

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. Into the mitred corner insert the cleat glue 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. We recommend using black spacer bars.

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 glazing beads ETC364, ETC370, ETC376, ETC377, ETC378, ETC379, W20161 & W20162 slide retained ACET845 gasket 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.

INTERNALLY BEADED GLAZING

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Alitherm Heritage Window U Values

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

John L

Frame 1
920 x 1960



Frame



Smarts Heritage | Single Door, Open In
Style 2



External
KL008 - Matt Black



Internal
KL008 - Matt Black



Transom profile
Smart W20135/1



Transom profile
Smart W20135/1



Sill
Smart 150mm ETC457

Glazing

Unglazed for Double
Glazing

20mm | Warm edge - Black

Hardware



Cylinder
Standard
Stainless steel



Door handle
Standard Lever &
Lockblock
Black



Hinge
Heritage Hinge
Black

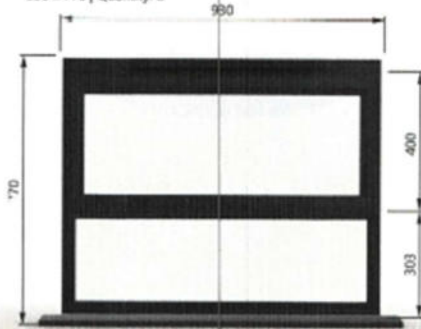
Price

Frame

Total

John L

Frame 2
 930 x 770 | Quantity: 2



Frame



Smart Alitherm Heritage | Casement, Rebate
 L388W411T 11/2 1



External
 KL008 - Matt Black



Internal
 KL008 - Matt Black



Transom profile
 Smart W20035



Sill
 Smart 150mm ETC457



Add-on (Top)
 Smart ETD050 - 42mm
 Addon

Glazing

Unglazed for Double
 Glazing

28mm | Warm edge - Black

Hardware



Trickle vent
 600mm Simon Vent
 Matt black/Matt black



Window handle
 Standard
 Brush

Price

Frame

Total

Alitherm Heritage Window



Alitherm Heritage provides the ideal solution for heritage applications such as listed building renovations and large scale replica-rebuild projects where planning constraints are to be considered. The Alitherm Heritage window is designed to be built as a series of horizontal modules which can be stacked using horizontal couplers to form a multi-part window featuring a specially designed bar between modules.

Application

- Fixed windows
- Single or double sash, side hung open out casements
- Top hung open out casements
- Tilt & turn windows

Features

- Polyamide thermal break provides enhanced thermal performance
- Designed as a direct replacement for steel windows

Finish

Single or dual colour, marine quality polyester powder coat as standard

Technical Performance

WER Rating	B
U Value	1.5 W/m ² K (using sealed unit 1.8 W/m ² K)
Air	Class 4, 600Pa
Water	Class 9A, 600Pa
Wind	Class AE, 2400Pa
Document L Compliant	

Dimensions

Frame Depth	47mm
Glass	24mm, 28mm, 32mm & 36mm

Test Certification

BS 6375 Part 1	2008 Resistance to Weather
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Recommended Design Limits

Side Hung Vent Max o/a width	700mm
Side Hung Vent Min o/a width	300mm
Side Hung Vent Max o/a height	1400mm
Maximum Vent weight	40kg
Top Hung Vent Max o/a width	1400mm
Top Hung Vent Max o/a height	1300mm
Top Hung Vent Min o/a height	275mm
Maximum Vent weight	40kg

Smart Systems Limited
Arncliffe Way, Tatten, Bristol
Somerset, BS49 6DN, UK
01674 661120/705

T +44 (0)1934 876 100
F +44 (0)1934 805 169
www.smartsystems.co.uk

Alitherm Heritage Door

The Smart Alitherm Heritage door is the ideal replacement for steel balcony doors on heritage applications such as building renovations or apartment conversions. The Alitherm Heritage door provides the solution for conservation areas where planning regulations require a like-for-like product replacement. Alitherm Heritage door profiles feature the system's signature slim sightlines and elegant lines that complement Smart's existing Alitherm Heritage window and mimic those of steel doors. The system has all the advantages of modern aluminium profiles that feature polyamide thermal breaks, allowing the system to achieve a U Value of 1.5 W/m²K when installed with a suitable sealed unit.

