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Updates

DATE	PAGE	DESCRIPTION
25/10/18	A08-A13	Updated Kitemark™ Information
	A14, A22, C20-C27, E15-E24, F03-F10	Changed ETC725 to ETC726 Reversible Vent
	A16, A28	Added ETC772 28mm Glazing Bead
	B09-B10	Added Handles ACET460, ACET461, ACET465 L/R & ACET466 L/R
	A13, A31-A33, C21	Updated Cill Sections
	A08, B13 & E14	Added ACET750 Butt Hinge information
	B20	Added ACGT062 Flipper Gasket
	ALL SECTIONS	Removed ACET799 and replaced with ACET904

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Specification

GENERAL DESCRIPTION

The "Alitherm 700" window system described in this manual is suitable for both replacement windows for existing buildings, and for installation into new buildings.

The system incorporates parallel, top hung, side hung & reversible window types with internally beaded vent frames suitable for cockspur and shootbolt locking. The outer frames may be internally or externally glazed as preferred.

Alitherm 700 parallel windows are often used with chain operators which can be connected to the building management system as part of an automated solution for climate control.

RECOMMENDED DESIGN LIMITATIONS

Parallel Vents:

Maximum Width: 2000mm (sash width up to 1800mm covered by Kitemark)
Minimum Width: 400mm
Maximum Height: 3000mm (sash height up to 2100mm covered by Kitemark)
Minimum Height: 750mm
Maximum Weight: 220kg
NOTE:
Parallel windows over 1500mm wide or weighing over 200kg should be motorised operation only

Reversible Vents:

Maximum Width: 1500mm
Minimum Width: 359mm (with multi-point locking)
Maximum Height: 1558mm
Minimum Height: 458mm
Maximum Weight: 60kg
NOTE:
Order Top Swing Arms from VBH Great Britain. See page E19 for more information.

Top Hung Vents:

Maximum Width: 2000mm (sash width up to 1600mm covered by Kitemark)
Maximum Height: 2500mm (sash height up to 1600mm covered by Kitemark)
Minimum Height: 267mm
Maximum Weight: 100kg (Stays)
50kg (ACET750)

Side Hung Vents:

Maximum Width: 840mm
Minimum Width: 327mm
Maximum Height: 1500mm (Please consult our technical department for heights over 1500mm)
Maximum Weight: 55kg (Stays)
40kg (ACET750)

Specification

PROFILE SPECIFICATION

The window frame are constructed of aluminium alloy extrusion to BS EN 755, 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 Alitherm 700 crimping tools to form a cold forged corner joint (made by deforming small slugs of metal into the groove of the corner cleat).

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

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

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

Specification

WINDOW DRAINAGE

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

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

OUTER FRAME MANUFACTURING INFORMATION

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

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

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

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

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

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

Specification

Kitemark™ Certificate

No. KM 81580

Hardware - Alitherm 700 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
Locking Kit ACET710	Smart Systems		Smart Systems
ACET081/ACET165 Key Locking Handles	Smart Systems	ACET069	Smart Systems
Run-Up Blocks 4 off Per Sash	*		

Hardware - Alitherm 700 Aluminium Alloy System Reversible Windows*

Hardware Reference	Hardware Supplier	Fixing Specification	Fixing Supplier
P and N Uni Reversible Hinges	Smart Systems		Smart Systems
Trojan Reverse Espagnolettes and Keep Set	Smart Systems		Smart Systems
VBH Hinge Protectors	Smart Systems		Smart Systems
VBH Run Up Blocks	Smart Systems		Smart Systems

*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

Size Limitations And Performance Characteristics
Alitherm 700 Aluminium Alloy Window System

Window Type	Length (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 Hung	1600	1600	-	-	-	4	9A	AE2400	2000+
Projecting Side Hung	840	1500	-	-	-	4	9A	AE2400	2000+
Fixed	2100	2100	4.2	-	-	4	9A	AE2400	2000+
Parallel	1800	2100	3.7	-	-	4	9A	AE2400	2000+
Reversible	1500	1558	2.2	-	-	4	9A	AE2400	2000+

First Issued: 03/02/2005 Latest Issue: 18/05/2016

Specification

Kitemark™ Certificate

No. KM 81580

Alitherm 700 Aluminium Alloy Window System

BS 4873:2009 / PAS 24:2012 - General and enhanced security performance requirements for door assemblies.

Casement & Parallel:

Profiles :	Outer Frame :	ETC710/ETC717
	Sash :	ETC720/ETC721
	Mullion/Transom :	ETC730/ETC733
	Rebate Reverser :	ETC745/ETC746/ETC747
Hardware :	Locking :	ACET710 Kit
	Keeps :	ACET710 Kit
	Hinges :	Securistyle Defender Stays Nico Friction Hinges*
	Hinge Protectors :	Securistyle Vector Excluder ASD2 Hinge Protectors
	Handles :	ACET081/ACET165 Key Locking Handles

Reversible:

Profiles :	Outer Frame :	ETC716/ETC718
	Sash :	ETC726
	Mullion/Transom :	ETC736/ETC737
	Rebate Reverser :	ETC745
Hardware :	Locking :	Trojan Reverse Espagnolettes
	Keeps :	Trojan Reverse Keep Set
	Hinges :	P and U Uni Reversible Hinges
	Hinge Protectors :	VBH Hinge Protectors

*Note: ACET750 Butt Hinge is not covered by Kitemark

Please Refer to BRE test report 292869b-A and Kitemark 81580 for further information.

First Issued: 03/02/2005 Latest Issue: 18/05/2016

Specification

INTERNALLY BEADED VENT

Corners are formed by coating the cut faces to be joined with a suitable gap sealer. Into the mitred corner insert 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.

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 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.

Specification

MULTI-POINT LOCKING

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

TOP HUNG & REVERSIBLE VENTILATORS WHEN USING COCKSPUR HANDLES

If the width of the ventilator frame is less then 750mm, fit one handle.

If the width of the ventilator is greater than 750mm, fit two handles.

Where height exceeds widths, it is recommended that handles are positioned on the vertical rails approximately 200mm up from the bottom of the moving frame rather then the cill/transom rail.

SIDE HUNG VENTILATORS WHEN USING COCKSPUR HANDLES

If the height of the ventilator frame is less than 750mm, fit one handle.

If the height of the ventilator is greater than 750mm, fit two handles.

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.

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 centralised 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, ensuring setting blocks to all 4 x corners (i.e Top, Sides & Bottom). Finish glazing by insertion of internal gaskets all round.

