



Omega designs, manufactures and installs aluminium and PVC windows, doors, bi-fold doors, frames and patios in a wide variety of colours and configurations.

Our range of aluminium products is suitable for all types of residential and commercial applications and comes in strong and attractive slim-line profiles. We offer the complete range of windows, doors, bi-folds and patio doors, all designed whilst remaining practical and aesthetically pleasing to look at.

Our range of PVC products are amongst the most technologically advanced in Europe, being manufactured to high standards, incorporating thermally efficient profiles and energy rated double and triple glazed sealed units.

Eco Futural Tilt & Turn – Offers U-values as low as 1.1 W/m²K

The Eco Futural window system is suitable for domestic and commercial applications for new build projects and replacement windows for existing buildings. Extended polyamide thermal break help provide excellent U values.

- Open in Tilt & Turn openers and fixed windows with internally beaded sashes and internally beaded fixed frames
- Flat outer frame and flat vent
- Square bead
- PAS 24 Chrono safe hidden gearing to BS7950 (not secure by design)
- Average U-value 1.6 W/m²K (28mm with 1.2 centre pane) – WER 'C'
- Average U-value 1.1 W/m²K (44mm with 0.6 centre pane) – WER 'A'

Features and Options

- Handles – white, black, satin anodised and colour matched
- High quality EPDM gaskets and weather brushes to aid weather proofing
- Polyamide thermal barrier reduces heat loss and improves thermal performance
- Finishes available in KL, RAL, Sensation range and dual colour options
- **All designs are viewed from outside**
- Head vents are available in an additional 42mm frame extension
- Pivot window system available

Weather Performance (BS6375-1)














- BS EN 1026: 2000 Air Permeability: Class 4 600 Pa
- BS EN 1027: 2000 Water tightness: Class E 900 Pa
- BS EN 12211: 2000 Resistance to Wind Load: Class AE 2400 Pa

Lead Times

- Lead times vary depending on the colour of the aluminium you select
 - Stock colour white (KL009) is available in the shortest time
 - KL and Sensation colours are on slightly longer lead times
 - Dual colours are on the longest lead time

Information on Colour

- Below is our standard range of KL colours. Please be aware that these colours come in different surface finishes as indicated below. These colours can be applied the same to both sides of the profile or you can mix and match and choose different colours for inside and out, referred to as dual colour.

			
Reference KL013 Finish Matt Metallic	Reference KL011 Finish Matt	Reference KL004 Finish Matt	Reference KL005 Finish Matt
			
Reference KL006 Finish Matt	Reference KL007 Finish Matt	Reference KL008 Finish Matt	Reference KL010 Finish Matt
			
Reference KL002 Finish Matt	Reference KL003 Finish Matt	Reference KL012 Finish Matt Metallic	Reference KL001 Finish Matt
			
Reference KL009 Finish Gloss			

- We also offer a range of colours called "Sensation", these combine unique colours and textures. Below is just a sample, please ask to see the full range.

		
Obsidian black	Molten copper	Antique red
		
Antique green	Antique grey	Antique blue

- We also offer a range of non-textured wood effect colours, please ask to see the full range of finishes, again these can be mixed and matched with any of the other colours above. Note aluminium wood effects do not match Upvc wood effect finishes.



HTG 7



HTN 8

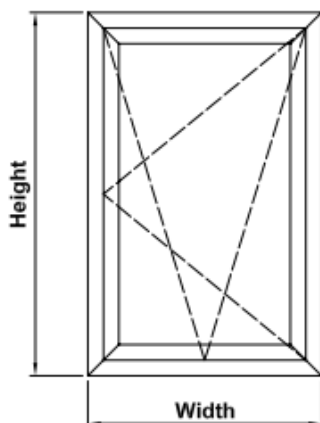


HTD 7

Please note that these colours are intended as a guide only. The paint finish is guaranteed for 25 years except in hazardous environments, e.g. within 500 metres of the high tide line, swimming pools and marine environments. In these cases you need to apply to us/Smarts to confirm the exact length of guarantee.


Sashes

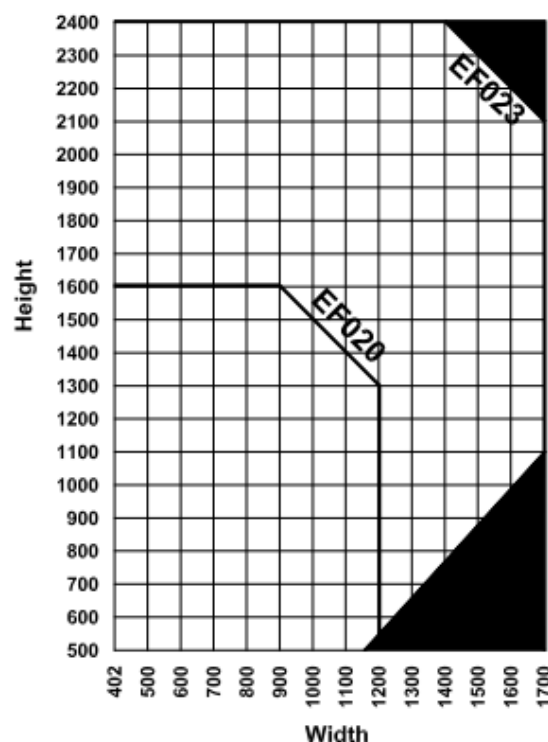
- Max width: 1700mm
- Min width: 402
- Max height: 2400mm
- Min height: 500
- Max Weight: 90kg
- As per chart larger sizes may have to be done in heavier duty sash profile (EF023)
- Large frames with mullions are subject to be split and coupled based on a design wind load of 800pa