Application

- Single or double doors

Features

- Slim sightlines
- Tape or gasket glazed
- Multi point locking and face mounted shoot bolts

Technical Performance

U Value	1.5 W/m ² K (using sealed unit 1.8 W/m ² K)
Air	Test result pending
Water	Test result pending
Wind	Test result pending
Glass	24mm - 32mm
Typical Sightlines	54mm

Recommended Design Limits

Max Sash Width	900mm
Max Sash Height	2100mm



The images, drawings and data shown in this brochure are for illustrative purposes only and are not binding in detail, colour or specification. We reserve the right to make changes to the product specification as technical developments dictate and without prior notice. We recommend that the user ensures that they are satisfied the product meets their requirements prior to purchase. © Smart Systems Ltd 2017



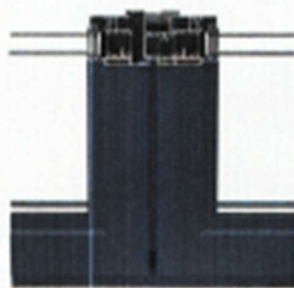
FEATURES AND FINISHES

- ♦ Polyamide thermal break provides enhanced thermal performance
- ♦ Multi point locking
- ♦ Full range of complementary stainless steel hardware, including heritage and Art Deco options
- ♦ Gasket glazed
- ♦ Single or dual colour, marine quality polyester powder coat as standard

ALITHERM HERITAGE 60 DOOR



HEAD DETAIL



MEETING STYLE DETAIL



THRESHOLD DETAIL

TECHNICAL PERFORMANCE

Door Type	Maximum Width (mm)	Maximum Height (mm)	Frame Depth (mm)	Opening	Air Permeability Classification	Water Tightness Classification	Resistance to Wind Classification
Sash dimensions for windows with approved sash profiles:							
Single Door	990	2108	67.5	In	4,600Pa	2A, 300Pa	3, 1200Pa
				Out	4,600Pa	2A, 450Pa	3, 1200Pa
Double Door	990	2108	67.5	In	4,600Pa	2A, 300Pa	3, 1200Pa
				Out	4,600Pa	2A, 450Pa	3, 1200Pa
Glazing Type	U-Value			Typical U-Value		Glazing (mm)	Compliance
Triple Glazed Unit	A Rating with 0.7 W/m ² K			1.1 W/m ² K with 3.7 W/m ² K		28, 32, 36, 42	Document L
Double Glazed Unit	C Rating with 1.0 W/m ² K			1.4 W/m ² K with 2.9 W/m ² K 1.5 W/m ² K with 1.0 W/m ² K		28, 32, 36, 42	Document L

TEST CERTIFICATION



Smart Systems Limited
Arnolds Way, Totton,
Bristol, Somerset
BS49 4DN, UK

T +44 (0)1934 876 100
F +44 (0)1934 835 169
www.smartsystems.co.uk

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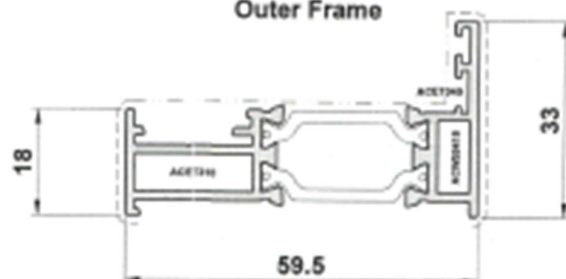
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Primary Visible Side