Alitherm 700 Parallel/Top Hung/ Side Hung Weather Performance

BS EN 1026: 2000 Air Permeability:	600Pa
BS EN 1027: 2000 Watertightness:	600Pa
BS EN 12211: 2000 Resistance to Wind Load:	2400Pa

Alitherm 700 Reversible Weather Performance

BS EN 1026: 2000 Air Permeability:	600Pa
BS EN 1027: 2000 Watertightness:	600Pa
BS EN 12211: 2000 Resistance to Wind Load:	2400Pa

Alitherm 700 U Values

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
DV515		A30	356	86	27.2 ----- 7.8	14.4 ----- 6.8	6.5	1	✓	✓	✓	✓	✓
DV559		A30	305	21	14.7 ----- 4.2	1.3 ----- 1.2	6.5	1	✓	✓	✓	✓	✓
ETC048		A30	414	140	42.6 ----- 5.9	42.6 ----- 5.9	6.5	1	✓	✓	✓	✓	✓
ETC357		A34	298	78	41.51 — 9.86	5.2 — 2.67	6.5	1	✓	✓	✓	✓	✓
ETC451		A31	304	109	32.44 ----- 7.29	3.46 ----- 2.79	6.5	1	✓	✓	✓	✓	✓
ETC452		A31	414	197	122.46 ----- 18.03	6.01 ----- 3.34	6.5	1	✓	✓	✓	✓	✓
ETC457		A31	444	212	163.27 ----- 21.60	6.79 ----- 3.73	6.5	1	✓	✓	✓	✓	✓
ETC458		A32	524	252	313.62 ----- 32.63	8.87 ----- 4.79	6.5	1	✓	✓	✓	✓	✓
ETC477		A33	782	404	1591.6 ----- 105.33	26.84 ----- 12.84	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
ETC479		A32	594	287	501.64 ----- 44.04	9.72 ----- 5.34	6.5	1	✓	✓	✓	✓	✓
ETC572		A29	82	39	- --- -	- --- -	6.5	1	✓	✓	✓	✓	
ETC710		A19	344	82	26.27 --- 6.79	5.15 --- 2.88	6.5	1	✓	✓	✓	✓	✓
ETC716		A20	414	86	32.56 ----- 7.54	5.63 ----- 3.46	6.5	1	✓	✓	✓	✓	✓
ETC717		A19	433	100	31.77 ----- 8.90	10.28 ----- 3.25	6.5	1	✓	✓	✓	✓	✓
ETC718		A20	524	106	37.29 ----- 9.32	10.85 ----- 3.38	6.5	1	✓	✓	✓	✓	✓
ETC720		A21	466	85	31.48 --- 7.76	11.27 --- 3.42	6.5	1	✓	✓	✓	✓	✓
ETC721		A21	441	111	32.30 --- 7.96	9.88 --- 2.91	6.5	1	✓	✓	✓	✓	✓
ETC726		A22	420	114	34.27 --- 8.06	8.81 --- 3.53	6.5	1	✓	✓	✓	✓	✓

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Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
ETC730		A23	393	103	30.92 --- 7.65	8.68 --- 2.54	6.5	1	✓	✓	✓	✓	✓
ETC733		A23	505	215	121.73 ----- 18.69	13.15 ----- 3.85	6.5	1	✓	✓	✓	✓	✓
ETC736		A24	536	130	48.89 ----- 12.38	14.56 ----- 3.73	6.5	1	✓	✓	✓	✓	✓
ETC737		A24	381	86	17.52 ----- 5.31	4.93 ----- 1.75	6.5	1	✓	✓	✓	✓	✓
ETC745		A25	328	63	24.15 --- 5.49	3.70 --- 5.49	6.5	1	✓	✓	✓	✓	✓
ETC746		A25	328	56	13.73 --- 3.18	2.94 --- 1.53	6.5	1	✓	✓	✓	✓	✓
ETC747		A25	312	52	15.44 --- 3.46	2.47 --- 1.36	6.5	1	✓	✓	✓	✓	✓
ETC748		A26	69	5	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	
ETC764		A26	105	40	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	

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Number	Picture	Page	Perim. mm	Mec. mm	Ix(cm4) wx(cm3)	Iy(cm4) wy(cm3)	Length	Pack pr.	MF	SA	KL	HP	M
ETC765		A26	92	35	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	
ETC766		A26	121	50	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	
ETC767		A27	101	34	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	
ETC768		A27	85	28	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	
ETC769		A27	109	40	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	
ETC770		A28	119	**	- ----- -	- ----- -	6.5	1	✓				
ETC771		A28	159	47	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	
ETC772		A28	154	56	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	
ETC775		A28	119	54	- ----- -	- ----- -	6.5	1	✓	✓	✓	✓	

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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
PCX15	PVC	A29	63	-	- ----- -	- ----- -	4	1	✓				
VL72		A29	101	32	- ----- -	- ----- -	6.5	5	✓	✓	✓	✓	
VL75		A29	54	54	- ----- -	- ----- -	6.5	1	✓				

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

ETC710

Parallel/Casement Outer Frame

ETC717

Parallel/Casement Outer Frame for Curtain Wall

Scale 1:1

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

ETC716

Reversible Outer Frame

ETC718

Reversible Outer Frame

Scale 1:1

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

ETC720

Chamfered Parallel/Casement Sash

ETC721

Flat Parallel/Casement Sash

Scale 1:1

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

ETC726

Reversible Sash

Scale 1:1

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

ETC730

Parallel/Casement
Transom/Mullion

ETC733

Parallel/Casement
Transom/Mullion

Scale 1:1

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

ETC736

Reversible Transom/Mullion

ETC737

Dummy Transom/Mullion

Scale 1:1

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

ETC745

Reverse Adaptor for ETC716 only

ETC746

Reverse Adaptor to Match ETC720

ETC747

Reverse Adaptor to Match ETC721

Scale 1:1

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

ETC748
External Bead Adaptor

ETC765
28mm Glazing Bead

ETC720

ETC766
28mm Glazing Bead

ETC721

ETC764
36mm Glazing Bead

ETC721

Note:
ETC765 may be used with ETC721 to achieve 42mm glazing

Scale 1:1

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

ETC767

28mm Glazing Bead

ETC768

36mm Glazing Bead

ETC769

24mm Glazing Bead

Scale 1:1

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

ETC770

Glazing Adaptor

ETC771

24mm Glazing Bead

ETC772

28mm Glazing Bead

Scale 1:1

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

ETC775
Cill Infill

VL72
Weather Drip

ETC572
Weather Drip

PCX15
Cover Profile

PVC

VL75
Coupler

Scale 1:1

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

DV515

42mm Head Extension

DV559

20mm Head Extension

ETC048

90° Corner Post

(Not Compatable with ETC716)

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

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

ETC357

25mm Coupler

Section B

Accessories
Photos & Drawings

Section B

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Image	Part Code	pack	Unit	Application	Colour	
	ACDR052 **Transom Screw** **4.8 x 50mm**	**200**	**pack**	**ETC730** **ETC731**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACDV268 **Bubble Gasket with Arrow Head**	**100**	**m**	**ETC716**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACEC025 **Stainless Steel Chevron**	**100**	**pack**	**ETC716**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET041 **Cill Nose Bracket**	**1**	**each**	**ETC451** **ETC452** **ETC457** **ETC458** **ETC479**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET044 **Stainless Steel Chevron**	**100**	**pack**	**ETC726** **ETC746**	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

Image	Part Code	pack	Unit	Application	Colour	
	ACET045 Stainless Steel Chevron	100	pack	ETC720 ETC721 ETC747	MF SA KL HP SSC SMC W Z PC	✓
	ACET060 No. 7 x 25 S/S Self Tapping CSK Screw	100	pack		MF SA KL HP SSC SMC W Z PC	✓
	ACET064 No. 8 x 16 S/S Self Tapping CSK Screw	100	pack		MF SA KL HP SSC SMC W Z PC	✓
	ACET066 No. 7 x 38 S/S Self Tapping CSK Screw	100	pack		MF SA KL HP SSC SMC W Z PC	✓
	ACET067 No. 7 x 13 S/S Self Tapping CSK Screw	100	pack		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	
	ACET068 **No. 8 x 10 S/S Self Tapping Flange Screw**	**100**	**pack**	**Friction Hinges**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET080L/R **Cockspur Handle**	**1**	**each**	**ETC726 ACET783**	MF	
					SA	✓
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACET130 **Galvanised Steel Fixing Strap** **200mm x 25mm x 1.5mm**	**100**	**pack**	**ETC710 ETC716**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET131 **Drainage Cap** **For colour matched drainage caps use ACET431**	**100**	**pack**		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACET152 **PVC Cill End Cap**	**10**	**pairs**	**ETC452**	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

