ650R	ACSZ651	ACSZ680R
1825-2100	ACSZ511			ACSZ681R
2300-2500	ACSZ512			ACSZ682R
1 Point Lock	ACSZ515			

Keep Handing Guide

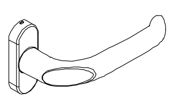
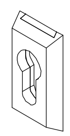
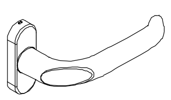
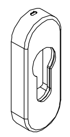
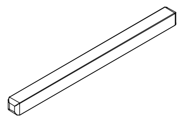
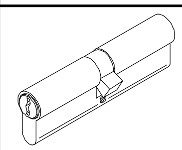
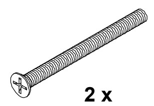




Handle With Large Backplate Guide

Ext. Handle	Int. Handle	Spindle	Cylinder	Screw
				 3 x
ACSZ800	ACSZ801	ACMX310 Sq. Spindle 140mm	ACMX0030 Half Cylinder	ACMX861 M5 x 75mm
	ACSZ803			
	ACSZ830 T			
ACSZ802	ACSZ803		ACMX3065 30/65 Cylinder	
	ACSZ830			
ACSZ400 + 2 x ACVS061	ACSZ803	ACMX012 Sq. Spindle 100mm	ACMX3065 30/65 Cylinder	ACVS061 M5 x 40mm
	ACSZ830			

Handle with Small Backplate Guide

Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
						 2 x
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX310 Sq. Spindle 140mm	ACMX3065 ACMX0030	ACMX861 M5 x 75mm
	ACSZ400			ACMX012 Sq. Spindle 100mm	ACMX3065 ACMX0030	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827 T		ACMX310 Sq. Spindle 140mm	ACMX03065 ACMX0030	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

- With Cylinder
- Without Cylinder
- T Handle With Cylinder
- T Handle Without Cylinder

For PAS24 accessory options, please see page E65

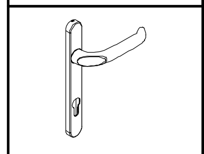
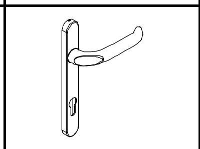
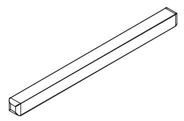
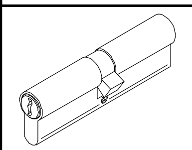
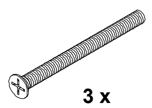
Stepped Door - Locking Options

Lock Guide

Sash Height	Locks	Keeps		
		Middle	Top / Bottom	Continuous
2100-2300	ACSZ510	ACSZ650R	ACSZ651	ACSZ680R
1825-2100	ACSZ511			ACSZ681R
*2300-2500	ACSZ512			ACSZ682R
1 Point Lock	ACSZ515			

*If using AVCL432 shoot bolts, use ACSZ510 up to 2500mm sash height

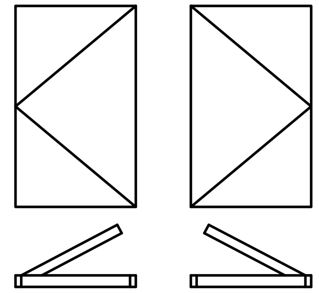
Handle With Large Backplate Guide

Ext. Handle	Int. Handle	Spindle	Cylinder	Screw
				 3 x
ACSZ800	ACSZ801 ACSZ803 ACSZ830 T	ACMX310 Sq. Spindle 140mm	ACMX0030 Half Cylinder	ACMX861 M5 x 75mm
ACSZ802	ACSZ803 ACSZ830		ACMX3065 30/65 Cylinder	
ACSZ400 + 2 x ACVS061	ACSZ803 ACSZ830	ACMX012 Sq. Spindle 100mm	ACMX3065 30/65 Cylinder	ACVS061 M5 x 40mm

Keep Handing Guide

Viewed Externally

OPEN IN

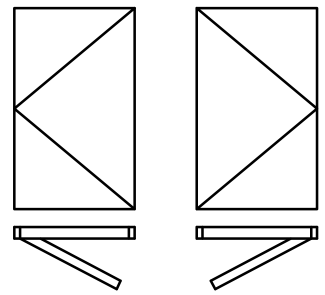


Right Hand Lock Set

Left Hand Lock Set

Outside

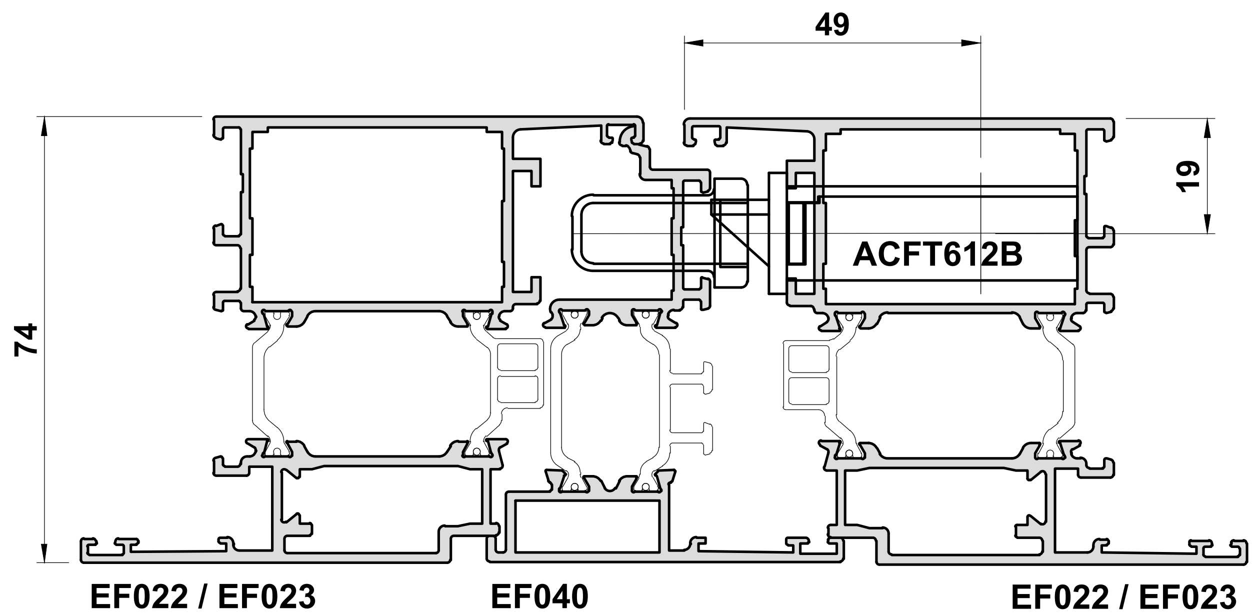
OPEN OUT



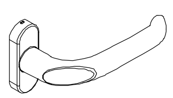
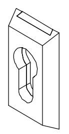
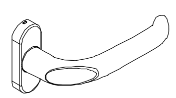
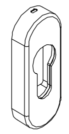
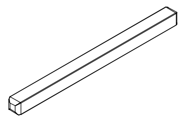
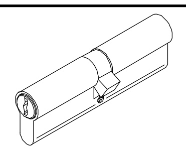
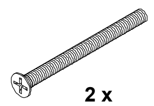
Left Hand Lock Set

Right Hand Lock Set

Outside



Handle with Small Backplate Guide

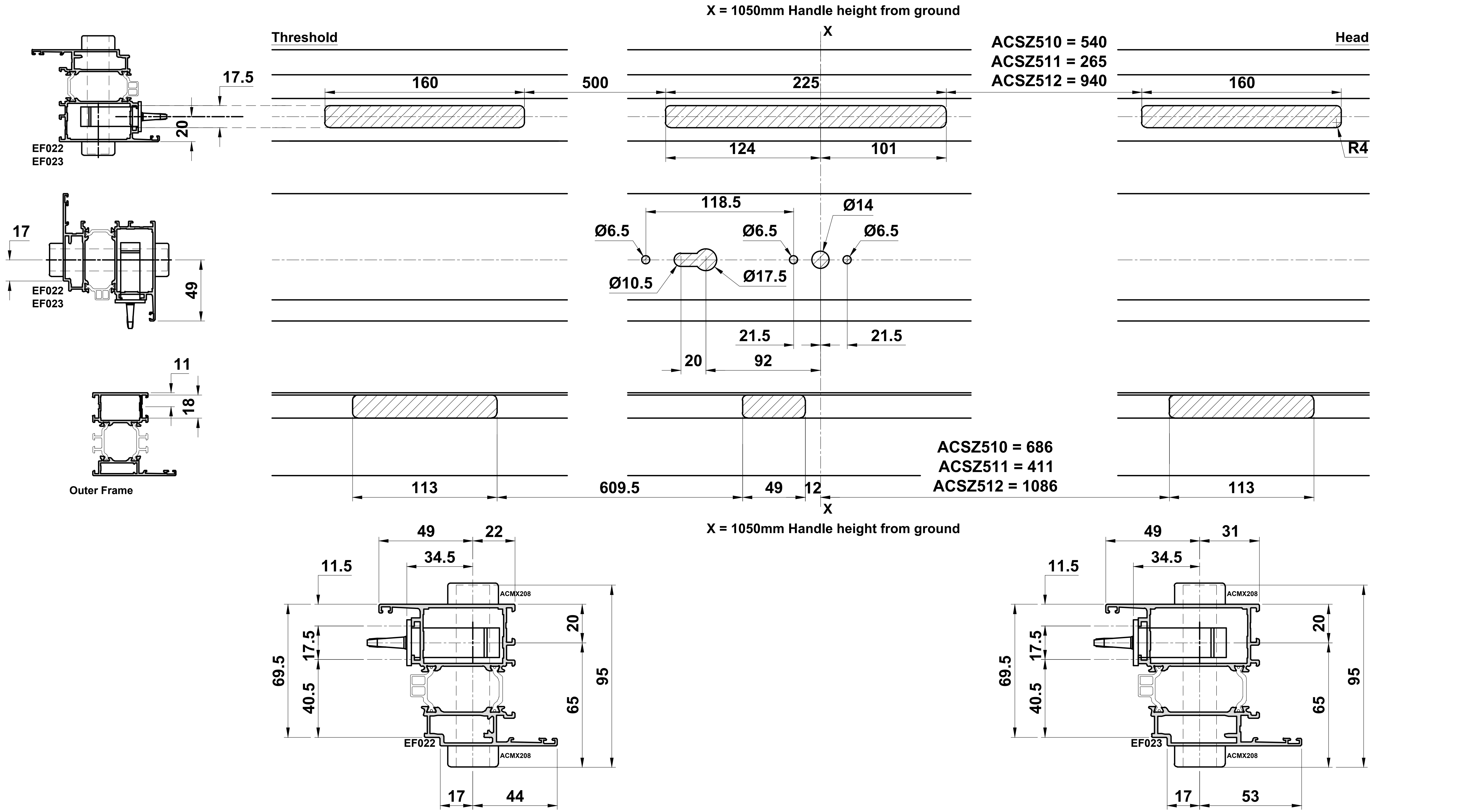
Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
						 2 x
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX310 Sq. Spindle 140mm	ACMX3065 ACMX0030	ACMX861 M5 x 75mm
	ACSZ400			ACMX012 Sq. Spindle 100mm	ACMX3065 ACMX0030	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827 T		ACMX310 Sq. Spindle 140mm	ACMX3065 ACMX0030	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

- With Cylinder
- Without Cylinder
- T Handle With Cylinder
- T Handle Without Cylinder

For PAS24 accessory options, please see page E65

Do Not Scale From This Drawing

ACSZ510/511/512 Preparation for EF022 & EF023



Do Not Scale From This Drawing

Stepped Door - Locking Options

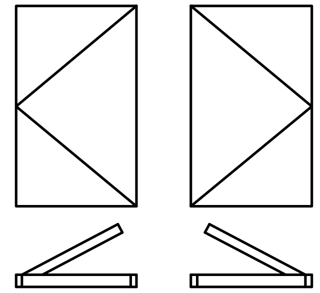
Lock Guide

Sash Height	Locks	Keeps: Middle	Keeps: Top / Bottom	Keeps: Continuous
2100-2300	ACSZ510	ACSZ650R	ACSZ651	ACSZ680R
1825-2100	ACSZ511			ACSZ681R
2300-2500	ACSZ512			ACSZ682R
1 Point Lock	ACSZ515			

Keep Handing Guide

Viewed Externally

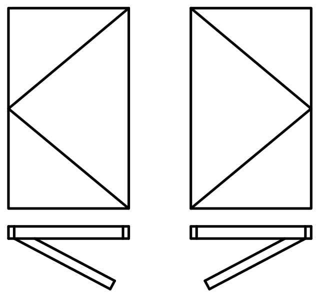
OPEN IN



Right Hand Lock Set | Left Hand Lock Set

Outside

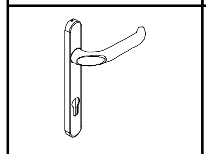
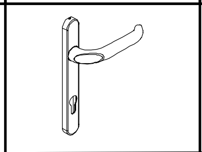
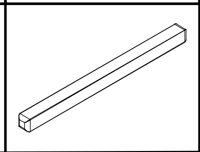
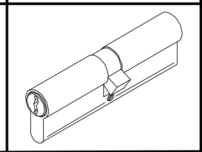
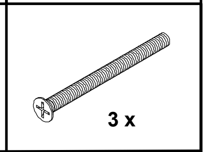
OPEN OUT

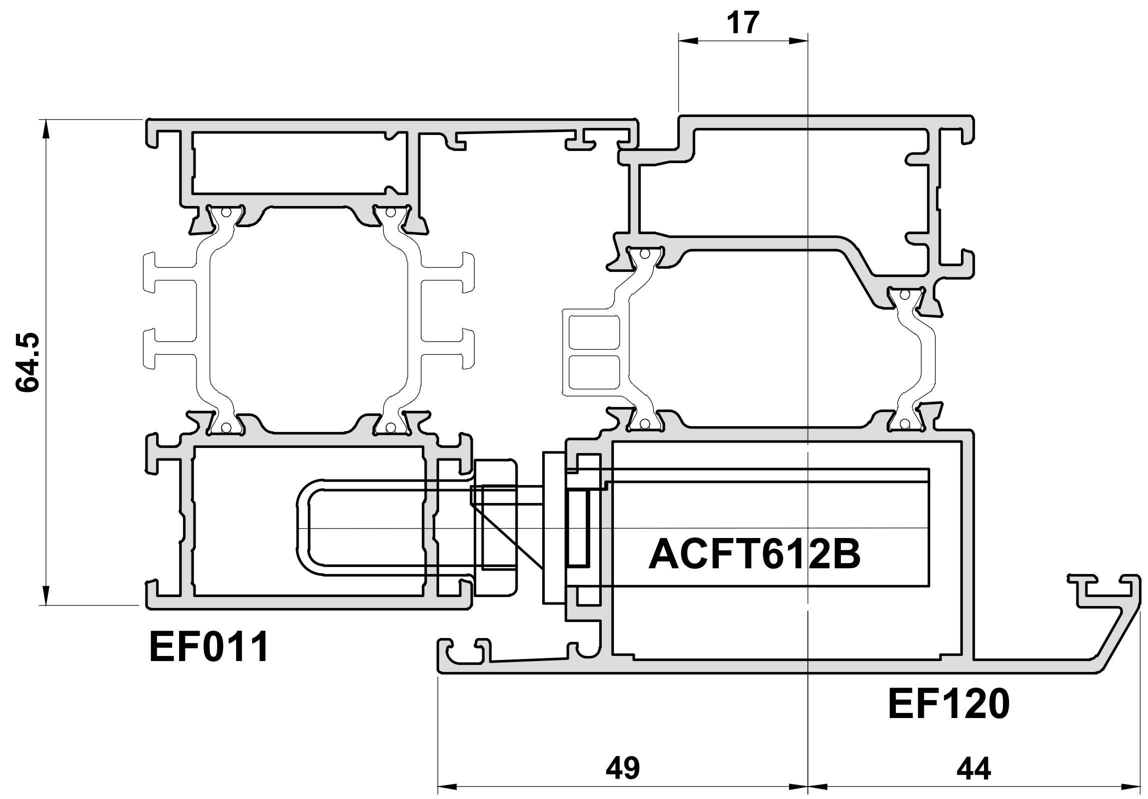


Left Hand Lock Set | Right Hand Lock Set

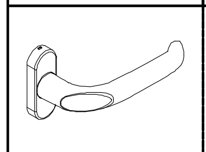
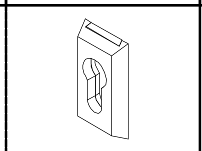
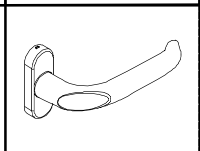
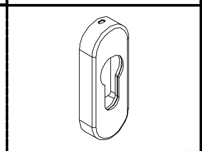
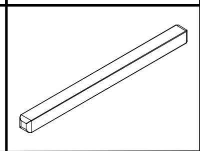
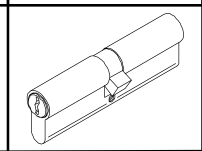
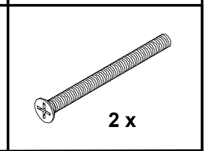
Outside

Handle With Large Backplate Guide

Ext. Handle	Int. Handle	Spindle	Cylinder	Screw
				 3 x
ACSZ800	ACSZ801 ACSZ803 ACSZ830 T	ACMX310 Sq. Spindle 140mm	ACMX0065 Half Cylinder	ACMX861 M5 x 75mm
ACSZ802	ACSZ803 ACSZ830		ACMX3065 30/65 Cylinder	
ACSZ400 + 2 x ACVS061	ACSZ803 ACSZ830	ACMX012 Sq. Spindle 100mm	ACMX3065 30/65 Cylinder	ACVS061 M5 x 40mm



Handle with Small Backplate Guide

Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
						 2 x
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX310 Sq. Spindle 140mm	ACMX3065 ACMX0065	ACMX861 M5 x 75mm
	ACSZ400			ACMX012 Sq. Spindle 100mm	ACMX3065 ACMX0065	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827 T		ACMX310 Sq. Spindle 140mm	ACMX3065 ACMX0065	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

With Cylinder
Without Cylinder
T Handle With Cylinder
T Handle Without Cylinder

For PAS24 accessory options, please see page E65

Do Not Scale From This Drawing

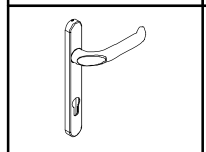
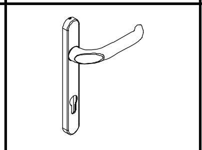
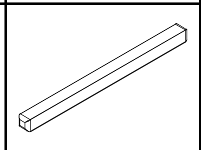
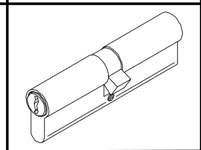
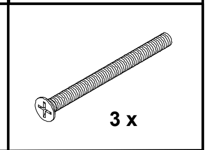
Stepped Door - Locking Options

Lock Guide

Sash Height	Locks	Keeps		
		Middle	Top / Bottom	Continuous
2100-2300	ACSZ510	ACSZ650R	ACSZ651	ACSZ680R
1825-2100	ACSZ511			ACSZ681R
*2300-2500	ACSZ512			ACSZ682R
1 Point Lock	ACSZ515			

*If using AVCL432 shoot bolts, use ACSZ510 up to 2500mm sash height

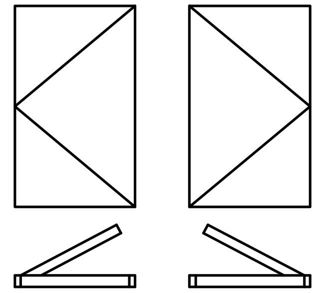
Handle With Large Backplate Guide

Ext. Handle	Int. Handle	Spindle	Cylinder	Screw
				
ACSZ800	ACSZ801 ACSZ803 ACSZ830 T	ACMX310 Sq. Spindle 140mm	ACMX0065 Half Cylinder	ACMX861 M5 x 75mm
ACSZ802	ACSZ803 ACSZ830		ACMX3065 30/65 Cylinder	
ACSZ400 + 2 x ACVS061	ACSZ803 ACSZ830	ACMX012 Sq. Spindle 100mm	ACMX3065 30/65 Cylinder	ACVS061 M5 x 40mm

Keep Handing Guide

Viewed Externally

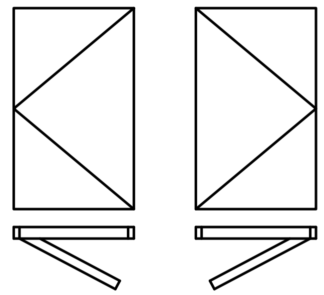
OPEN IN



Right Hand Lock Set | Left Hand Lock Set

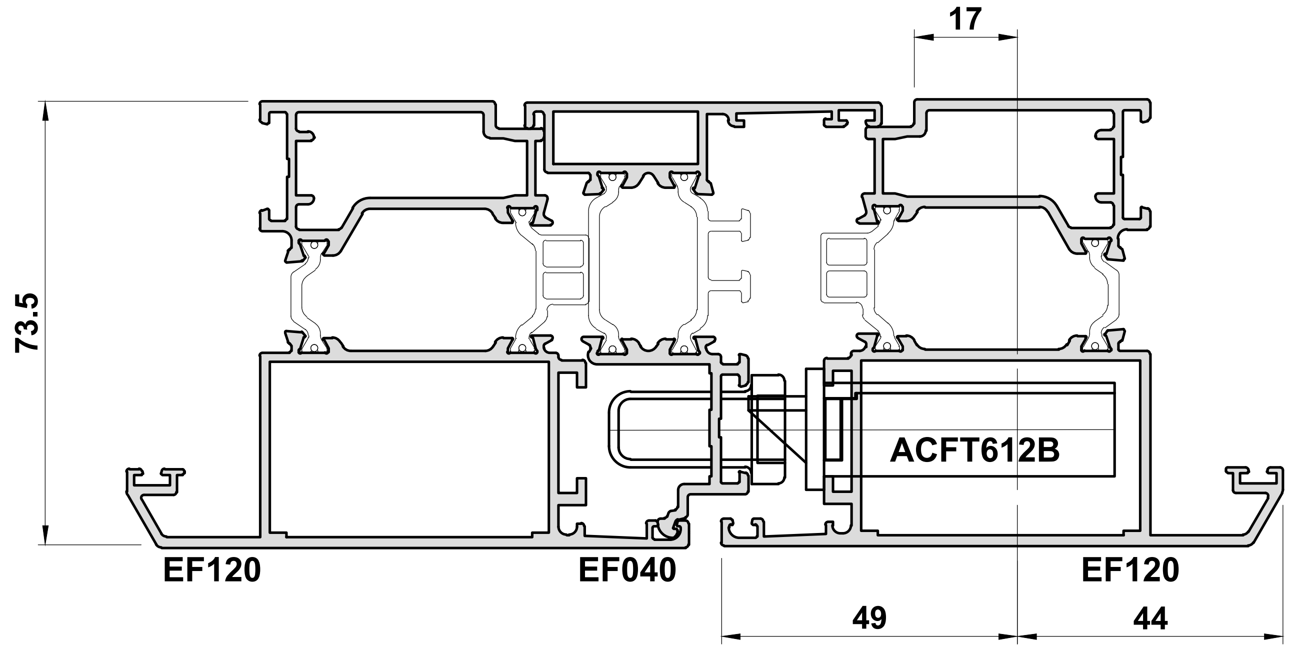
Outside

OPEN OUT

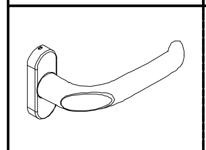
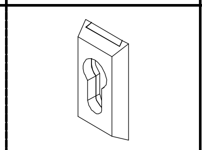
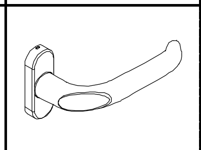
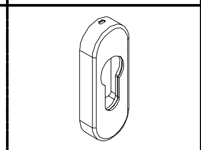
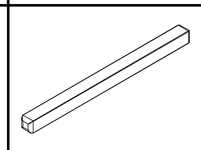
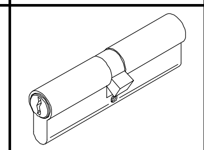
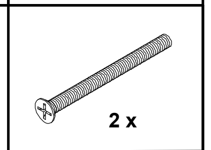


Left Hand Lock Set | Right Hand Lock Set

Outside



Handle with Small Backplate Guide

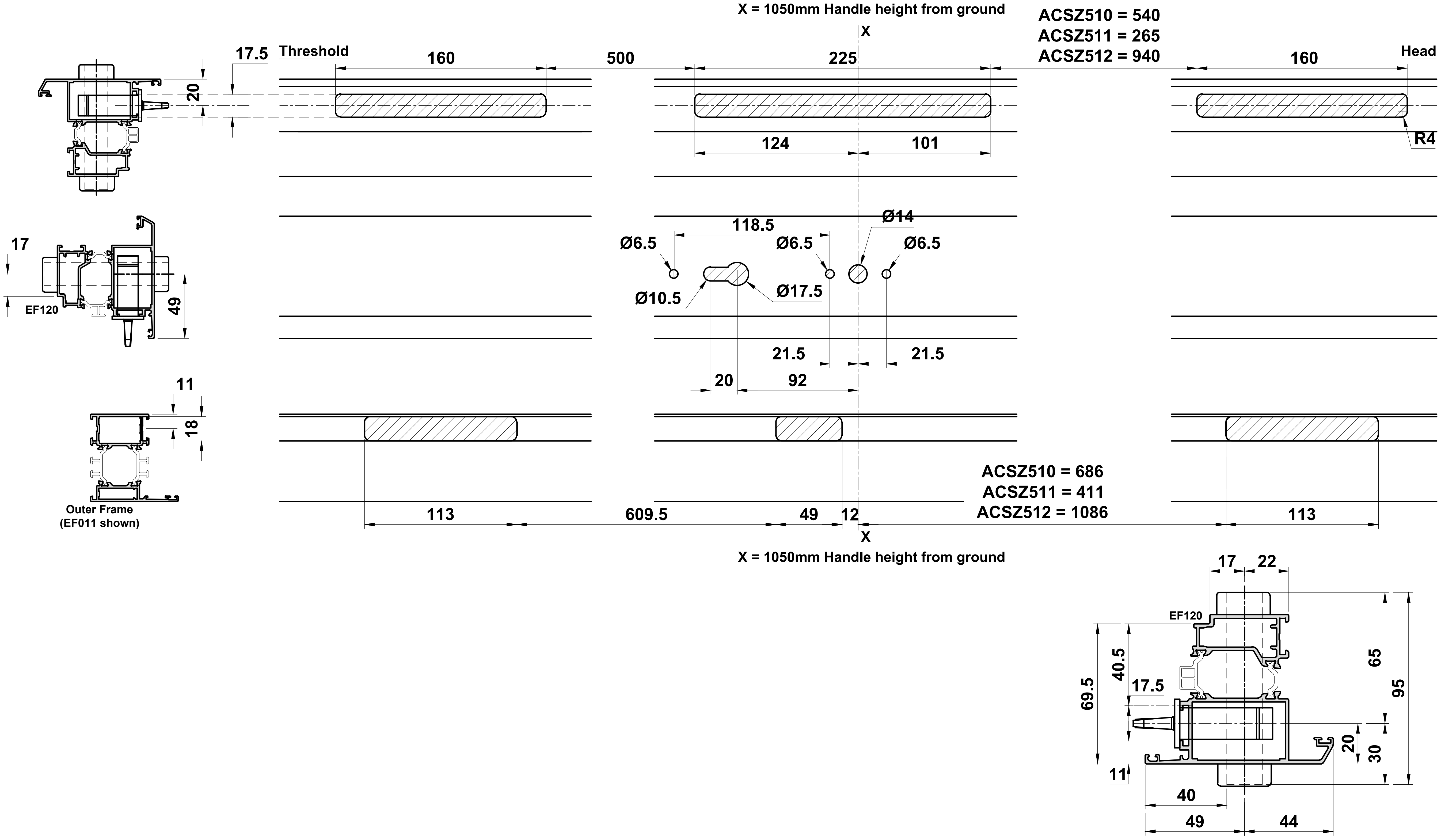
Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
						
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX310 Sq. Spindle 140mm	ACMX3065 ACMX0065	ACMX861 M5 x 75mm
	ACSZ400			ACMX012 Sq. Spindle 100mm	ACMX3065 ACMX0065	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827 T		ACMX310 Sq. Spindle 140mm	ACMX3065 ACMX0065	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