Secondary Visible Side

W20415

Outer Frame



W20175

Threshold Infill

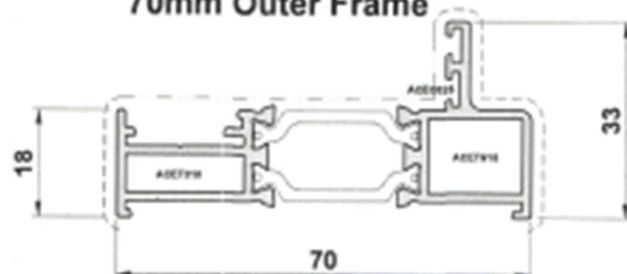


PCX41

Outer Frame Infill



W20417
70mm Outer Frame

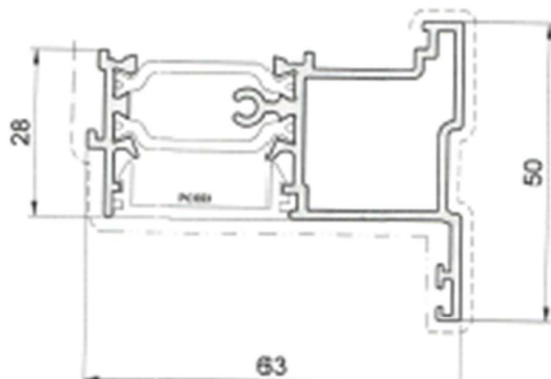


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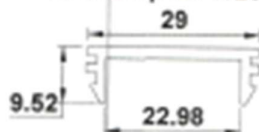
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Secondary Visible Side