Important Notes:

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

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



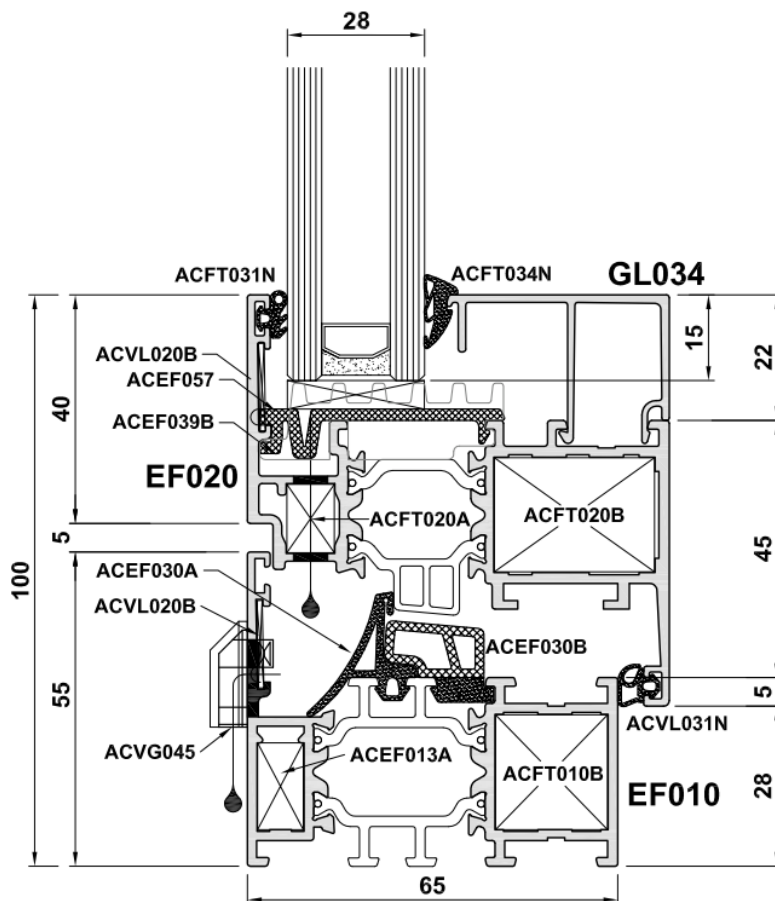
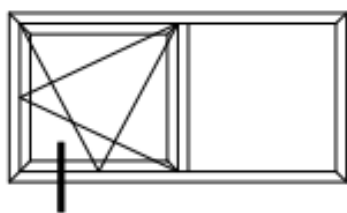
Please Note

