Main Index

Updates

DATE	PAGE	DESCRIPTION

Specification

GENERAL DESCRIPTION

The "Aliver Rooflight" roof system described in this manual is designed to offer a modern aluminium flat roof light with concealed fixings.

The system has been designed to make fabrication and site assembly a quick and simple process.

SIZE LIMITS

The below limits are a guide only based on a maximum unit thickness of 29mm and need to be confirmed with the glass supplier.

Rectangular Size Limits:

Max Length: 2000mm

Max Width: 1000mm

Square Size Limits:

Max Width/length: 1500mm

PROFILE SPECIFICATION

The roof sections are constructed of aluminium alloy extrusion to BS EN 755-9 and BS EN 12020, extruded from 6060 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

The roof is 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 machine screws into extruded cleats through the mitred ends of the section.

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.

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

Specification

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.

Corners are formed by either drilling, using drill jig ACVG956, or punching, using punch tool HEA912, the corners ready for the cleat machine screws. Then, coating the cut faces to be joined with a suitable small gap sealer. Into the mitred corner insert the cleat glue and the required corner cleats. The two mitred ends are then brought together and screwed. The small gap sealer ensures a permanent joint and guards against the ingress of moisture and joint movement. After screwing the corner joint, special care should be taken to ensure any excess sealer is removed from painted surfaces.

INSTALLATION INFORMATION

The Rooflight shall be fitted to a kerb with a minimum height of 150mm above the finished surface. The overall external dimensions of the kerb must be measured, including the finishes, to establish the overall dimensions of the rooflight.

The rooflight is sealed and fitted on top of the finished kerb and secured using fixing lugs or direct fixing as shown in section E of this manual.

To aid water run-off, we recommend installing the roofight at a minimum pitch of 5°.

Aliver Rooflight Weather Performance (BS6375-1)

Not tested.

Aliver Rooflight Security (PAS 24)

Not tested.

Aliver Rooflight U Values

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

GLAZING

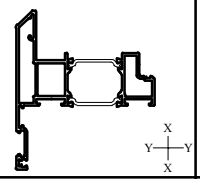
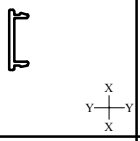
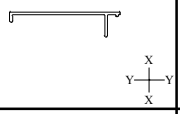
Rooflight glazing must comply with the standards set by BS EN 1991-1-1 & CWCT TN61-TN69 depending on the roof light application and requirements. Please liaise with your glass supplier for specification.

We recommend a 75mm border around the perimeter of the units to mask the frame from the outside.

The glass is to be bonded using ACUN3610 high quality single component adhesive applied in the workshop at least a day prior to installation. Please refer to the glazing pages in the manual for full instructions.

Aliver Rooflight

PROFILES : TECHNICAL INFORMATION

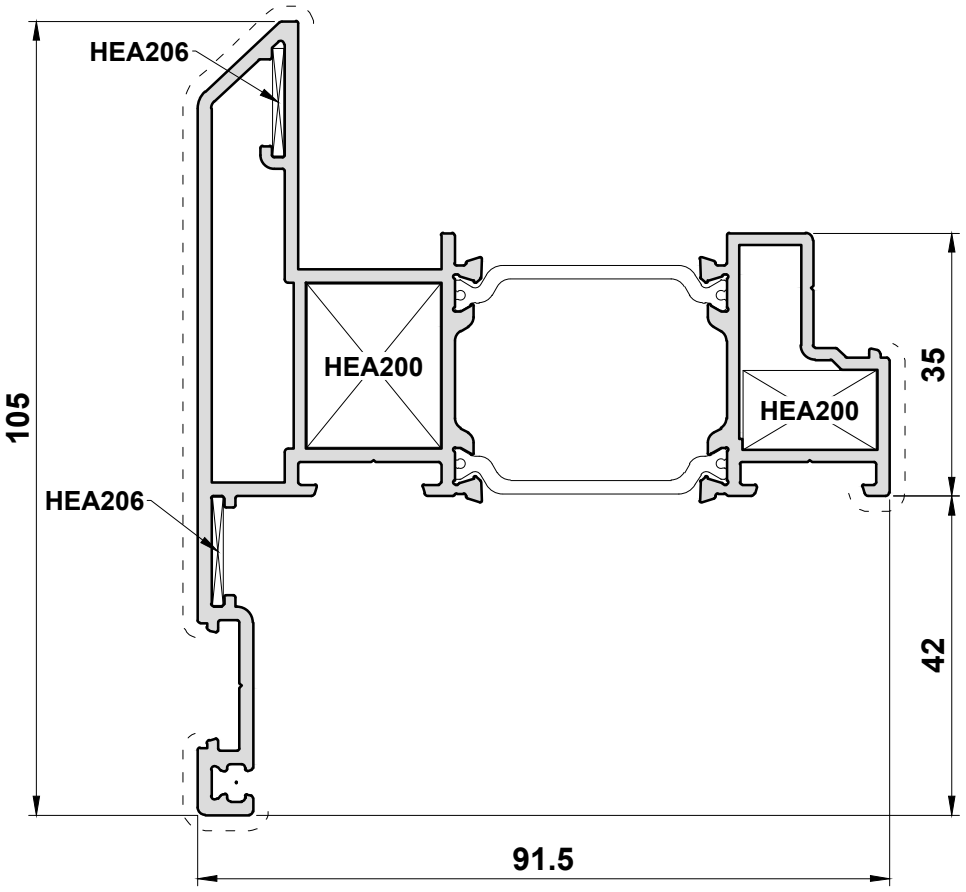
Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
EHE200		A06	487.3	124.9	40.17 / 7.06	71.2 / 23.04	6.5	-	✓	✓	✓	✓	✓
EHE250		A06	49.5	16.3	- / -	- / -	4.0	-	✓	✓	✓	✓	
EHE255		A06	188.7	-	- / -	- / -	5.0	-	✓				