Image	Part Code	pack	Unit	Application	Colour	
	ACET157 **PVC Cill End Cap**	**10**	**pairs**	**ETC457**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACET160 **Flipper Gasket**	**100**	**m**	**ETC710** **ETC720** **ETC721**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACET165L/R **Espag Handle with 9mm Spindle**	**1**	**each**	**ETC720** **ETC721**	MF	
					SA	✓
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	✓
	ACET178 **PVC Cill End Cap**	**10**	**pairs**	**ETC451**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACET179 **PVC Cill End Cap**	**10**	**pairs**	**ETC459**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	

T-BARS
ACVG65=2.5mm
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ACVL150=4.0mm

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Z = Black

Image	Part Code	pack	Unit	Application	Colour
	ACET210 Cleat	24	pack	ETC720 ETC721	MF ✓ SA KL HP SSC SMC W Z PC
	ACET211 Cleat	24	pack	ETC746 ETC747	MF ✓ SA KL HP SSC SMC W Z PC
	ACET212 Cleat	24	pack	ETC710 ETC717	MF ✓ SA KL HP SSC SMC W Z PC
	ACET213 Cleat	24	pack	ETC720 ETC721	MF ✓ SA KL HP SSC SMC W Z PC
	ACET214 Cleat	24	pack	ETC710 ETC717	MF ✓ SA KL HP SSC SMC W Z PC

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

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Image	Part Code	pack	Unit	Application	Colour	
	ACET215 **Transom Bracket packer**	**50**	**pack**	**ETC730** **ETC733**	MF SA KL HP SSC SMC W Z PC	 ✓
	ACET258 **PVC Cill End Cap**	**10**	**pairs**	**ETC458**	MF SA KL HP SSC SMC W Z PC	 ✓ ✓
	ACET431 **Colour Match Drainage Cover Cap**	**8**	**pack**		MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓
	ACET440 **Variable Angle Cill Bracket**	**10**	**pack**	**ETC451** **ETC452** **ETC457** **ETC458** **ETC477** **ETC479**	MF SA KL HP SSC SMC W Z PC	✓
	ACET451 **Cast Cill End Cap**	**1**	**pair**	**ETC451**	MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓

T-BARS
ACVG65=2.5mm
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ACVL150=4.0mm

Screw (Grub)

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KL = Basic Colour
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Z = Black

Image	Part Code	pack	Unit	Application	Colour	
	ACET452 Cast Cill End Cap	1	pair	ETC452	MF	✓
					SA	
					KL	✓
					HP	✓
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACET457 Cast Cill End Cap	1	pair	ETC457	MF	✓
					SA	
					KL	✓
					HP	✓
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACET458 Cast Cill End Cap	1	pair	ETC458	MF	✓
					SA	
					KL	✓
					HP	✓
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACET461 Inline Espag Handle with 15mm Spindle	1	each	ETC720 ETC721	MF	
					SA	
					KL	
					HP	
					SSC	✓
					SMC	✓
					W	✓
					Z	✓
					PC	✓
	ACET462 Inline Espag Handle with 45mm Spindle	1	each	ETC726	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	
	ACET466 L/R **Cranked Espag Handle with 15mm Spindle**	1	each	ETC720 ETC721	MF SA KL HP SSC SMC W Z PC	 ✓ ✓ ✓ ✓ ✓
	ACET467 L/R **Cranked Espag Handle with 45mm Spindle**	1	each	ETC726	MF SA KL HP SSC SMC W Z PC	 ✓ ✓ ✓ ✓ ✓
	ACET479 **Cast Cill End Cap**	1	pair	ETC459	MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓
	ACET477 **Cast Cill End Cap**	1	pair	ETC477	MF SA KL HP SSC SMC W Z PC	✓ ✓ ✓ ✓ ✓
	ACET516 **16mm Cavity Hinge Protector** **4 Per Set (2 pairs)**	50	sets		MF SA KL HP SSC SMC W Z PC	 ✓

T-BARS
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ACVL150=4.0mm

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

Image	Part Code	pack	Unit	Application	Colour	
	ACET710 **Basic Lock Kit** **For Parallel & Casement windows only**	1	each	ACET165 ETC720 ETC721	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET711 **280mm Shootbolt Rods**	1	pair	ETC720 ETC721 ACET710	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET712 **410mm Shootbolt Rods**	1	pair	ETC720 ETC721 ACET710	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET713 **540mm Shootbolt Rods**	1	pair	ETC720 ETC721 ACET710	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET714 **670mm Shootbolt Rods**	1	pair	ETC720 ETC721 ACET710	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	

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

Screw (Grub)

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Z = Black

Image	Part Code	pack	Unit	Application	Colour
	ACET715 **800mm Shootbolt Rods**	1	pair	ETC720 ETC721 ACET710	MF ✓ SA KL HP SSC SMC W Z PC
	ACET716 **Shootbolt Extension Rod**	1	each	ACET710 ACET712 ACET713 ACET714	MF ✓ SA KL HP SSC SMC W Z PC
	ACET721 **Crimping Cleat**	24	pack	ETC716	MF ✓ SA KL HP SSC SMC W Z PC
	ACET726 **Crimping Cleat**	24	pack	ETC726	MF ✓ SA KL HP SSC SMC W Z PC
	ACET728 **Crimping Cleat**	24	pack	ETC726	MF ✓ SA KL HP SSC SMC W Z PC

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

Screw (Grub)

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Image	Part Code	pack	Unit	Application	Colour
	ACET730 **Cruciform Bracket**	10	pack	ETC730	MF ✓ SA KL HP SSC SMC W Z PC
	ACET741 **Packer**	10	pack	ETC746	MF ✓ SA KL HP SSC SMC W Z PC
	ACET747 **Crimping Cleat**	24	pack	ETC745	MF ✓ SA KL HP SSC SMC W Z PC
	ACET750 **Weight Limits Per pair:** **Top/Bottom Hung = 50kg** **Side Hung = 40kg** **Not covered by Kitemark**	1	each	ETC710 ETC717 ETC720 ETC721 ETC730 ETC733	MF ✓ SA KL ✓ HP ✓ SSC SMC W ✓ Z ✓ PC
	ACET755 **ETC716 Foam Insulation** **Length = 1250mm**	10	pack	ETC716	MF ✓ SA KL HP SSC SMC W Z PC

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

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Image	Part Code	pack	Unit	Application	Colour	
	ACET757 ETC736 Foam Insulation Length = 1250mm	10	pack	ETC736	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET765L/R Espag Handle with 45mm Spindle & 50mm Screws	5	pack	ACET771 ACET772 ACET773 ACET774 ACET775 ETC726	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	✓
	ACET783 10mm Handle Wedge	1	pair	ETC726 ACET080	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACETPPS35 L/R 350mm Parallel Hinge	1	pair	ETC720 ETC721	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACETPPS45 L/R 450mm Parallel Hinge	1	pair	ETC720 ETC721	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
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KL	= Basic Colour		
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SMC	= Smokey Chrome		
PC	= Polished Chrome		