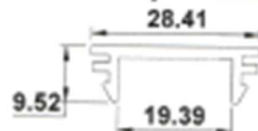
W20446
Open Out Meeting Stile



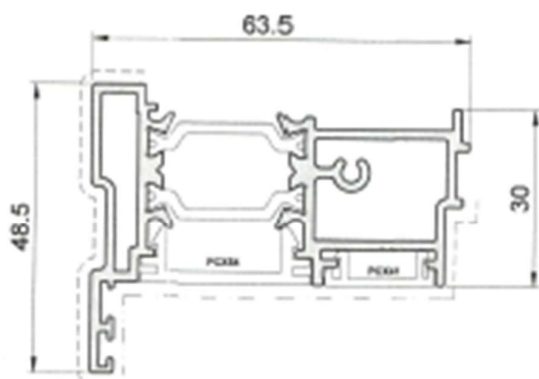
PCX53
Infill Strip for W20446



PCX54
Infill Strip for W20449



W20449
Open In Meeting Stile

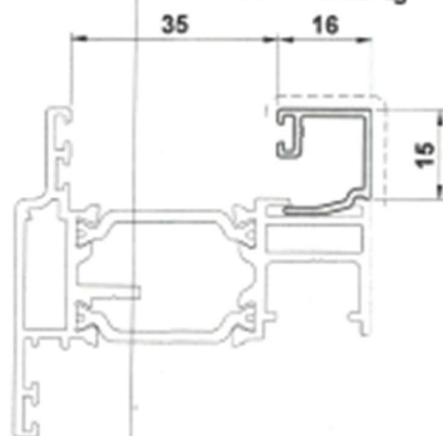


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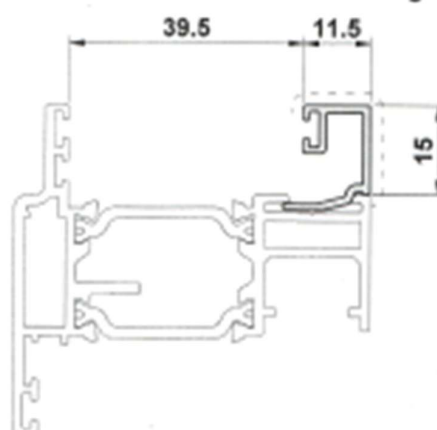
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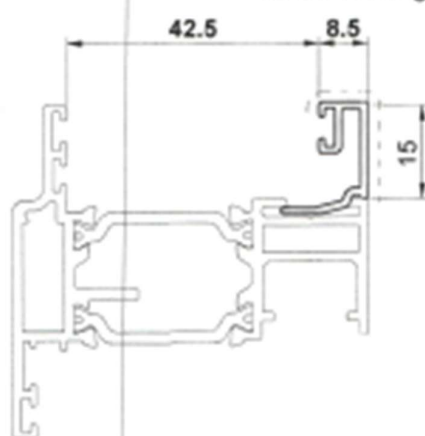
W20469
Sash Bead
28mm Glazing



W20168N
Sash Bead
32mm Glazing



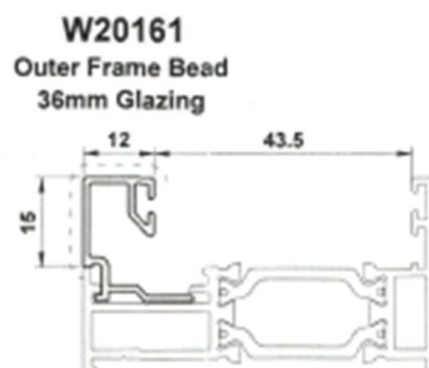
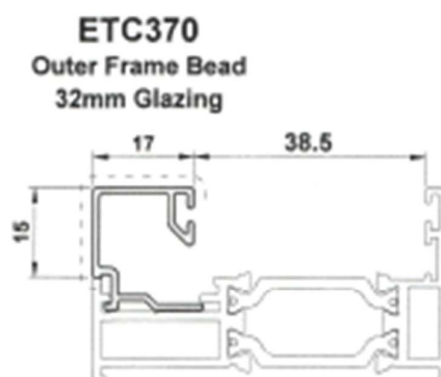
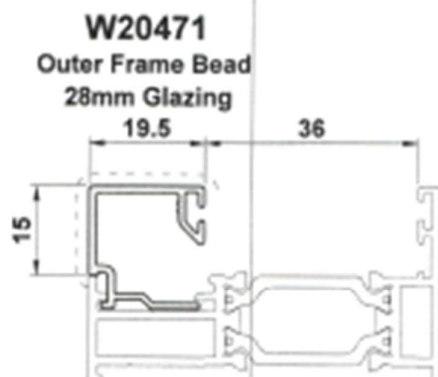
W20171N
Sash Bead
36mm Glazing