A = Outside
B = Inside

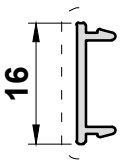
MF = Mill Finish
SA = Silver Anodised
KL = Basic Colour
HP = Special Colour
M = Dual Colour

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

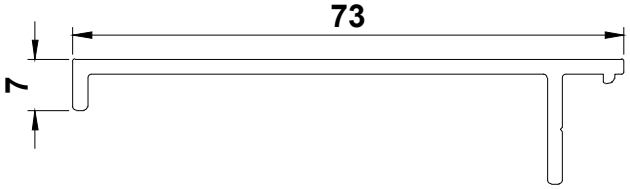
EHE200
Outer Frame / Sash



EHE250
Aluminium Infill



EHE255
PVC Glass Support

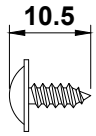
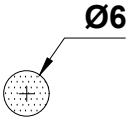
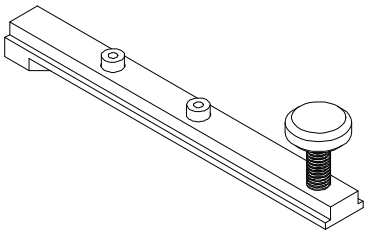


Scale 1:1

Section B

Accessories

Photos & Drawings

Image	Part Code	Pack	Unit	Application	Colour
	**ACET068** **No. 8 x 10 S/S Self Tapping Flange Screw**	**100**	**pack**	**EHE255**	MF SA KL HP SSC SMC W Z PC
	**ACUN3610** **Single Component Adhesive**	**1**	**Each**		MF SA KL HP SSC SMC W Z PC
	**ACUN3612** **Surface Activator (1L)**	**1**	**Each**		MF SA KL HP SSC SMC W Z PC
	**ACUN3616** **ACUN3610 Backing Rod**	**100**	**m**	**EHE200 ACUN3610**	MF SA KL HP SSC SMC W Z PC
	**ACVG956** **Drill Jig**	**1**	**each**	**EHE200**	MF SA KL HP SSC SMC W Z PC

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

Screw (Grub)

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

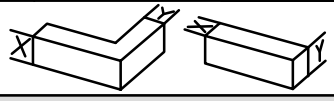
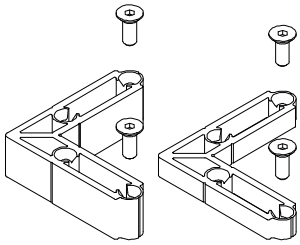
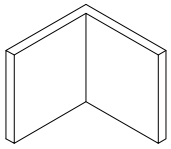
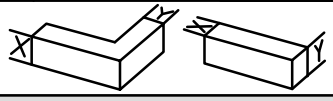
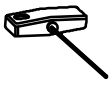


Image	Part Code	Pack	Unit	Application	Colour
	**HEA200** **Cleat Pack** **Contains:** **Outside Cleat x 4** **Inside Cleat x 4** **Screws x 16**	**4**	**pack**	**EHE200**	MF SA KL HP SSC SMC W Z PC
	**HEA206** **Corner Chevron**	**8**	**pack**	**EHE200**	MF SA KL HP SSC SMC W Z PC
	HEA912 **Punch Tool**	**1**	**each**	**EHE200**	MF SA KL HP SSC SMC W Z PC
					MF SA KL HP SSC SMC W Z PC
					MF SA KL HP SSC SMC W Z PC
 T-BARS ACVG65=2.5mm ACVG66=3.0mm ACVL150=4.0mm  Screw (Grub)	**MF = Mill Finish** **SA = Silver Anodised** **KL = Basic Colour** **HP = Special Colour** **SSC = Smooth Satin Chrome** **SMC = Smokey Chrome** **PC = Polished Chrome** **W = White** **Z = Black**				

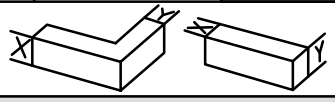
Aliver Rooflight

STANDARD ACCESSORIES

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



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



Aliver Rooflight

STANDARD ACCESSORIES

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

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

Screw (Grub)