Image	Part Code	pack	Unit	Application	Colour
	ACETPPS67 L/R 670mm Parallel Hinge	1	pair	ETC720 ETC721	MF ✓ SA KL HP SSC SMC W Z PC
	ACETPPS995 L/R 930mm Parallel Hinge	1	pair	ETC720 ETC721	MF ✓ SA KL HP SSC SMC W Z PC
	ACETPRS01 Restrictor for Parallel Stay	1	each	ACETPPS45 ACETPPS95	MF ✓ SA KL HP SSC SMC W Z PC
	ACETPRS02 Restrictor for Parallel Stay	1	each	ACETPRS02	MF ✓ SA KL HP SSC SMC W Z PC
	ACET789 Vee Block for ETC718	1	each	ETC718	MF ✓ SA KL HP SSC SMC W Z PC

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

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KL = Basic Colour
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PC = Polished Chrome
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Z = Black

Image	Part Code	pack	Unit	Application	Colour	
	ACET790 Vee Block for ETC716	1	each	ETC716	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET791 Punches for ETC716	1	pair	ETC716	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET792 Vee Block for ETC726	1	each	ETC726	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET793 Punches for ETC726	1	pair	ETC726	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET794 Vee Block for ETC745	1	each	ETC745	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	

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

Screw (Grub)

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Image	Part Code	pack	Unit	Application	Colour	
	ACET795 **Punches for ETC745**	**1**	**pair**	**ETC745**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET798 **Drill Jig**	**1**	**each**	**ETC716** **ETC736**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET835 **4mm External Captive Gasket**	**200**	**m**		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACET840 **5mm Low Line Wedge Gasket**	**150**	**m**		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACET841 **4mm Low Line External EPDM Gasket**	**200**	**m**		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	

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

Screw (Grub)

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Image	Part Code	pack	Unit	Application	Colour	
	ACET842 **3mm Low Line External EPDM Gasket**	**200**	**m**		MF SA KL HP SSC SMC W Z PC	 ✓
	ACET843 **2mm Low Line External EPDM Gasket**	**200**	**m**		MF SA KL HP SSC SMC W Z PC	 ✓
	ACET904 **Crimping Punches**	**1**	**pair**	**ETC718** **ETC746** **ETC747**	MF SA KL HP SSC SMC W Z PC	✓
	ACET936 **Drill Jig for Transom/Mullion**	**1**	**each**	**ETC730**	MF SA KL HP SSC SMC W Z PC	✓
	ACET970 **Vee Block**	**1**	**each**	**ETC710** **ETC717**	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	
	ACET971 **Crimping Punches**	1	pair	ETC710 ETC717	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET972 **Vee Block**	1	each	ETC720 ETC721	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET973 **Crimping Punches**	1	each	ETC720 ETC721	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACET974 **Vee Block**	1	each	ETC746 ETC747	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACGSL045 **Drainage Cover Cap**	100	pack		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	

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

Screw (Grub)

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Image	Part Code	pack	Unit	Application	Colour	
	ACGT062 **5mm Flipper Gasket**	**50**	**m**		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACRV030 **Flipper Gasket**	**50**	**m**	**ETC726**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACRV031 **Head Gasket**	**50**	**m**	**ETC716** **ETC736**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACRV032 **Infill Section**	**50**	**m**	**ETC716** **ETC736**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACVG31 **3mm Retaining Gasket**	**200**	**m**		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	

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

Screw (Grub)

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SMC = Smokey Chrome
PC = Polished Chrome
W = White
Z = Black

Image	Part Code	pack	Unit	Application	Colour	
	ACVG34 **5mm Wedge Gasket**	**100**	**m**		MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACVL059 **End Caps for VL72**	**1**	**pair**	**VL72**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	✓
					Z	✓
					PC	
	ACVL061 **Rivets**	**100**	**pack**	**VL72** **ETC572**	MF	✓
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	
					PC	
	ACVL635 **End Caps**	**1**	**pair**	**ETC733**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	
	ACW20038 **4-3mm Tear-away Low-line EPDM Wedge Gasket** **Black Only**	**200**	**m**	**ETC746** **ETC747**	MF	
					SA	
					KL	
					HP	
					SSC	
					SMC	
					W	
					Z	✓
					PC	

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

Screw (Grub)

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Image	Part Code	pack	Unit	Application	Colour
	WCA106 **Stainless Steel Chevron**	**100**	**pack**	**ETC726** **ETC745** **ETC746** **ETC747**	MF ✓ SA KL HP SSC SMC W Z PC
	WUT024HSZA **Manual Crimper** **Note: Vee blocks & punches are sold separately**	**1**	**each**		MF ✓ SA KL HP SSC SMC W Z PC
					MF SA KL HP SSC SMC W Z PC
					MF SA KL HP SSC SMC W Z PC
					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
	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

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

Alitherm 700

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

ISSUED : OCTOBER 2018

Image	Part Code	Pack	Unit	Application	Colour
	ACMX09803 **Protective Tape 100mm**	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
	ACSIL05 **Rubber Sealant**	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
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 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

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

Friction Hinge Stays - For Open Out Casement

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.

Do Not Scale From This Drawing

Shootbolt Locking (Casement / Parallel)

Basic locking Kit: ACET710					
Locking Rod Part Codes	Dimension X	Rebate Size		Sash Size	
		Minimum (mm)	Maximum (mm)	Minimum (mm)	Maximum (mm)
ACET711	280	330	640	379	689
ACET712	410	590	900	639	949
ACET713	540	850	1160	899	1209
ACET714	670	1110	1420	1159	1469
ACET715	800	1370	1680	1419	1729

Note: ACET716 222-522mm Lock Extension Rod may be used on windows over 1729mm with the appropriate locking rods.

See Page E09 & E010 for installation instructions

ACET710 Kit Includes:

1 Centre Keep

1 Pair Corner Keeps

2 Corner Keep Packers

1 Gearbox

ACET716 (Sold Separately):

Do Not Scale From This Drawing

Off Set Parallel Hinge

Parallel Hinge Part Codes	Length (mm)	Restrictor
ACETPPS35L/R	350	N/A
ACETPPS45L/R	450	ACETPRS01
ACETPPS67L/R	670	ACETPRS02
ACETPPS95L/R	930	ACETPRS01

ACETPPS35

ACETPPS45

ACETPPS67

ACETPPS95

Please note that ACETPPS45, 67 & 95 will open to 250mm with automatic operators. We recommend that manually operated vents are restricted to 150mm due to the increased force required to close the vents over this dimension.