Scale 1:1

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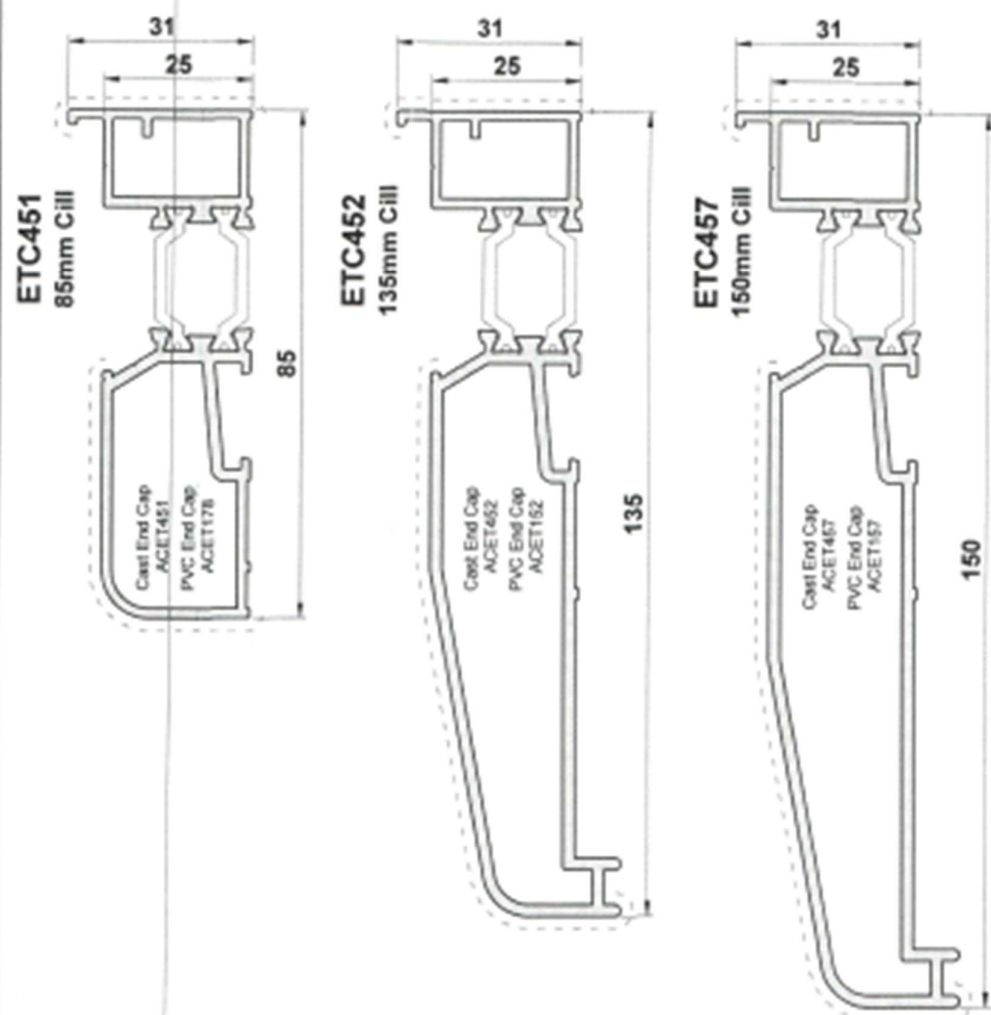
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