With Cylinder
Without Cylinder
T Handle With Cylinder
T Handle Without Cylinder

For PAS24 accessory options, please see page E65

Do Not Scale From This Drawing

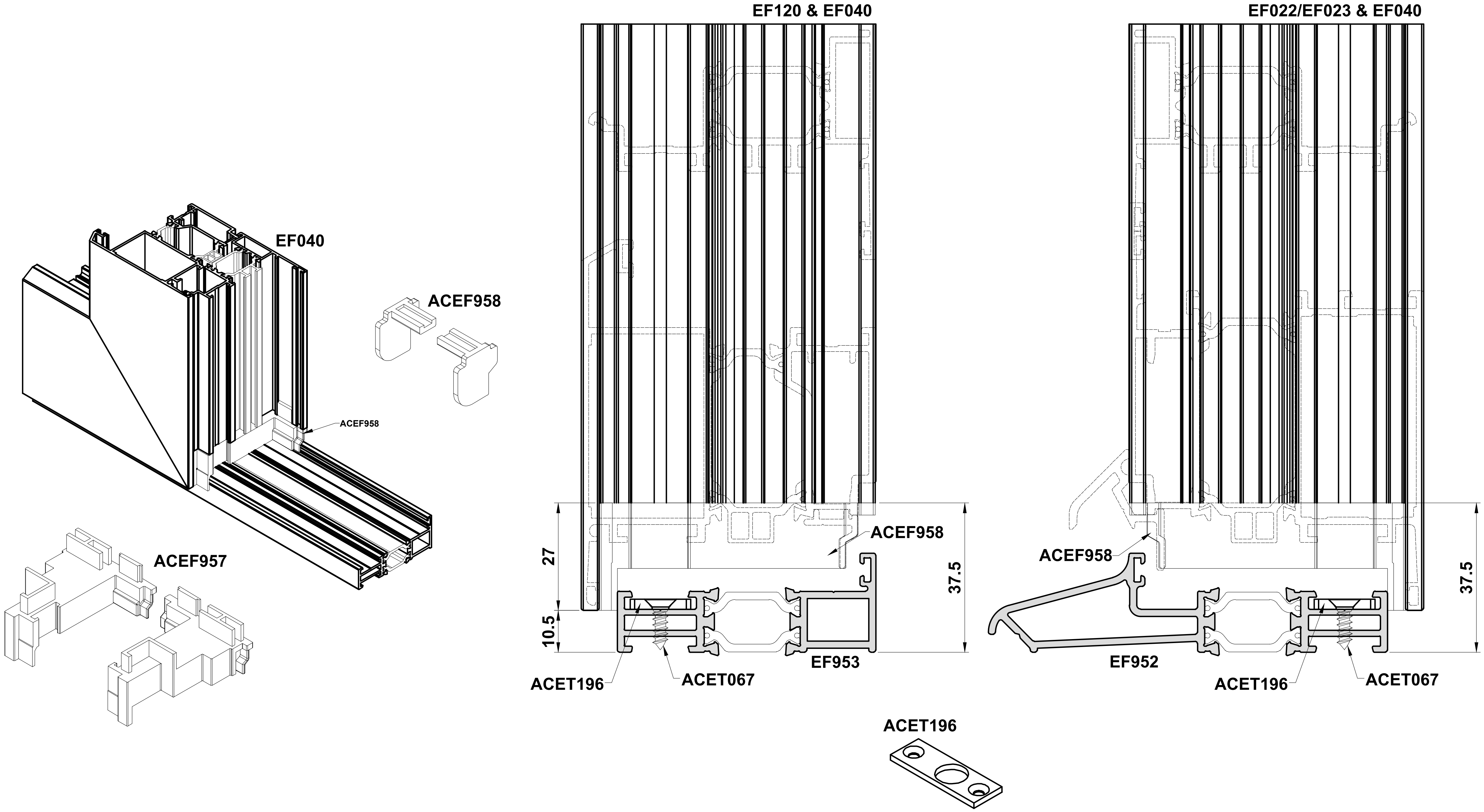
ACSZ510/511/512 Preparation for EF120



Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

EF952 & EF953 Double Door Detail

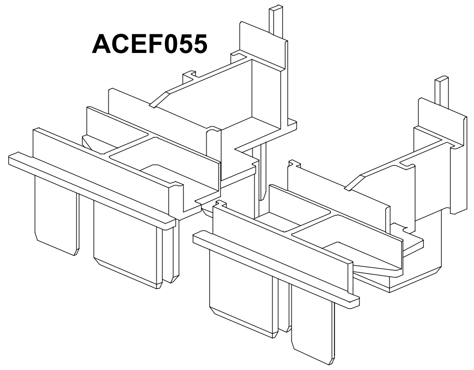


Do Not Scale From This Drawing

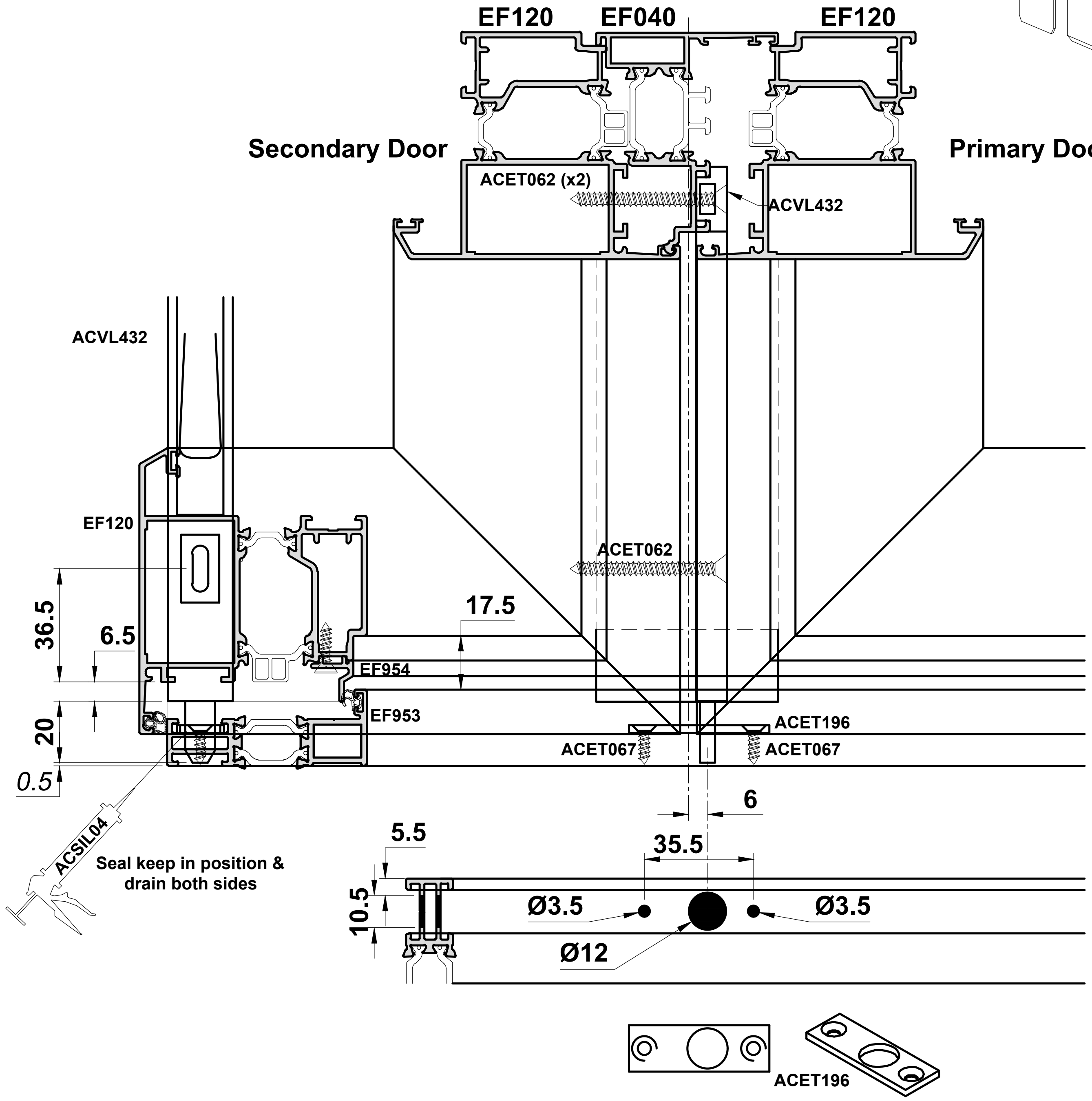
ACVL432 Shoot Bolt

Please Note: ACVL432 does not meet the requirements of PAS24.
Please use ACGT430 with ACEF961 as detail on page E65.

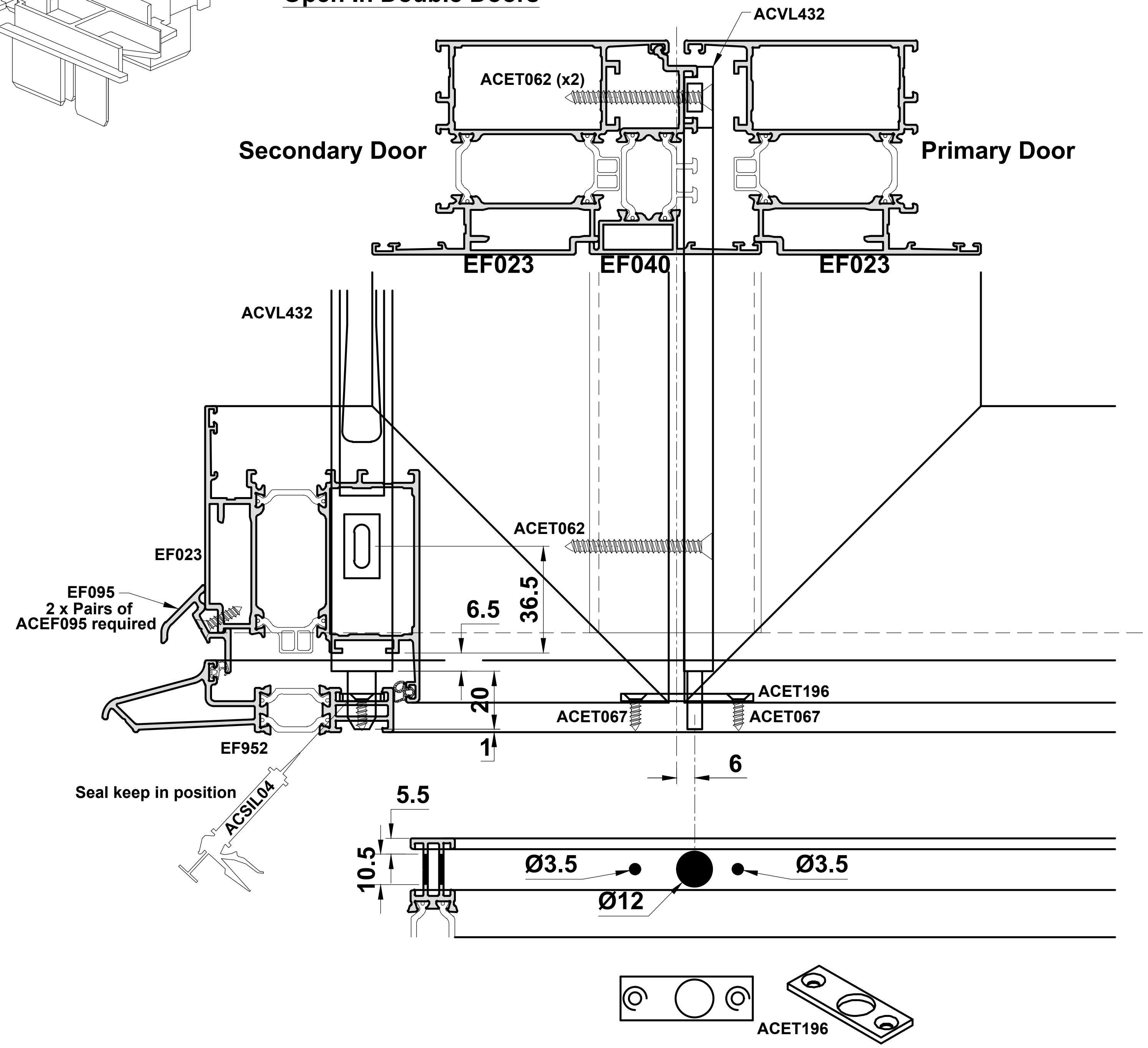
Note: To avoid collision with shootbolt, use smaller multipoint lock.



Open Out Double Doors

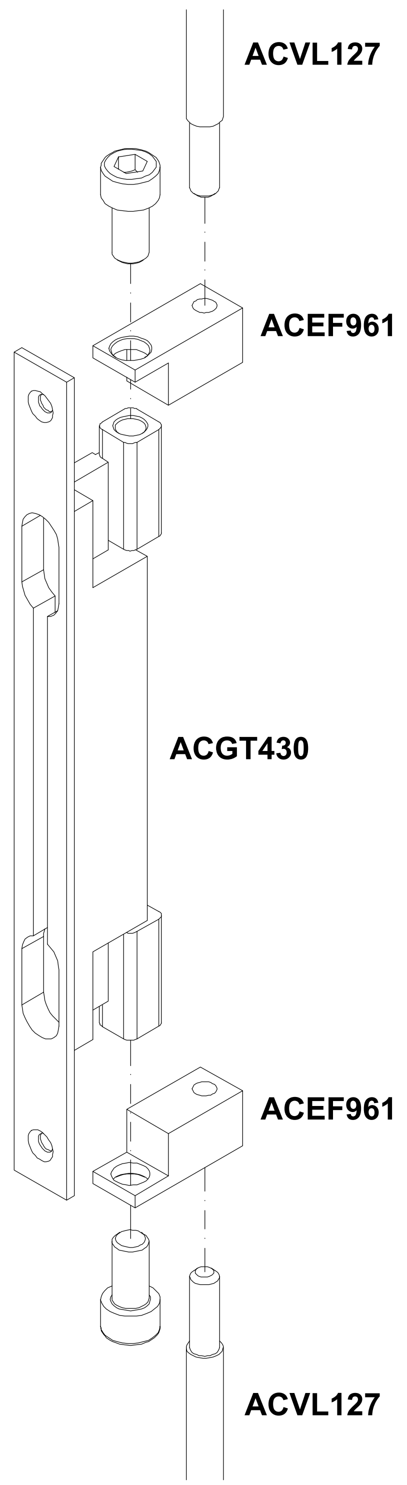


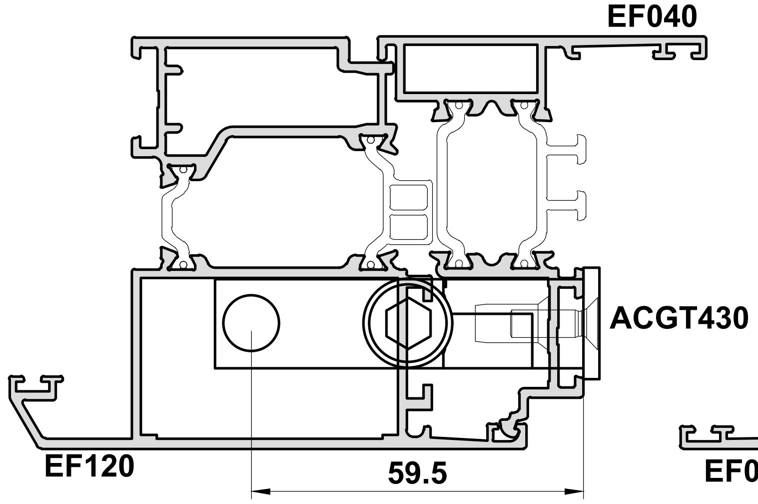
Open In Double Doors

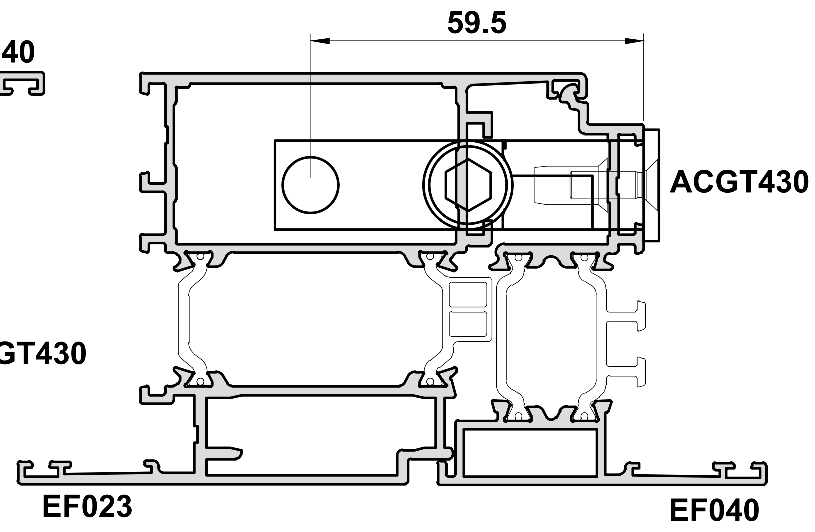


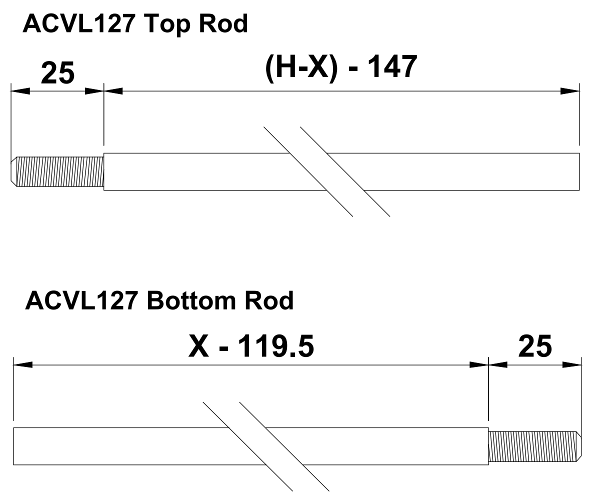
Do Not Scale From This Drawing

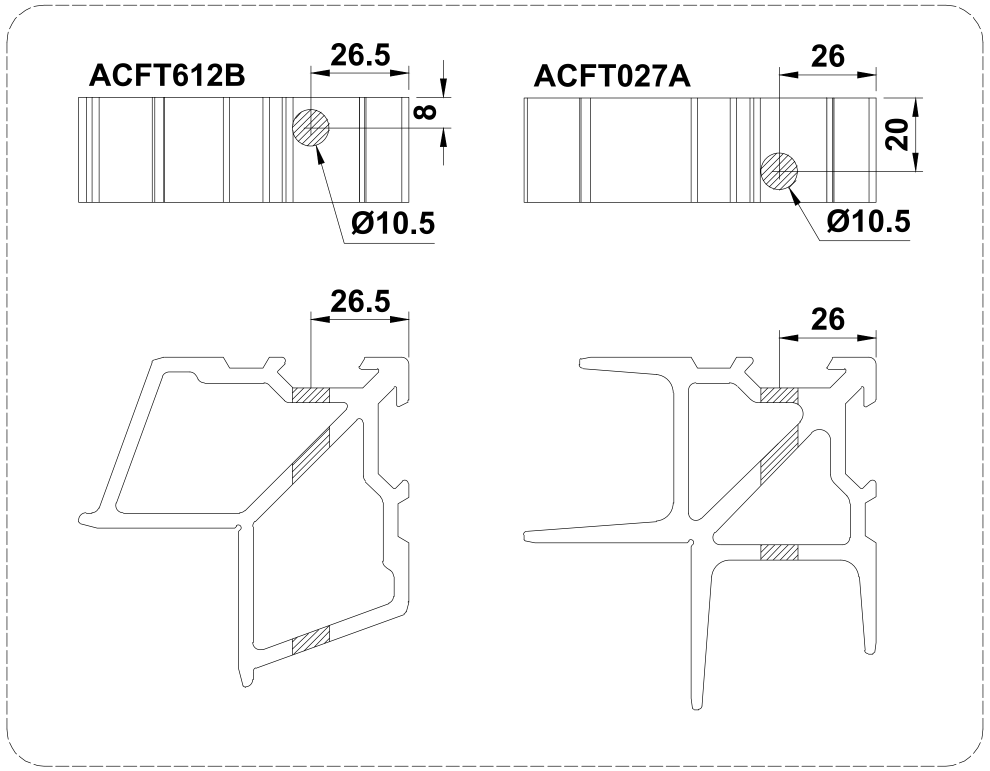
ACGT430 Preparation

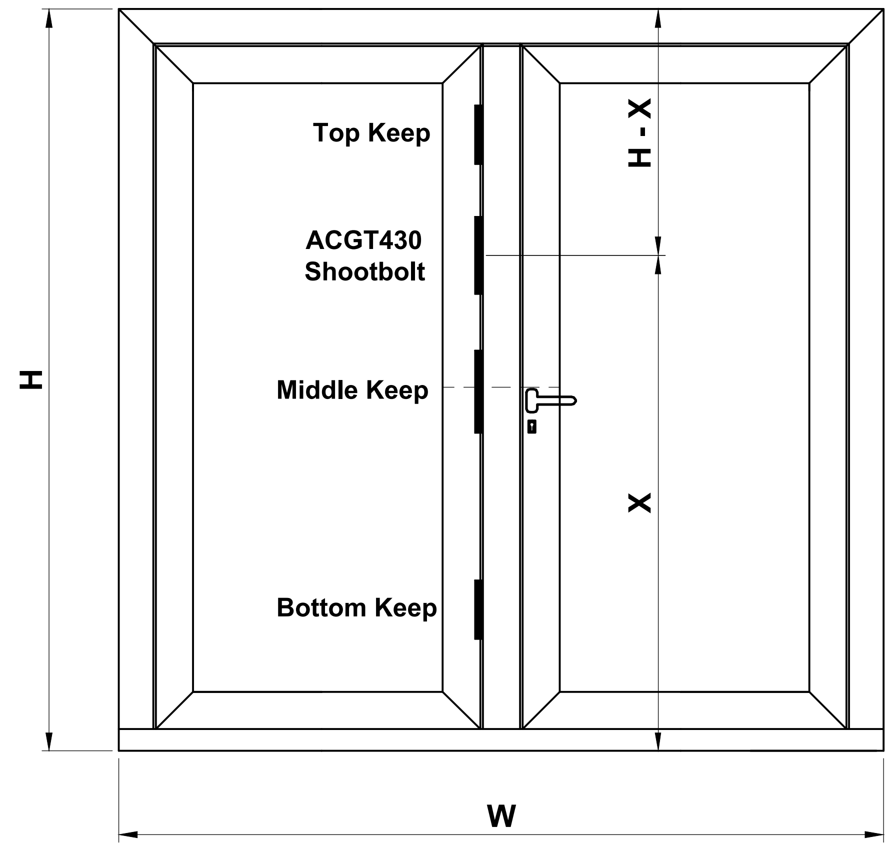




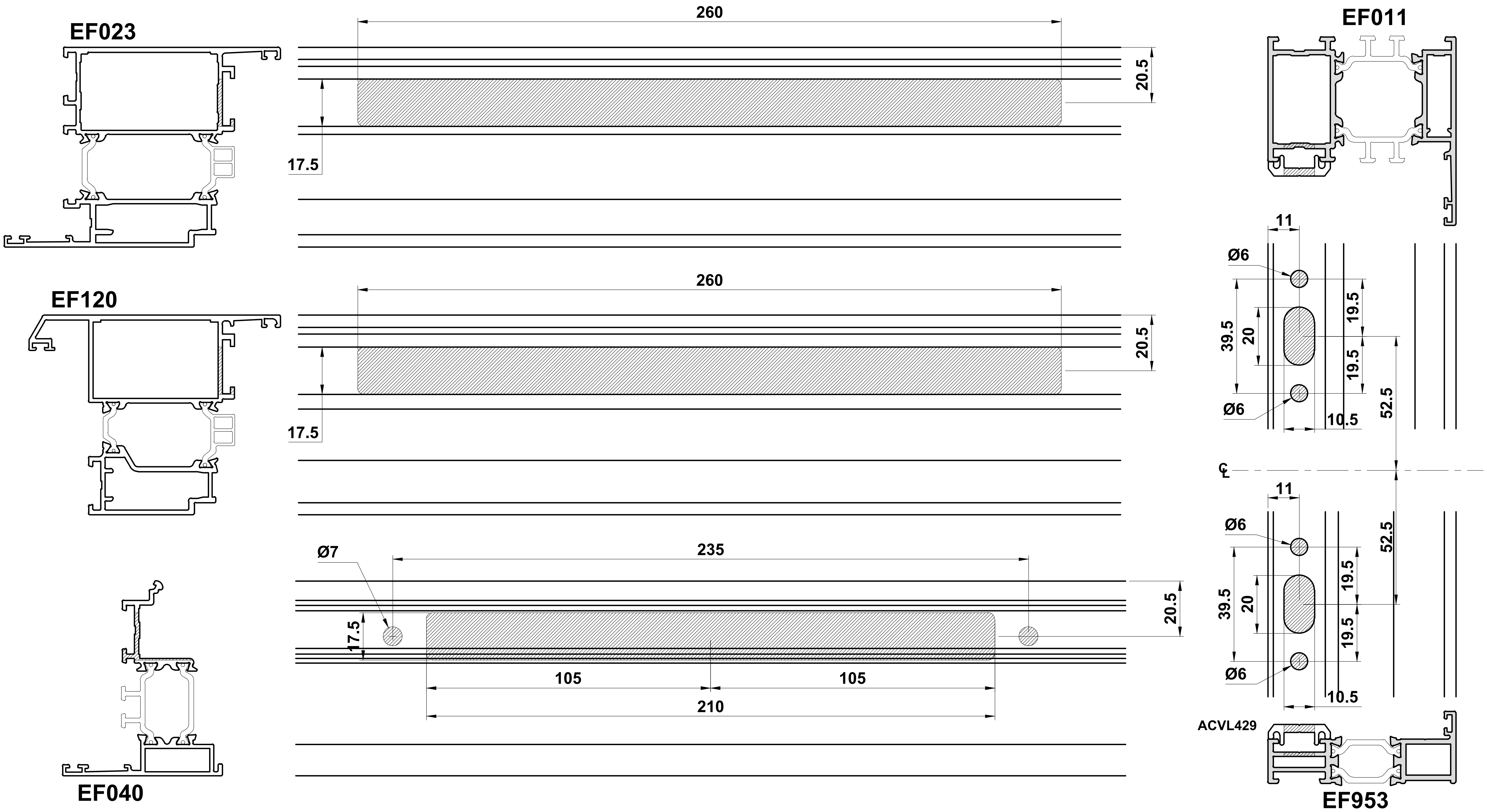








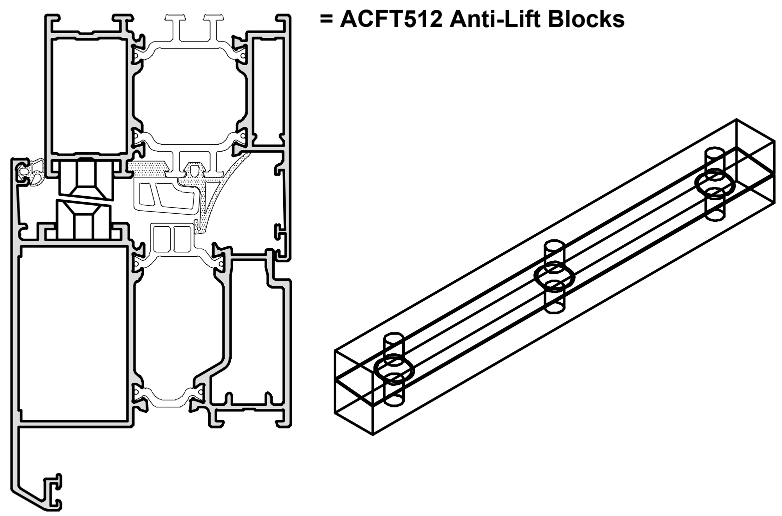
ACGT430 Preparation

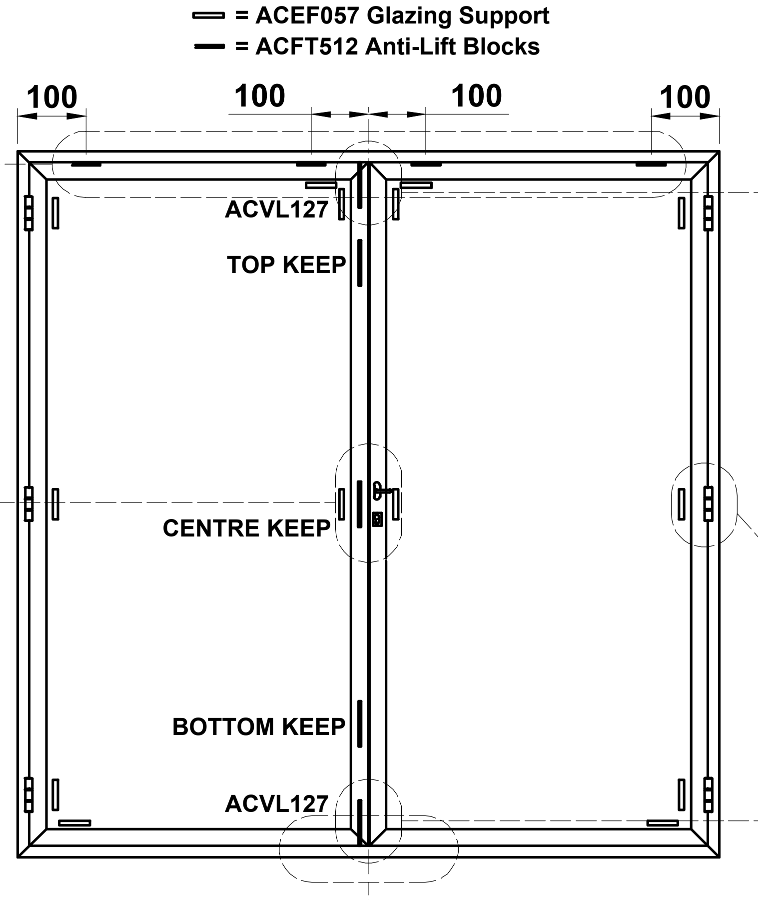


Do Not Scale From This Drawing

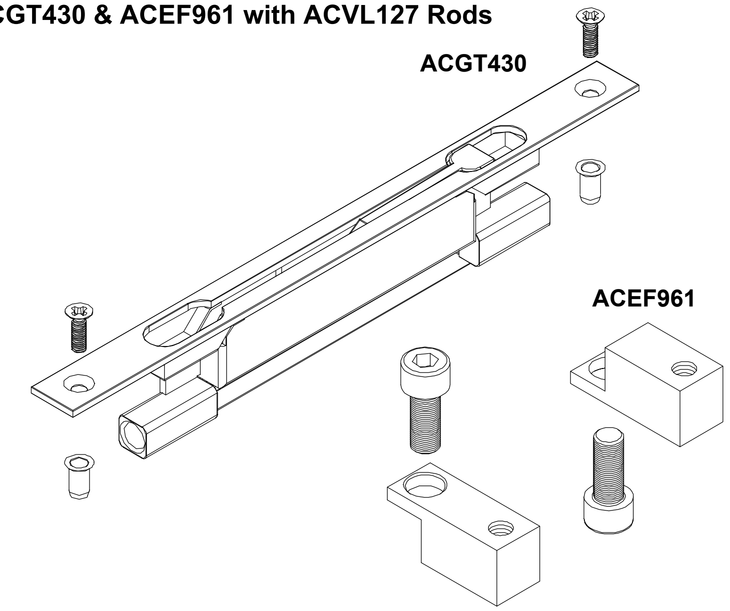
ISSUED: DECEMBER 2018

PAS24:2016 Overview - Stepped Open In & Open Out Doors





ACGT430 & ACEF961 with ACVL127 Rods



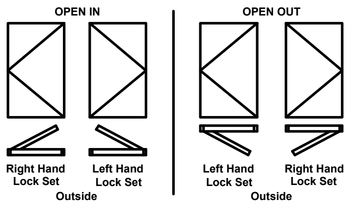
For improved weather performance use central hinge.
ACMX102 Two Part Hinge with ACMX103 Security Pins
or
ACUN102 Three Part Hinge with ACUN103 Security Pins

Lock Guide

Locks	Keeps	
	Middle	Top / Bottom
ACSZ510	ACSZ650(L/R)	ACSZ651
ACSZ511		
ACSZ512		

Keep Handing Guide

Viewed Externally

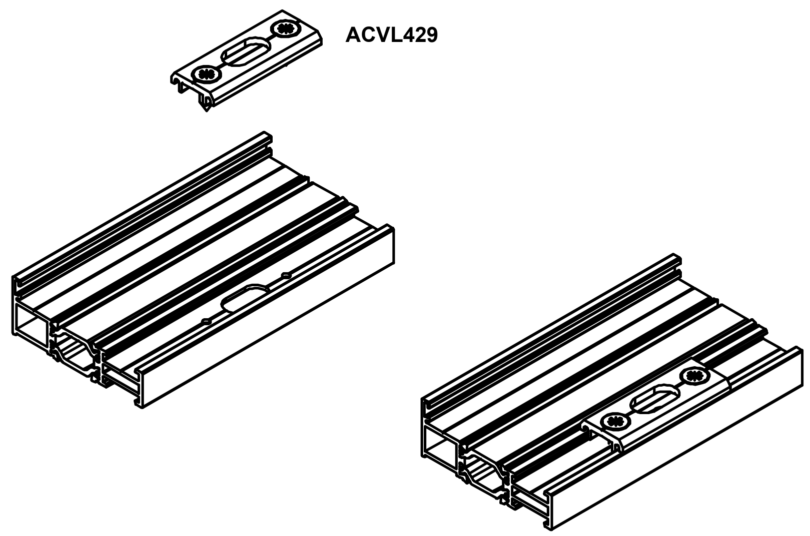


Handle with Small Backplate Guide

Ext. Handle	Ext. Escutcheon	Int. Handle	Int. Escutcheon	Spindle	Cylinder	Screw
						2 x
ACSZ837	ACSZ400	ACSZ836	ACMX208	ACMX310 Sq. Spindle 140mm	ACMX3065 / ACMX0030*	ACMX861 M5 x 75mm
	ACSZ400			ACMX012 Sq. Spindle 100mm	ACMX3065 / ACMX0030*	ACVS061 M5 x 40mm
ACSZ837	ACSZ400	ACSZ827		ACMX310 Sq. Spindle 140mm	ACMX3065 / ACMX0030*	ACMX861 M5 x 75mm
	2 X ACVS061		2 X DIN965 M5 X 20			

* ACMX0065 for Open Out

Please Note: In addition to normal Toe and Heeling make sure to pack behind the lock and hinges.