See Page E11 For Installation Instructions

See Page E12 For Hinge Selection

Do Not Scale From This Drawing

Reversible Window Locking

Part Code	Rod Length (mm)	Number of Keeps	Sash Rebate Size ('A')	
			Minimum	Maximum
ACET771L	335	2	340	505
ACET771R				
ACET772L	500	2	506	755
ACET772R				
ACET773L	750	2	756	1005
ACET773R				
ACET774L	1000	4	1006	1255
ACET774R				
ACET775L	1250	4	1256	1400
ACET775R				

Note: To Suit Handle ACET765

Do Not Scale From This Drawing

Section C

Sections

Scale Elevations

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Alitherm 700

Detail

Do Not Scale From This Drawing

Detail 1A

Do Not Scale From This Drawing

Alitherm 700

Detail 1B

Do Not Scale From This Drawing

Alitherm 700

Detail 1C

Do Not Scale From This Drawing

ISSUED : OCTOBER 2018

Alitherm 700

Detail 2A

Do Not Scale From This Drawing

Detail 2B

Do Not Scale From This Drawing

Detail 3A

Do Not Scale From This Drawing

Detail 3B

Do Not Scale From This Drawing

Detail 4A

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

Do Not Scale From This Drawing

Detail 4B

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

Do Not Scale From This Drawing

Detail 5A

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

Do Not Scale From This Drawing

Detail 5B

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

Do Not Scale From This Drawing

Detail 6A

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

Do Not Scale From This Drawing

Detail 6B

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

Do Not Scale From This Drawing

Detail 6C

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

Do Not Scale From This Drawing

Reversible

Do Not Scale From This Drawing

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 8A

Do Not Scale From This Drawing

Detail 8B

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 12A

Do Not Scale From This Drawing

Detail 12B

Do Not Scale From This Drawing

Detail 13

Do Not Scale From This Drawing

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

Parallel & Casement Construction Drawings

Corner Jointing ..... Page E03-E04
Transom/Mullion Fixings..... Page E05
Reverse Adaptor..... Page E06
Drainage..... Page E07
Locking Hardware - System Parameters ..... Page E08-E09
Hinges - System Parameters ..... Page E10-14
Bead & Glazing ..... Page E15
Fixing Straps..... Page E26

Reversible Construction Drawings

Corner Jointing ..... Page E16
Transom/Mullion Fixings ..... Page E17
Drainage..... Page E18
Reversible Hinge Details..... Page E19-E21
Locking Hardware - System Parameters ..... Page E22-E23
Bead & Glazing ..... Page E24-E25
Fixing Straps..... Page E26

Typical Corner Assembly

Parallel & Casement Window

Manual Crimper: WUT024HSZA

Do Not Scale From This Drawing

Crimping Details

Parallel & Casement Window

Manual Crimper = WUT024HSZA

Note:
ACSIL04 Sealing Glue & ACSIL013 Cleat Glue must be used. Sections with an internal screw port must be secured. Please refer to page E03 for further details.

Do Not Scale From This Drawing

Transom/Mullion Preparation

Parallel & Casement Window

Drill Jig = ACET936

Use jig to drill 3.5mm pilot holes then increase hole size to 5.5mm

Please Note:
ACET730 is designed for use under the transom.
To use above the transom, additional fixings are required closer to the corner on both the transom and mullion.

Do Not Scale From This Drawing

Reverse Adaptor Installation

Parallel & Casement Window

PACKERS & FIXINGS SHOULD BE 50mm FROM CORNERS AND AT 250mm CENTRES
FIXINGS SHALL BE TIGHTENED EQUALLY TO AVOID THE REQUIREMENT OF PACKING

Do Not Scale From This Drawing

Drainage Detail

Parallel & Casement Window

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

Transom Drainage

If In Doubt Ask.

Do Not Scale From This Drawing

Multi-Point Locking : Keep Locations / Rod Length — Parallel & Casement Window

Basic locking Kit: ACET710					
Locking Rod Part Codes	Dimension X	Rebate Size		Sash Size	
		Minimum (mm)	Maximum (mm)	Minimum (mm)	Maximum (mm)
ACET711	280	330	640	379	689
ACET712	410	590	900	639	949
ACET713	540	850	1160	899	1209
ACET714	670	1110	1420	1159	1469
ACET715	800	1370	1680	1419	1729

Note: ACET716 222-522mm Lock Extension Rod may be used on windows over 1729mm with the appropriate locking rods.

Do Not Scale From This Drawing

Multi-Point Locking Installation

Parallel & Casement Window

The locking mechanism should be fitted before the parallel hinges.

Do Not Scale From This Drawing

Parallel Hinge: Selection

Parallel & Casement Window

NOTES

1) Hinge Selection Guide for Guidance Only.

Horizontal Hinge		Width
ACETPPS35	350	400-600
ACETPPS45	450	500-970
ACETPPS67	670	970-1250
ACETPPS95	930	1250-2000

Vertical Hinge		Height
ACETPPS45	450	750-970
ACETPPS67	670	970-1250
ACETPPS95	930	1250-4000

2) All handles and hinges to be mounted centrally or equally spaced for multiple hinge applications.

3) Whilst one handle is possible on designs marked * for optimum performance it is recommended to offer two handles for all manual operation designs.

4) Designs over 1500mm wide are only suitable for motorised operation.

5) Designs over 2000mm high require two vertical hinges and two horizontal hinges mounted one on the top and one on the bottom of the sash.

4) Maximum sash weight for manual operation is 200Kg but it is the responsibility of the specifier and window manufacturer to ensure the vent operating force meets the requirements of standards where applicable. For motorised vents and for vents where the weight, size, shape or handle position are not covered by these details, please contact Smart Systems Ltd - Technical Department.

6) Optional drop in limit stop restrictors can be fitted to each vent. Two restrictors are required per sash. ACETPRS01 or ACETPRS02 dependent on height.

Hinge Restrictor	Height
ACETPRS01	750-970
ACETPRS02	970-1250
ACETPRS01	1250-4000

For All Parallel Projects Requiring A Smart Systems Guarantee, Contact Smart Systems Technical Department For A Full Hardware Specification. The Hinges Do Not Provide Weather Seal Compression. Multiple Locking Points are Required To Provide Weather Seal Compression

Tolerances u.o.s.
x = ±0.5
x.0 = ±0.2
x.00 = ±0.1
Angles ±0.5°
remove sharp edges Concentricity within 0.3 T.I.R.

Do Not Scale From This Drawing

Parallel Hinge Installation

Parallel & Casement Window

ACET068 TO BE FIXED THROUGH OUTERMOST 'V' LINE

HINGE ADJUSTMENT
WHEN INSTALLING THE VENT INTO THE BUILDING THE PARALLELISM SHOULD BE ADJUSTED ON THE FRAME TRACK FROM INSIDE THE THE BUILDING. THIS IS ACHIEVED BY ROTATING THE CAM ADJUSTER TO MOVE THE VENT IN OR OUT RELATIVE TO THE FRAME. THE VENT TRACK ADJUSTERS CAN BE ALTERED IF FURTHER ADJUSTMENT IS NECESSARY.
THIS CAN BE DONE ON THE TOP AND BOTTOM ADJUSTERS.

ROTATION

HINGE ADJUSTMENT
WHEN INSTALLING THE HINGE IN THE FACTORY THE PARALLELISM SHOULD BE ADJUSTED ON THE VENT SIDE ONLY BY ROTATING CAM ADJUSTER TO MOVE THE VENT IN OR OUT RELATIVE TO THE FRAME. THIS CAN BE DONE ON THE TOP AND BOTTOM CAM ADJUSTERS.

FRAME TRACK MUST BE FITTED PARALLEL TO THE VENT TO ENSURE WINDOW PARALLELISM ON CLOSING

VENT TRACK MUST BE FITTED PARALLEL TO THE VENT TO ENSURE WINDOW PARALLELISM ON CLOSING

LEFT HAND HINGE
Fixed Pivots to bottom

NOTE:- RIGHT AND LEFT HAND HINGE FITTING ADJUSTMENT IS IDENTICAL.

RIGHT HAND HINGE
Fixed Pivots to bottom

Fit Multi-Point Locking Before Parallel Hinges.