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

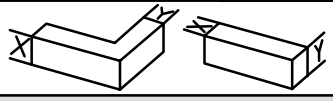
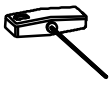


Image	Part Code	Pack	Unit	Application	Colour
	**ACMX09803** **Protective Tape 100mm**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACMX09830** **Rubber Sealant**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACSIL04** **Sealing Glue** **Order with suffix of KL colour (eg.ACSIL04KL005) or BL=Black/WP=White/ CL=Clear**	**1**	**each**		MF SA KL ✓ HP SSC SMC W ✓ Z ✓ PC
	**ACSIL08** **Silicon Gun**	**1**	**each**		MF SA KL HP SSC SMC W Z PC
	**ACSIL013** **Glue for Mitre**	**1**	**each**		MF SA KL HP SSC SMC W Z PC



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

Screw (Grub)

MF = Mill Finish
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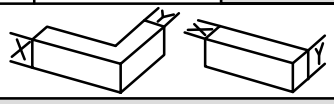
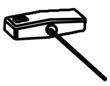
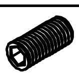


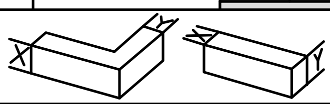
STANDARD ACCESSORIES

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





MF = 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



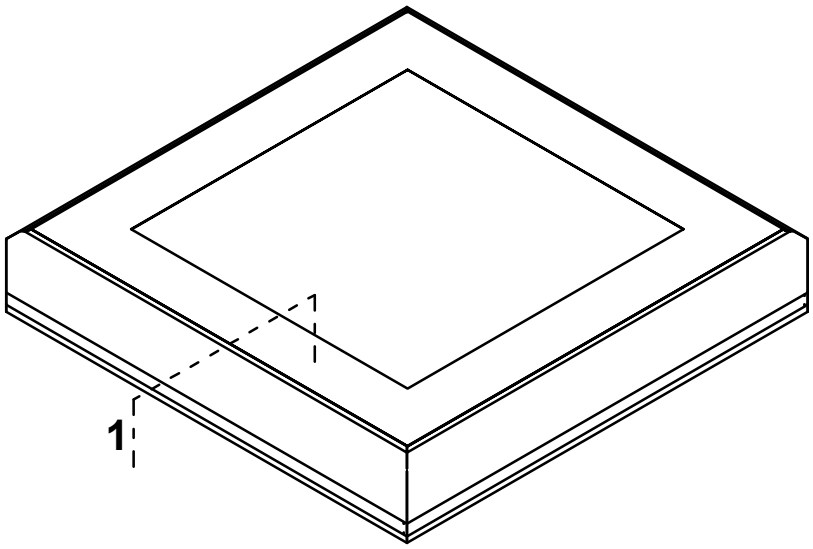
ISSUED : MARCH 2019

Section C

Sections

Scale Elevations

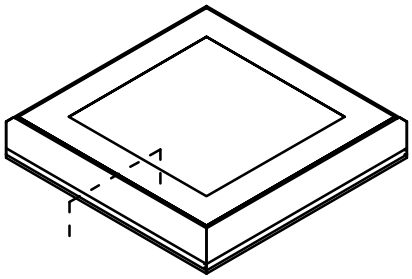
Sections

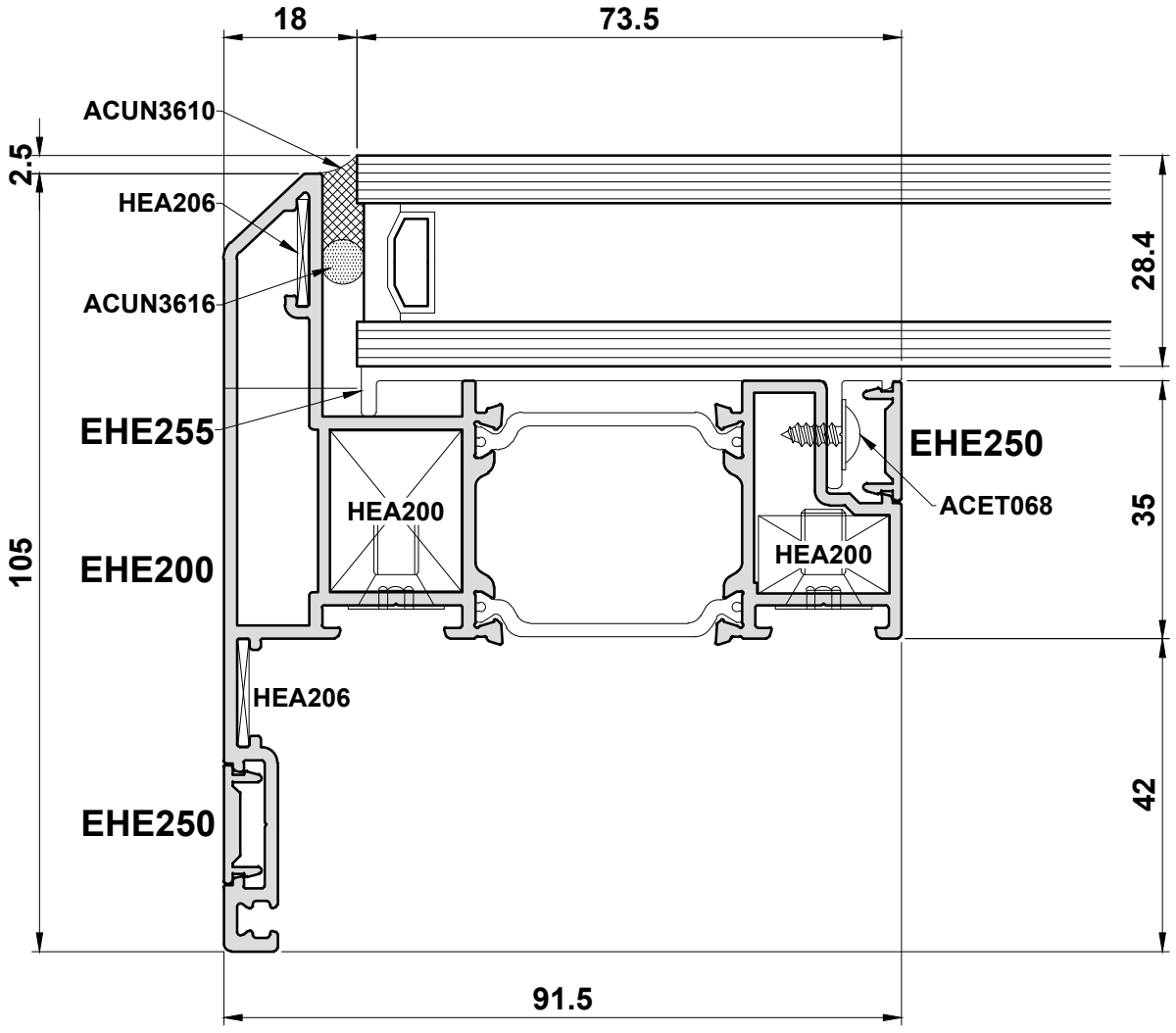


Do Not Scale From This Drawing

Aliver Rooflight

Detail 1





Scale 1:1

Do Not Scale From This Drawing

ISSUED : MARCH 2019

Section D

Statics

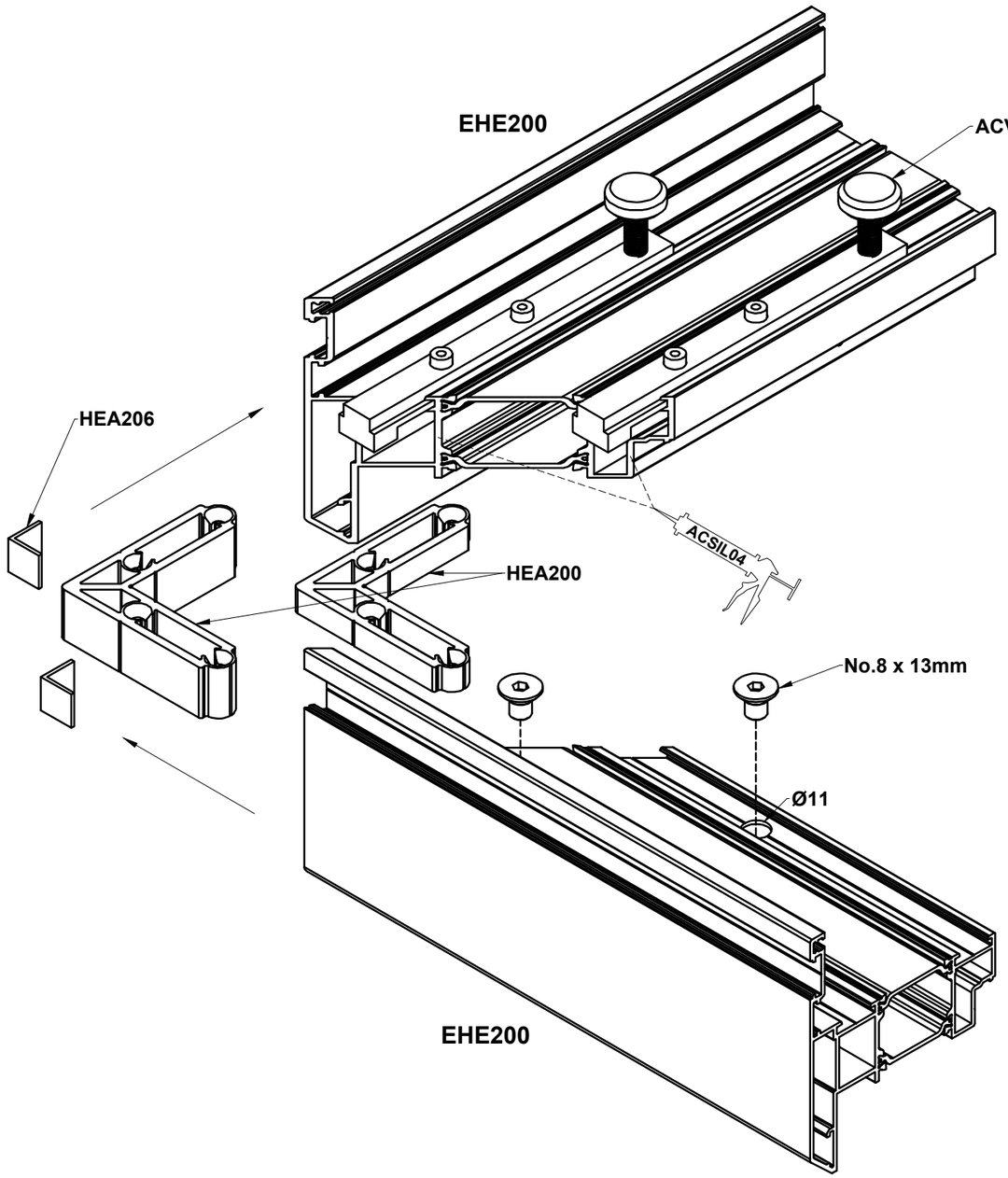
General Size Limitations are shown on Page A03.