At 1700mm wide the max height is 2100mm

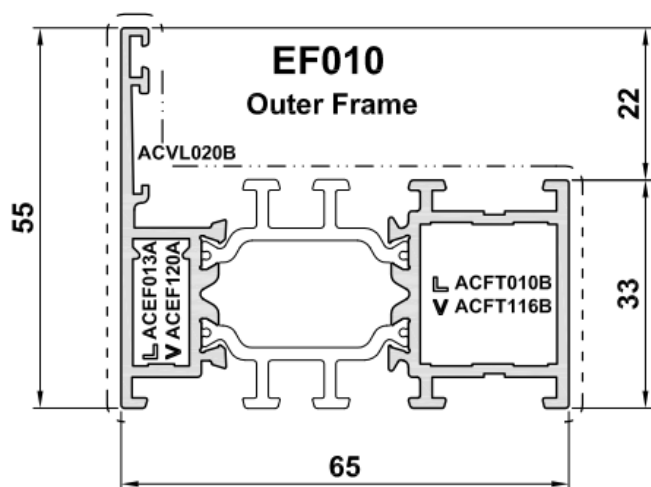
At 2400mm high the max width is 1400mm

Cross Sectional Drawings

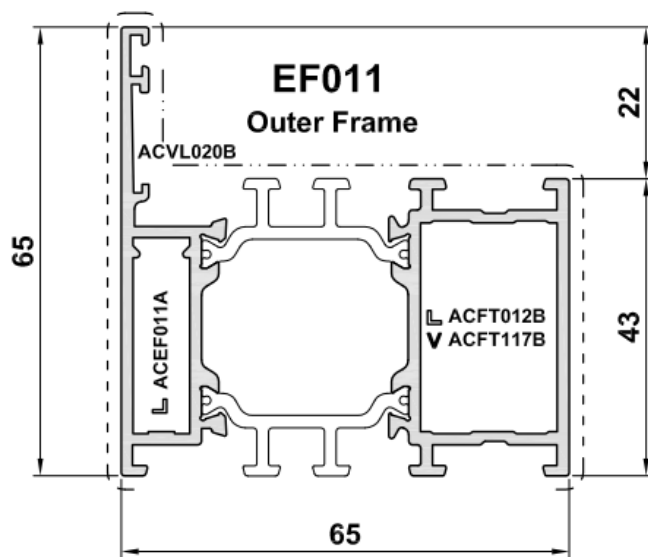
Standard Frame & Sash Detail



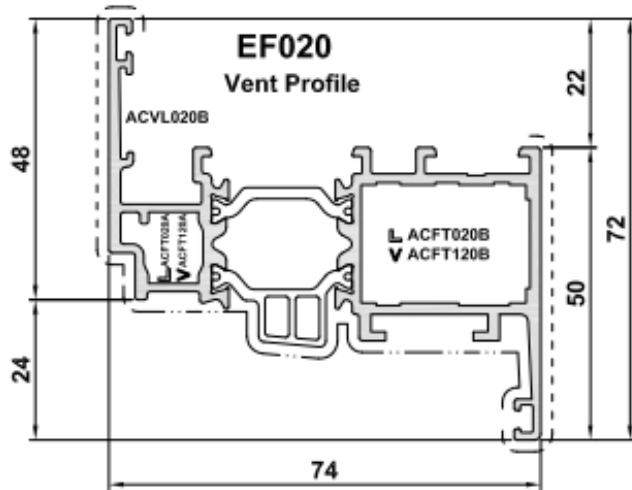
Standard Outer Frame



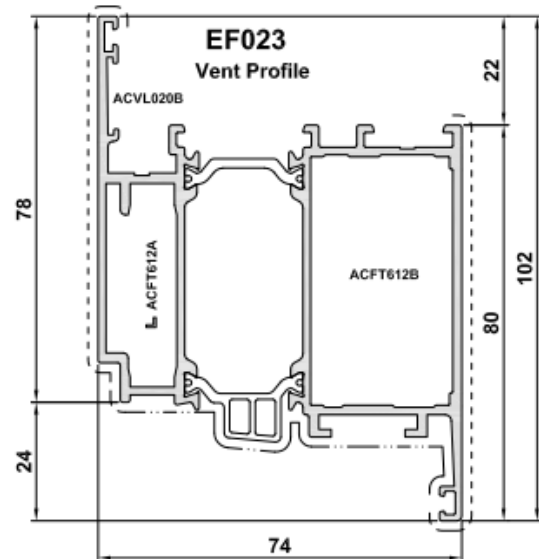
Large Outer Frame option



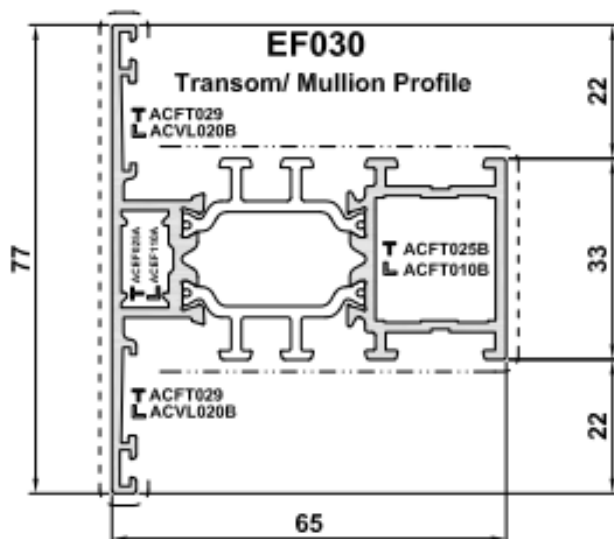
Standard Sash



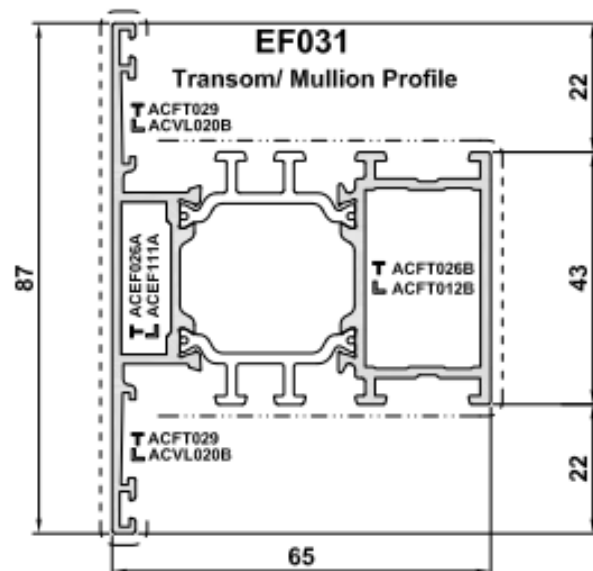
Large Sash – Automatically selected
subject to sash size