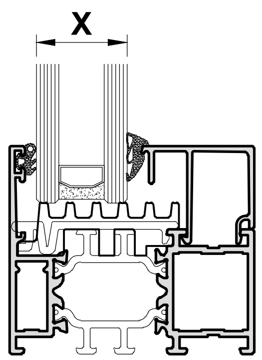
The details on this page show the specific hardware required to achieve PAS24:2016. Hardware not shown is standard.

See page E68 - E69 for Glazing Bead selection.

Do Not Scale From This Drawing

Standard Glazing Chart

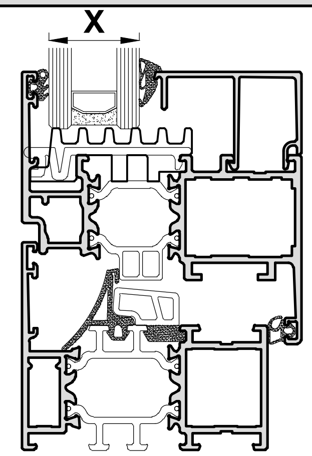
Outer Frame:	Sash:	Transom/ Mullion:	Reverse Adaptor:
EF010	EF120	EF030	EF044
EF011	EF424	EF031	EF946
EF019	EF425	EF032	
EF110	EF926	EF033	
		EF034	
		EF035	
		EF036	



Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
4	ACVG31N	ACVG340N	GL048
5	ACVG31N	ACVG34N	GL048
6	ACVG31N	ACVG33N	GL048
7	ACVG31N	ACVG32N	GL048
8	ACVG31N	ACVG340N	GL045
9	ACVG31N	ACVG34N	GL045
10	ACVG31N	ACVG33N	GL045
11	ACVG31N	ACVG340N	GL041
12	ACVG31N	ACVG34N	GL041
13	ACVG31N	ACVG33N	GL041
14	ACVG31N	ACVG32N	GL041
15	ACVG31N	ACVG33N	GL039
16	ACVG31N	ACVG32N	GL039
17	ACVG31N	ACVG33N	GL037
18	ACVG31N	ACVG32N	GL037
19	ACVG31N	ACVG34N	GL034
20	ACVG31N	ACVG33N	GL034
21	ACVG31N	ACVG32N	GL034
22	ACVG31N	ACVG340N	GL030
23	ACVG31N	ACVG34N	GL030
24	ACVG31N	ACVG33N	GL030
25	ACVG31N	ACVG32N	GL030
26	ACVG31N	ACVG33N	GL028
27	ACVG31N	ACVG32N	GL028

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
28	ACVG31N	ACVG33N	GL026
29	ACVG31N	ACVG32N	GL026
30	ACVG31N	ACVG34N	GL023
31	ACVG31N	ACVG33N	GL023
32	ACVG31N	ACVG32N	GL023
33	ACVG31N	ACVG34N	GL020
34	ACVG31N	ACVG33N	GL020
35	ACVG31N	ACVG32N	GL020
36	ACVG31N	ACVG340N	GL016
37	ACVG31N	ACVG34N	GL016
38	ACVG31N	ACVG33N	GL016
39	ACVG31N	ACVG32N	GL016
40	ACVG31N	ACVG33N	GL014
41	ACVG31N	ACVG32N	GL014
42	ACVG31N	ACVG33N	GL012
43	ACVG31N	ACVG32N	GL012
44	ACVG31N	ACVG340N	GL008
45	ACVG31N	ACVG34N	GL008
46	ACVG31N	ACVG33N	GL008
47	ACVG31N	ACVG32N	GL008
48	ACVG31N	ACVG340N	GL004
49	ACVG31N	ACVG34N	GL004
50	ACVG31N	ACVG33N	GL004
51	ACVG31N	ACVG32N	GL004

Sash:	Transom/ Mullion:
EF020	EF130
EF021	EF131
EF022	
EF023	



Important Note

For PAS24:2016 security beads must be used. Please see page E68 - E69 for available beads.

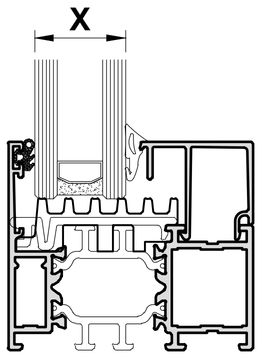
Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
13	ACVG31N	ACVG340N	GL048
14	ACVG31N	ACVG34N	GL048
15	ACVG31N	ACVG33N	GL048
16	ACVG31N	ACVG32N	GL048
17	ACVG31N	ACVG34N	GL045
18	ACVG31N	ACVG33N	GL045
19	ACVG31N	ACVG32N	GL045
20	ACVG31N	ACVG340N	GL041
21	ACVG31N	ACVG34N	GL041
22	ACVG31N	ACVG33N	GL041
23	ACVG31N	ACVG32N	GL041
24	ACVG31N	ACVG33N	GL039
25	ACVG31N	ACVG32N	GL039
26	ACVG31N	ACVG33N	GL037
27	ACVG31N	ACVG32N	GL037
28	ACVG31N	ACVG34N	GL034
29	ACVG31N	ACVG33N	GL034
30	ACVG31N	ACVG32N	GL034
31	ACVG31N	ACVG340N	GL030
32	ACVG31N	ACVG34N	GL030
33	ACVG31N	ACVG33N	GL030
34	ACVG31N	ACVG32N	GL030
35	ACVG31N	ACVG33N	GL028
36	ACVG31N	ACVG32N	GL028

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
37	ACVG31N	ACVG33N	GL026
38	ACVG31N	ACVG32N	GL026
39	ACVG31N	ACVG34N	GL023
40	ACVG31N	ACVG33N	GL023
41	ACVG31N	ACVG32N	GL023
42	ACVG31N	ACVG34N	GL020
43	ACVG31N	ACVG33N	GL020
44	ACVG31N	ACVG32N	GL020
45	ACVG31N	ACVG340N	GL016
46	ACVG31N	ACVG34N	GL016
47	ACVG31N	ACVG33N	GL016
48	ACVG31N	ACFT32N	GL016
49	ACVG31N	ACVG33N	GL014
50	ACVG31N	ACVG32N	GL014
51	ACVG31N	ACVG33N	GL012
52	ACVG31N	ACVG32N	GL012
53	ACVG31N	ACVG340N	GL008
54	ACVG31N	ACVG34N	GL008
55	ACVG31N	ACVG33N	GL008
56	ACVG31N	ACVG32N	GL008
57	ACVG31N	ACVG340N	GL004
58	ACVG31N	ACVG34N	GL004
59	ACVG31N	ACVG33N	GL004
60	ACVG31N	ACVG32N	GL004

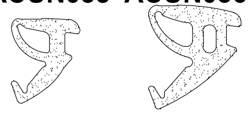
Do Not Scale From This Drawing

ACUN Gasket Glazing Chart

Outer Frame:	Sash:	Transom/ Mullion:	Reverse Adaptor:
EF010	EF120	EF030	EF044
EF011	EF424	EF031	EF946
EF019	EF425	EF032	
EF110	EF926	EF033	
		EF034	
		EF035	
		EF036	



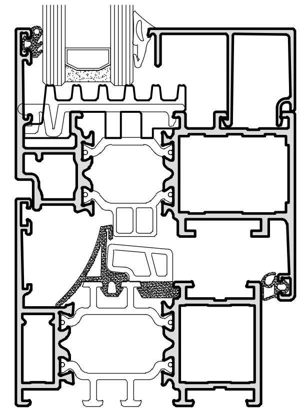
ACUN033 ACUN036



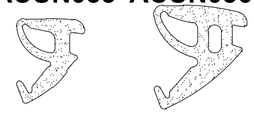
Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
4	ACVG31N	ACUN036	GL048
5	ACVG31N	ACUN033	GL048
6	ACVG31N	ACUN033	GL048
7	ACVG31N	ACUN033	GL048
8	ACVG31N	ACUN033	GL045
9	ACVG31N	ACUN033	GL045
10	ACVG31N	ACUN033	GL045
11	ACVG31N	ACUN036	GL041
12	ACVG31N	ACUN033	GL041
13	ACVG31N	ACUN033	GL041
14	ACVG31N	ACUN033	GL041
15	ACVG31N	ACUN033	GL039
16	ACVG31N	ACUN033	GL039
17	ACVG31N	ACUN033	GL037
18	ACVG31N	ACUN033	GL037
19	ACVG31N	ACUN033	GL034
20	ACVG31N	ACUN033	GL034
21	ACVG31N	ACUN033	GL034
22	ACVG31N	ACUN036	GL030
23	ACVG31N	ACUN033	GL030
24	ACVG31N	ACUN033	GL030
25	ACVG31N	ACUN033	GL030
26	ACVG31N	ACUN033	GL028
27	ACVG31N	ACUN033	GL028

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
28	ACVG31N	ACUN033	GL026
29	ACVG31N	ACUN033	GL026
30	ACVG31N	ACUN033	GL023
31	ACVG31N	ACUN033	GL023
32	ACVG31N	ACUN033	GL023
33	ACVG31N	ACUN033	GL020
34	ACVG31N	ACUN033	GL020
35	ACVG31N	ACUN033	GL020
36	ACVG31N	ACUN036	GL016
37	ACVG31N	ACUN033	GL016
38	ACVG31N	ACUN033	GL016
39	ACVG31N	ACUN033	GL016
40	ACVG31N	ACUN033	GL014
41	ACVG31N	ACUN033	GL014
42	ACVG31N	ACUN033	GL012
43	ACVG31N	ACUN033	GL012
44	ACVG31N	ACUN036	GL008
45	ACVG31N	ACUN033	GL008
46	ACVG31N	ACUN033	GL008
47	ACVG31N	ACUN033	GL008
48	ACVG31N	ACUN036	GL004
49	ACVG31N	ACUN033	GL004
50	ACVG31N	ACUN033	GL004
51	ACVG31N	ACUN033	GL004

Sash:	Transom/ Mullion:
EF020	EF130
EF021	EF131
EF022	
EF023	



ACUN033 ACUN036



Important Note

For PAS24:2016 security beads must be used. Please see page E68 - E69 for available beads.

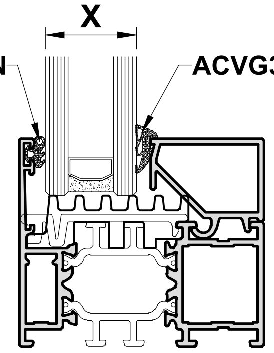
Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
13	ACVG31N	ACUN036	GL048
14	ACVG31N	ACUN033	GL048
15	ACVG31N	ACUN033	GL048
16	ACVG31N	ACUN036	GL045
17	ACVG31N	ACUN033	GL045
18	ACVG31N	ACUN033	GL045
19	ACVG31N	ACUN036	GL041
20	ACVG31N	ACUN036	GL041
21	ACVG31N	ACUN033	GL041
22	ACVG31N	ACUN033	GL041
23	ACVG31N	ACUN033	GL039
24	ACVG31N	ACUN033	GL039
25	ACVG31N	ACUN033	GL037
26	ACVG31N	ACUN033	GL037
27	ACVG31N	ACUN036	GL034
28	ACVG31N	ACUN033	GL034
29	ACVG31N	ACUN033	GL034
30	ACVG31N	ACUN036	GL030
31	ACVG31N	ACUN036	GL030
32	ACVG31N	ACUN033	GL030
33	ACVG31N	ACUN033	GL030
34	ACVG31N	ACUN033	GL028
35	ACVG31N	ACUN033	GL028
36	ACVG31N	ACUN033	GL026

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
37	ACVG31N	ACUN033	GL026
38	ACVG31N	ACUN036	GL023
39	ACVG31N	ACUN033	GL023
40	ACVG31N	ACUN033	GL023
41	ACVG31N	ACUN036	GL020
42	ACVG31N	ACUN033	GL020
43	ACVG31N	ACUN033	GL020
44	ACVG31N	ACUN036	GL016
45	ACVG31N	ACUN036	GL016
46	ACVG31N	ACUN033	GL016
47	ACVG31N	ACUN033	GL016
48	ACVG31N	ACUN033	GL014
49	ACVG31N	ACUN033	GL014
50	ACVG31N	ACUN033	GL012
51	ACVG31N	ACUN033	GL012

Do Not Scale From This Drawing

High Security Glazing Chart

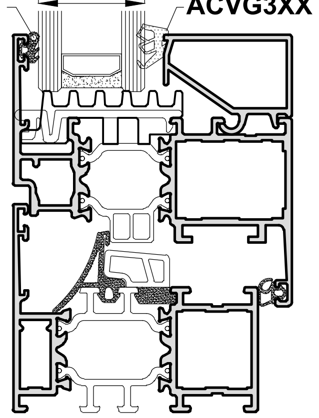
Outer Frame:	Sash:	Transom/ Mullion:	Reverse Adaptor:
EF010	EF120	EF030	EF044
EF011	EF424	EF031	EF946
EF019	EF425	EF032	
EF110	EF926	EF033	
		EF034	
		EF035	
		EF036	



Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
18	ACVG31N	ACVG340N	GL534
19	ACVG31N	ACVG34N	GL534
20	ACVG31N	ACVG33N	GL534
21	ACVG31N	ACVG32N	GL534
22	ACVG31N	ACVG340N	GL530
23	ACVG31N	ACVG34N	GL530
24	ACVG31N	ACVG33N	GL530
25	ACVG31N	ACVG32N	GL530
26	ACVG31N	ACVG340N	GL526
27	ACVG31N	ACVG34N	GL526
28	ACVG31N	ACVG33N	GL526
29	ACVG31N	ACVG32N	GL526
30	ACVG31N	ACVG33N	GL1224
31	ACVG31N	ACVG32N	GL1224
32	ACVG31N	ACVG340N	GL1220
33	ACVG31N	ACVG34N	GL1220
34	ACVG31N	ACVG33N	GL1220
35	ACVG31N	ACVG32N	GL1220
36	ACVG31N	ACVG340N	GL1216
37	ACVG31N	ACVG34N	GL1216
38	ACVG31N	ACVG33N	GL1216
39	ACVG31N	ACVG32N	GL1216
40	ACVG31N	ACVG340N	GL1212
41	ACVG31N	ACVG34N	GL1212

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
42	ACVG31N	ACVG33N	GL1212
43	ACVG31N	ACVG32N	GL1212
48	ACVG31N	ACVG340N	GL1204
49	ACVG31N	ACVG34N	GL1204
50	ACVG31N	ACVG33N	GL1204
51	ACVG31N	ACVG32N	GL1204

Sash:	Transom/ Mullion:
EF020	EF130
EF021	EF131
EF022	
EF023	



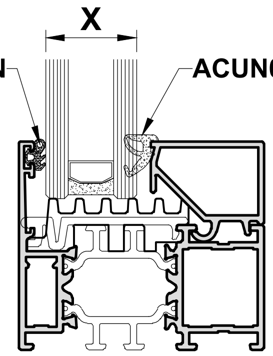
Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
27	ACVG31N	ACVG340N	GL534
28	ACVG31N	ACVG34N	GL534
29	ACVG31N	ACVG33N	GL534
30	ACVG31N	ACVG32N	GL534
31	ACVG31N	ACVG340N	GL530
32	ACVG31N	ACVG34N	GL530
33	ACVG31N	ACVG33N	GL530
34	ACVG31N	ACVG32N	GL530
35	ACVG31N	ACVG340N	GL526
36	ACVG31N	ACVG34N	GL526
37	ACVG31N	ACVG33N	GL526
38	ACVG31N	ACVG32N	GL526
39	ACVG31N	ACVG33N	GL1224
40	ACVG31N	ACVG32N	GL1224
41	ACVG31N	ACVG340N	GL1220
42	ACVG31N	ACVG34N	GL1220
43	ACVG31N	ACVG33N	GL1220
44	ACVG31N	ACVG32N	GL1220
45	ACVG31N	ACVG340N	GL1216
46	ACVG31N	ACVG34N	GL1216
47	ACVG31N	ACVG33N	GL1216
48	ACVG31N	ACVG32N	GL1216
49	ACVG31N	ACVG340N	GL1212
50	ACVG31N	ACVG34N	GL1212

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
51	ACVG31N	ACVG33N	GL1212
52	ACVG31N	ACVG32N	GL1212
57	ACVG31N	ACVG340N	GL1204
58	ACVG31N	ACVG34N	GL1204
59	ACVG31N	ACVG33N	GL1204
60	ACVG31N	ACVG32N	GL1204

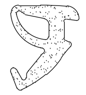
Do Not Scale From This Drawing

High Security Glazing Chart

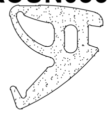
Outer Frame:	Sash:	Transom/ Mullion:	Reverse Adaptor:
EF010	EF120	EF030	EF044
EF011	EF424	EF031	EF946
EF019	EF425	EF032	
EF110	EF926	EF033	
		EF034	
		EF035	
		EF036	



ACUN033



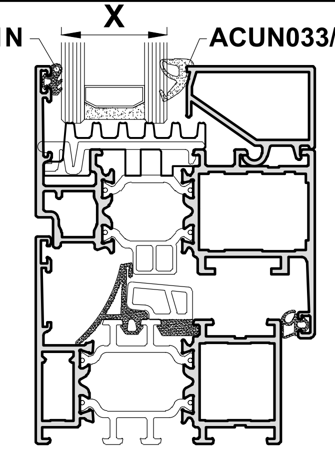
ACUN036



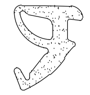
Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
16	ACVG31N	ACUN036	GL534
17	ACVG31N	ACUN036	GL534
18	ACVG31N	ACUN036	GL534
19	ACVG31N	ACUN033	GL534
20	ACVG31N	ACUN033	GL534
21	ACVG31N	ACUN033	GL534
22	ACVG31N	ACUN036	GL530
23	ACVG31N	ACUN033	GL530
24	ACVG31N	ACUN033	GL530
25	ACVG31N	ACUN033	GL530
26	ACVG31N	ACUN036	GL526
27	ACVG31N	ACUN033	GL526
28	ACVG31N	ACUN033	GL526
29	ACVG31N	ACUN033	GL526
30	ACVG31N	ACUN033	GL1224
31	ACVG31N	ACUN033	GL1224
32	ACVG31N	ACUN036	GL1220
33	ACVG31N	ACUN033	GL1220
34	ACVG31N	ACUN033	GL1220
35	ACVG31N	ACUN033	GL1220
36	ACVG31N	ACUN036	GL1216
37	ACVG31N	ACUN033	GL1216
38	ACVG31N	ACUN033	GL1216
39	ACVG31N	ACUN033	GL1216

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
40	ACVG31N	ACUN036	GL1212
41	ACVG31N	ACUN033	GL1212
42	ACVG31N	ACUN033	GL1212
43	ACVG31N	ACUN033	GL1212
46	ACVG31N	ACUN036	GL1204
47	ACVG31N	ACUN036	GL1204
48	ACVG31N	ACUN036	GL1204
49	ACVG31N	ACUN033	GL1204
50	ACVG31N	ACUN033	GL1204
51	ACVG31N	ACUN033	GL1204

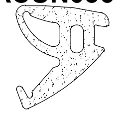
Sash:	Transom/ Mullion:
EF020	EF130
EF021	EF131
EF022	
EF023	



ACUN033



ACUN036

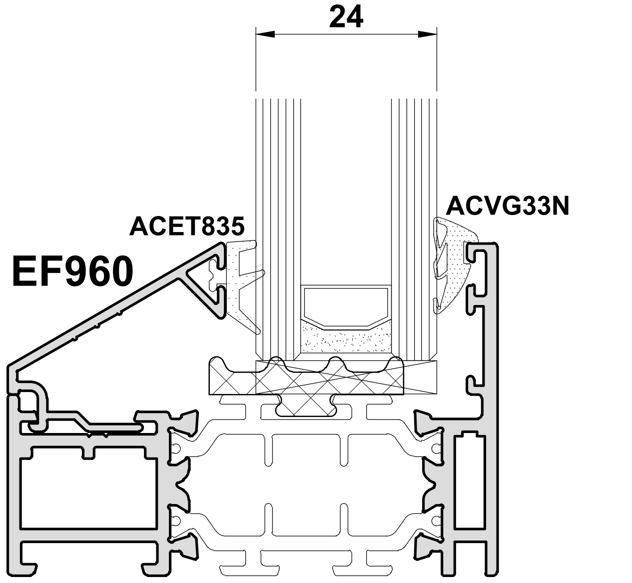


Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
25	ACVG31N	ACUN036	GL534
26	ACVG31N	ACUN036	GL534
27	ACVG31N	ACUN036	GL534
28	ACVG31N	ACUN033	GL534
29	ACVG31N	ACUN033	GL534
30	ACVG31N	ACUN033	GL534
31	ACVG31N	ACUN036	GL530
32	ACVG31N	ACUN033	GL530
33	ACVG31N	ACUN033	GL530
34	ACVG31N	ACUN033	GL530
35	ACVG31N	ACUN036	GL526
36	ACVG31N	ACUN033	GL526
37	ACVG31N	ACUN033	GL526
38	ACVG31N	ACUN033	GL526
39	ACVG31N	ACUN033	GL1224
40	ACVG31N	ACUN033	GL1224
41	ACVG31N	ACUN036	GL1220
42	ACVG31N	ACUN033	GL1220
43	ACVG31N	ACUN033	GL1220
44	ACVG31N	ACUN033	GL1220
45	ACVG31N	ACUN036	GL1216
46	ACVG31N	ACUN033	GL1216
47	ACVG31N	ACUN033	GL1216
48	ACVG31N	ACUN033	GL1216

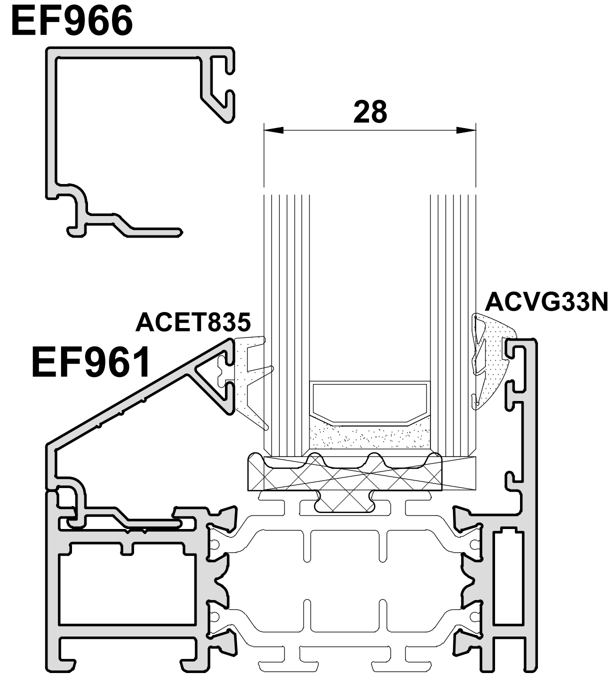
Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
49	ACVG31N	ACUN036	GL1212
50	ACVG31N	ACUN033	GL1212
51	ACVG31N	ACUN033	GL1212
52	ACVG31N	ACUN033	GL1212
55	ACVG31N	ACUN036	GL1204
56	ACVG31N	ACUN036	GL1204
57	ACVG31N	ACUN036	GL1204
58	ACVG31N	ACUN033	GL1204
59	ACVG31N	ACUN033	GL1204
60	ACVG31N	ACUN033	GL1204

Do Not Scale From This Drawing

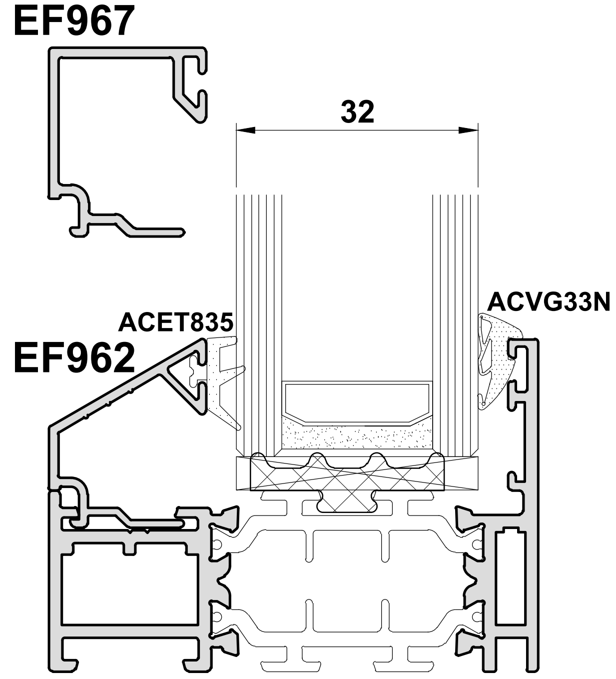
EF910 & EF930 Glazing Chart



Outer Frame: EF910
Mullion: EF930



Outer Frame: EF910
Mullion: EF930



Outer Frame: EF910
Mullion: EF930

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
24	ACET835	ACVG33N	EF960
25 (24.8)	ACET835	ACVG32N	EF960

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
28	ACET835	ACVG33N	EF961/EF966
29 (28.8)	ACET835	ACVG32N	EF961/EF966

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
32	ACET835	ACVG33N	EF962/EF967
33 (32.8)	ACET835	ACVG32N	EF962/EF967

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
24	ACET835	ACUN033	EF960
25 (24.8)	ACET835	ACUN033	EF960

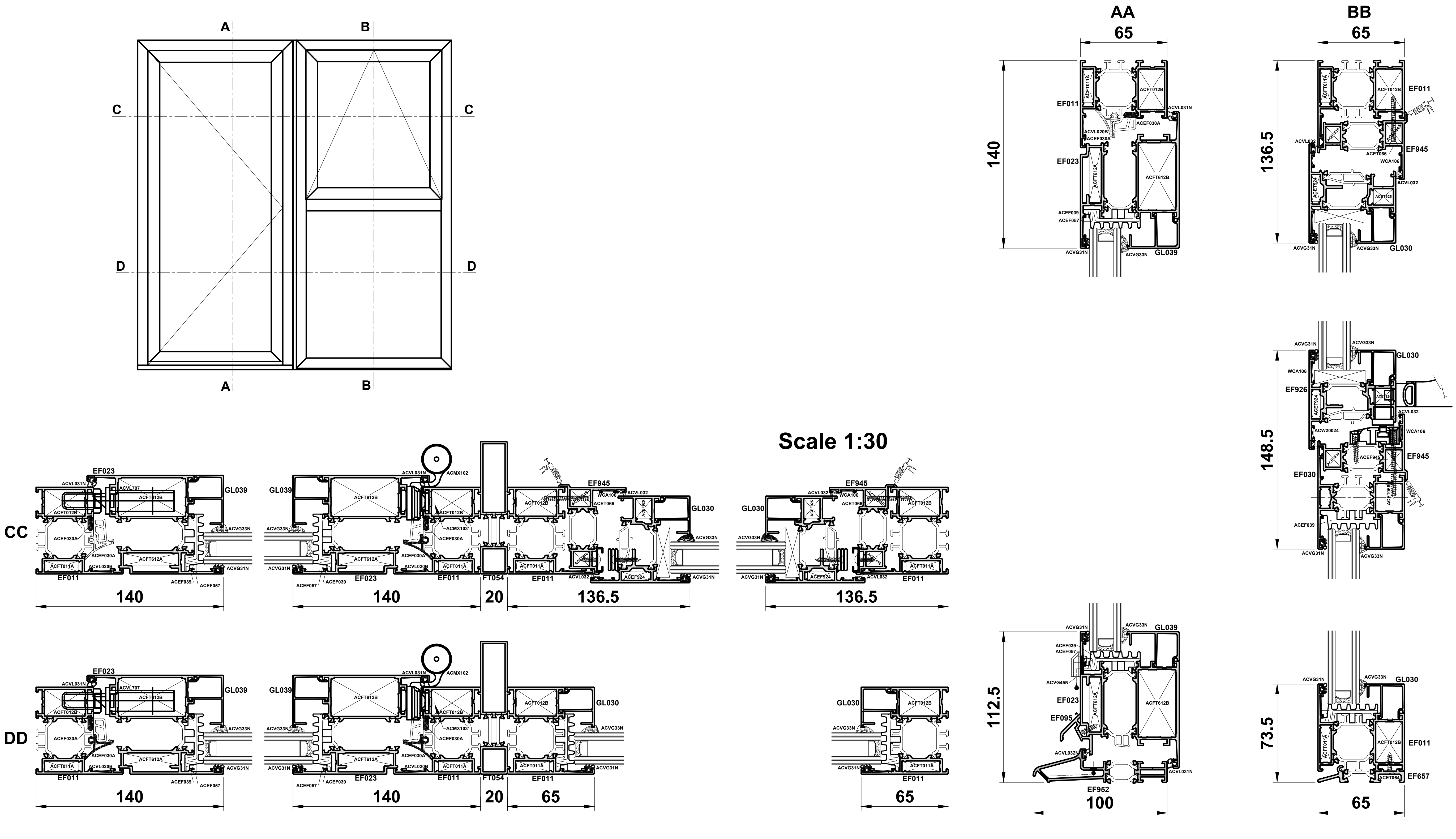
Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
28	ACET835	ACUN033	EF961/EF966
29 (28.8)	ACET835	ACUN033	EF961/EF966