FOR GUIDE TO HINGE SELECTION SEE SECTION B

If In Doubt Ask.

Do Not Scale From This Drawing

Parallel Hinge: Opening Restrictor

Parallel & Casement Window

ACETPRS01
(For ACETPPS45
ACETPPS95)

ACETPRS02
(For ACETPPS67)

Do Not Scale From This Drawing

Casement Hinge & ACET516 : Installation

Parallel & Casement Window

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

Do Not Scale From This Drawing

ACET750 Hinge Positions

Parallel & Casement Window

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

Please note: ACET750 Butt Hinge is not covered by Kitemark.

Do Not Scale From This Drawing

Glazing — Parallel & Casement Window

28mm Glazing

28mm Glazing

42mm Glazing

42mm Glazing

42mm glazing can be achieved with ETC721, ETC747 & with ETC748 by using ETC765 bead.

36mm Glazing

Do Not Scale From This Drawing

Corner Joints

Reversible Window

ETC716 is crimp only

Manual Crimper = WUT024HSZA

Note:
ACSIL04 Sealing Glue & ACSIL013 Cleat Glue must be used.

Apply ACSIL04 to edge of profile.

APPLY GLUE (ACSIL013) TO CLEAT APERTURES IN BOTH SECTIONS MARKED ✳

Do Not Scale From This Drawing

Mullion/Transom Details

Reversible Window

Drill Jig = ACET798

Use jig to drill 3mm pilot holes then increase hole size to 5.5mm

Do Not Scale From This Drawing

Drainage Details

Reversible Window

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

Drainage Slot Types

Where not seen

Option A: ETC736 will drain at each end

From inside of jambs
&
either side of mullion

Option B

Do Not Scale From This Drawing

Hinge Selection & Fitting

Reversible Window

Please order the below components from:
VBH Great Britain
Tel: 01675 466411
Fax: 01675 466300
Email: birmingham.sales@vbhgb.com

Hinge Size Chart

Module Size	Standard Hinge	Hotel Variant	Hinge Length	Sash Height	Optimum Size Range	Box Quantity	Dimension F
M6	2AST0001	2AST0101	524	458 - 558	458 - 537	10	238
M6.5	2AST0089	-	580	515 - 615	537 - 579	10	264
M7	2AST0002	2AST0102	624	558 - 658	479 - 637	10	288
M7.5	2AST0090	2AST0103	680	615 - 715	637 - 679	10	312
M8	2AST0003	2AST0104	724	658 - 758	679 - 737	10	338
M8.5	2AST0091	2AST0105	780	715 - 815	737 - 779	10	364
M9	2AST0004	2AST0106	824	758 - 858	779 - 837	10	388
M9.5	2AST0092	2AST0107	880	815 - 915	837 - 879	10	412
M10	2AST0005	2AST0108	924	858 - 958	879 - 937	10	438
M10.5	2AST0093	2AST0109	980	915 - 1015	937 - 979	10	458
M11	2AST0007	2AST0110	1024	958 - 1037	979 - 1037	10	488
M11.5	2AST0094	2AST0111	1080	1015 - 1079	1038 - 1079	10	512
M12	2AST0008	2AST0112	1124	1058 -1137	1079 - 1137	10	538
M12.5	2AST0095	2AST0113	1180	1115 - 1215	1138 - 1179	10	564
M13	2AST0009	2AST0114	1224	1158 - 1258	1179 - 1237	10	588
M13.5	2AST0096	2AST0115	1280	1215 - 1315	1238 - 1279	10	612
M14	2AST0010	2AST0116	1324	1258 - 1358	1279 - 1337	10	638
M14.5	2AST0097	-	1380	1315 - 1415	1338 - 1379	10	664
M15	2AST0015	2AST0117	1424	1358 - 1458	1379 - 1437	10	688
M15.5	2AST0098	-	1480	1415 - 1515	1438 - 1479	10	712
M16	2AST0016	2AST0118	1524	1458 - 1558	1479 - 1537	10	738

Required Accessories

		Box Quantity
Top Glider (pair)	2AST0011	10
Centre Bracket (pair)	2AST0012	10

Optional Accessories

		Box Quantity
Stop Block	2AST0014	20
Guide Block	2AST0017	100
Blocking Device	2AST0029	20

Please Note:

1. Reversible hinges are sold in pairs (1 restricted & 1 unrestricted hinge)
2. Max sash height 1558mm
3. Max sash weight 60kg
4. One reversible sash requires a pair of hinges, a pair of centre brackets & a pair of top gliders
5. Where hinges a cut down to fit into the outer frame, Dimension F shall be reduced by the same amount
6. Hotel Variant hinges can be closed without operating the 'PRESS' button

Do Not Scale From This Drawing

Hinge & Top Guide Fixing

Reversible Window

Hinge Fitting

Top Guide Fitting

Do Not Scale From This Drawing

Hanging Instructions

Reversible Window

Fix the hinge to the frame jambs.
Fix the head slide bracket and one screw in the centre sash assembly.

Place the frame flat, inside down.
Lower the sash vertically with headslides down.
Slide the headslides into the sliding channel.

Lift one hinge at a time, couple hinge pivot to centre sash assembly and secure with second screw.

Do Not Scale From This Drawing

Reverse Espag Locking

Part Code	Rod Length (mm)	Number of Keeps	Sash Rebate Size ('A')	
			Minimum	Maximum
ACET771L	335	2	340	505
ACET771R				
ACET772L	500	2	506	755
ACET772R				
ACET773L	750	2	756	1005
ACET773R				
ACET774L	1000	4	1006	1255
ACET774R				
ACET775L	1250	4	1256	1400
ACET775R				

Note: To Suit Handle ACET765

Reversible Window

Do Not Scale From This Drawing

Cockspur Locking

Reversible Window

Do Not Scale From This Drawing

Glazing Details

Reversible Window

24mm Glazing

28mm Glazing

36mm Glazing

***Note:**
Where laminated units are used, consider using ACW20038 wedge

Do Not Scale From This Drawing

ETC770, ETC771 & ETC772

Reversible Window

Do Not Scale From This Drawing

Fixing Strap Details

Reversible Window

Alternative Fixing Strap for ETC716

NOTE:
Fixing straps should be spaced a minimum of 150mm in from each end & at a maximum of 600mm apart.

Do Not Scale From This Drawing

Section F

Sawing Tables

Parallel/Casement ..... Page F03-F08
Reversible ..... Page F09-F10

Cutting Information

Parallel & Casement Window

Profile Cutting Schedule

Part No.	Detail	QTY	Cutting Angle	Size
ETC710		2		W
ETC710		2		H
ETC720		2		W-42
ETC720		2		H-42
ETC765		2		W-150
ETC765		2		H-183

Glass Size

W-159 x H-159

Accessories

Part No.	Size	QTY	Description
ACET212	-	4	O/F Corner Cleat
ACET214	-	4	O/F Corner Cleat
WCA106	-	4	O/F Corner Chevron
ACET213	-	4	Sash Corner Cleat
ACET210	-	4	Sash Corner Cleat
ACET045	-	8	Sash Corner Chevron
PCX15	W-86	2	Sash PVC Infill
PCX15	H-86	2	Sash PVC Infill
ACET160	W-42	2	Sash Gasket
ACET160	H-42	2	Sash Gasket
ACET160	W-86	2	Sash Gasket
ACET160	H-86	2	Sash Gasket
ACET131	-	2	Drainage Cap