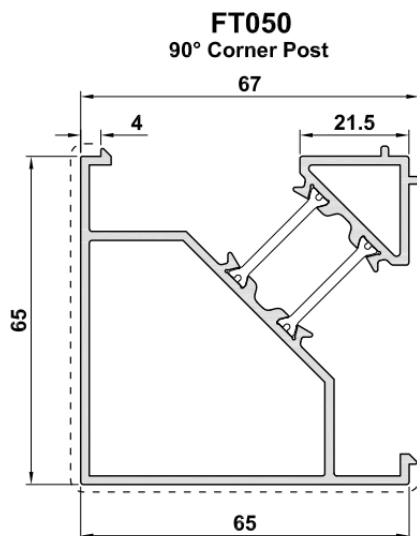
Standard Transom/Mullion



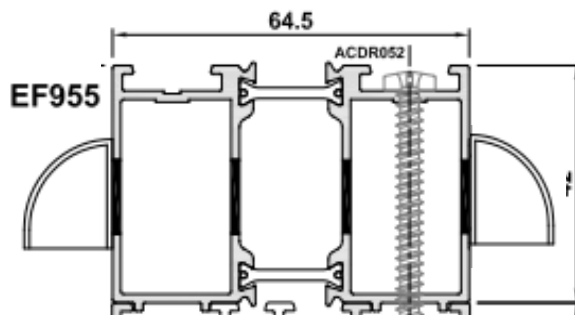
Large Transom/Mullion



90° Corner Post ETC655 for
ETC610 & ETC612



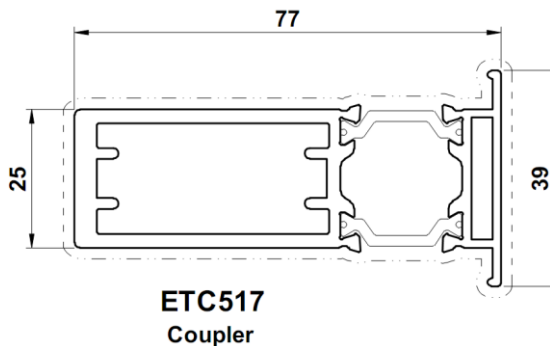
EF955 64.5mm x 42mm Extension



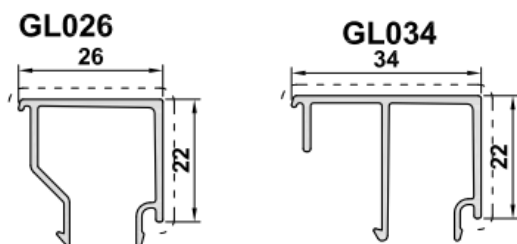
Note:

With the hood of the head vent fitted there is approx. 12mm to the outer edge of the 42mm head extension. Extensions come fitted to outer frame and pre-routed.

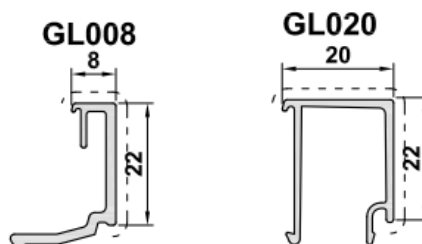
ETC517 180° Coupler
(25mm deduction)



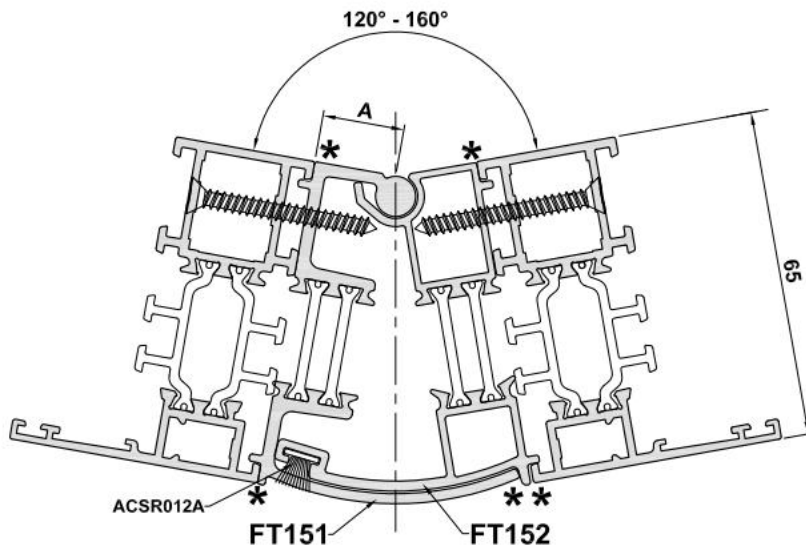
Bead for 28mm Double Glazed
Fixed Pane – GL026 – gasket internal
ACFT033N, external ACFT031N
Opening Sash – GL034 – gasket internal
ACFT031N, external ACFT034N



Bead for 44mm Triple Glazed
Fixed pane – GL008 – gasket internal
ACFT031N, external ACFT340N
Opening sash – GL020 – gasket internal
ACFT031N, external ACFT032N