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

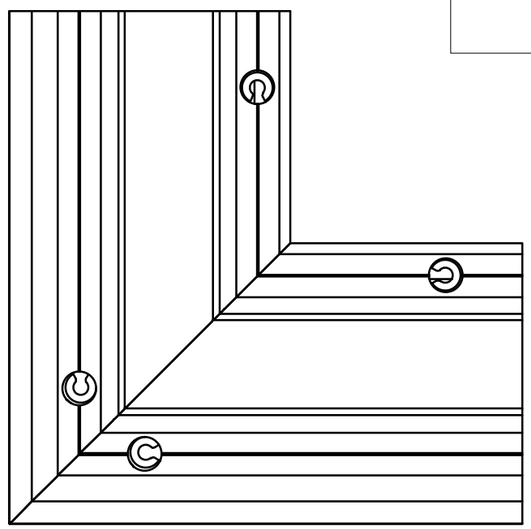
Section E

E | EHE Construction Drawings

Corner Joint Details



Important Fabrication Note:
HEA200 cleats require 2 screws per cleat. Only drill where shown.



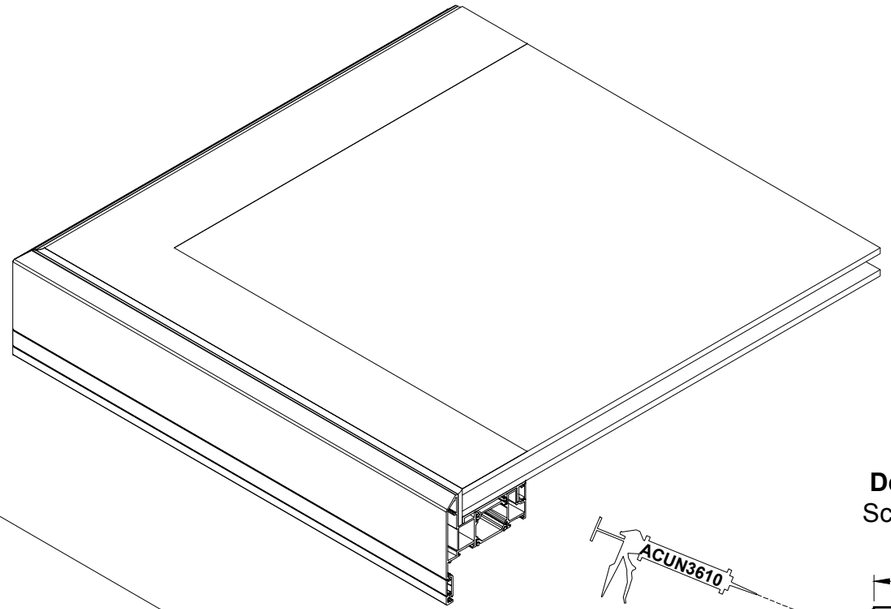
Punch Tool (In Development)

Do Not Scale From This Drawing

Sealing Glass Unit

ACUN3610 is a high quality single component adhesive that provides a strong bond between the Butyl sealed unit and frame.

We recommend glazing the frame in the workshop at least a day before installation so it can be allowed to set.



Bonding:

After preparation, apply a small, continuous bead of ACUN3610 single component sealant on top of the EHE255 glass support and place glass into position.