Glass Thickness	External Gasket	Internal Gasket	Glazing Bead
32	ACET835	ACUN033	EF962/EF967
33 (32.8)	ACET835	ACUN033	EF962/EF967

Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

Example Layout



Do Not Scale From This Drawing

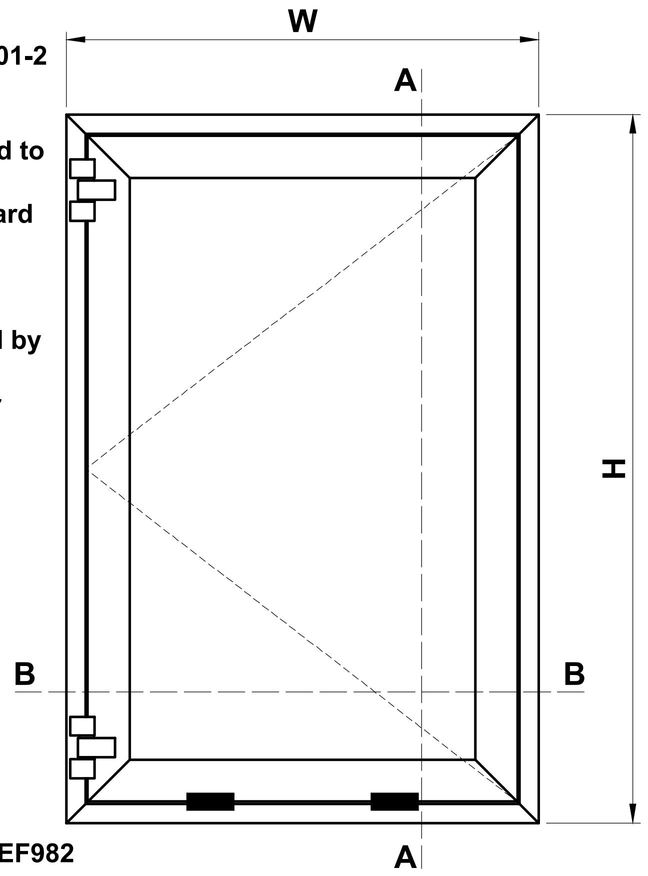
Smoke Vent

Smoke Vent Compliant to EN 12101-2

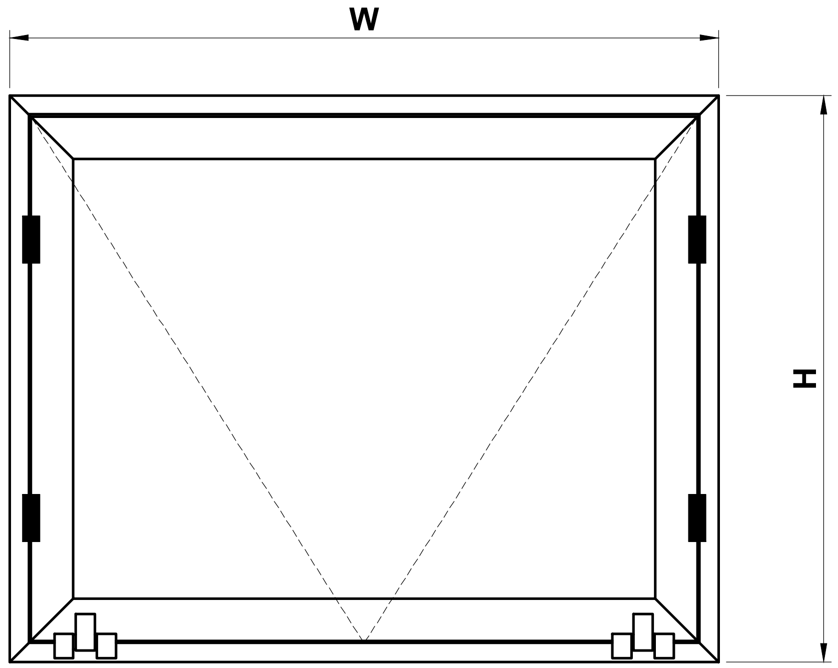
The details on this page show sections and accessories required to fabricate a smoke vent compliant with European smoke vent standard EN 12101-2.

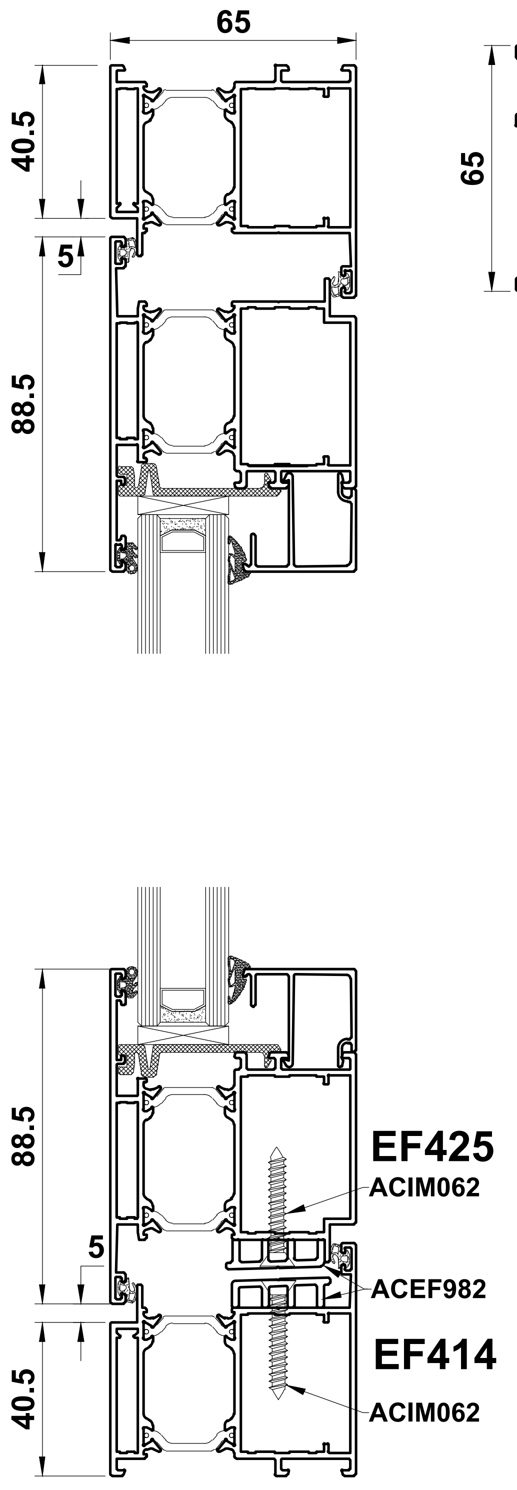
The smoke vent was tested using SECO Ni 24 40 actuators supplied by SE Controls. Please contact SE Controls to discuss size limits for each project.

Please contact the Technical Department for further details on achieving compliance.

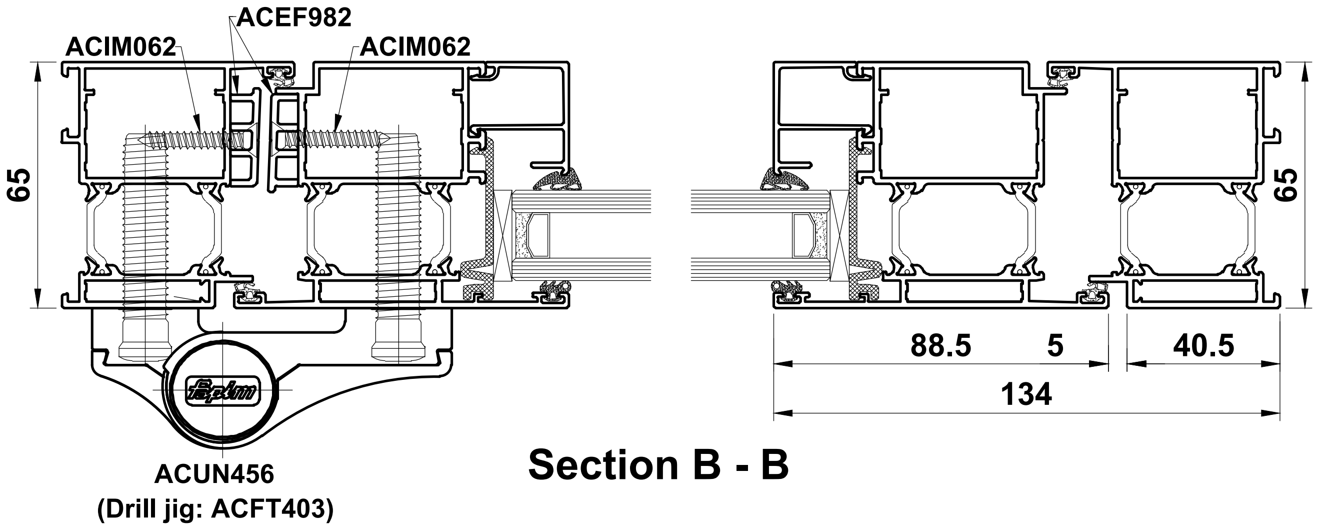


= ACEF982

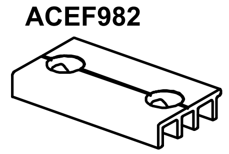




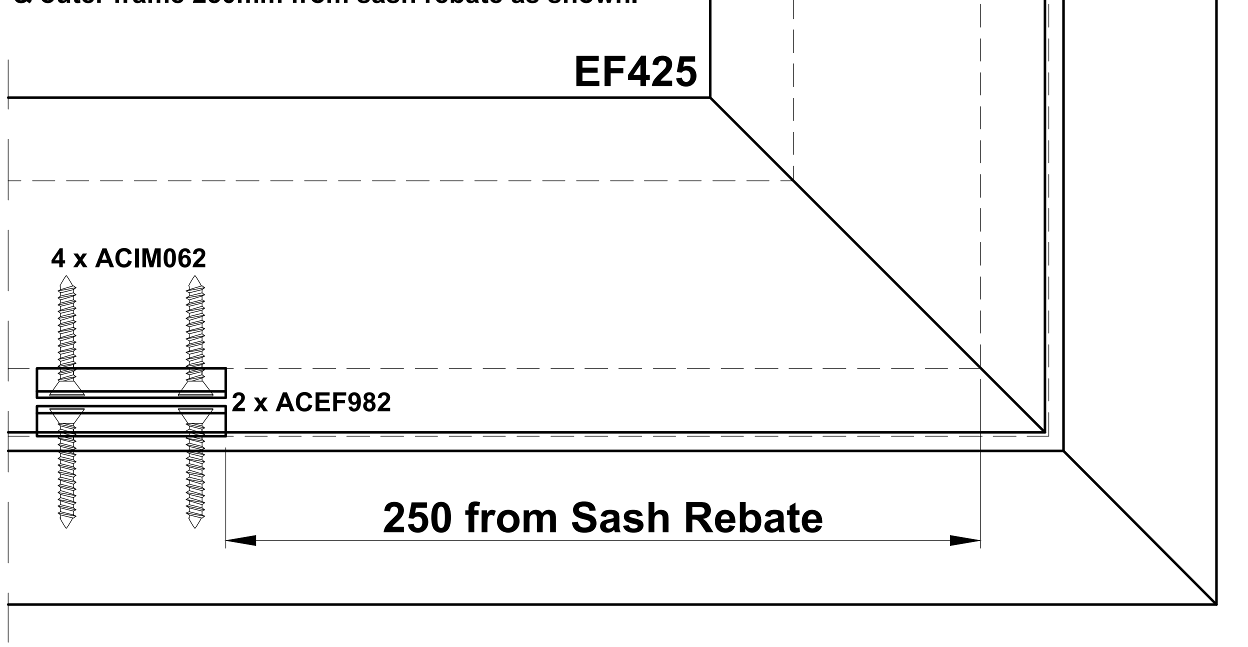
Section A - A



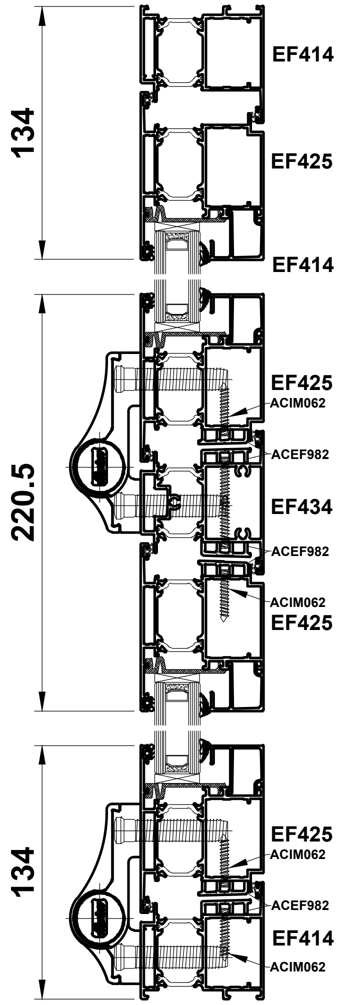
Section B - B



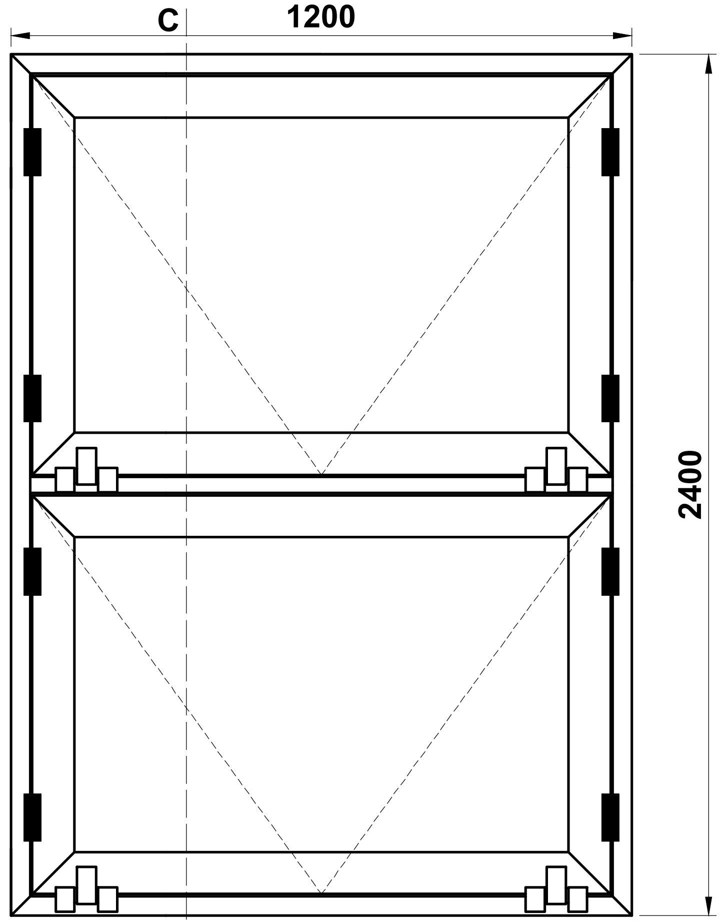
NOTE
ACEF982 sash support must be fitted to the sash & outer frame 250mm from sash rebate as shown.



Double Bottom Hung Smoke Vent

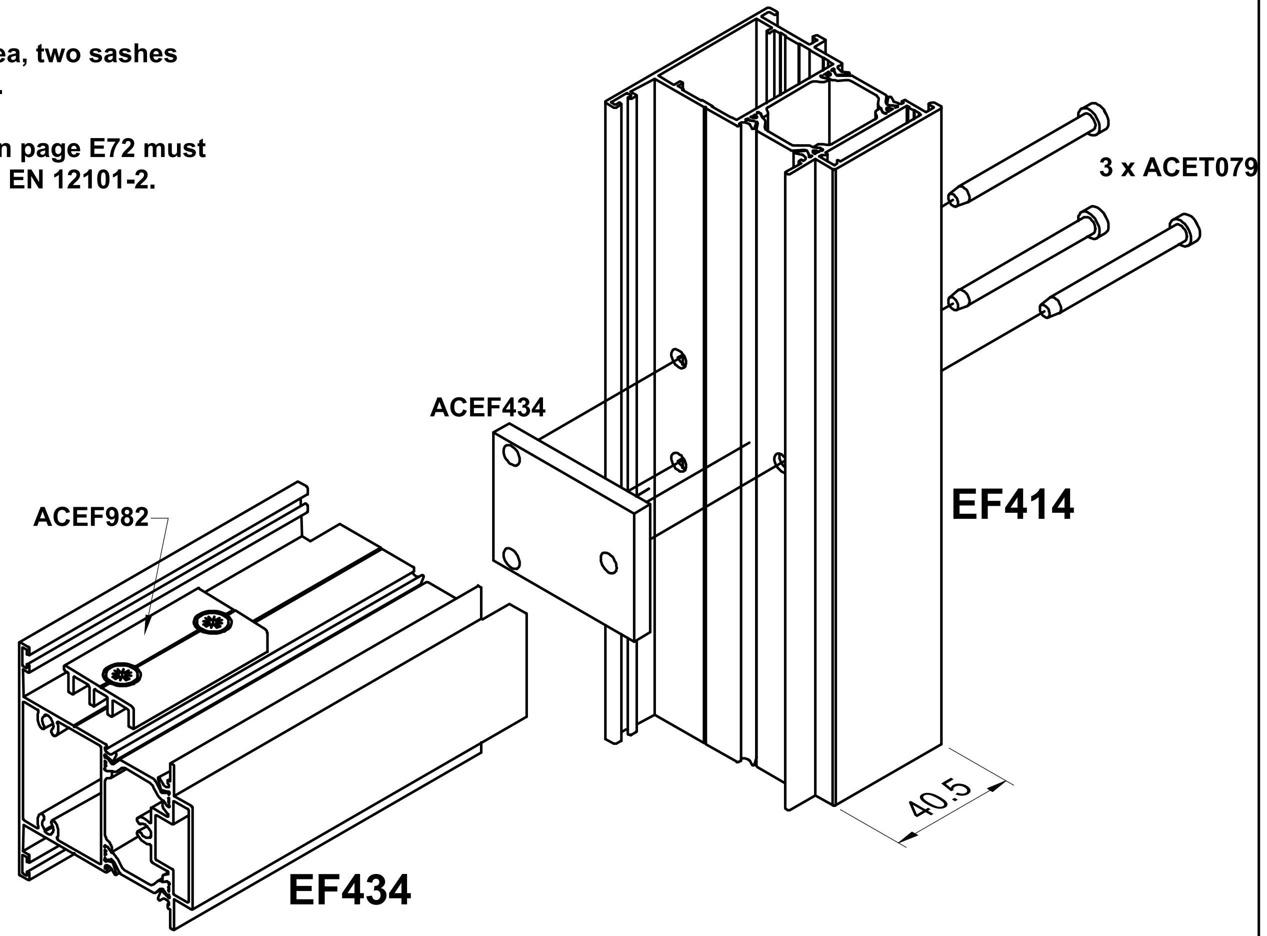


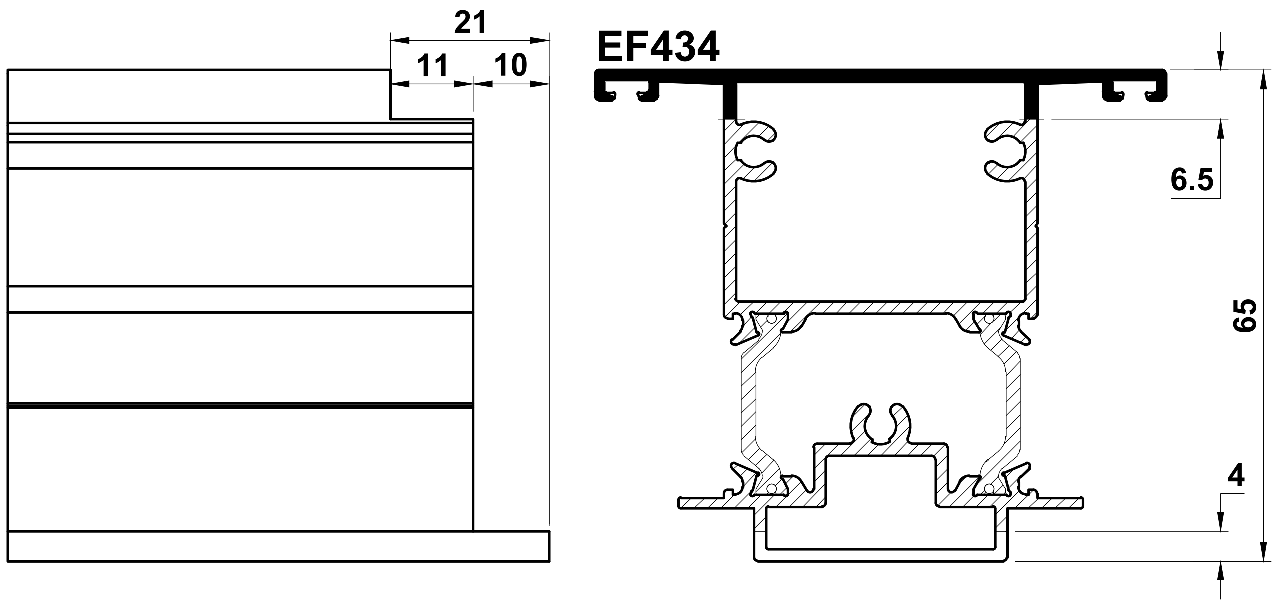
Section C - C

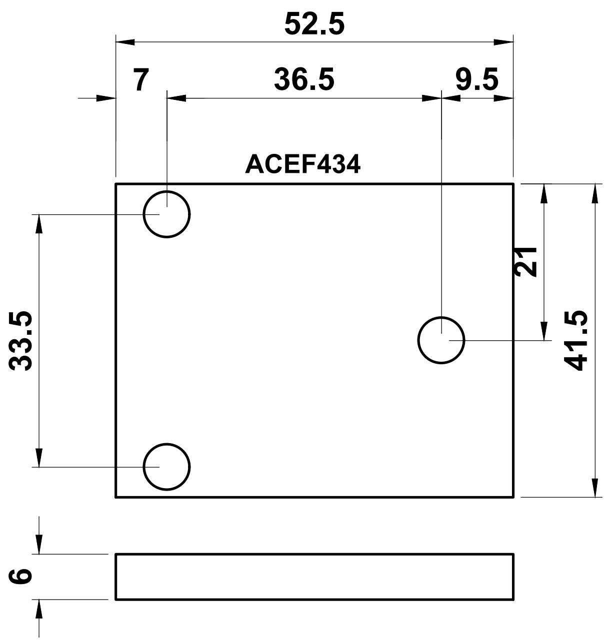


To increase the free area, two sashes may be used as shown.

The hardware shown on page E72 must be used to comply with EN 12101-2.







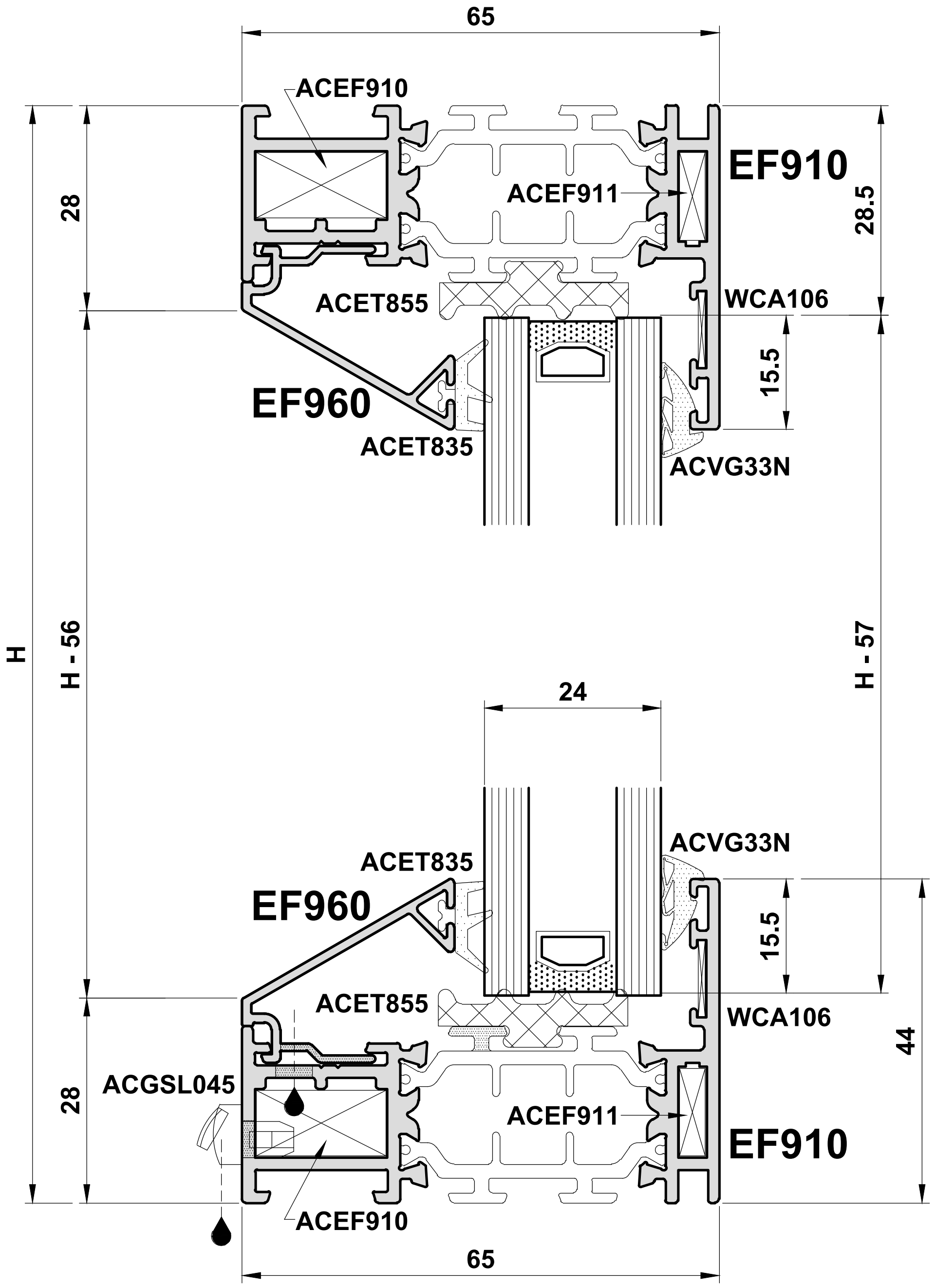
This page is intentionally left blank

Section F - Cutting Tables

Sawing Tables

Section F - Cutting Tables

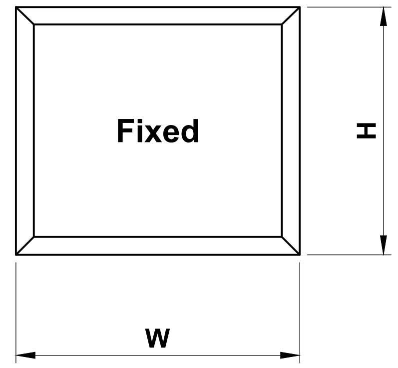
Cutting Information - Fixed Light Frame - Equal Leg EF910



Sections

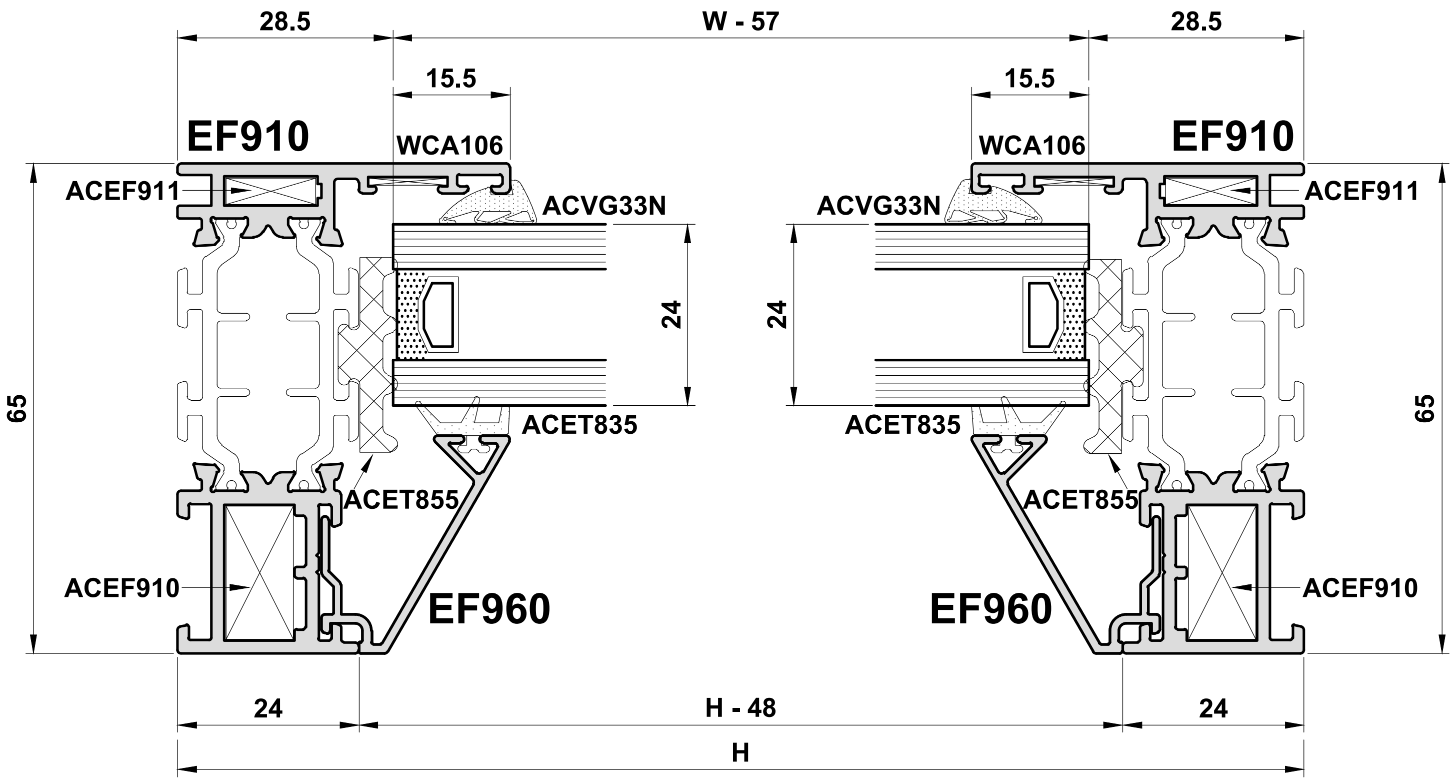
EF910		2		H
EF910		2		W
EF960		2		W - 48
EF960		2		H - 56