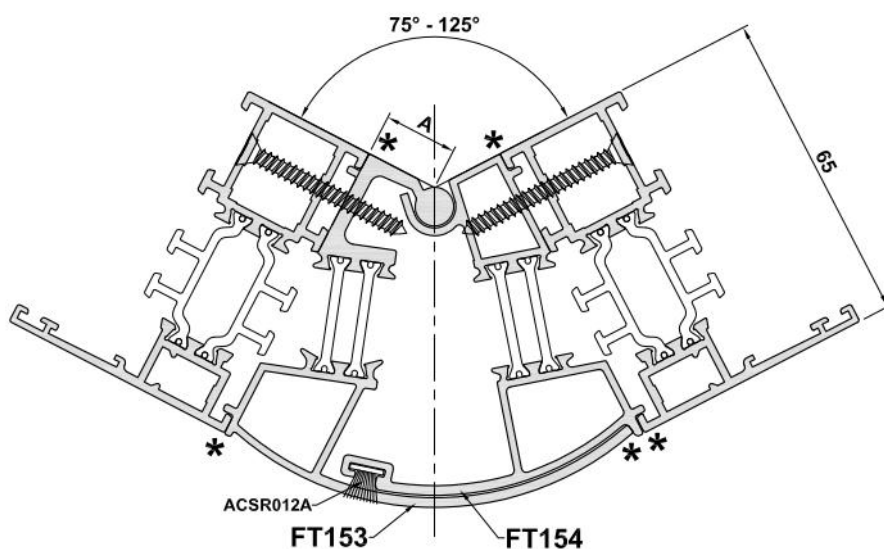


FT151/ FT152 120° - 160° Bay Pole



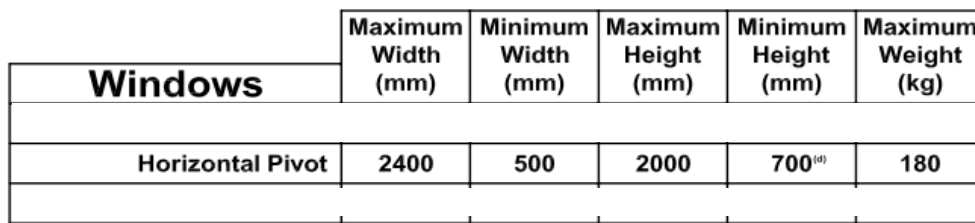
ANGLE	DEDUCTION 'A'
120°	14.5
125°	15
130°	15
135°	15.5
140°	15.5
145°	15.5
150°	16
155°	16
160°	16.5

FT153/ FT153 75° - 125° Bay Pole

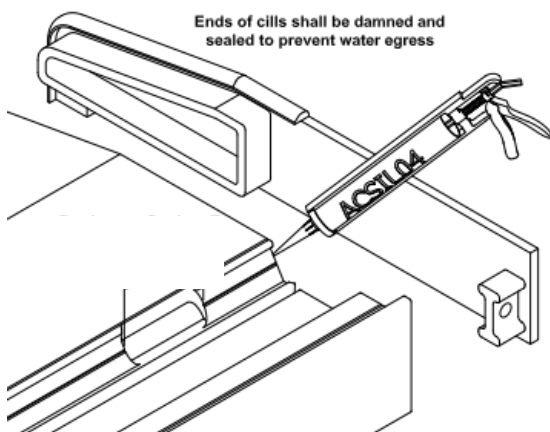
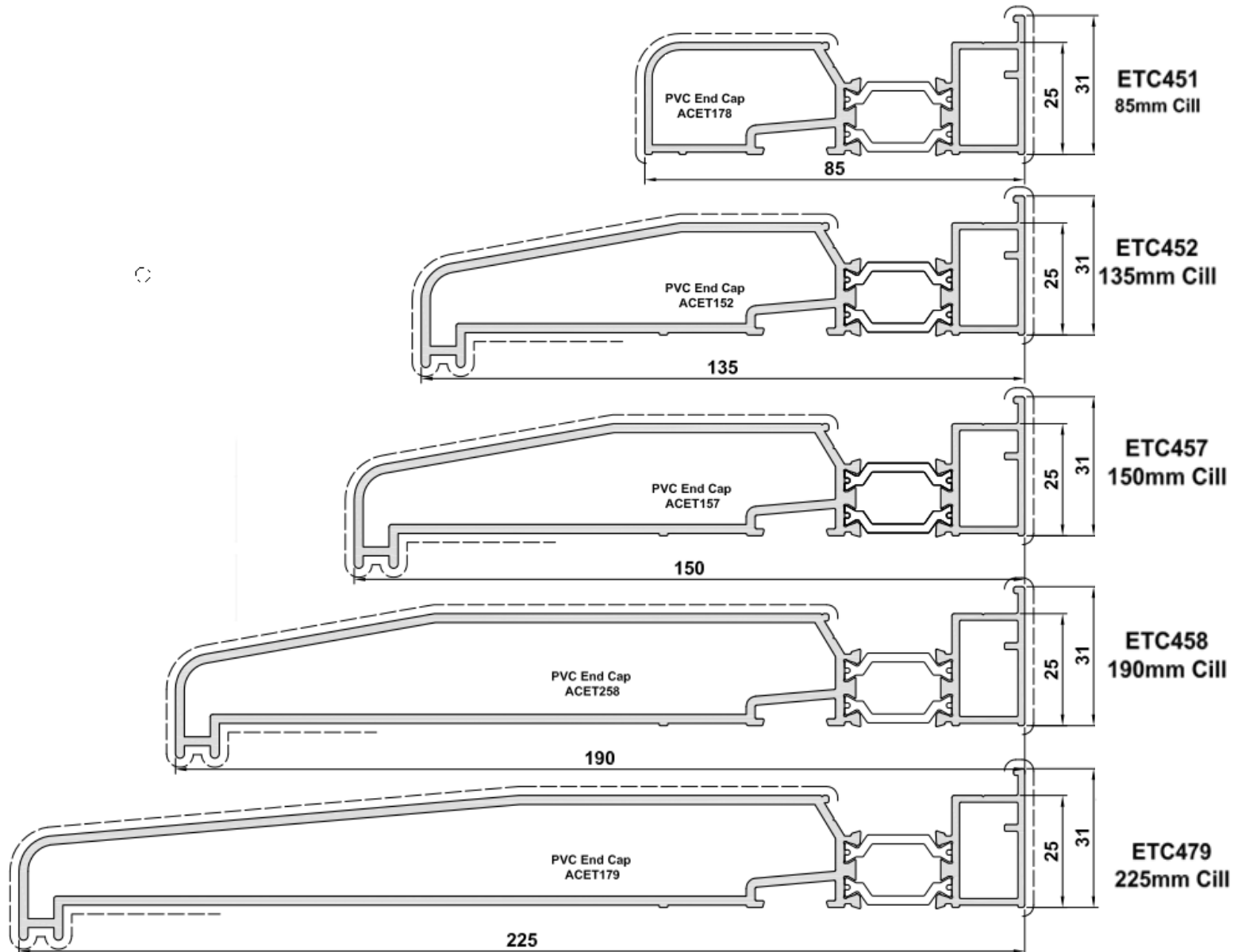