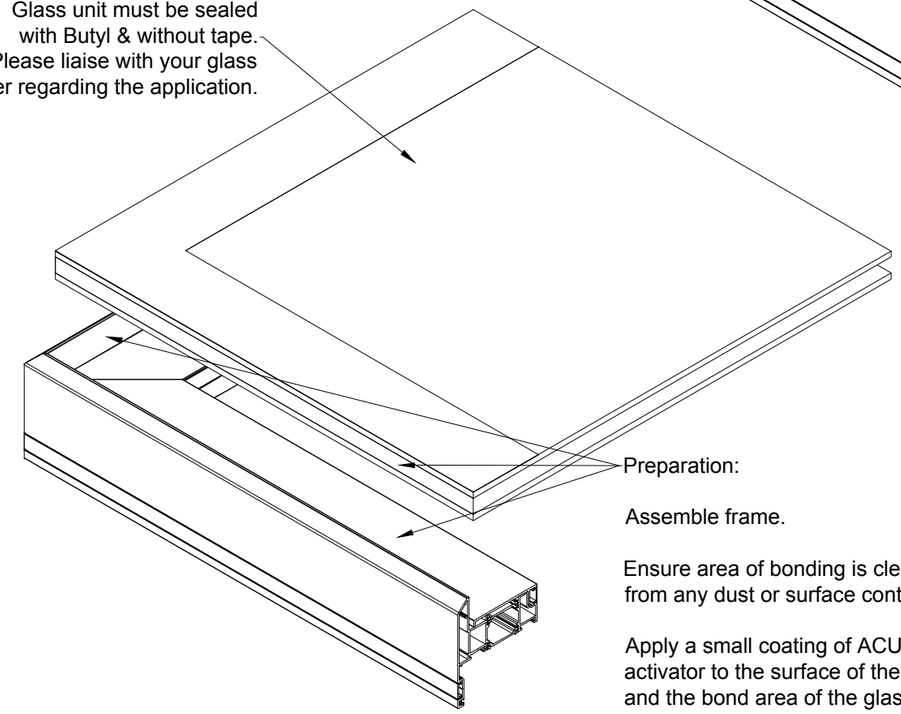
Apply ACUN3610 single component sealant into gap between frame and glass as detailed below (Detail A).

ACUN3610 must be applied to the entire perimeter of the unit.

A clamp should be used to ensure the glass is held flat while ACUN3610 sets.

Leave to set overnight.

Important Note:
Glass unit must be sealed with Butyl & without tape. Please liaise with your glass supplier regarding the application.



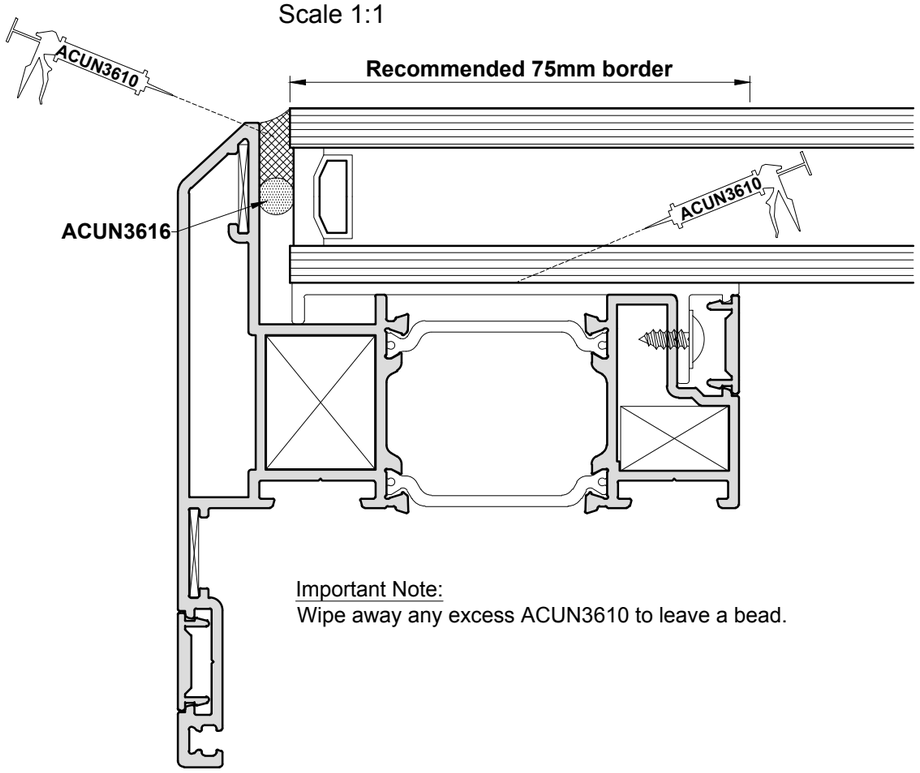
Preparation:

Assemble frame.

Ensure area of bonding is clean, dry and free from any dust or surface contamination.

Apply a small coating of ACUN3612 surface activator to the surface of the glass support and the bond area of the glass only. Allow to dry, leaving a slight residue.
Take care not to apply ACUN3612 to any visible surfaces.

Detail A
Scale 1:1



Important Note:
Wipe away any excess ACUN3610 to leave a bead.