Parallel Window Accessories

Part No.	Size	QTY	Description
ACET165		1 Left 1 Right	Handle
ACET069		4	Handle Fixing Screws
ACET710		2	Basic Locking Kit
ACET71*		4	Locking Rods
ACETPPS**		1	Control Stay
ACETPPS**		1 Pair	Side Stays
ACETPPS**		1 Pair	150mm Restrictor
ACET068		18 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Casement Window Accessories

Part No.	Size	QTY	Description
ACET165		1	Handle
ACET069		4	Handle Fixing Screws
ACET710		1	Basic Locking Kit
ACET71*		2	Locking Rods
ACINS1*		2	Stays
ACET068		12 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Do Not Scale From This Drawing

Cutting Information

Parallel & Casement Window

Profile Cutting Schedule

Part No.	Detail	QTY	Cutting Angle	Size
ETC710		2		W
ETC710		2		H
ETC721		2		W-42
ETC721		2		H-42
ETC766		2		W-150
ETC766		2		H-183

Glass Size

W-159 x H-159

Accessories

Part No.	Size	QTY	Description
ACET212	-	4	O/F Corner Cleat
ACET214	-	4	O/F Corner Cleat
WCA106	-	4	O/F Corner Chevron
ACET213	-	4	Sash Corner Cleat
ACET210	-	4	Sash Corner Cleat
ACET045	-	8	Sash Corner Chevron
PCX15	W-86	2	Sash PVC Infill
PCX15	H-86	2	Sash PVC Infill
ACET160	W-42	2	Sash Gasket
ACET160	H-42	2	Sash Gasket
ACET160	W-86	2	Sash Gasket
ACET160	H-86	2	Sash Gasket
ACET131	-	2	Drainage Cap

Parallel Window Accessories

Part No.	Size	QTY	Description
ACET165		1 Left 1 Right	Handle
ACET069		4	Handle Fixing Screws
ACET710		2	Basic Locking Kit
ACET71*		4	Locking Rods
ACETPPS**		1	Control Stay
ACETPPS**		1 Pair	Side Stays
ACETPPS**		1 Pair	150mm Restrictor
ACET068		18 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Casement Window Accessories

Part No.	Size	QTY	Description
ACET165		1	Handle
ACET069		4	Handle Fixing Screws
ACET710		1	Basic Locking Kit
ACET71*		2	Locking Rods
ACINS1*		2	Stays
ACET068		12 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Do Not Scale From This Drawing

Cutting Information

Parallel & Casement Window

Profile Cutting Schedule

Part No.	Detail	QTY	Cutting Angle	Size
ETC710		2		W
ETC710		2		H
ETC720		2		W-42
ETC720		2		H2 - 27
ETC730		1		W-150
ETC746		2		W - 46
ETC746		2		H1 - 31
ETC765		2		W-150
ETC765		2		H2-168
ETC765		2		W-98
ETC765		2		H1-116

Glass Size

H1	W-108 x H1-92
H2	W-159 x H2-144

Parallel Window Accessories

Part No.	Size	QTY	Description
ACET165		1 Left 1 Right	Handle
ACET069		4	Handle Fixing Screws
ACET710		2	Basic Locking Kit
ACET71*		4	Locking Rods
ACETPPS**		1	Control Stay
ACETPPS**		1 Pair	Side Stays
ACETPPS**		1 Pair	150mm Restrictor
ACET068		18 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws
ACET746		4 (min)	ETC746 Fixing Packer

Accessories

Part No.	Size	QTY	Description
ACET211	-	4	ETC746 Corner Cleat
ACET212	-	4	ETC710 Corner Cleat
ACET214	-	4	ETC710 Corner Cleat
WCA106	-	8	ETC710/746 Chevron
ACET213	-	4	ETC720 Corner Cleat
ACET210	-	4	ETC720 Corner Cleat
ACET215	-	4	ETC730 Fixing Packer
ACET045	-	8	ETC720 Chevron
PCX15	W-86	2	ETC720 PVC Infill
PCX15	H-86	2	ETC720 PVC Infill
ACET160	W-42	2	ETC720 Gasket
ACET160	H-42	2	ETC720 Gasket
ACET160	W-86	2	ETC710 Gasket
ACET160	H-86	2	ETC710 Gasket
ACET131	-	6	Drainage Cap
ACDR052	-	6	ETC730 Screws
ACET066	-	8 (min)	ETC746 Screws

Casement Window Accessories

Part No.	Size	QTY	Description
ACET165		1	Handle
ACET069		4	Handle Fixing Screws
ACET710		1	Basic Locking Kit
ACET71*		2	Locking Rods
ACINS1*		2	Stays
ACET068		12 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Do Not Scale From This Drawing

Cutting Information

Parallel & Casement Window

Profile Cutting Schedule

Part No.	Detail	QTY	Cutting Angle	Size
ETC710		2		W
ETC710		2		H
ETC721		2		W-42
ETC721		2		H2 - 27
ETC730		1		W-150
ETC747		2		W - 46
ETC747		2		H1 - 31
ETC766		2		W-150
ETC766		2		H2-168
ETC766		2		W-98
ETC766		2		H1-116

Glass Size

H1	W-108 x H1-92
H2	W-159 x H2-144

Parallel Window Accessories

Part No.	Size	QTY	Description
ACET165		1 Left 1 Right	Handle
ACET069		4	Handle Fixing Screws
ACET710		2	Basic Locking Kit
ACET71*		4	Locking Rods
ACETPPS**		1	Control Stay
ACETPPS**		1 Pair	Side Stays
ACETPPS**		1 Pair	150mm Restrictor
ACET068		18 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Accessories

Part No.	Size	QTY	Description
ACET211	-	4	ETC746 Corner Cleat
ACET212	-	4	ETC710 Corner Cleat
ACET214	-	4	ETC710 Corner Cleat
WCA106	-	8	ETC710/746 Chevron
ACET213	-	4	ETC720 Corner Cleat
ACET210	-	4	ETC720 Corner Cleat
ACET215	-	4	ETC730 Fixing Packer
ACET045	-	8	ETC720 Chevron
PCX15	W-86	2	ETC720 PVC Infill
PCX15	H-86	2	ETC720 PVC Infill
ACET160	W-42	2	ETC720 Gasket
ACET160	H-42	2	ETC720 Gasket
ACET160	W-86	2	ETC710 Gasket
ACET160	H-86	2	ETC710 Gasket
ACET131	-	6	Drainage Cap
ACDR052	-	6	ETC730 Screws
ACET066	-	8 (min)	ETC746 Screws

Casement Window Accessories

Part No.	Size	QTY	Description
ACET165		1	Handle
ACET069		4	Handle Fixing Screws
ACET710		1	Basic Locking Kit
ACET71*		2	Locking Rods
ACINS1*		2	Stays
ACET068		12 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Do Not Scale From This Drawing

Cutting Information

Parallel & Casement Window

Profile Cutting Schedule

Part No.	Detail	QTY	Cutting Angle	Size
ETC717		2		W
ETC717		2		H
ETC721		2		W-78
ETC721		2		H-78
ETC766		2		W-186
ETC766		2		H-219