ANGLE	DEDUCTION 'A'
75°	12.5
80°	13
85°	13
90°	13.5
95°	14
100°	14
105°	14.5
110°	14.5
115°	15
120°	15
125°	15

Pivot Windows



Cills / Mitred Cills

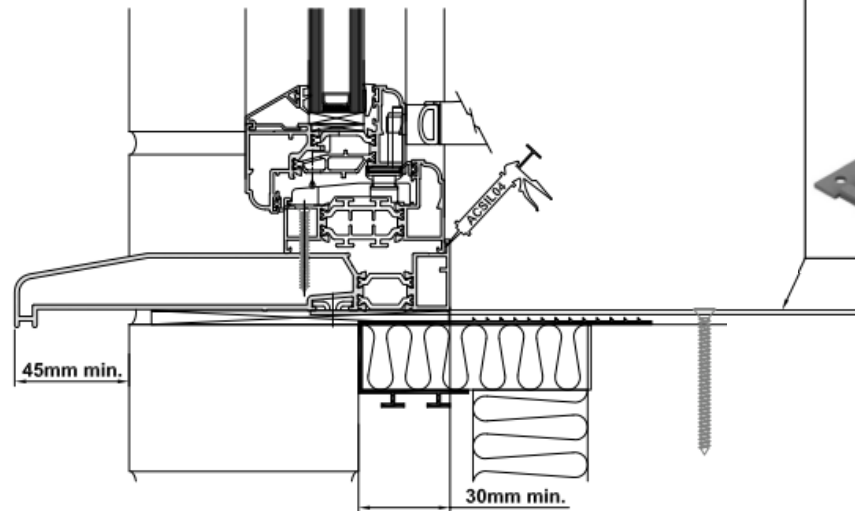


Please Note

All cills are factory drained and should have cill end caps fitted prior to installation, sealing the cill end caps to the cill with silicone to prevent water egress (do not cut the end caps and fit after installation as this will result in water penetration and invalidate guarantee).

End caps are PVC and not colour matched to frames. White and black available.

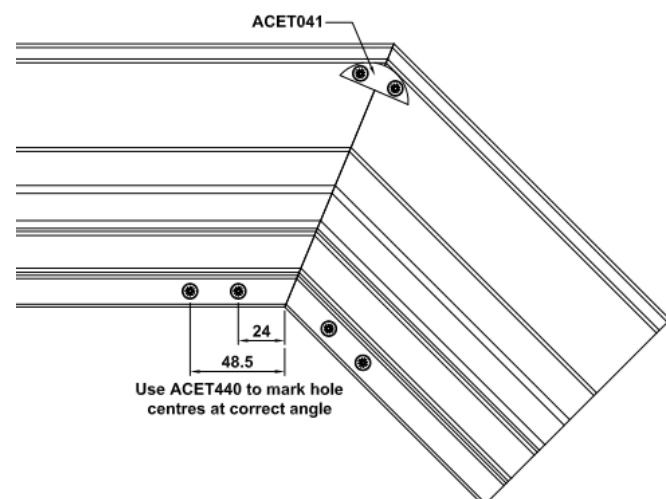
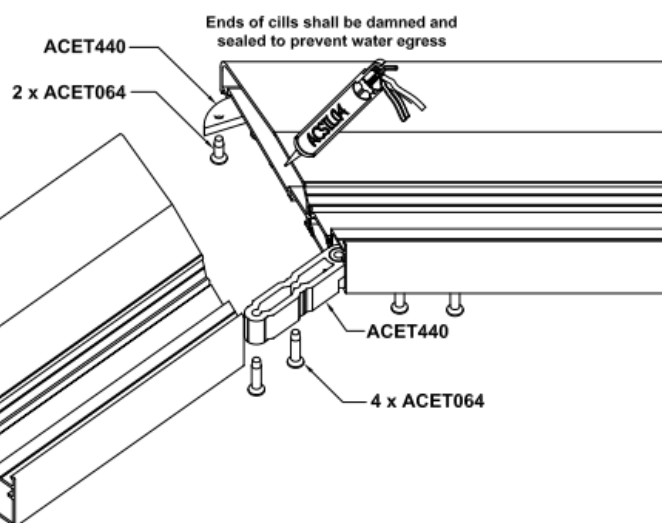
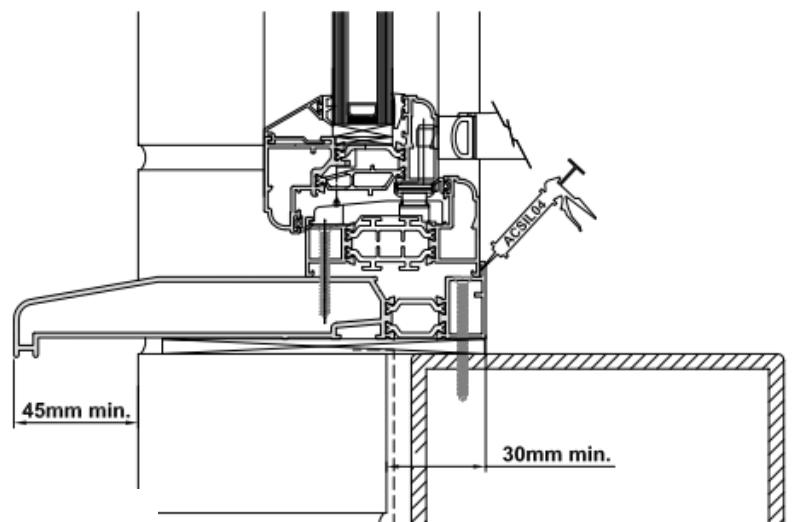
Example Lug Fixing Detail