Glass
W - 57
H - 57



Accessories

ACEF910		4	Cleat Outerframe
ACEF911		4	Cleat Outerframe
ACET835		2(W+H)	E Gasket
ACET855		2(W+H)	Foam Insulation
ACVG33N		2(W+H)	Wedge Gasket
ACGSL045		2	Drainage Cap
WCA106		4	Chevron



Do Not Scale From This Drawing

Cutting Information - Vent Frame using EF910 Outer Frame and EF926 Vent

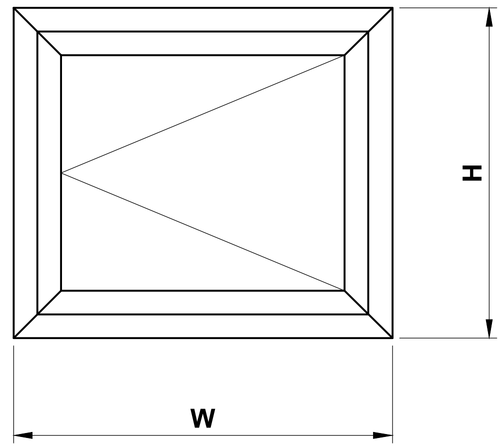
Sections

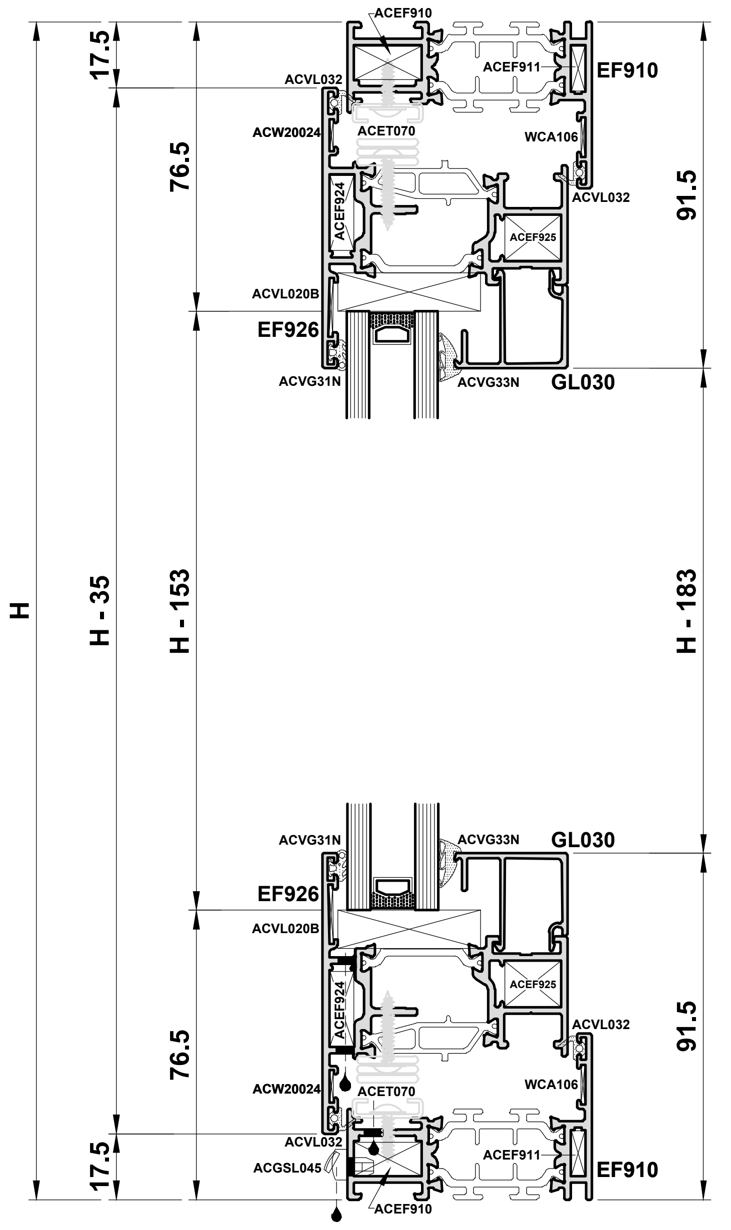
EF910		2		H
EF910		2		W
EF926		2		H - 35
EF926		2		W - 35
GL*		2		H - 183
GL*		2		W - 139

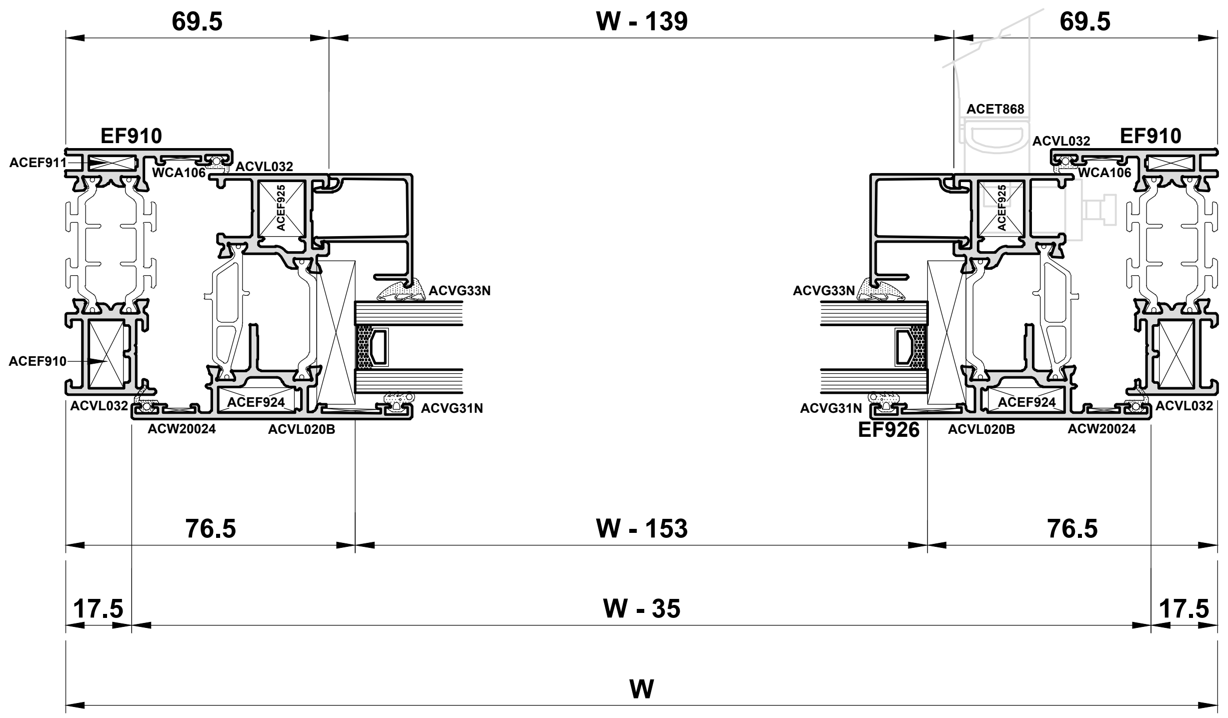
Accessories

ACET868		1	Espag Locking Handle
ACEF910		4	Cleat Outerframe
ACEF911		4	Cleat Outerframe
ACEF924		4	Cleat Sash
ACEF925		4	Cleat Sash
ACEF95*		1	Locking Espag
ACEF976		2(W+H-94)	EF926 Foam Insert
ACVG31N		2(W+H)	Gasket E
ACVG33N		2(W+H)	Wedge Gasket
ACGSL045		2	Drainage Cap
ACVL020B		4	Chevron
ACVL032		4(W+H)	Flipper Gasket
ACW20024		4	Chevron
AC**		2	Friction Stays
WCA106		8	Chevron
ACET652		2 Pairs	Pull-in Blocks

Glass
W - 153
H - 153







Do Not Scale From This Drawing

Cutting Information - Opening Vent adjacent to Externally Glazed Fixed Light

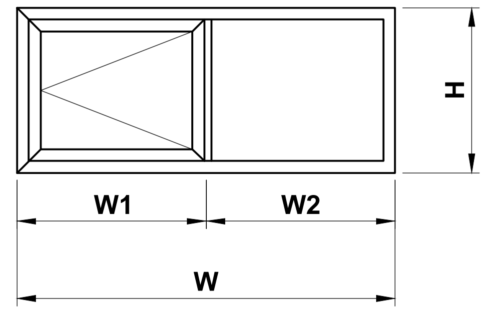
Profiles

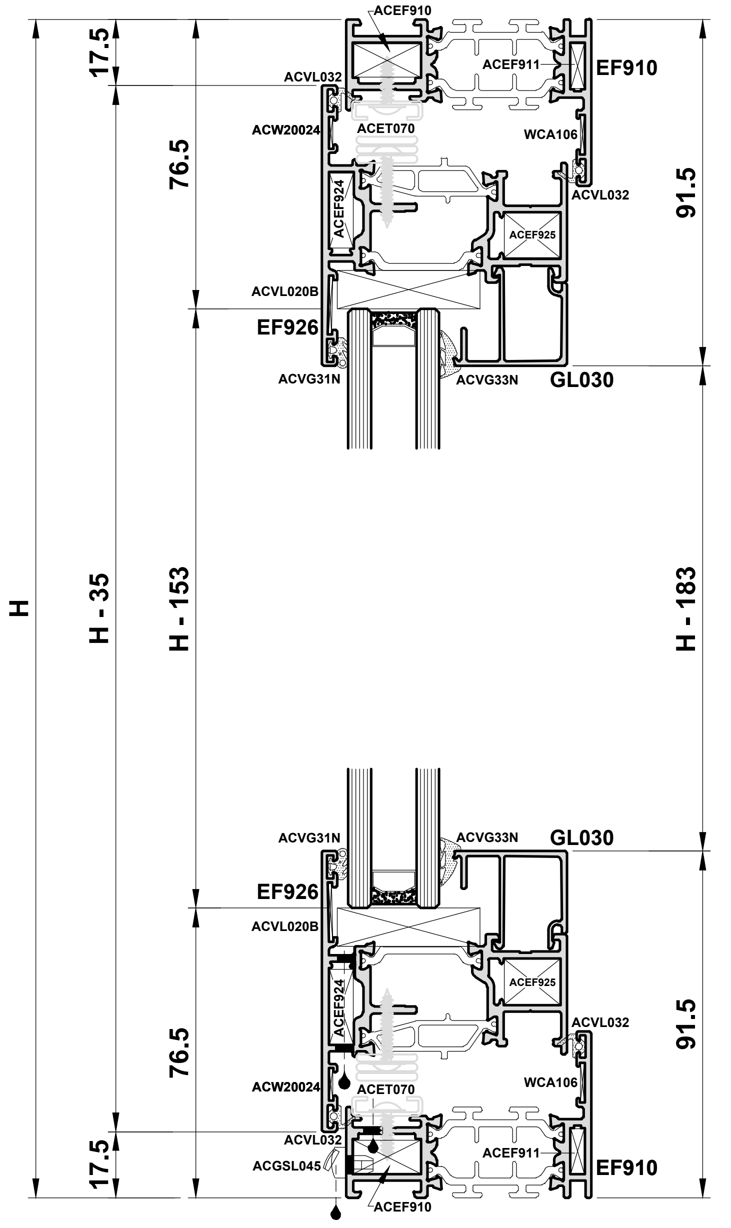
EF910		2		H
EF910		2		W
EF926		2		H - 35
EF926		2		W1 - 23
EF930		1		H - 48
EF960		2		W2 - 36
EF960		2		H - 56
GL*		2		W1 - 127
GL*		2		H - 183

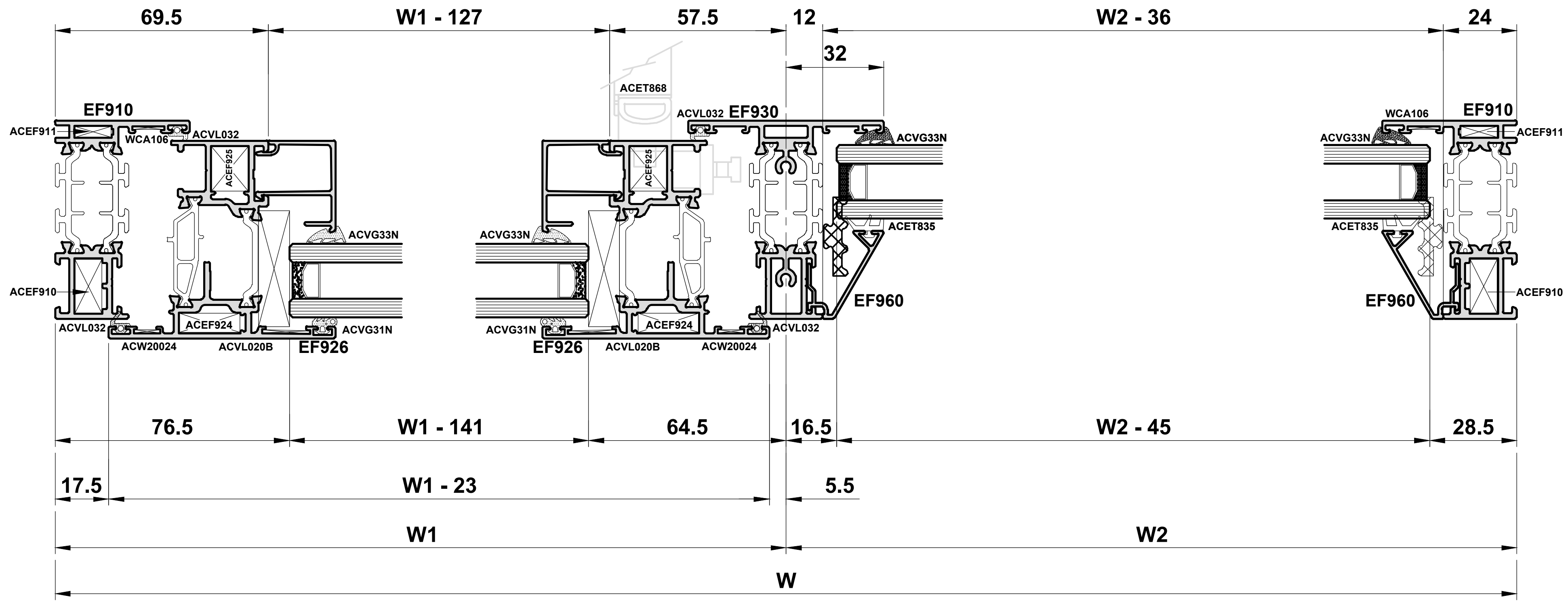
Accessories

ACET868		1	Espag Locking Handle
ACET855		(2xW2)+(4H)	Foam Insulation
ACEF910		4	Cleat Outerframe
ACEF911		4	Cleat Outerframe
ACEF924		4	Cleat Sash
ACEF925		4	Cleat Sash
ACEF95*		1	Locking Espag
ACEF976		2(W1-82)+2(H-94)	EF926 Foam Insert
ACVG31N		(2W)+(4H)	Gasket E
ACVG33N		(2W)+(4H)	Wedge Gasket
ACGSL045		2	Drainage Cap
ACVL020B		4	Chevron
ACVL032		(4W)+(4H)	Flipper Gasket
ACW20024		4	Chevron
AC**		2	Friction Stays
WCA106		16	Chevron
ACET652		2 Pairs	Pull-in Blocks

Glass
W1 - 141 x H - 153
W2 - 45 x H - 57

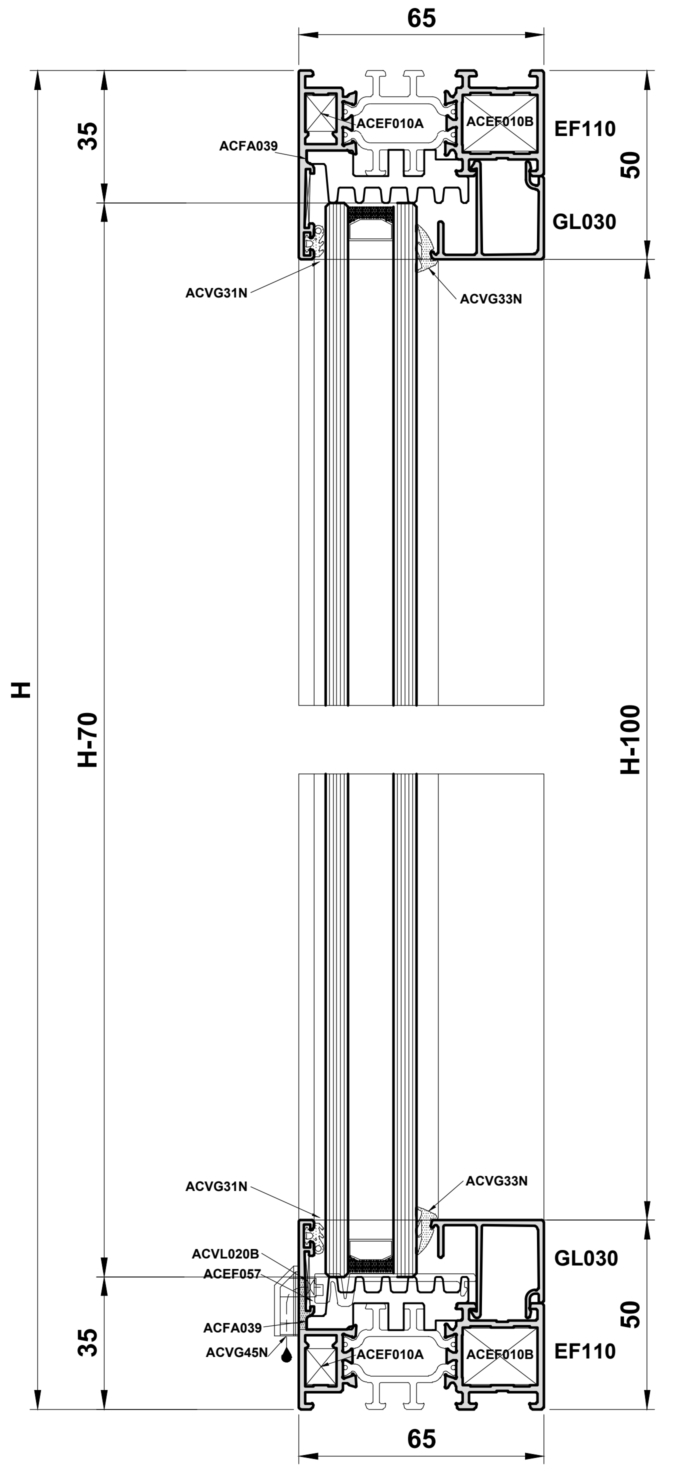






Do Not Scale From This Drawing

Cutting Information - Fixed Light



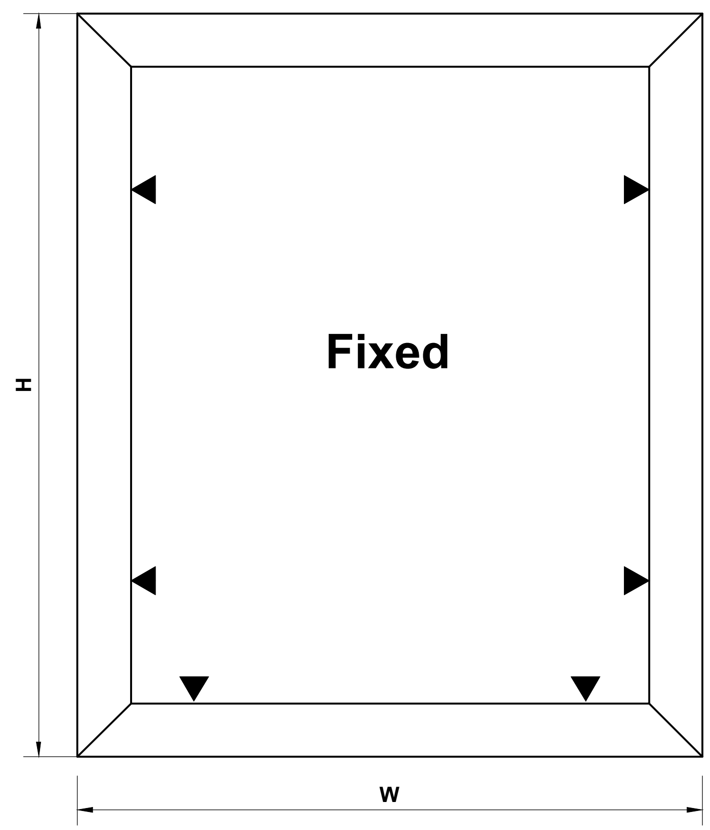
Profiles

EF110		2		H
EF110		2		W
GL*		2		W - 56
GL*		2		H - 100

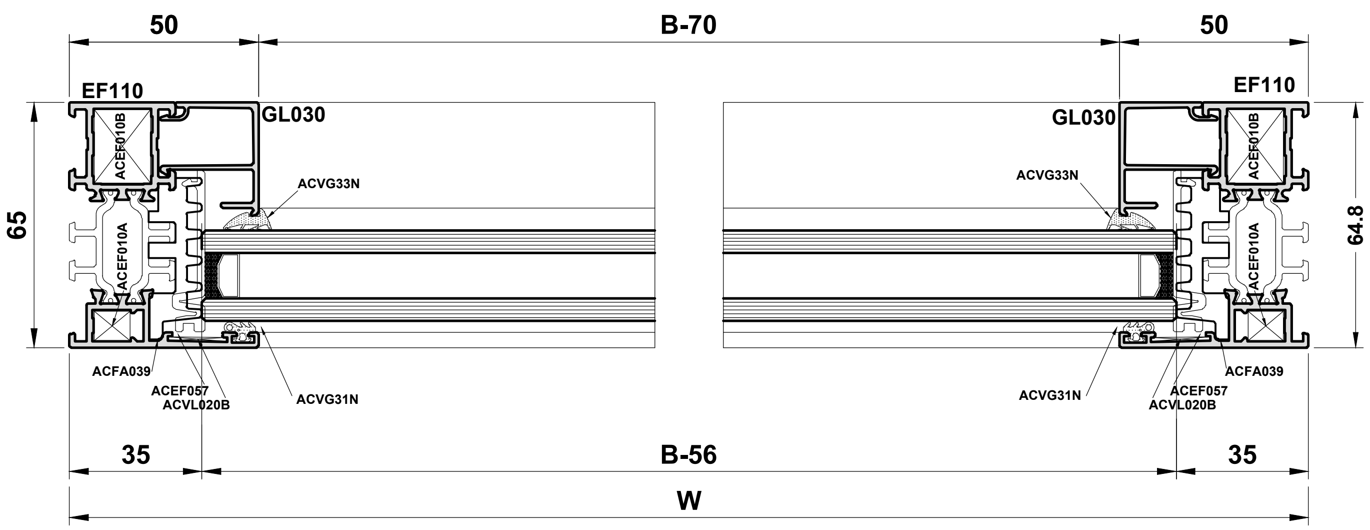
Accessories

ACEF010A		Cleat	4
ACEF010B		Cleat	4
ACVL020B		Chevron	4
ACEF057		Glazing support	4
ACVG45N		Drainage cap	2
ACVG31N		3mm External Gasket	2W+2H-320
ACVG33N		4mm Wedge Gasket	2W+2H-320
ACEF039		Glazing Insulation strip	2W+2H-160

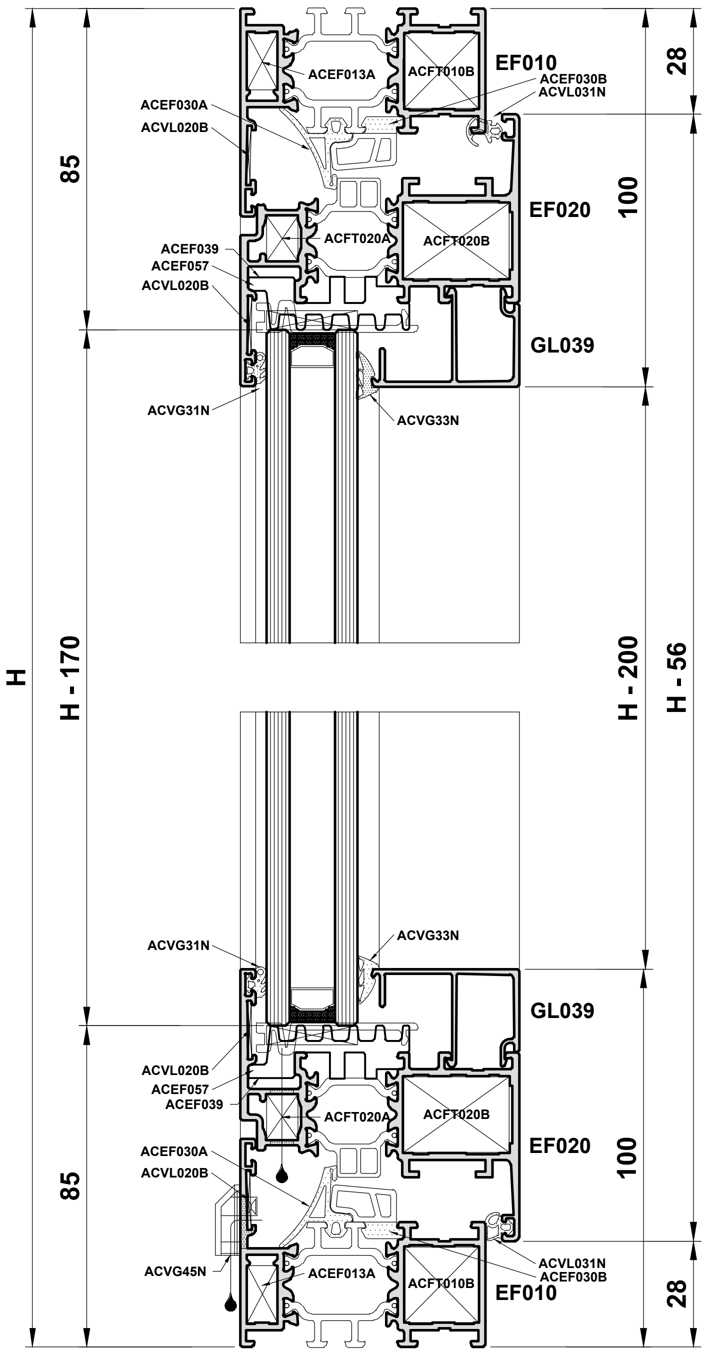
Glass
W - 70
H - 70



▼ = ACEF057



Cutting Information - Tilt and Turn Window



Profiles

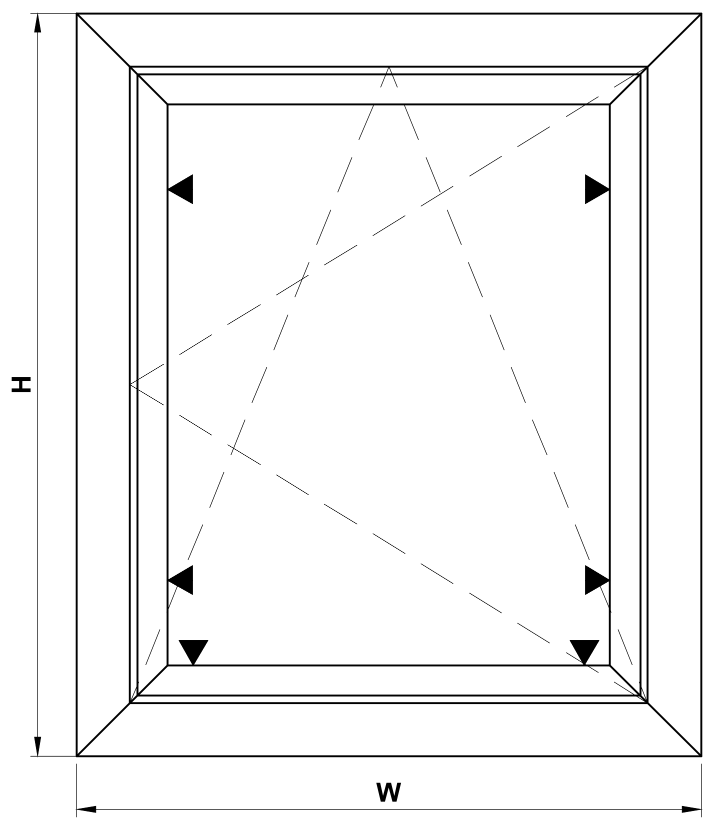
EF010		2		H
EF010		2		W
EF020		2		W - 56
EF020		2		H - 56
GL*		2		W - 156
GL*		2		H - 200