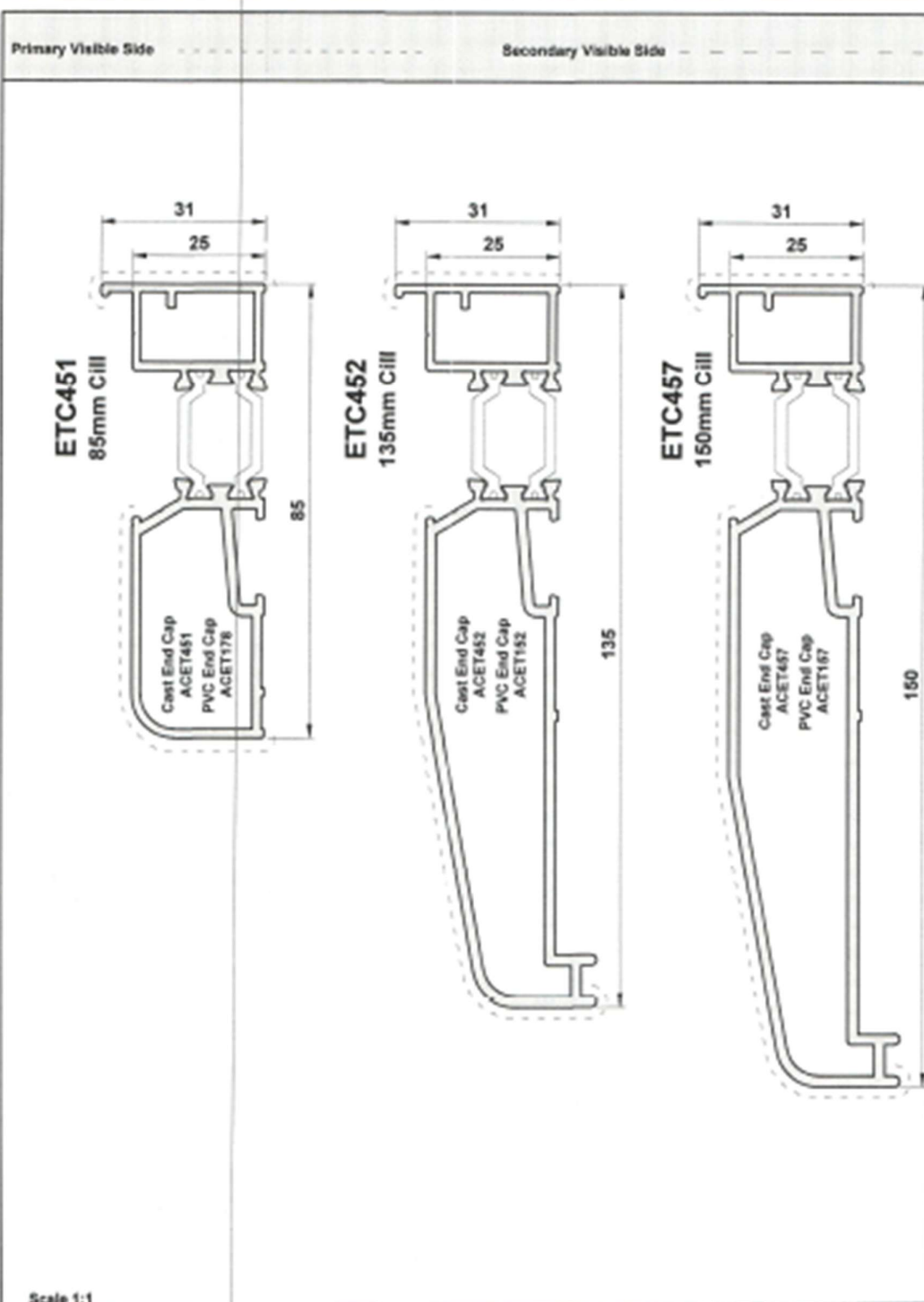
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Primary Visible Side