Glass Size

W-195 x H-195

Accessories

Part No.	Size	QTY	Description
ACET212	-	4	O/F Corner Cleat
ACET214	-	4	O/F Corner Cleat
WCA106	-	4	O/F Corner Chevron
ACET213	-	4	Sash Corner Cleat
ACET210	-	4	Sash Corner Cleat
ACET045	-	8	Sash Corner Chevron
PCX15	W-126	2	Sash PVC Infill
PCX15	H-126	2	Sash PVC Infill
ACET160	W-78	2	Sash Gasket
ACET160	H-78	2	Sash Gasket
ACET160	W-126	2	Sash Gasket
ACET160	H-126	2	Sash Gasket
ACET131	-	2	Drainage Cap

Parallel Window Accessories

Part No.	Size	QTY	Description
ACET165		1 Left 1 Right	Handle
ACET710		2	Basic Locking Kit
ACET71*		4	Locking Rods
ACETPPS**		1	Control Stay
ACETPPS**		1 Pair	Side Stays

Casement Window Accessories

Part No.	Size	QTY	Description
ACET165		1	Handle
ACET710		1	Basic Locking Kit
ACET71*		2	Locking Rods
ACINS1*		2	Stays

Do Not Scale From This Drawing

Cutting Information

Parallel & Casement Window

Profile Cutting Schedule

Part No.	Detail	QTY	Cutting Angle	Size
ETC717		2		W
ETC717		2		H
ETC721		2		W-78
ETC721		2		H-78
ETC766		2		W-186
ETC766		2		H-219

Glass Size

W-195 x H-195

Accessories

Part No.	Size	QTY	Description
ACET212	-	4	O/F Corner Cleat
ACET214	-	4	O/F Corner Cleat
WCA106	-	4	O/F Corner Chevron
ACET213	-	4	Sash Corner Cleat
ACET210	-	4	Sash Corner Cleat
ACET045	-	8	Sash Corner Chevron
PCX15	W-126	2	Sash PVC Infill
PCX15	H-126	2	Sash PVC Infill
ACET160	W-78	2	Sash Gasket
ACET160	H-78	2	Sash Gasket
ACET160	W-126	2	Sash Gasket
ACET160	H-126	2	Sash Gasket
ACET131	-	2	Drainage Cap

Parallel Window Accessories

Part No.	Size	QTY	Description
ACET165		1 Left 1 Right	Handle
ACET069		4	Handle Fixing Screws
ACET710		2	Basic Locking Kit
ACET71*		4	Locking Rods
ACETPPS**		1	Control Stay
ACETPPS**		1 Pair	Side Stays
ACETPPS**		1 Pair	150mm Restrictor
ACET068		18 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Casement Window Accessories

Part No.	Size	QTY	Description
ACET165		1	Handle
ACET069		4	Handle Fixing Screws
ACET710		1	Basic Locking Kit
ACET71*		2	Locking Rods
ACINS1*		2	Stays
ACET068		12 (min)	Hinge Screws
ACET060		18 (min)	Lock/Keep Screws

Do Not Scale From This Drawing

Cutting Information

Reversible

Profile Cutting Schedule

Part No.	Detail	QTY	Cutting Angle	Size
ETC716		2		W
ETC716		2		H
ETC726		2		W-70
ETC726		2		H-70
ETC767		2		W-144
ETC767		2		H-180
ETC775		1		W-58

Glass Size

W-153 x H-153

Accessories From Smart Systems

Part No.	Size	QTY	Description
ACDV268	W-82	2	Flipper Gasket
ACDV268	H-82	2	Flipper Gasket
ACEC025	-	4	Corner Chevron
ACET044	-	4	Corner Chevron
ACET060	-	4	Corner Screws
ACET067	-	12 approx	Hinge Screws
ACET721	-	4	ETC716 Corner Cleat
ACET728	-	4	ETC726 Corner Cleat
ACET726	-	4	ETC726 Corner Cleat
ACET755	(2xW)+(2xH)		Foam Insulation
ACET840	W-153	2	Wedge Glazing Gasket
ACET840	H-153	2	Wedge Glazing Gasket
ACET842	W-153	2	'E' Glazing Gasket
ACET842	H-153	2	'E' Glazing Gasket
ACGSL045	-	2	Drainage Cap
ACRV030	W-70	2	Sash Gasket
ACRV030	H-70	2	Sash Gasket
ACRV031	W-58	1	Head Gasket
ACRV032	W-58	1	Cill Gasket
ACRV032	H-58	2	Jamb Gasket

Reverse Espag Locking

ACET77*	-	1	Reverse Espag Rod
ACET765	-	1	Espag Handle

Accessories from VBH

Part No.	Size	QTY	Description
2AST00*	-	1 Pair	Reversible Hinges
2AST0011	-	1 Pair	Top Glider
2AST0012	-	1 Pair	Centre Bracket
2CEG025*	-	1	48mm Tongue Hangle
INE0002-07	-	1	Centre Lock
2WES0336	-	2 - 4	Keeps

Optional Accessories from VBH

2AST0014	-	2	Stop Block
2AST0017	-	2	Guide Block
2AST0029	-	2	Blocking Device

Do Not Scale From This Drawing

Cutting Information

Reversible

Profile Cutting Schedule

Part No.	Detail	QTY	Cutting Angle	Size
ETC716		2		W
ETC716		2		H
ETC726		2		W-70
ETC726		2		H2-61
ETC736		1		W-58
ETC745		2		W-48
ETC745		2		H1-39
ETC767		2		W-96
ETC767		2		H1-123
ETC767		2		W-144
ETC767		2		H2-171
ETC775		1		W-58

Glass Size

H1	W-105 x H1-96
H2	W-153 x H2-144

Accessories From Smart Systems

Part No.	Size	QTY	Description
ACDV268	H-58	2	Jamb Gasket
ACDV268	W-82	2	Flipper Gasket
ACEC025	-	4	Corner Chevron
ACET044	-	4	Corner Chevron
ACET060	-	4	Corner Screw
ACET062	-	4	ETC736 Screws
ACET066	-	8 for corners & at 300mm centres	ACET747 Screws
ACET067	-	12 approx	Hinge Screws
ACET720	-	4	ETC716 Corner Cleat
ACET728	-	4	ETC726 Corner Cleat
ACET726	-	4	ETC726 Corner Cleat
ACET747	-	4	ETC745 Corner Cleat
ACET755	(2xW)+(2xH)		Foam Insulation
ACET840	W-105	4	Wedge Glazing Gasket
ACET840	H1-102 H2-144	4	Wedge Glazing Gasket
ACET842	W-105	4	'E' Glazing Gasket
ACET842	H1-102 H2-144	4	'E' Glazing Gasket
ACGSL045	-	4	Drainage Cap
ACRV030	W-70	2	Sash Gasket
ACRV030	H2-70	2	Sash Gasket
ACRV031	W-58	1	Head Gasket
ACRV032	W-58	1	Cill Gasket
ACVL032	H-82	2	Flipper Gasket
WCA106	-	6	Corner Chevron

Reverse Espag Locking

ACET77*	-	1	Reverse Espag Rod
ACET765	-	1	Espag Handle

Accessories from VBH

Part No.	Size	QTY	Description
2AST00*	-	1 Pair	Reversible Hinges
2AST0011	-	1 Pair	Top Glider
2AST0012	-	1 Pair	Centre Bracket
2CEG025*	-	1	48mm Tongue Handle
INE0002-07	-	1	Centre Lock
2WES0336	-	2 - 4	Keeps

Optional Accessories from VBH

2AST0014	-	2	Stop Block
2AST0017	-	2	Guide Block
2AST0029	-	2	Blocking Device

Do Not Scale From This Drawing