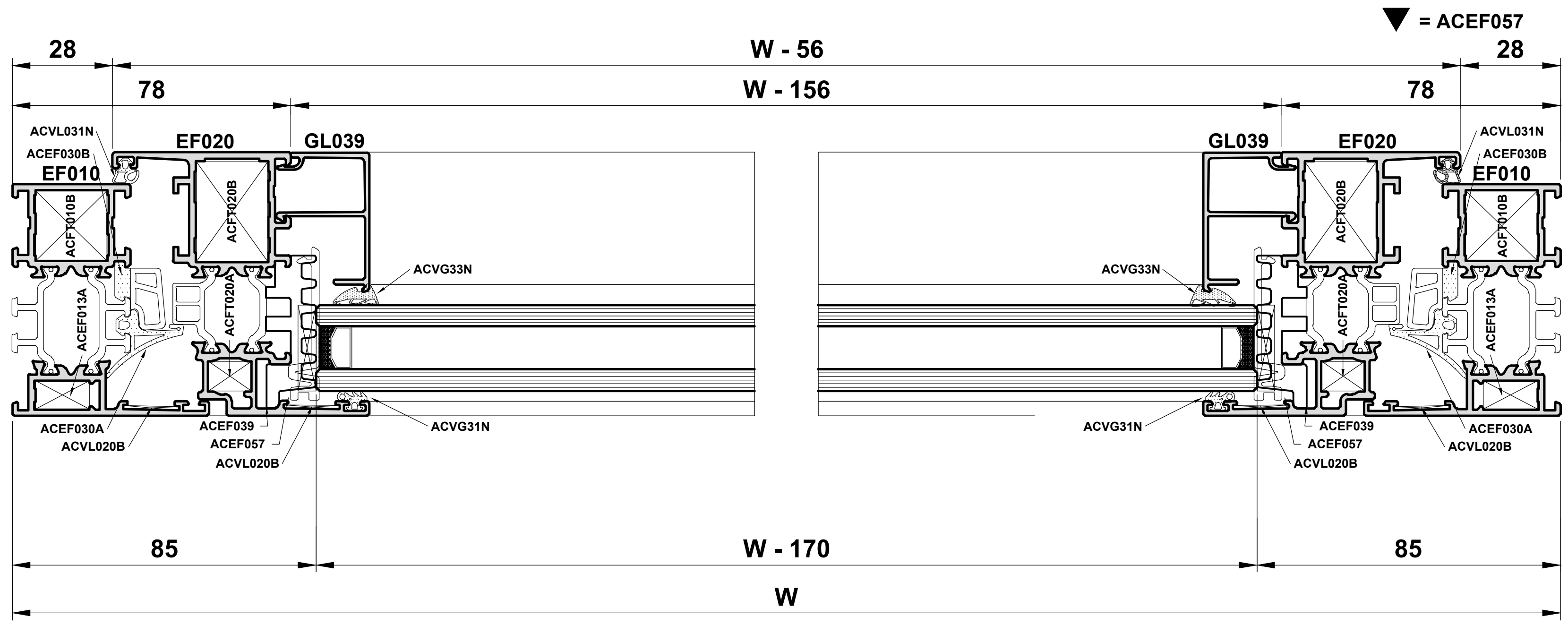
Accessories

ACFT010B		Cleat	4
ACEF013B		Cleat	4
ACFT020A		Cleat	4
ACFT020B		Cleat	4
ACVL020B		Chevron	12
ACEF057		Glazing support	6
ACVG31N		3mm External Gasket	2W+2H - 800
ACVG33N		4mm Wedge Gasket	2W+2H - 800
ACEF039B		Glazing Insulation strip	2W+2H - 800
ACEF030A		Central Gasket Outward	2W+2H - 320
ACEF030B		Central Gasket inward	2W+2H - 320
ACVL031N		Gasket	2W+2H - 320
ACVG45N		Drainage cap	2

Glass
W - 170
H - 170

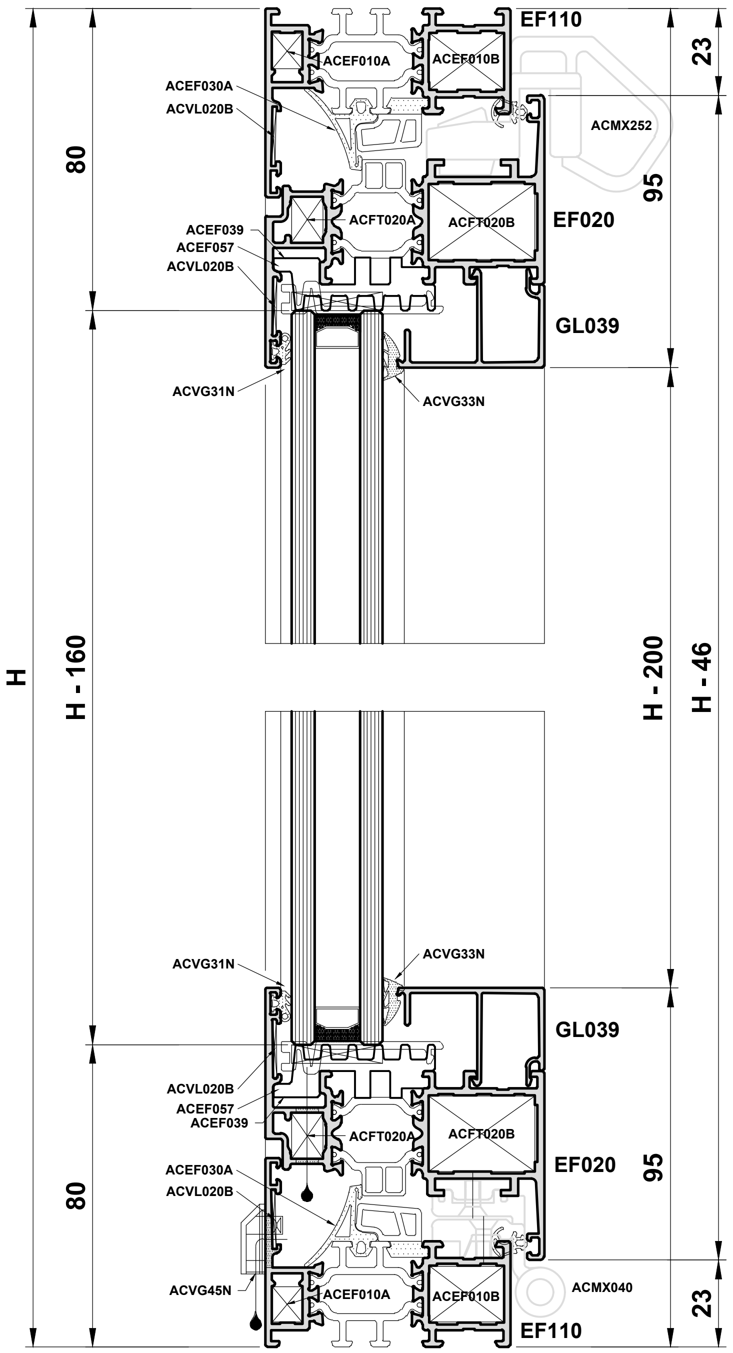
For locking details please see Fapim or Sobinco Chrono manual.





Do Not Scale From This Drawing

Cutting Information - Tilt Window



Profiles

EF110		2		H
EF110		2		W
EF020		2		W - 46
EF020		2		H - 46
GL*		2		W - 146
GL*		2		H - 190

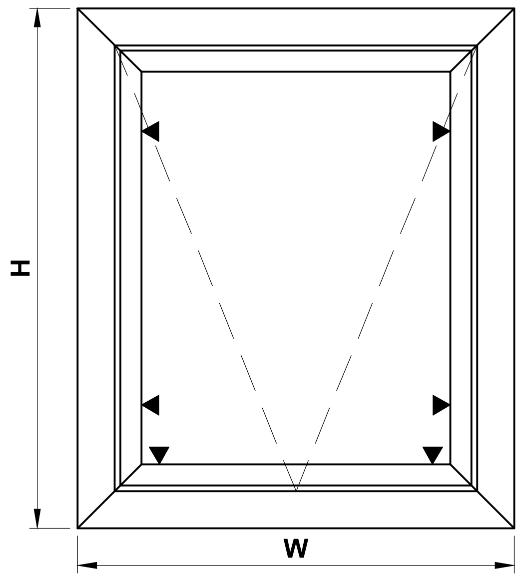
Glass sizes

W - 160
H - 160

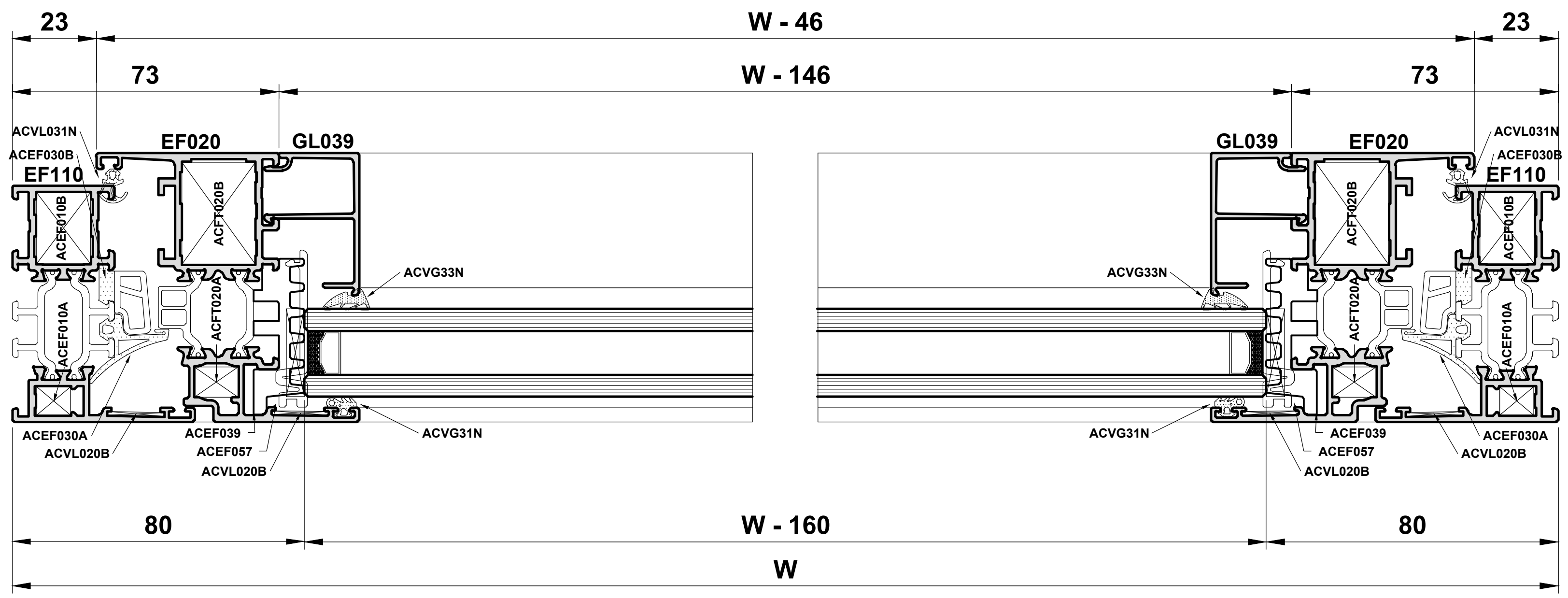
Accessories

ACEF010A		Cleat	4
ACEF010B		Cleat	4
ACEF030A		Central Gasket Outward	2W + 2H - 160
ACEF030B		Central Gasket Inward	2W + 2H - 160
ACEF039B		Glazing Insulation Strip	2W + 2H - 480
ACEF057		Glazing Support	6
ACFT020A		Cleat	4
ACFT020B		Cleat	4
ACFT031A		Corner Gasket	4
ACMX040		Window HInge	2
ACMX053		Link Lever	1
ACMX252		Springlatch Kit	1
ACVL020B		Chevron	8
ACVL031N		Gasket	2W + 2H - 160
ACVG31N		External Gasket	2W + 2H - 640
ACVG33N		Wedge Gasket	2W + 2H - 640
ACVG45N		Drainage Cap	2

For alternative locking detail please see Sobinco Chrono manual.



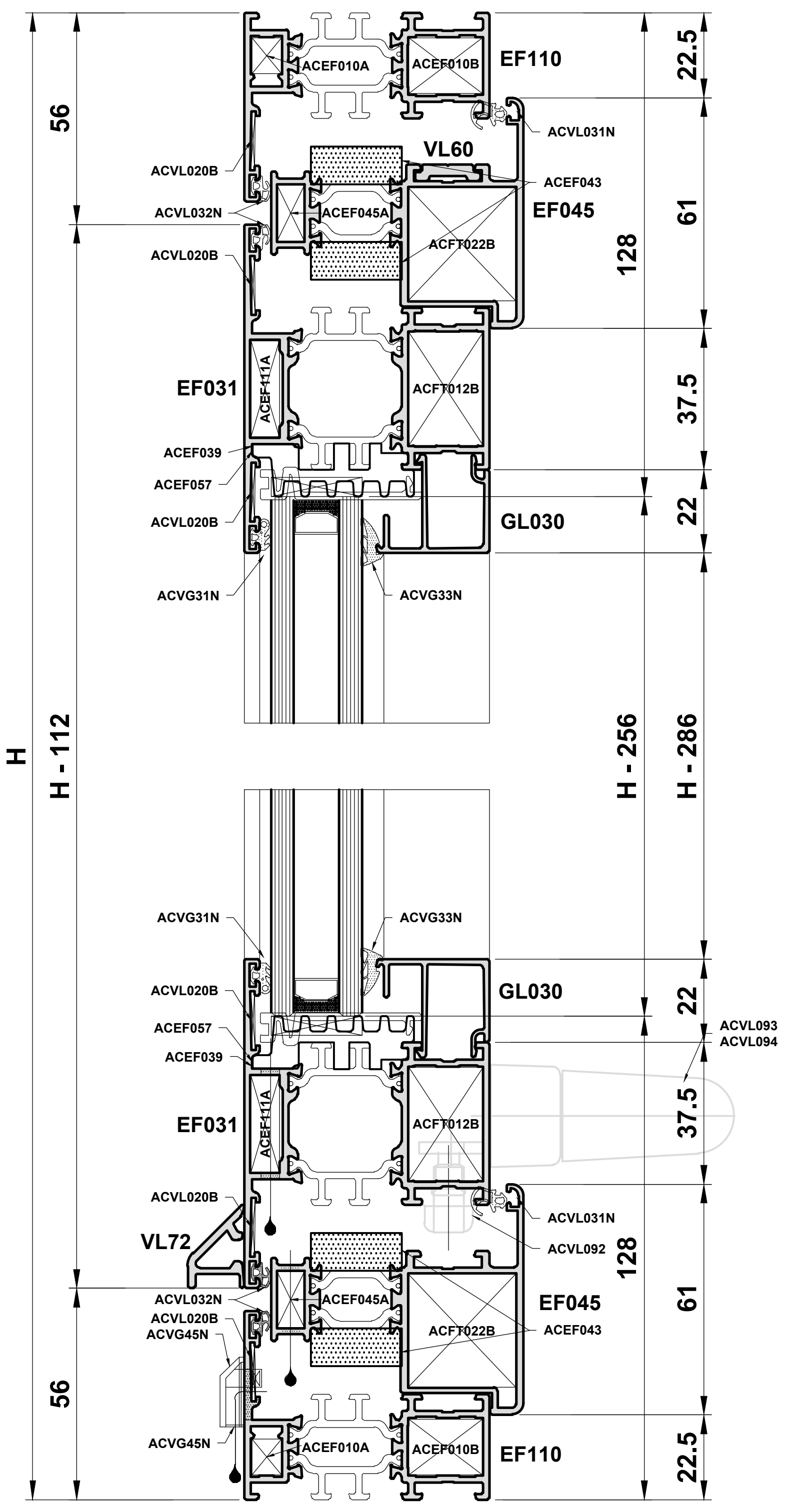
▼ = ACEF057



Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

Cutting Information - Pivot Window



Profiles

EF110		2		H
EF110		2		W
EF045		1		W - 45
EF045		1		W - 45
EF045		1		H/2 - 23
EF045		1		H/2 - 23
EF045		1		H/2 - 23
EF045		1		H/2 - 23
EF031		2		W - 112
EF031		2		H - 112
GL*		2		W - 242
GL*		2		H - 286
VL72		1		W - 122
VL60		1		W - 375
VL60		2		H/2 - 250
VL60		1		H/2 - 176
VL60		1		H/2 - 207

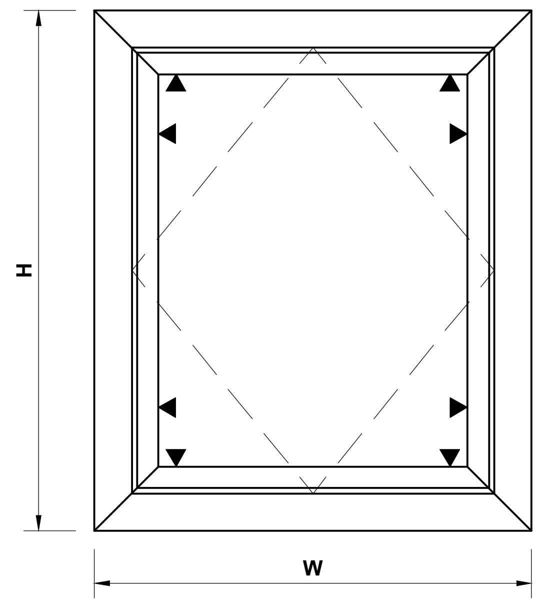
Glass sizes

W - 256
H - 256

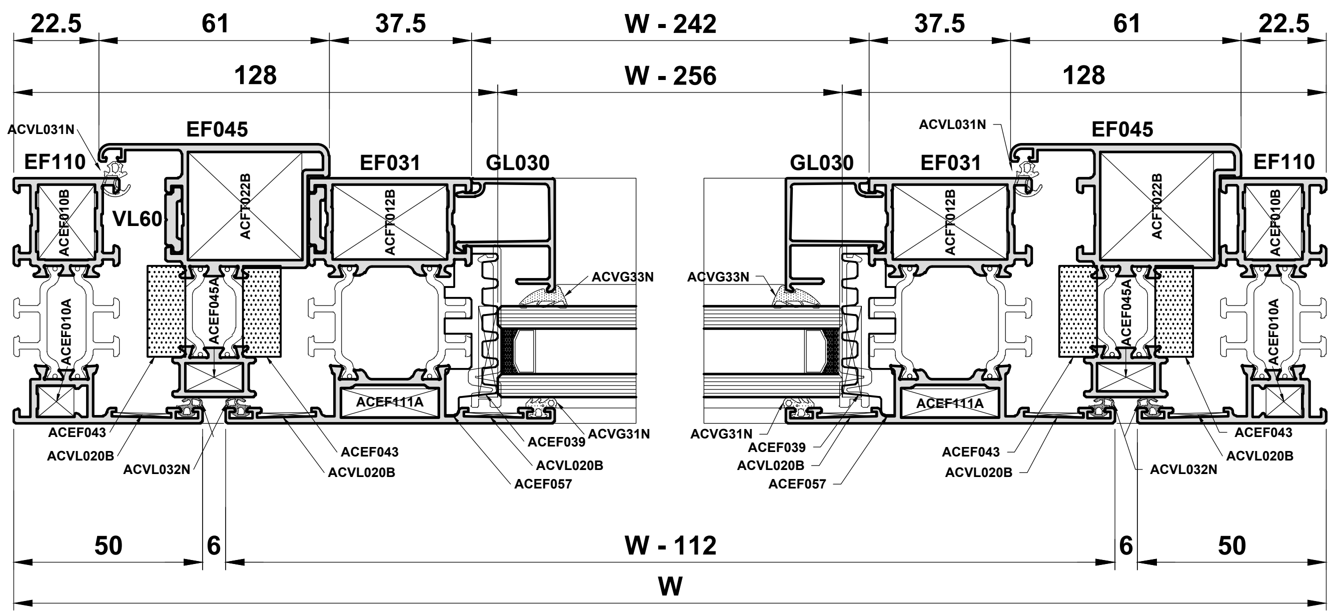
Hmin = 700mm	Wmin = 500mm
Hmax = 2000mm	Wmax = 2400mm
Hmax = 2200mm	Wmax = 2200mm

Accessories

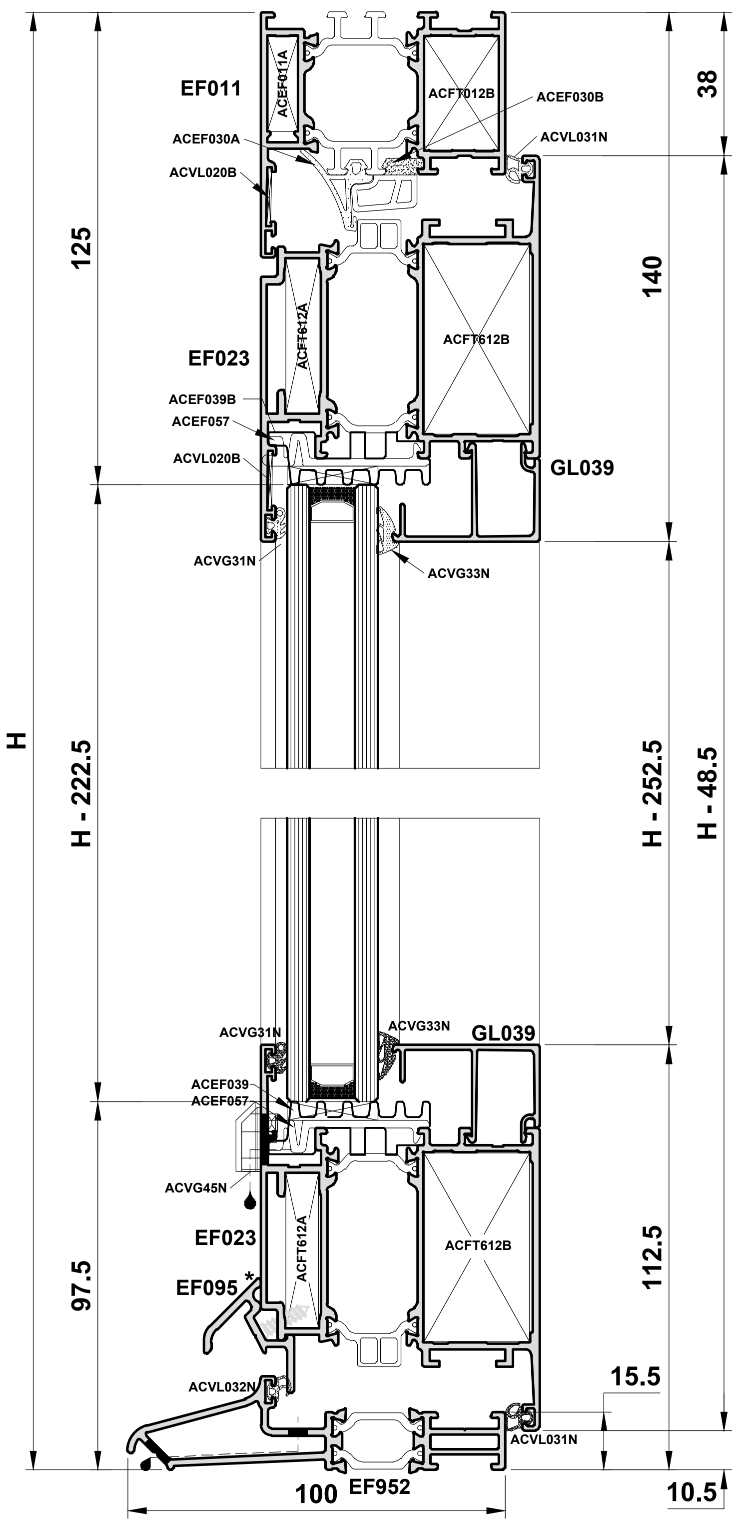
ACEF010A		Cleat	4
ACEF010B		Cleat	4
ACEF045A		Cleat	4
ACFT022B		Cleat	4
ACEF111A		Cleat	4
ACFT012B		Cleat	4
ACVL020B		Chevron	12
ACEF057		Glazing support	8
ACVG45N		Drainage cap	2
ACVG31N		3mm External Gasket	2W+2H - 1050
ACVG33N		4mm Wedge Gasket	2W+2H - 1050
ACEF039		Glazing Insulation strip	2W+2H - 1750
ACEF043		Insulation strip	4W+4H - 750
ACVL031N		5mm Gasket	2W+2H - 180
ACVL032N		4mm Gasket	4W+4H - 800
ACVL090		Pivot Box 180°	1
ACVL091		Pivot Box 180° + ventilation	1
ACVL092		Window Gearing	1
ACVL093/094		Handle	1
ACVL059		VL72 End Cap	1
ACVL061		VL72 Rivet	at 300mm ctrs



▼ = ACEF057



Cutting Information: Single Open In Door with EF011 and EF023



Profiles

EF011		1		H - 15.5
EF011		1		W
EF011		1		H - 15.5
EF023		2		W - 76
EF023		2		H - 48.5
EF952		1		W
EF095		1		W - 144
GL*		2		W - 236
GL*		2		H - 252.5

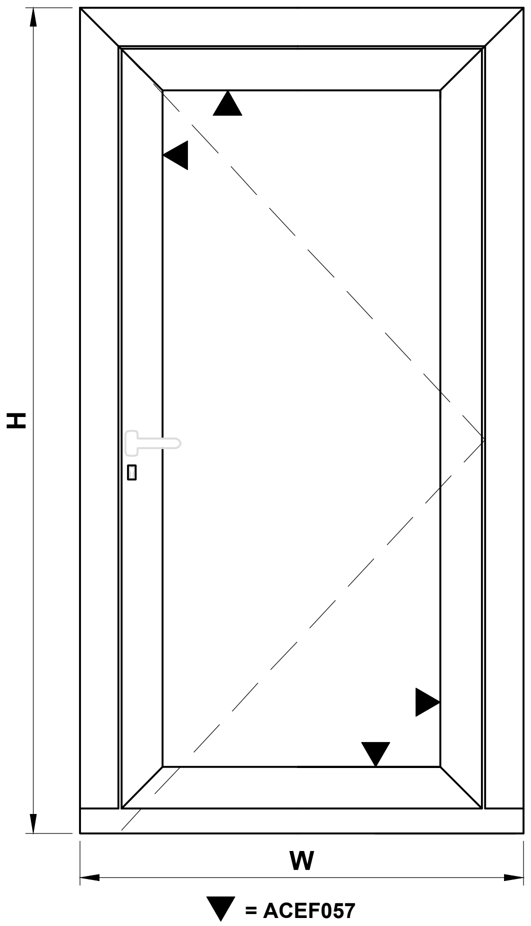
Glass sizes

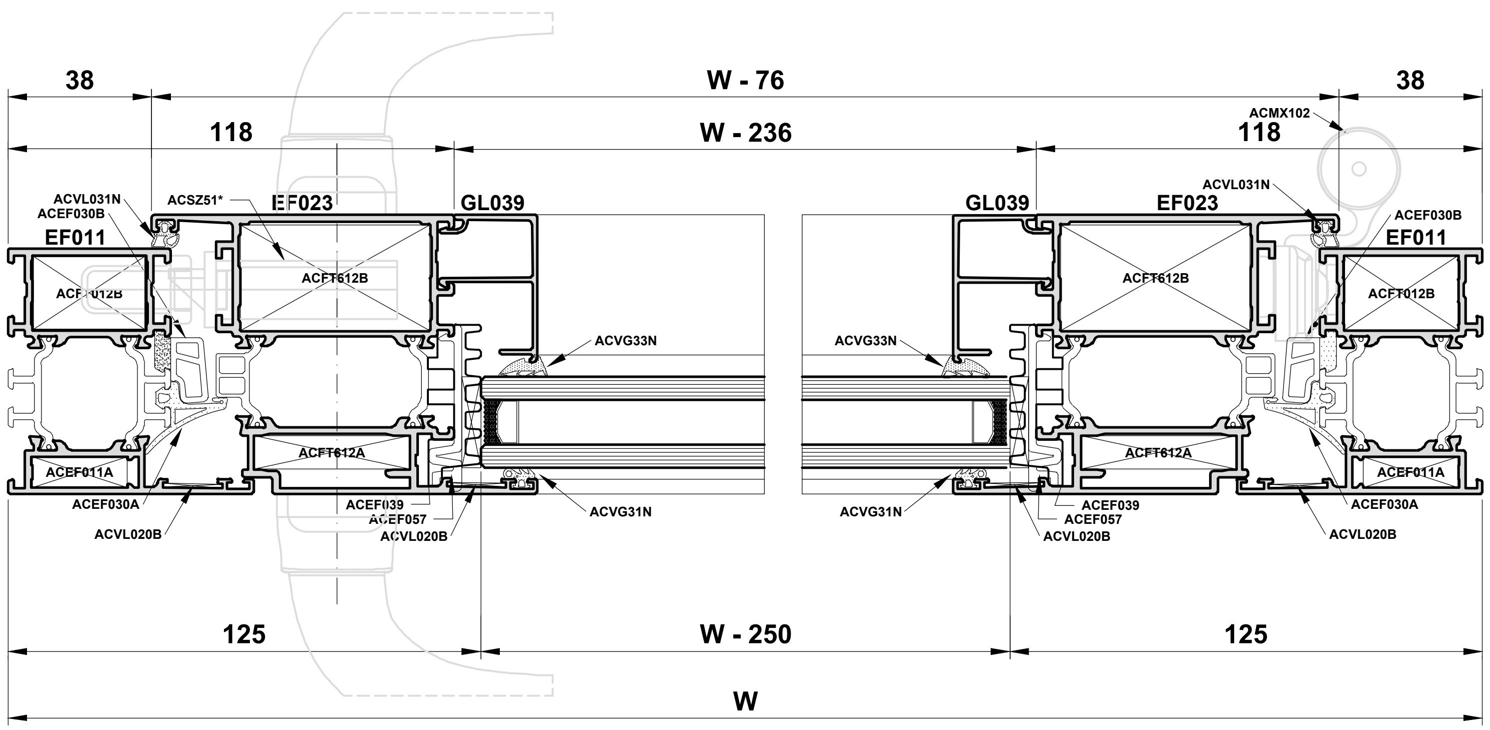
W-250
H - 222.5

See Pages E55 - E60 for lock details

Accessories

ACEF011A		Cleat	2
ACFT012B		Cleat	2
ACFT612A		Cleat	4
ACFT612B		Cleat	4
ACVL020B		Chevron	6
ACEF057		Glazing support	4
ACVG45N		Drainage cap	2
ACMX102		Door Hinge	3
ACVG31N		3mm External Gasket	2W+2H - 980
ACVG33N		4mm Wedge Gasket	2W+2H - 980
ACEF039B		Glazing Insulation strip	2W+2H - 820
ACEF030A		Gasket	W+2H - 290
ACEF030B		Gasket	W+2H - 290
ACVL031N		5mm Gasket	2W+2H - 290
ACFT026B		EF952 Fixing Bracket	2
ACVL029		Anti-Twist Clip	2
ACVL032N		Threshold Gasket	W - 72
ACEF966		EF952 End Cap	1 Pair
ACEF095		EF095 End Cap	1 Pair
ACEF031A		Corner Gasket	2