Secondary Visible Side



Scale 1:1

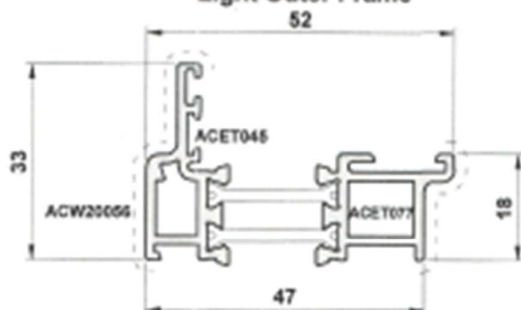


Primary Visible Side

Secondary Visible Side

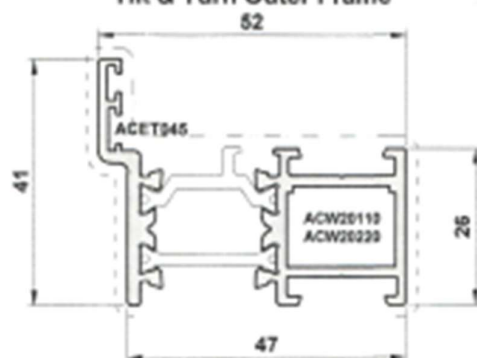
W20018

Internally Beaded Fixed
Light Outer Frame



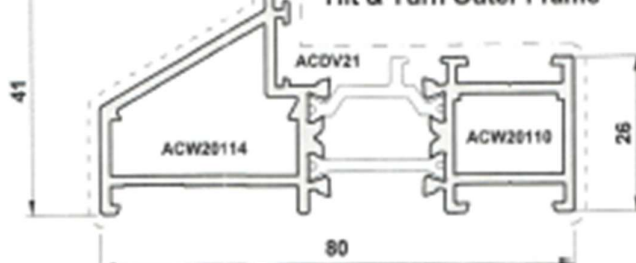
W20110

Tilt & Turn Outer Frame



W20114

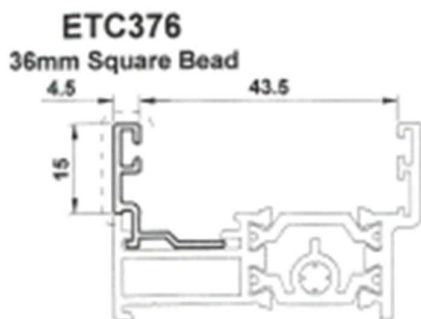
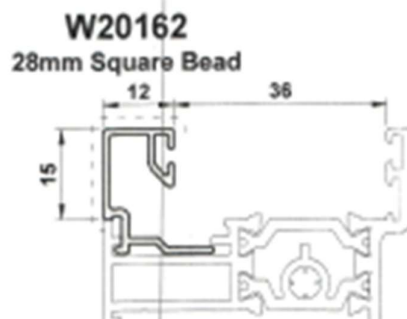
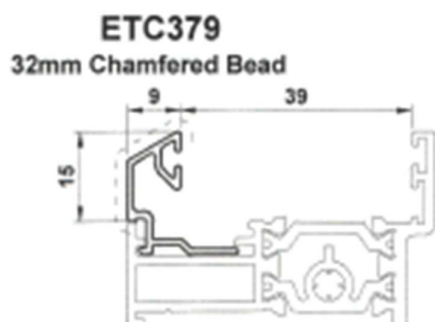
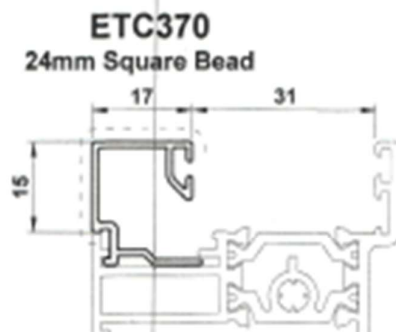
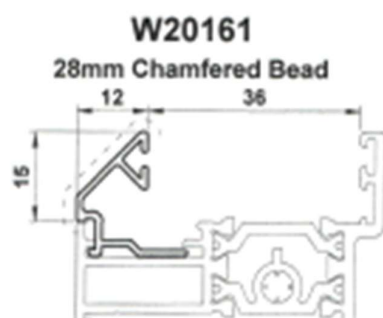
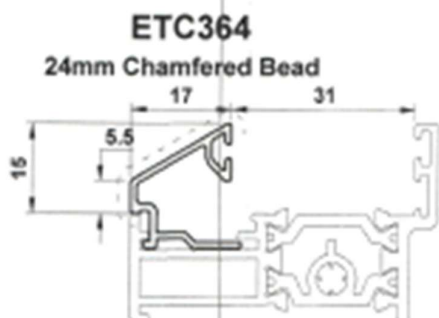
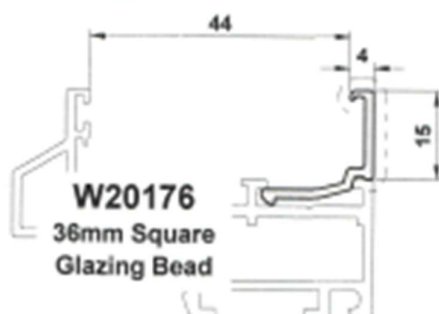
Tilt & Turn Outer Frame