Do Not Scale From This Drawing

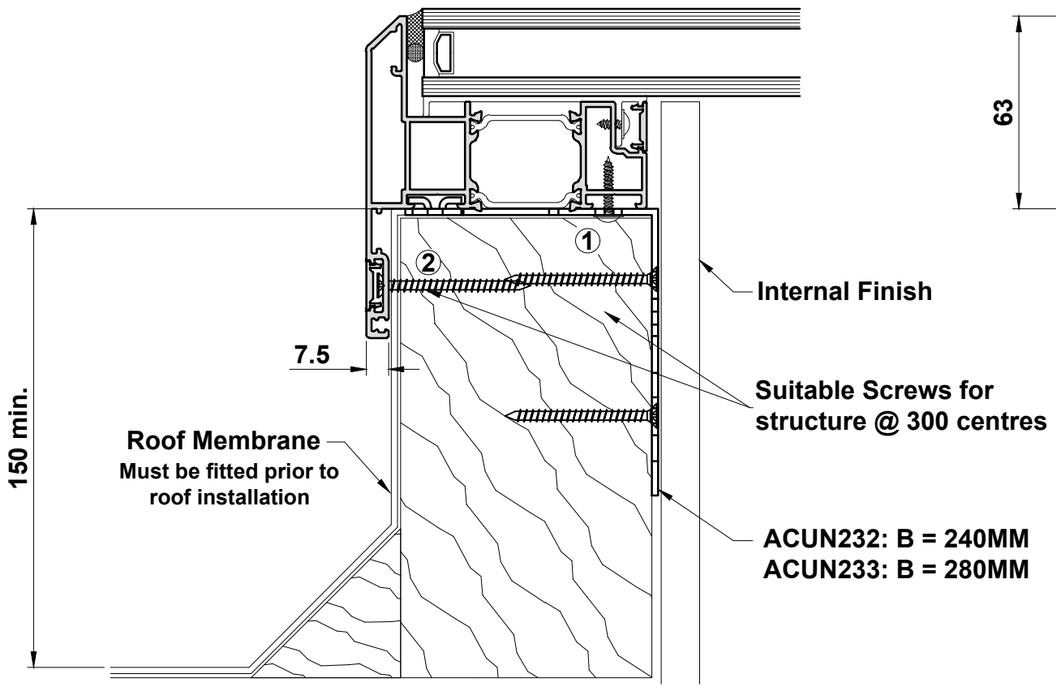
Aliver Rooflight

Typical Installation Detail

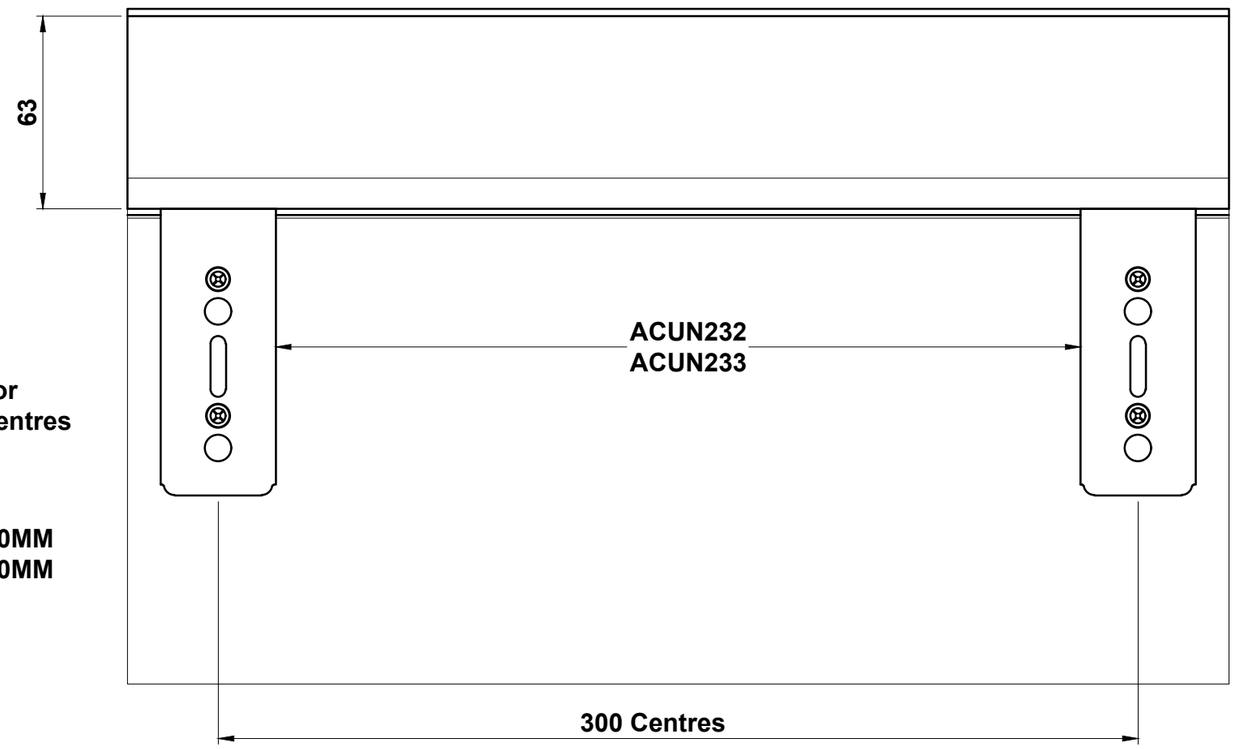
Methods of Fixing

1. Fix roof from inside using ACUN232 or ACUN233 fixing straps at 100mm from each corner and at 300mm max centres. This is the **recommended** option.
2. Fix roof from the outside using anti-tamper screws suitable for the building substrate 100mm in from each end then at 300mm max centres.