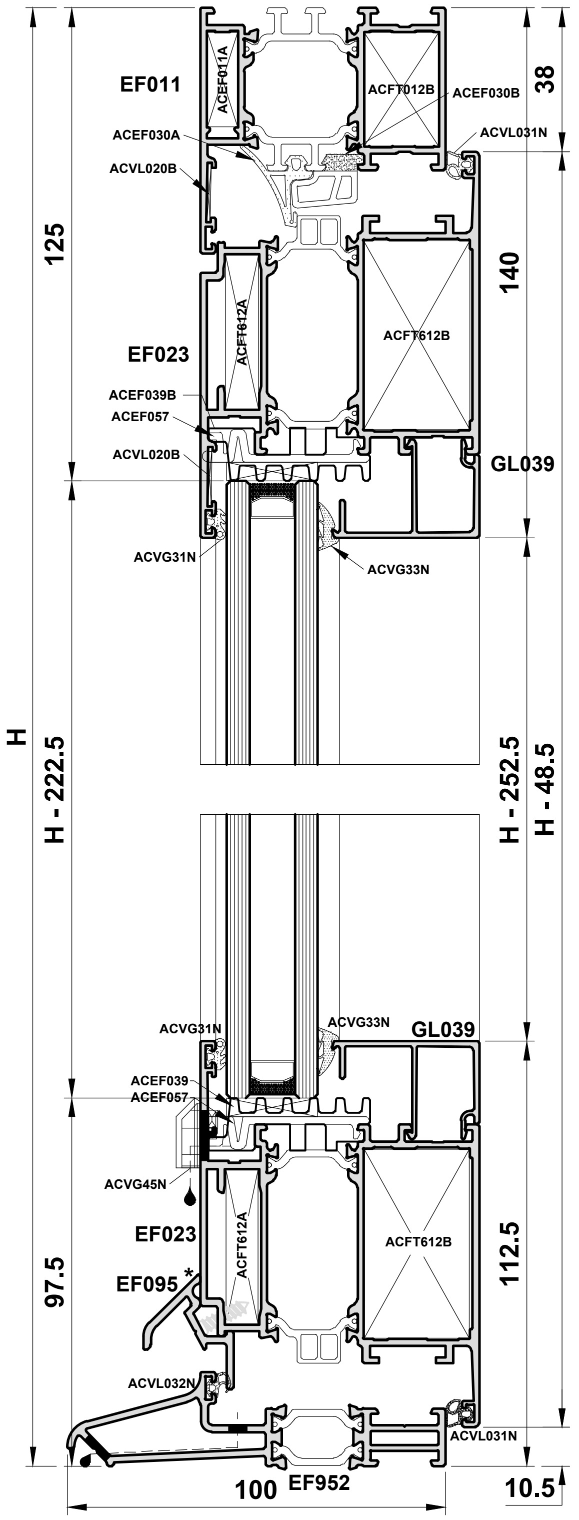




Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

Cutting Information: Double Open In Door with EF011 and EF023



Profiles

EF011		1		H - 15.5
EF011		1		W
EF011		1		H - 15.5
EF023		4		W/2 - 40.5
EF023		4		H - 48.5
EF040		1		H - 109.5
EF952		1		W
EF095		2		W/2 - 108.5
GL*		4		W/2 - 200.5
GL*		4		H - 252

Glass Sizes (x2)

W/2-214.5
H - 222.5

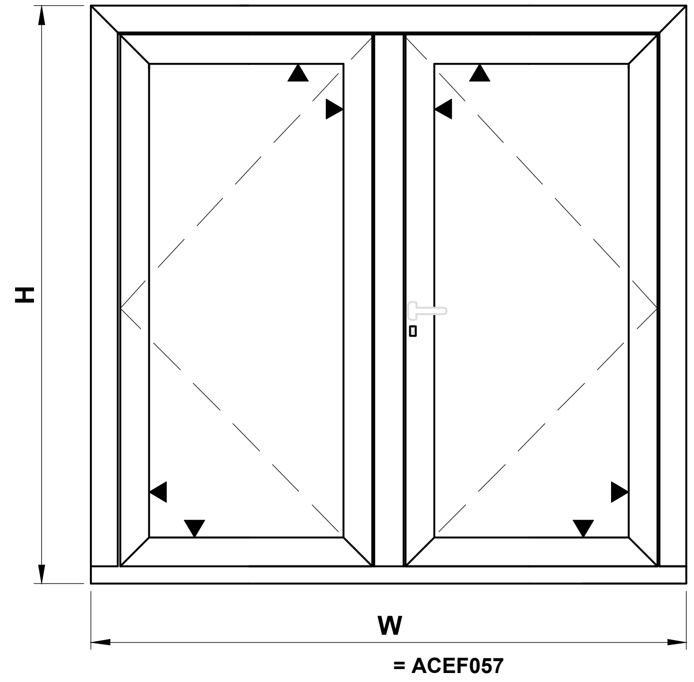
Accessories Continued

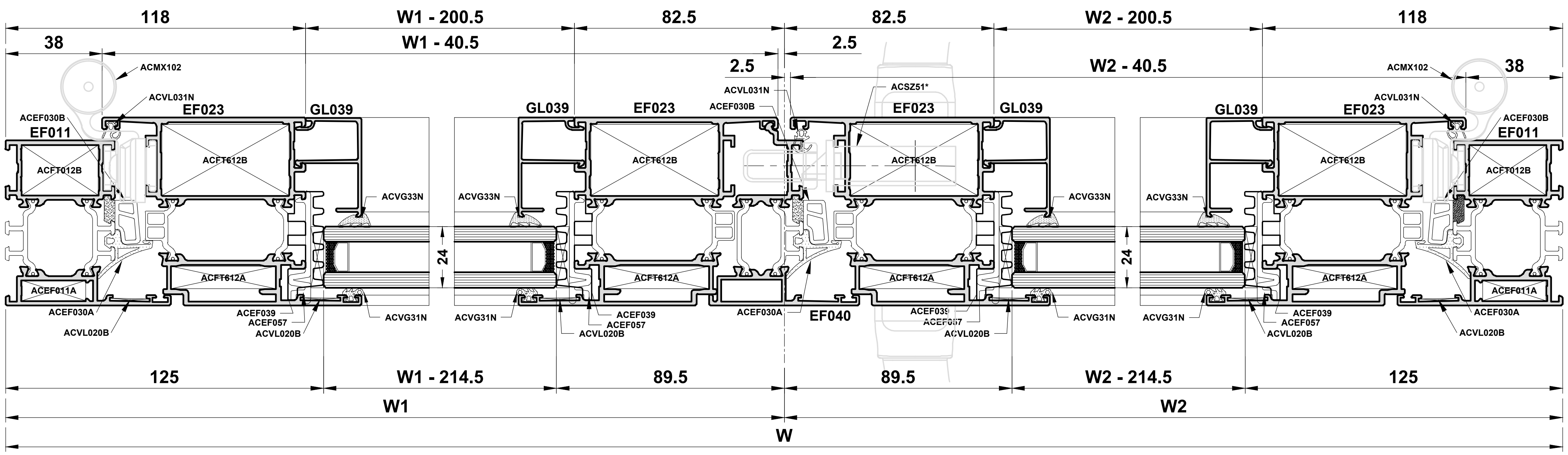
ACVL031N		5mm Gasket	2W+3H - 220
ACFT026B		EF952 Fixing Bracket	2
ACVL029		Anti-Twist Clip	2
ACEF966		EF952 End Cap	1 Pair
ACVL032N		Threshold Gasket	W - 72
ACET062		ACVL432 Fixings	4
ACET064		EF095 Fixings	Every 200mm
ACEF095		EF095 End Cap	1 Pair
ACEF957		EF040 End Cap	1
ACEF958		L / Threshold End Caps	1

Accessories

ACEF011A		Cleat	2
ACFT012B		Cleat	2
ACFT612A		Cleat	8
ACFT612B		Cleat	8
ACVL020B		Chevron	10
ACEF057		Glazing support	8
ACVG45N		Drainage Cap	4
ACEF055		Double Casement Sealing	1
ACEF443		Closer Section	2
ACVL432		Bolt Lock	2
ACVL429		Keep for ACVL432	2
ACMX102		Door Hinge	4
ACVG31N		3mm External Gasket	2W+4H -1800
ACVG33N		4mm Wedge Gasket	2W+4H - 1800
ACEF039B		Glazing Insulation strip	2W+4H -1510
ACEF030A		Gasket	W+3H - 440
ACEF030B		Gasket	W+3H - 440
ACEF031A		Corner Gasket	2

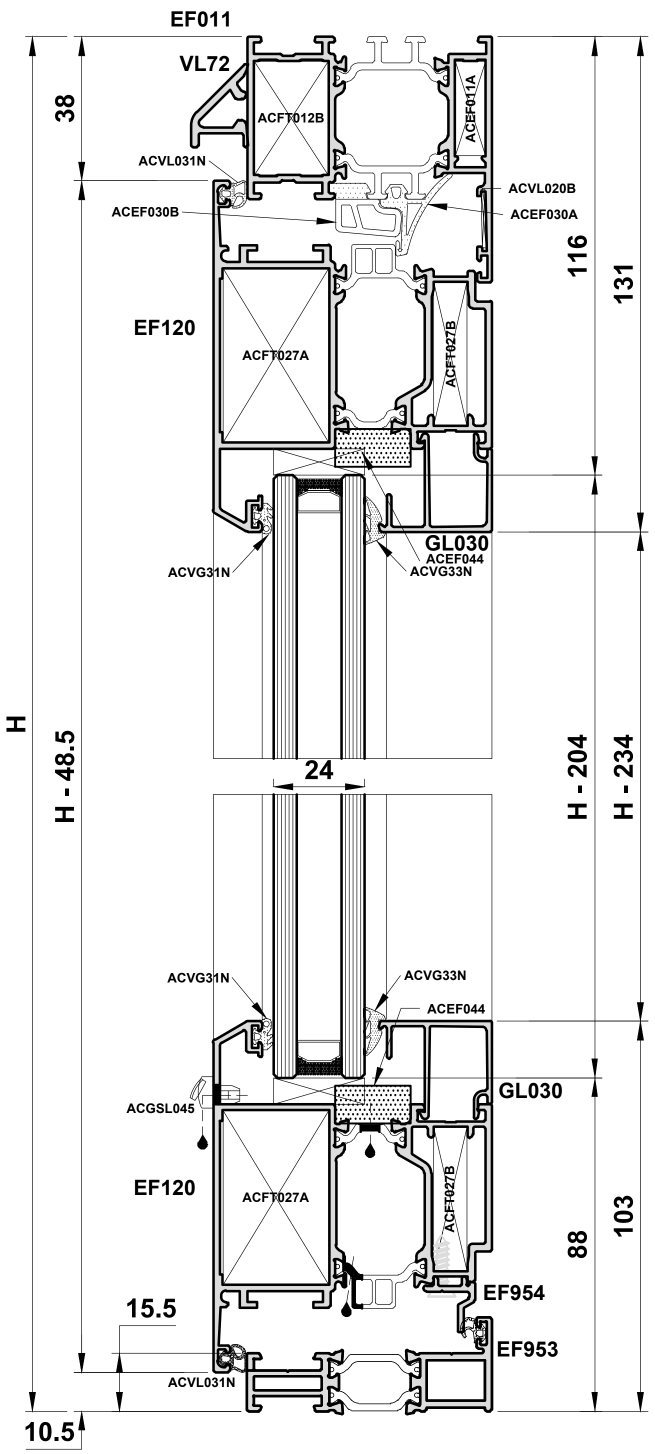
See Pages E55 - E60 for lock details





Do Not Scale From This Drawing

Cutting Information: Single Open Out Door using EF120 & Low Threshold



Profiles

EF011		1		H - 15.5
EF011		1		W
EF011		1		H - 15.5
EF953		1		W
EF954		1		W - 124
EF120		2		W - 76
EF120		2		H - 48.5
GL*		2		W - 218
GL*		2		H - 234
VL72		1		W

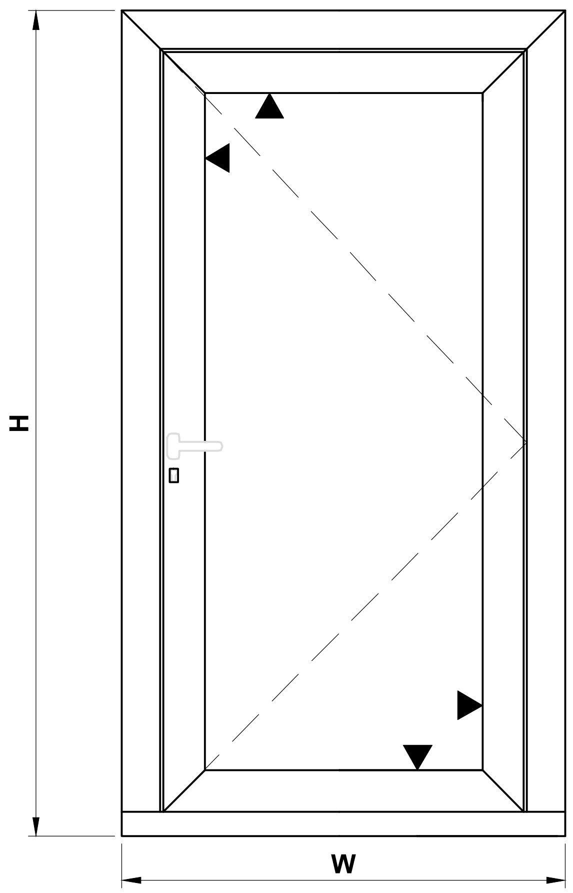
Glass Sizes

W - 232
H - 204

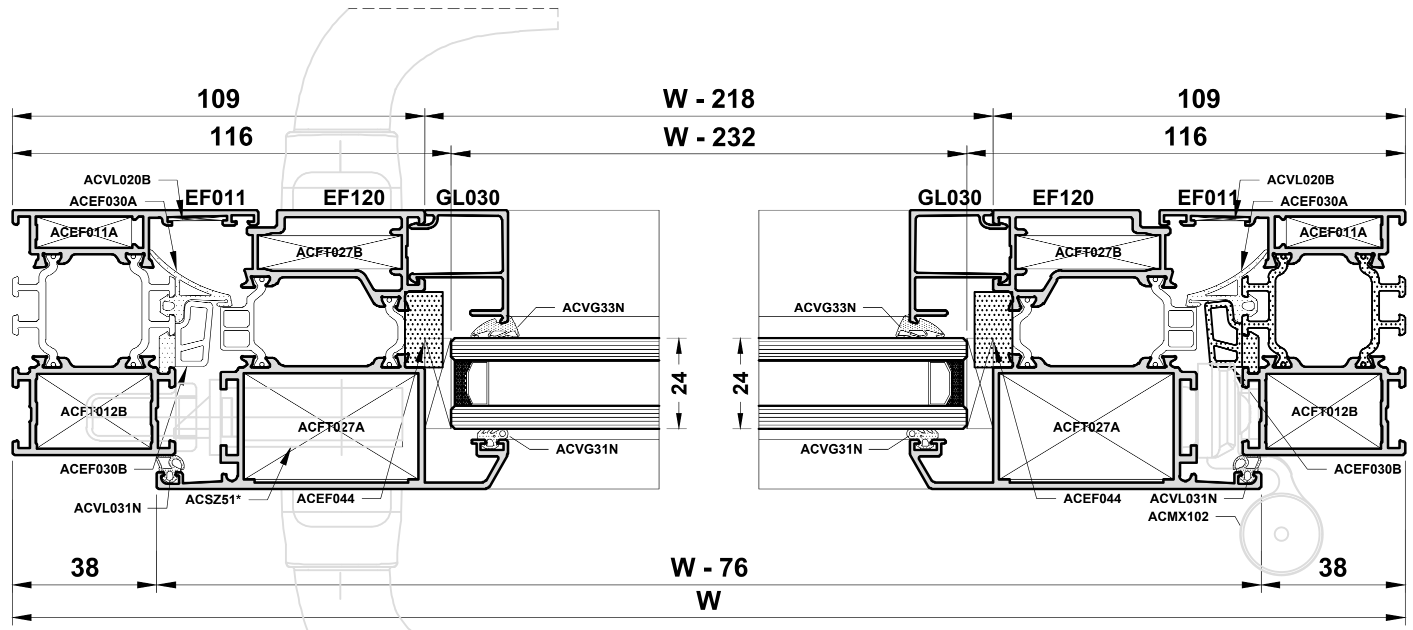
Accessories

ACEF011A		Cleat	2
ACFT012B		Cleat	2
ACFT027A		Cleat	4
ACFT027B		Cleat	4
ACVL020B		Chevron	6
ACGSL045		Drainage Cap	4
ACMX102		Door Hinge	3
ACVG31N		3mm External Gasket	2W+2H-900
ACVG33N		4mm Wedge Gasket	2W+2H-900
ACEF044		Insulation Strip	2W+2H-750
ACEF030A		Gasket	W+2H-290
ACEF030B		Gasket	W+2H-290
ACVL031N		5mm Gasket	W+2H-290
ACVL032N		4mm Gasket	W
ACEF967		Threshold End Cap	1 Pair
ACFT026B		Threshold Fixing Bracket	2
ACVL029		Anti-Twist Clip	2
ACET064		EF954 Fixings	Every 200mm

See Pages E55 - E60 for lock details



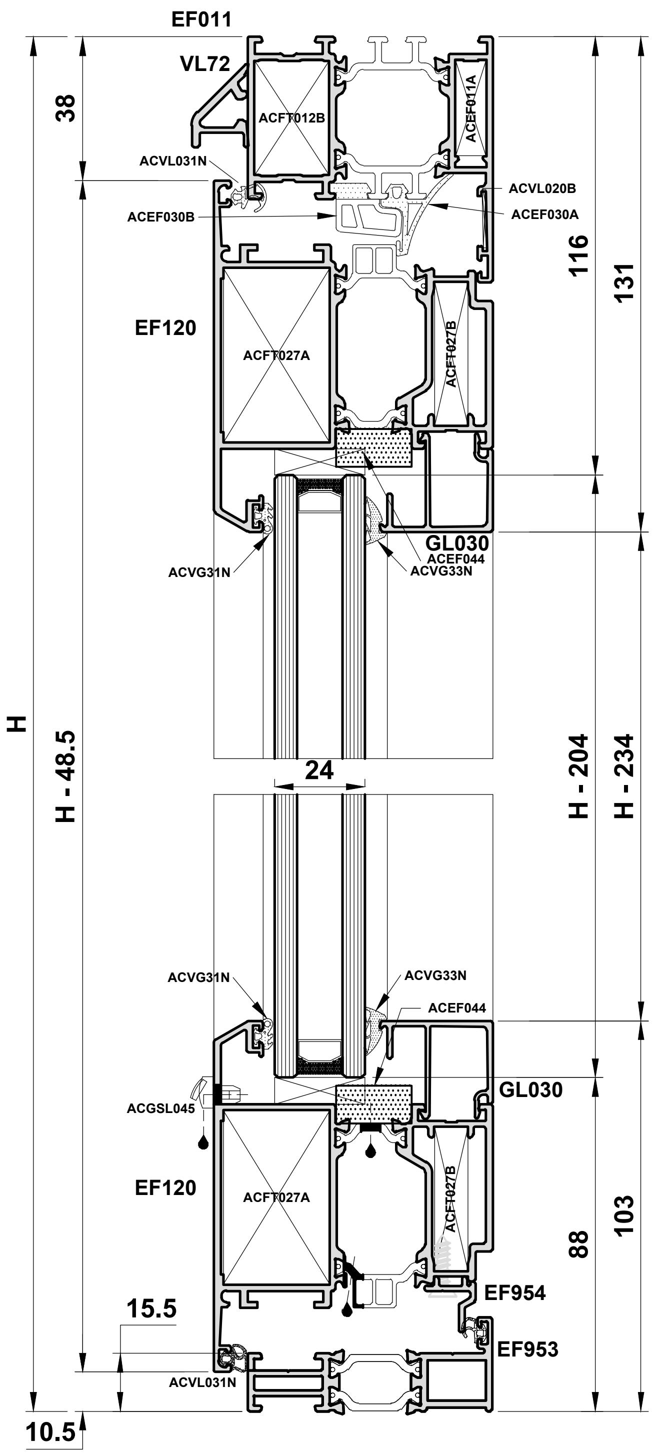
▼ = Glass Packing



Do Not Scale From This Drawing

ISSUED: DECEMBER 2018

Cutting Information: Double Open Out Door using EF120 & Low Threshold



Profiles

EF011		1		H - 15.5
EF011		1		W
EF011		1		H - 15.5
EF953		1		W
EF954		1		W/2 -88.5
EF120		4		W/2 - 40.5
EF120		4		H - 48
EF040		1		H - 109.5
GL*		4		W/2 - 182.5
GL*		4		H - 234
VL72		1		W

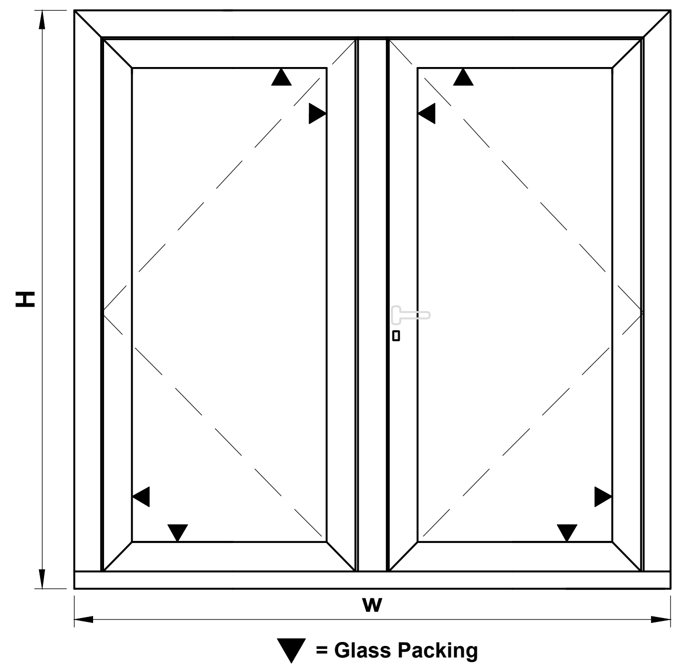
Glass Sizes 2x

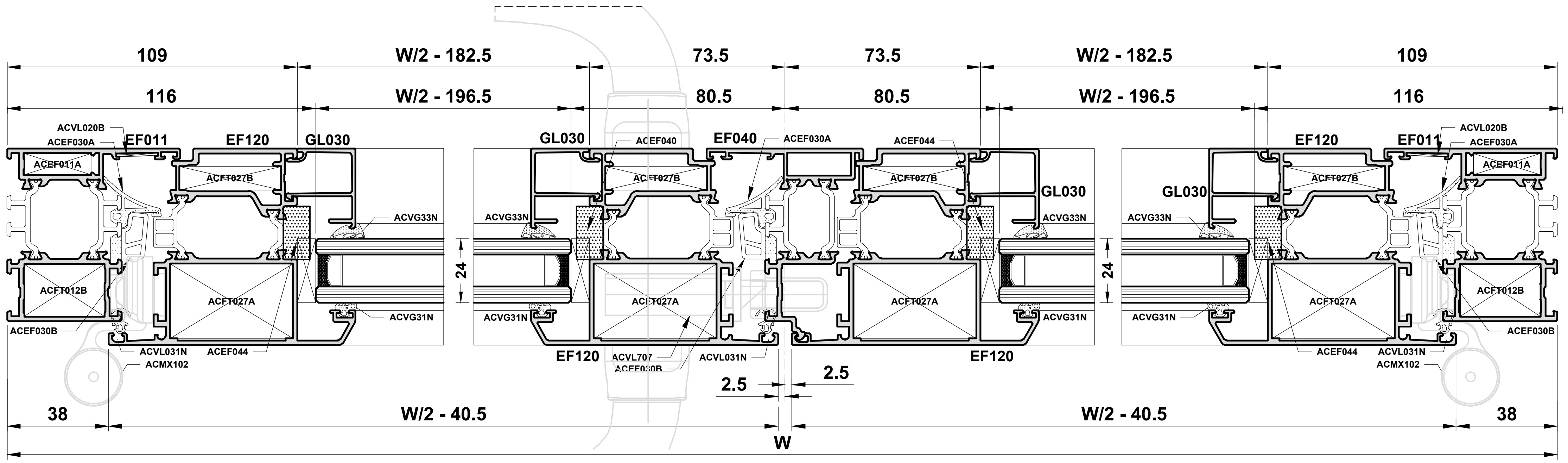
W/2 - 196.5
H - 204

Accessories

ACEF011A		Cleat	2
ACFT012B		Cleat	2
ACFT027A		Cleat	8
ACFT027B		Cleat	8
ACVL020B		Chevron	2
ACGSL045		Drainage Cap	4
ACEF055		Double Casement Sealing	1
ACVL432		Bolt Lock	2
ACVL429		Keep for ACVL432	2
ACMX102		Door Hinge	6
ACVG31N		3mm External Gasket	2W+2H-900
ACVG33N		4mm Wedge Gasket	2W+2H-900
ACEF044		Insulation Strip	2W+4H-750
ACEF030A		Gasket	W+3H-290
ACEF030B		Gasket	W+3H-290
ACVL031N		5mm Gasket	W+3H-290
ACEF967		Threshold End Cap	1 Pair
ACFT026B		Threshold Fixing Bracket	2
ACVL029		Anti-Twist Clip	2
ACET062		ACVL432 Fixings	4
ACET064		EF954 Fixings	Every 200mm
ACEF957		EF040 End Cap	1
ACEF958		L / Threshold End Caps	1

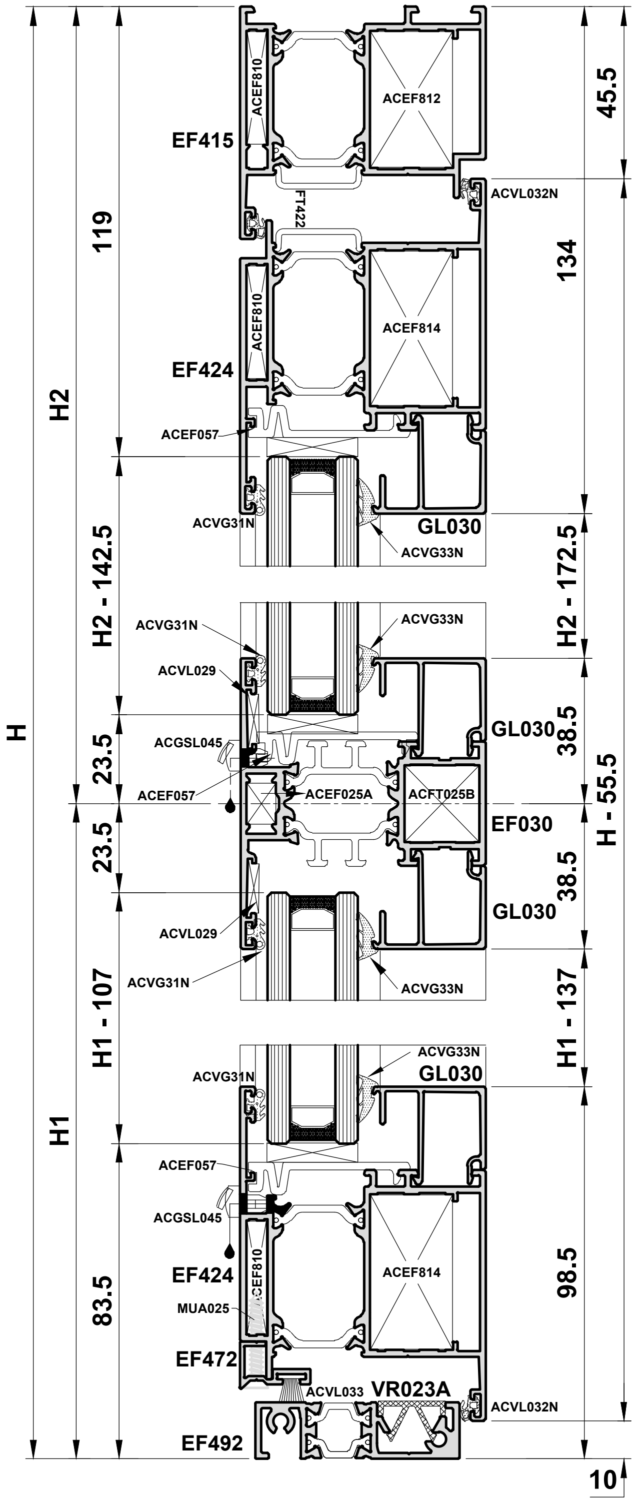
See Pages E55 - E60 for lock details





Do Not Scale From This Drawing

Cutting Information: Single Open In Door using EF415 and EF424 with Low Threshold



Profiles

EF415		1		H
EF415		1		W
EF415		1		H
EF424		2		H - 55.5
EF424		2		W - 91
EF030		1		W - 224
GL*		4		W - 224
GL*		2		H1 - 137
GL*		2		H2 - 172.5
EF493		1		W - 101
VR023A		1		W - 101
EF472		1		W - 137