Scale 1:1

Primary Visible Side

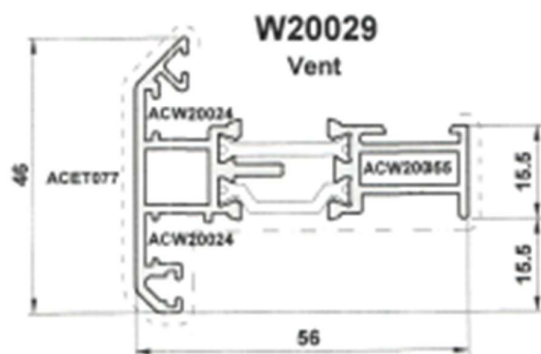
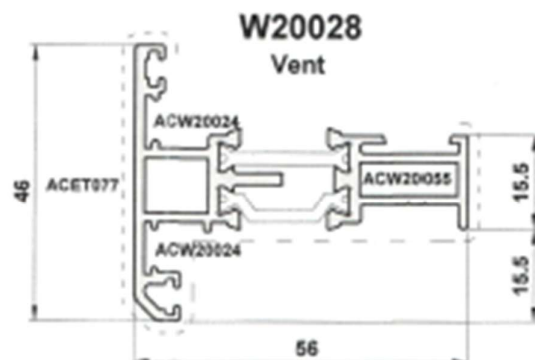
Secondary Visible Side



Scale 1:1

Primary Visible Side

Secondary Visible Side



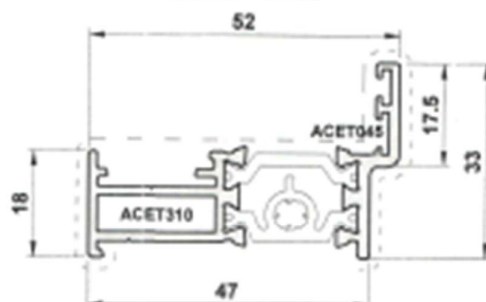
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Primary Visible Side

Secondary Visible Side

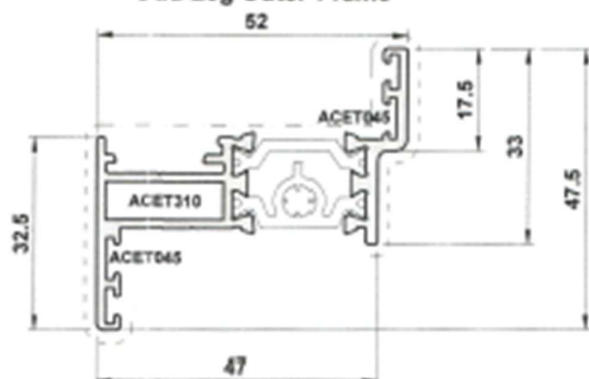
W20015

Outer Frame



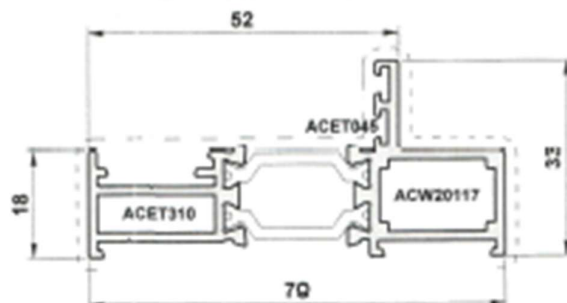
W20016

Odd Leg Outer Frame



W20017

70mm Outer Frame



Scale 1:1



info.glass@nichollsandclarke.com
0845 6051350

Sealed Unit Options

December 2013

Surface 1 Surface 2	Float K Glass	Optiwhite K Glass	Optiwhite K OW	Float ClimaGuard A +	Low Iron ClimaGuard A +	Float Planibel A	Float ClimaGuard A 1
Light Transmission	74	76	78	82	82	72	71
Light Reflectance	17	18	18	13	13	17	21
G Value	0.72	0.78	0.79	0.71	0.73	0.73	0.54
U Value	1.7	1.7	1.7	1.4	1.4	1.6	1.3
U Value Argon	1.5	1.5	1.5	1.2	1.2	1.4	1.0
Indicative WER	C	B	A	B	A	B	N/A

Based on 16mm Warm Edge Cavity

U_g

TF

TT