Important Note:
To aid water run off, we recommend all rooflights are fitted at a minimum pitch of 5°.



Inside View



Do Not Scale From This Drawing

Aliver Rooflight

CONSTRUCTION DRAWINGS

Do Not Scale From This Drawing

ISSUED : MARCH 2019

Section F

F EHE Sawing Tables

Section F

Aliver Rooflight

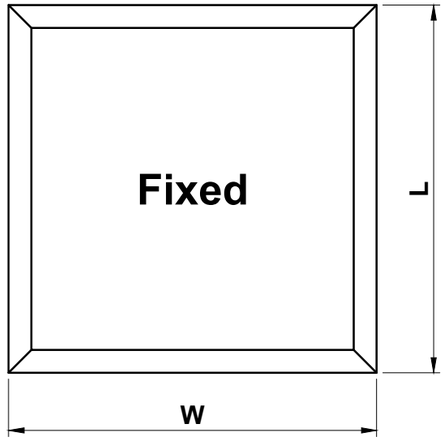
Fixed Rooflight

Profiles

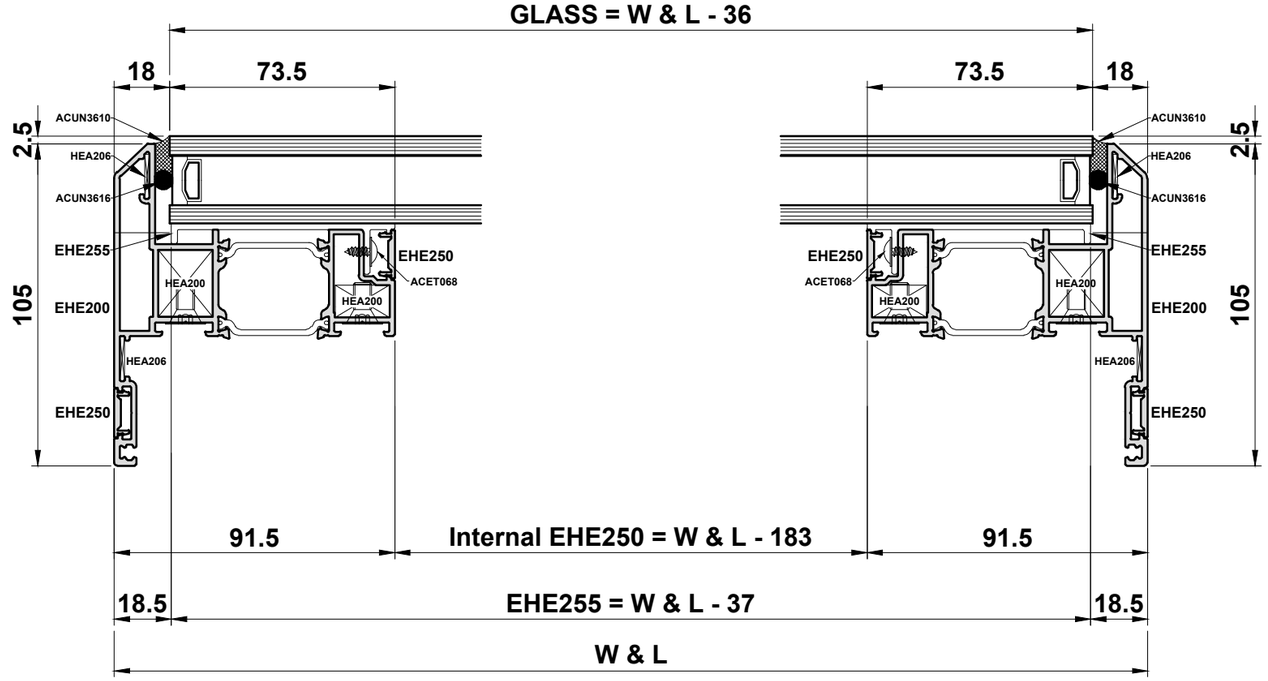
EHE200		2		W
EHE200		2		L
EHE250		2		W
EHE250		2		W - 183
EHE250		2		L
EHE250		2		L - 183
EHE255		2		W - 37
EHE255		2		L - 37

Accessories

HEA200		4	Cleat Pack
HEA206		8	Chevron
ACET068		300mm Centres	No.8 x 3/8 SS Flange Screw
ACUN3616		2xW-36 & 2xL-36	ACUN3610 Backing Rod



Glass Sizes	
1x	W - 36
	H - 36



Do Not Scale From This Drawing

Aliver Rooflight

SAWING TABLES

Do Not Scale From This Drawing