FT422		1		W - 118
FT422		1		W - 84.5
FT422		1		H - 90
FT422		1		H - 90
FT422		2		H - 82

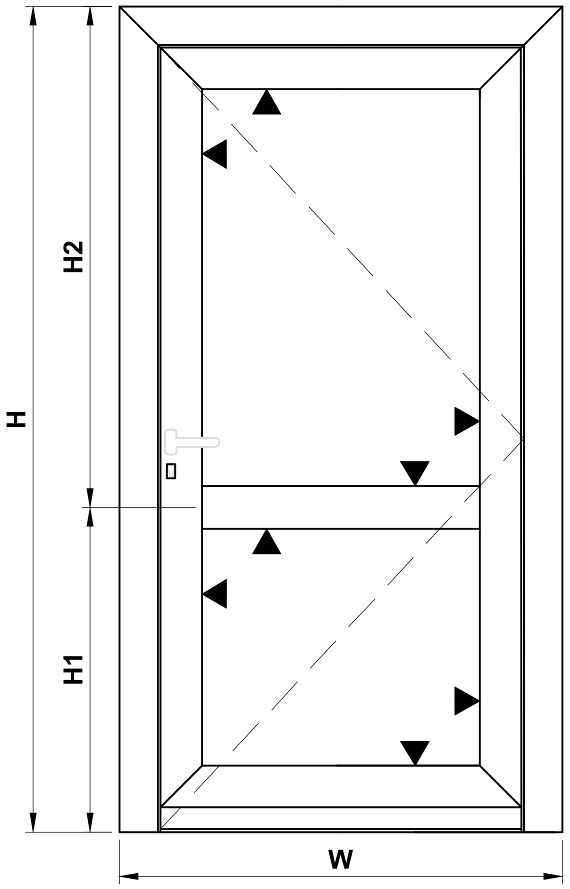
Glass Sizes

2x W - 238
H1 - 107 / H2 =142.5

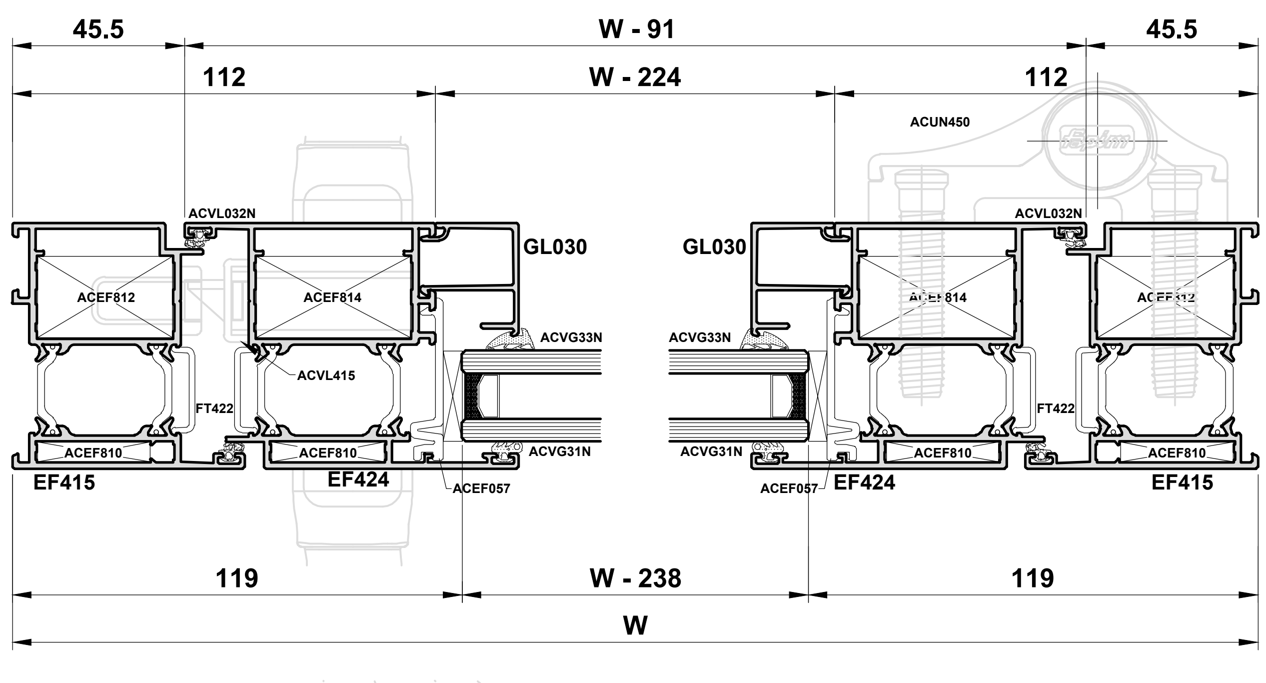
Accessories

ACEF810		Cleat	6
ACEF812		Cleat	2
ACEF814		Cleat	4
ACEF025A		Cleat	2
ACFT025B		Cleat	2
ACEF057		Glazing Support	8
ACVL020B		Chevron	4
ACVL029		Strengthening piece	4
ACGSL045		Drainage Cap	2
ACEF694		Threshold end piece	1
ACUN450		Door Hinge	3
ACEF872		EF472 End Piece	1
ACVL032N		Gasket	4H+3W - 120
ACVG31N		Gasket	2H+2W - 1200
ACFT3*N		Gasket	2H+2W - 1200
ACGSL081		Screw	Every 150mm
ACGSL081		Self Tapping Screw	8
ACVL033		Brush Pile	W - 137

See Pages E35 - E40 for lock details

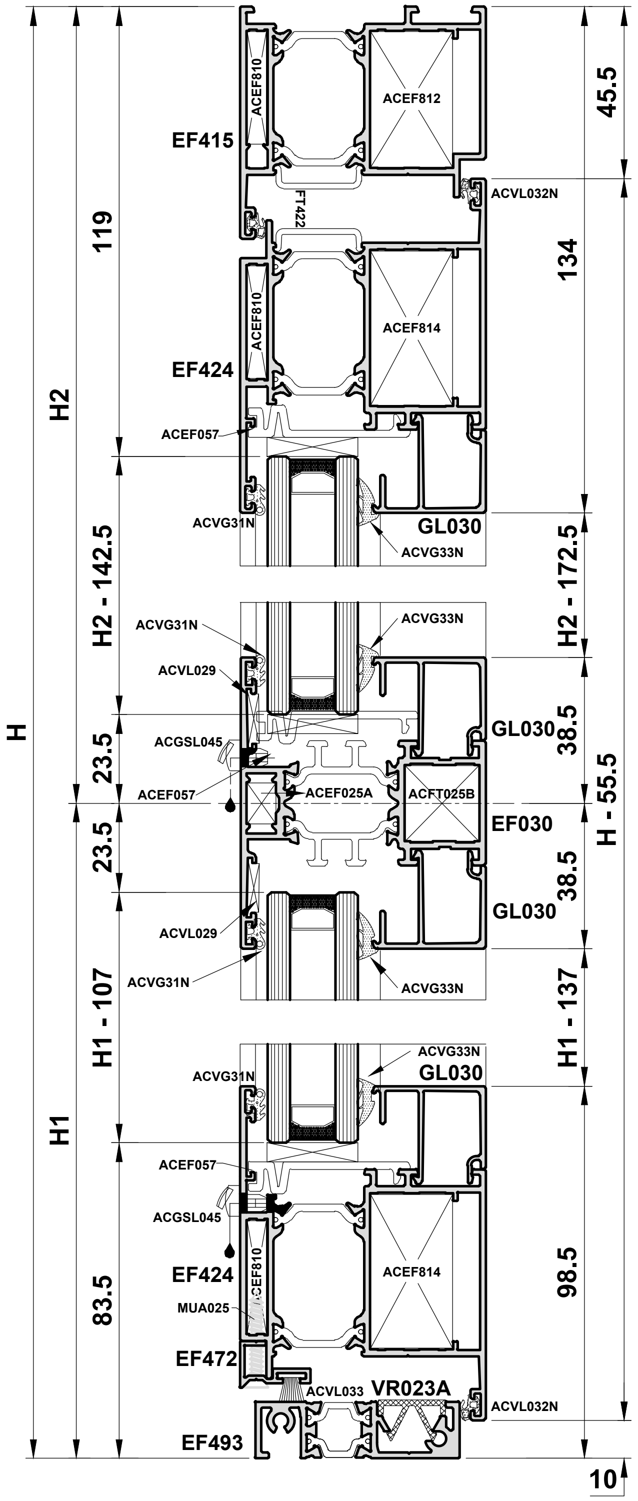


▼ = ACEF057



Do Not Scale From This Drawing

Cutting Information: Double Open In Door using EF415 and EF424 with Low Threshold



Profiles

EF415		1		H
EF415		1		W
EF415		1		H
EF424		3		H - 55.5
EF424		4		W/2 - 37.5
EF425		1		H - 55.5
EF030		2		W/2 - 170.5
GL*		8		W/2 - 170.5
GL*		2		H1 - 137
GL*		2		H2 - 172.5
EF493		1		W - 101
VR023A		1		W - 101
EF472		1		W/2 - 83.5
EF472		1		W/2 - 65.5

FT422		1		W/2 - 64
FT422		1		W - 84.5
FT422		4		H - 90
FT422		1		B - 84.5
FT422		2		H - 82

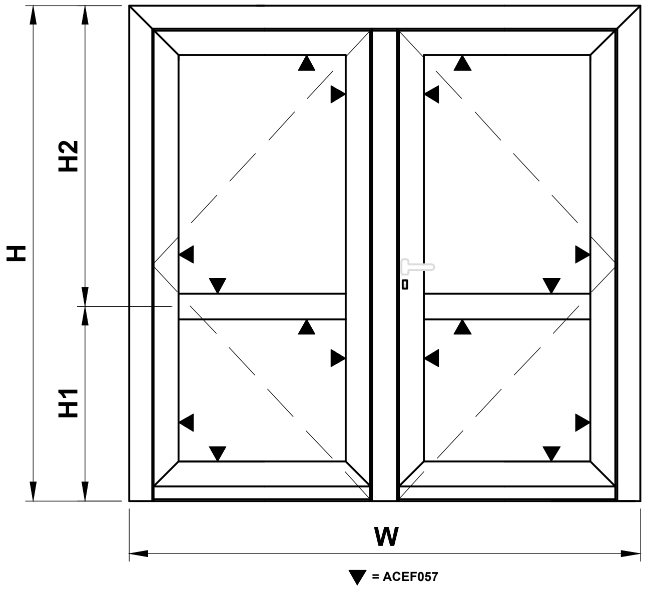
Glass Sizes

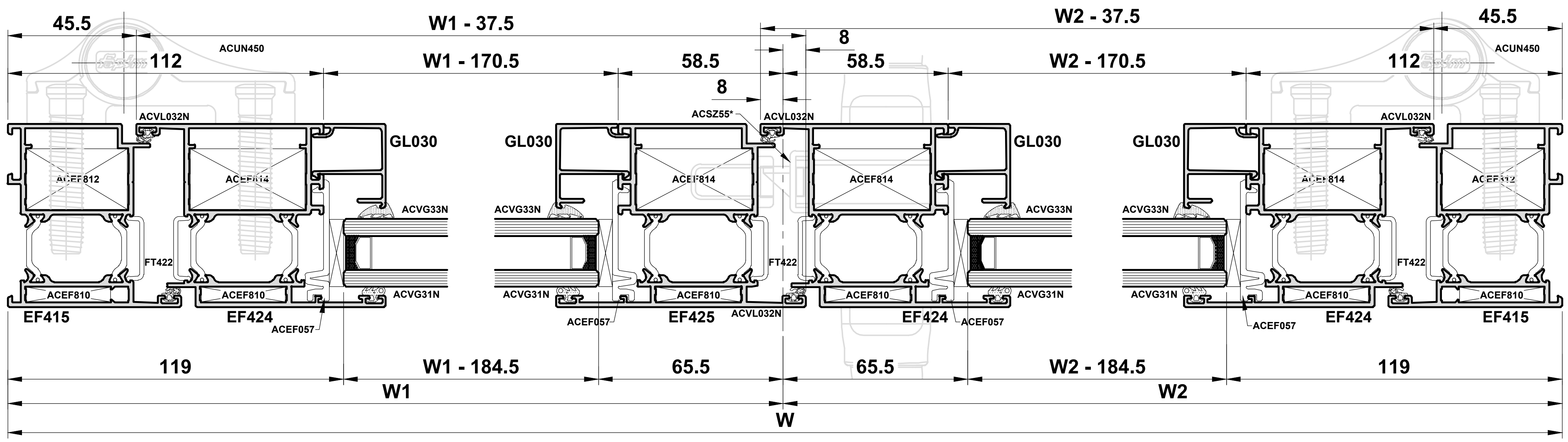
2 x W/2 - 184.5
H1 - 107/ H2 - 142.5

Accessories

ACEF810		Cleat	10
ACEF812		Cleat	2
ACEF814		Cleat	6
ACEF816		Cleat	2
ACEF025A		Cleat	4
ACFT025B		Cleat	4
ACEF057		Glazing Support	16
ACVL020B		Chevron	8
ACVL029		Strengthening profile	8
ACGSL045		Drainage Cap	4
ACEF694		Threshold end piece	1
ACUN450		Door Hinge	6
ACEF854		Sealing Double Casement	1
ACEF855		Sealing Double Casement	1
ACEF872		EF472 End Piece	2
ACEF891		Bolt Lock	2
ACEF892		Top Keep	1
ACEF894		Bottom Keep	1
ACVL032N		Gasket	6H+3W - 120
ACVG31N		Gasket	4H+4W - 1200
ACFT3*N		Gasket	4H+4W - 1200
ACEF081		Self Tapping Screw	8
ACGSL081		Screw	Every 150mm
ACVL033		Brush Pile	W - 167

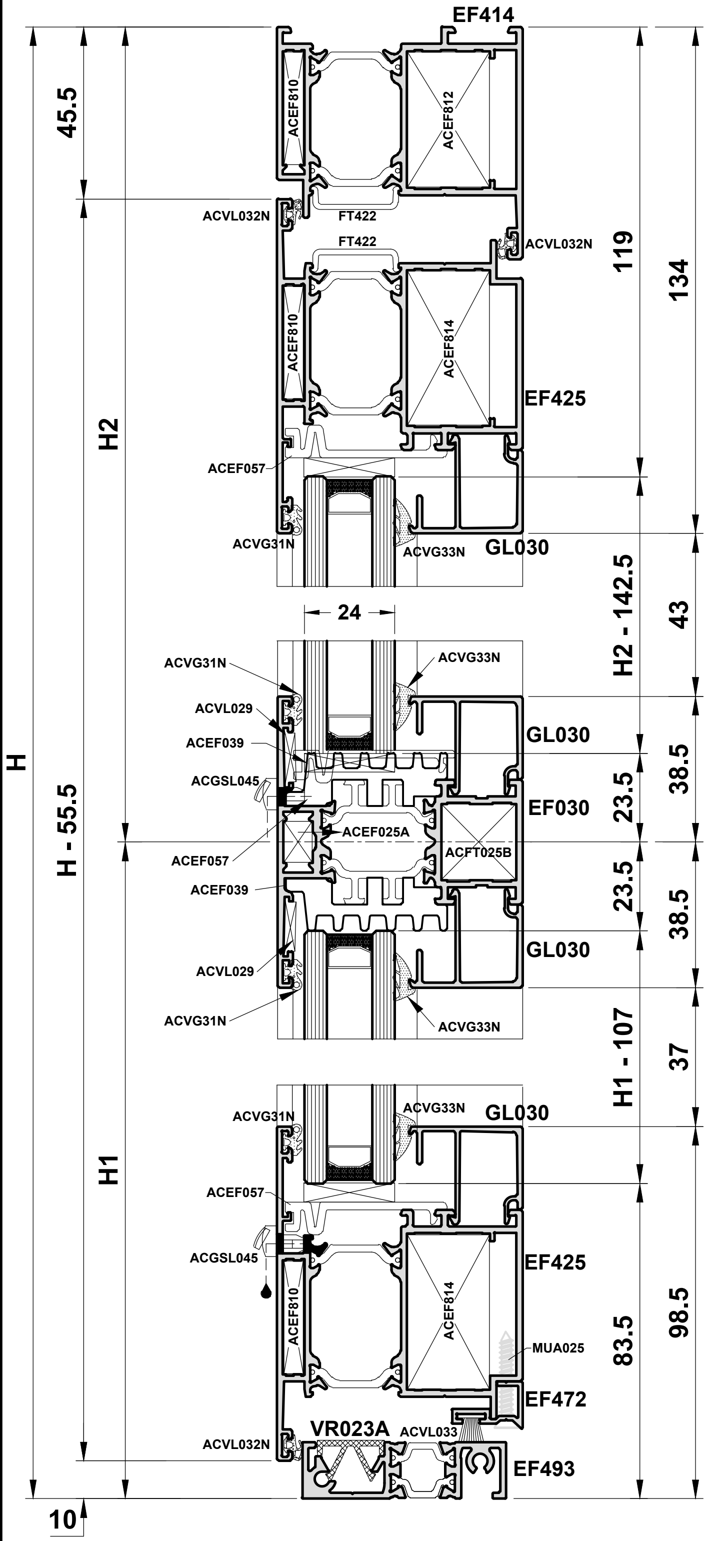
See Pages E35 - E40 for lock details





Do Not Scale From This Drawing

Cutting Information: Single Open Out Door using EF414 & EF425 with Low Threshold



Profiles

EF414		1		H
EF414		1		W
EF414		1		H
EF425		2		H - 55.5
EF425		2		W - 91
EF030		1		W - 224
GL*		4		W - 224
GL*		2		H1 - 137
GL*		2		H2 - 172.5
EF493		1		W - 101
VR023A		1		W - 101
EF472		1		W - 137

FT422		2		W - 118
FT422		2		W - 84.5
FT422		2		H - 90
FT422		2		H - 90
FT422		2		H - 82

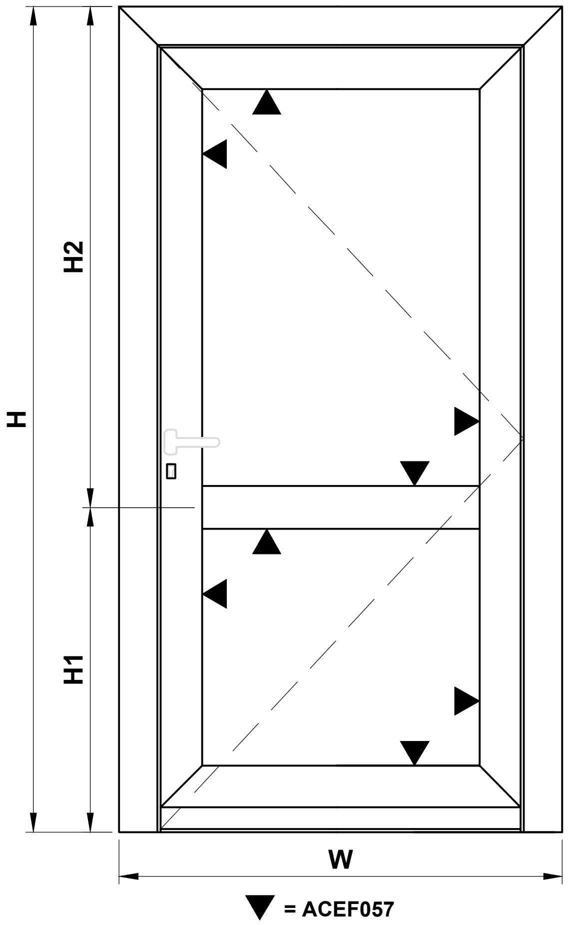
Glass Sizes

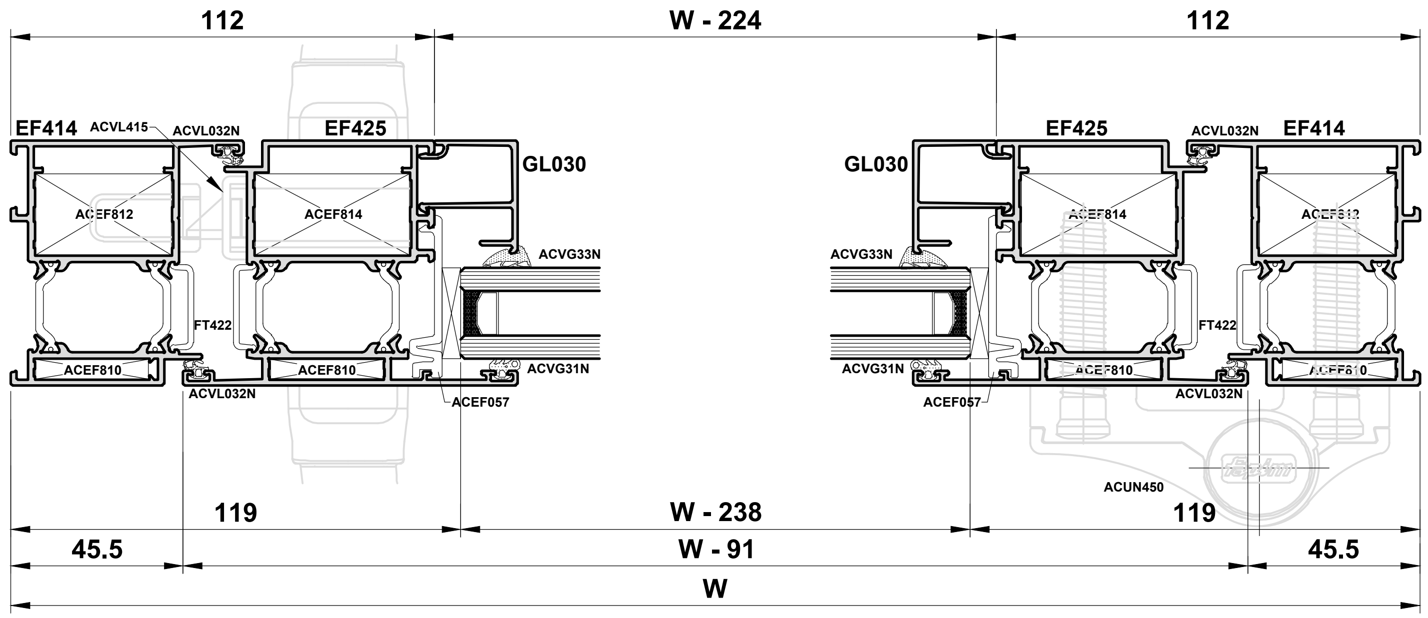
W - 238
H1 - 107 / H2 - 142.5

Accessories

ACEF810		Cleat	6
ACEF812		Cleat	2
ACEF814		Cleat	4
ACEF025A		Cleat	2
ACFT025B		Cleat	2
ACEF057		Glazing support	8
ACVL020B		Chevron	4
ACVL029		Strengthening piece	4
ACGSL045		Drainage Cap	2
ACEF694		Threshold End Piece	1
ACUN450		Door Hinge	3
ACEF872		End Piece	1
ACEF080		Self Tapping Screw	2
ACEF861		Fixation Plate	2
ACVL032N		Gasket	4H+3W - 120
ACVG31N		Gasket	2H+2W - 1200
ACFT03*N		Gasket	2H+2W - 1200
ACGSL081		Screw	Every 150mm
ACEF081		Self Tapping Screw	8
ACVL033		Brush Pile	B-137

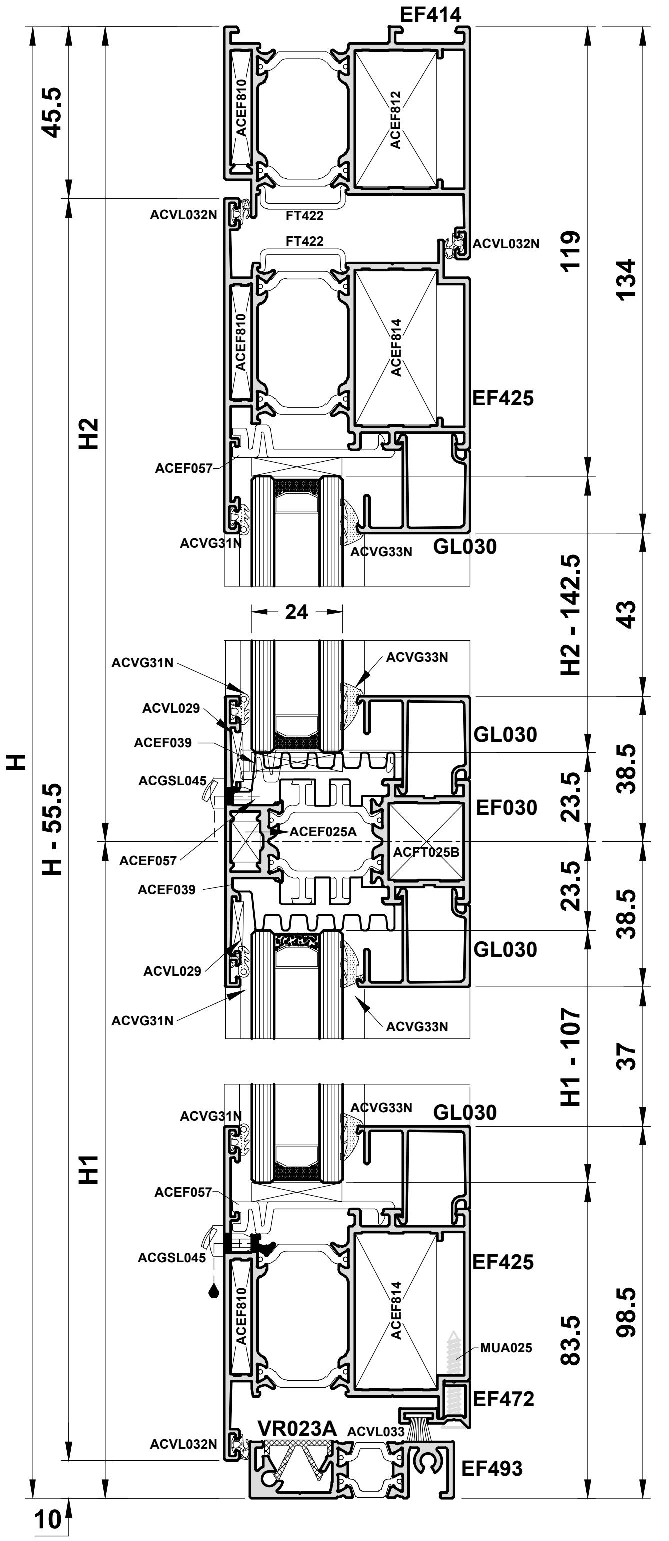
See Pages E35 - E40 for lock details





Do Not Scale From This Drawing

Cutting Information: Double Open Out Door using EF414 and EF425 with Low Threshold



Profiles

EF414		1		H
EF414		1		W
EF414		1		H
EF425		3		H - 55.5
EF425		4		W/2 - 37.5
EF424		1		H - 55.5
EF030		2		W/2 - 170.5
GL*		8		W/2 - 170.5
GL*		4		H1 - 137
GL*		4		H2 - 172.5
EF493		1		W - 101
VR023A		1		W - 101
EF472		1		W/2 - 83.5
EF472		1		W/2 - 62.5

FT422		1		W/2 - 64
FT422		1		W/2 - 64
FT422		4		H - 90
FT422		2		H - 82
FT422		1		W - 84.5

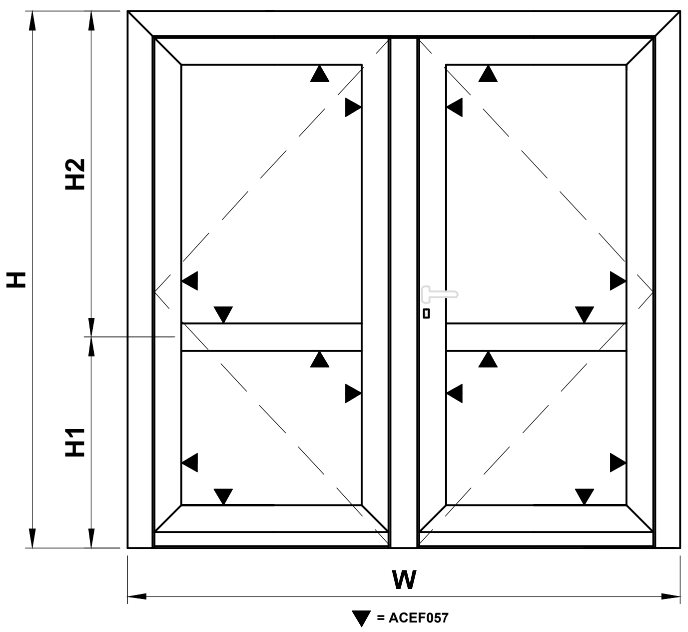
Glass Sizes

2 x W/2 - 184.5
H1 - 107/ H2 - 142.5

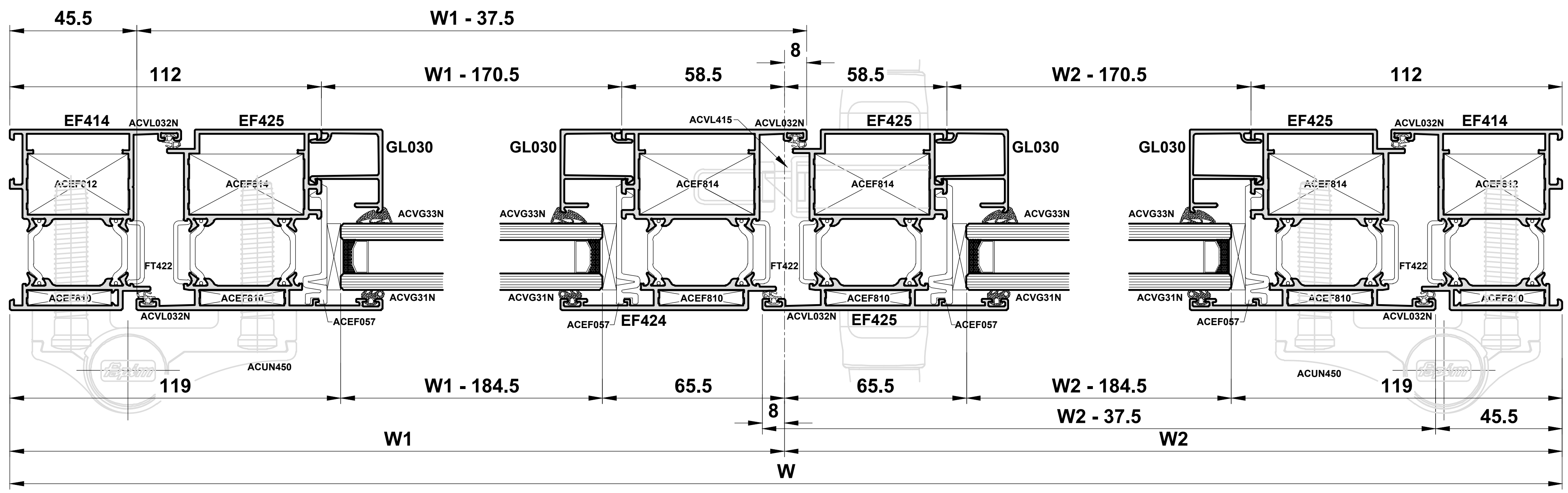
Accessories

ACEF810		Cleat	10
ACEF812		Cleat	2
ACEF814		Cleat	6
ACEF816		Cleat	2
ACEF025A		Cleat	4
ACFT025B		Cleat	4
ACEF057		Glazing Support	16
ACVL020B		Chevron	8
ACVL029		Strengthening profile	8
ACGSL045		Drainage Cap	4
ACEF694		Threshold end piece	1
ACUN450		Door Hinge	6
ACEF854		Sealing Double Casement	1
ACEF855		Sealing Double Casement	1
ACEF872		EF472 End Piece	2
ACVL415		Multipoint Lock	1
ACEF861		Fixation Plate	2
ACEF080		Self Tapping Screw	2
ACEF891		Bolt Lock	2
ACEF892		Top Keep	1
ACEF894		Bottom Keep	1
ACVL032N		Gasket	6H+3W - 120

See Pages E35 - E40 for lock details



ACFT31N		Gasket	4H+4W - 1200
ACFT3*N		Gasket	4H+4W - 1200
ACEF081		Self Tapping Screw	8
ACGSL081		Screw	Every 150mm
ACVL033		Brush Pile	W - 167



Do Not Scale From This Drawing

This page is intentionally left blank

Do Not Scale From This Drawing