Please Note

Cill fixing lugs need to be ordered separately they are not included with cills – pack size: Qty 100

Example Direct Fixing Detail



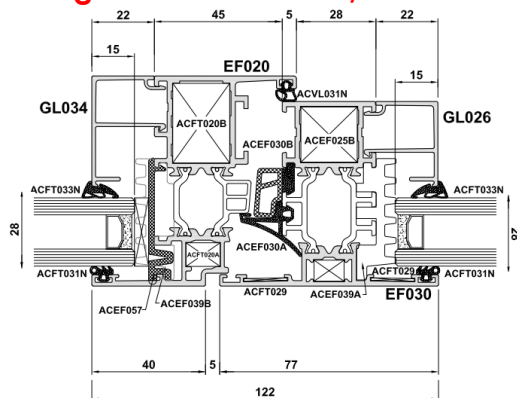
U-values for Double Glazed Units

Our standard glass specification is:

- 28mm double glazed units
- 4mm Planilux clear +/4mm Planitherm
- 90% argon gas filled cavity
- 20mm Grey super spacer bar
- 20kg per m²
- 1.2 W/m²K centre pane

Standard 59.5mm Frame EF010 with Sash EF020 and Mullion EF030

Average U-value of 1.6 W/m²K - WER 'C'



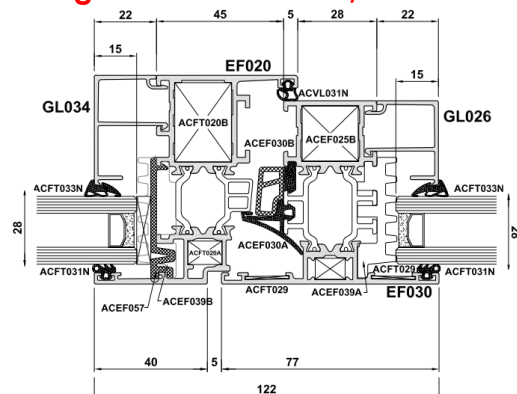
U-values for Double Glazed Units

Our standard glass specification is:

- 28mm double glazed units
- 4mm Diamante +/4mm Planitherm
- 90% argon gas filled cavity
- 20mm Grey super spacer bar
- 20kg per m²
- 1.2 W/m²K centre pane

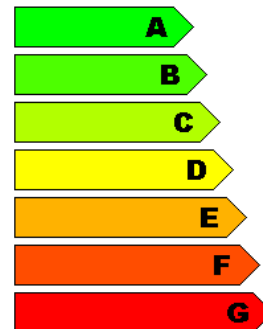
Standard 59.5mm Frame EF010 with Sash EF020 and Mullion EF030

Average U-value of 1.6 W/m²K - WER 'C'



Energy

EF010 EF020
EF030
1.2/0.73/0.035



Window Energy Rating

kWh/m²/Year
Typical annual energy transfer per square meter.
Rating to UK Building Regulation calculated
in accordance with BR443 Domestic Window.
Actual Energy consumption will depend on
design, local climate and interior temperature.

Thermal Transmittance U_{Window}

Solar Factor g_{Window}

Air Leakage

Manufacturer

-11

1.6 W/m²K

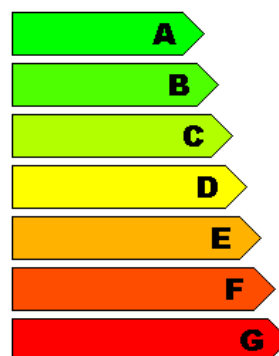
0.46

0.00 W/m²K

M133

Energy

EF010 EF020
EF030
1.2/0.75/0.035



Window Energy Rating

kWh/m²/Year
Typical annual energy transfer per square meter.
Rating to UK Building Regulation calculated
in accordance with BR443 Domestic Window.
Actual Energy consumption will depend on
design, local climate and interior temperature.

Thermal Transmittance U_{Window}

Solar Factor g_{Window}

Air Leakage

Manufacturer

-9

1.6 W/m²K

0.47

0.00 W/m²K

M133

[illegible]

Installation of Aluminium Windows and Doors

Care should be taken to ensure that you make allowance for the expansion and contraction of the frame, the aperture tolerances and the thickness of any silicone or mortar bed at the sub-sill. The following table should be used as a guide.

Material	Recommended deduction for width or height of structural opening			
	Up to 1.5 m	From 1.5 m to 3.0 m	From 3.0 m to 4.5 m ^{A)}	Over 4.5 m ^{A)}
GRP	5	10	15	15
PVC-U – white	10	10	15	20
PVC-U – non-white	15	15	22	28
Timber	10	10	10	15
Steel	8	10	12	15
Aluminium	10	10	15	20

NOTE 1 These deductions are from the total width or height, and are not “per side”.

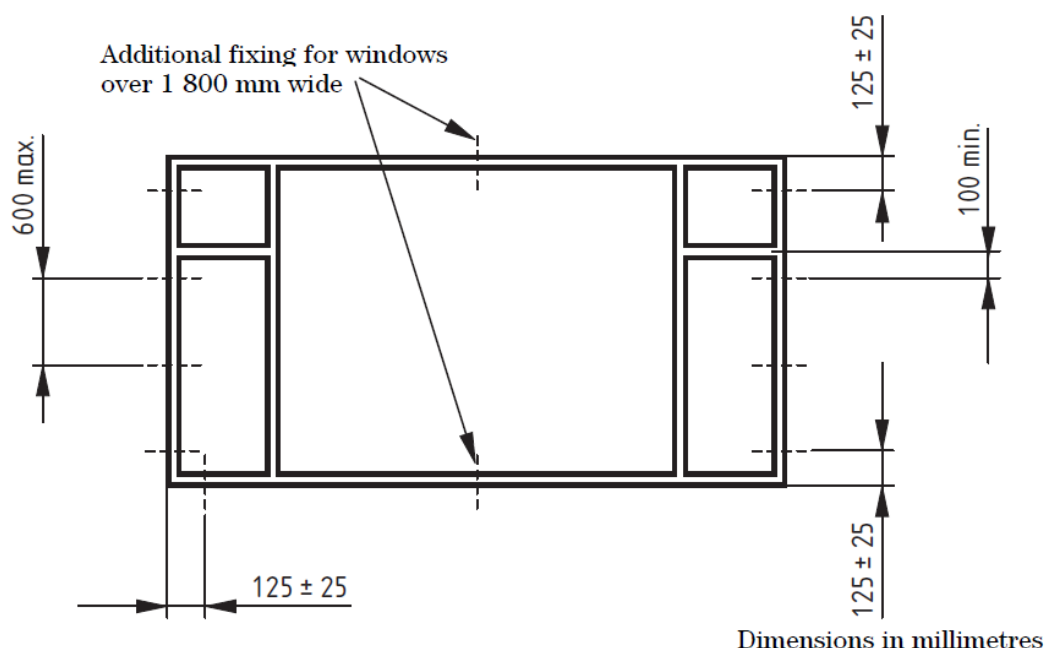
NOTE 2 The gap required for effective polyurethane foam fixing at the head is 10 mm to 15 mm.

NOTE 3 When fitting aluminium or steel frames into existing timber sub-frames, deduct 4 mm.

^{A)} Intermediate expansion joints might be needed when the width or height exceeds 3 m.

When fixing the frames ensure that all four sides are secured as follows.

- Corner jamb fixings should be between 100 mm and 150 mm from the external corner.
- No fixings should be less than 100 mm from the centre line of a mullion or transom.
- Intermediate fixings should be at centres no greater than 600 mm.
- There should be a minimum of two fixings on each jamb.



- On windows and door-sets over 1800 mm wide, central head and sub-sill fixings should be provided.
- Cills are fixed in the correct locations (i.e. not through the drainage chamber)
- Full length end caps are fitted and sealed to all cills

When building up components on coupled frames, care should be taken to keep coupling joints equal, and frames both aligned and plumb. Coupled assemblies should be fastened together in accordance with the manufacturer's instructions. Where the coupling is structural, the system supplier's recommendations should be followed.

Care should be taken to ensure windows and door-sets are installed plumb and square within the aperture, without twist, racking or distortion of any member in accordance with the manufacturer's recommended tolerances, to operate correctly after installation.

Installation packers should be used adjacent to fixing positions to prevent outer frame distortion during installation. Installation packers should be resistant to compression, rot and corrosion. They should span the full depth of the outer frame. The fixings should be tightened so that the frame is held securely against the packers. Over-tightening can lead to distortion and should be avoided. Some lugs need to be packed off the substrate to prevent distortion. Where enhanced security is required, additional packers might be necessary adjacent to hinge and locking points.

Insulating glass units, setting and location blocks, distance pieces, frame to glass and bead to glass gaskets, bead to frame air seals, corner sealing blocks, beads and bead end caps, bedding and capping sealants should be installed in accordance with BS 8000-7.

Glazing

Please ensure that you glaze the products in accordance with these guidelines.

Failure to glaze the products correctly, especially doors will lead to operational problems.

Any site visits required to adjust doors that have not been glazed correctly will be chargeable.

