



Omega designs, manufactures and installs aluminium and PVC 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.

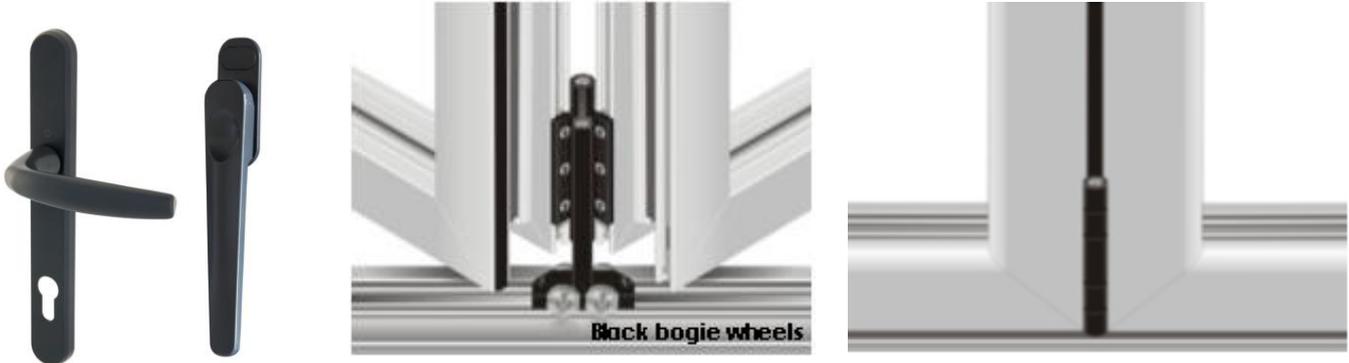
Our range of PVC products are amongst the most technological advanced in Europe, being manufactured to high standards, incorporating thermally efficient profiles and energy rated double and triple glazed sealed units.

Bi-folding doors transform any home. With an array of different options and finishes our beautifully designed doors are perfect for living rooms, bedrooms, kitchens and conservatories.

Features and Options

- Our doors can be open in, open out, stack from the left or the right, open at the centre, end or in-between.
- Standard threshold of 49.5mm or low threshold of 15mm (please note we do not recommend the low 15mm threshold for external use)
- High security hook bolt lock and one piece keep on main opening doors (where applicable) and handle operated shoot-bolts (non-locking) to other doors.
- Doors folding one way will be fitted with a single cylinder, and doors which split will have a cylinder per side.
- Highly engineered and robust hinges with D handles.
- Stainless steel rollers at the bottom of the track providing smooth and easy operation.
- High quality EPDM gaskets and weather brushes to aid weather proofing.
- Polyamide thermal barrier reduces heat loss and improves thermal performance.
- Available in KL, RAL, and Sensation range and dual colour options.
- 28mm unit (overall 1.8 W/m² K) or 36mm triple units (overall 1.4 W/m²K)
- Integral blinds in the units (double glazed option only).
- Head vents are available in an additional 42mm frame extension.
- **All designs are viewed from outside**

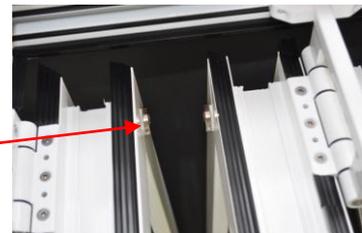
- Main/Pendulum handles are available in White, Black, Chrome, Satin Chrome, Gold and Airforce Grey (shown below).
- Hinges, bogie wheels and internal D handles on the mullions are available Black or white.



- Magnetic clips are included as standard to secure the sashes together when in the open position, and will be colour matched to the handles.



Main magnetic door clip for doors with a main handle. We recommend fitting them at the top.



Smaller magnetic clip for the doors without a main handle. We recommend fitting them at the top

Size Restrictions

- Max height of the doors is 2500mm, with a max sash width of 1200mm wide*
 - Min sash width is 700mm, although it is possible to go below this size we are unable to guarantee a smooth operation and all doors must be unlocked prior to being opened.
 - The max sash weight is 100kg.
 - 1 door design - minimum width 800, maximum width 1284
 - 2 door design - minimum width 1550, maximum width 2450
 - 3 door designs - minimum width 2250, maximum width 3700
 - 4 door designs - minimum width 3050, maximum width 5000
 - 5 door designs - minimum width 3650, maximum width 6100
 - 6 door designs - minimum width 4350, maximum width 7100
 - 7 door designs - minimum width 5050, maximum width 8500
 - 8 door designs - minimum width 5750, maximum width 9400
- * Sashes over 1000mm wide must be fitted with a toe & heeler during installation.

Please bear in mind that large doors are heavy and therefore consideration should be given to having them flat packed for assembly on site. There is a charge for this option as the doors are fully fabricated before being dismantled and wrapped separately. Full assembly and installation instructions are available on request.

Lead Times (Please check the latest lead time sheet on SFPlus for the current lead times)

Lead times vary depending in the colour of the aluminium you select

- As stock colours White (KL009) & Grey (KL005) are available in the shortest time
- KL, RAL 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.



- 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.



- 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.



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.

Configurations

- There are many different configurations, please see the list below. On the list below we have highlighted in red which styles **DO NOT** have an external handle.

Configurations
Complete list of configurations

1 Part bi-fold	6 Part bi-fold
1 0 1	6 0 6
1 1 0	6 1 5
2 Part bi-fold	6 2 4
2 0 2	6 3 3
2 1 1	6 4 2
2 2 0	6 5 1
3 Part bi-fold	6 6 0
3 0 3	7 Part bi-fold
3 1 2	7 0 7
3 2 1	7 1 6
3 3 0	7 2 5
4 Part bi-fold	7 3 4
4 0 4	7 4 3
4 1 3	7 5 2
4 2 2	7 6 1
4 3 1	7 7 0
4 4 0	8 Part bi-fold
5 Part bi-fold	8 0 8
5 0 5	8 1 7
5 1 4	8 2 6
5 2 3	8 3 5
5 3 2	8 4 4
5 4 1	8 5 3
5 5 0	8 6 2
	8 7 1
	8 8 0

Key to Configurations

- Total number of doors
- Number of doors opening left
- Numbers of doors opening right

4 4 0 No external handle

Important Information

Please note that if you have an **OPEN IN** door that has a floating mullion on e.g. 202/220/404/440/422/541/514/523/532/606/660/642/624/761/716/725/752/743/734/880/808/826/862/844, then we have to use brush pile seals on the outer frame rather than gasket. This compromises the weather tightness of the doors and therefore we do not recommend them for external locations.

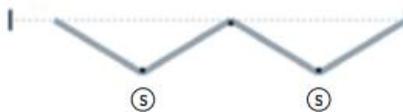
Style 3-1-2



Style 3-0-3



Style 4-0-4



Style 4-3-1



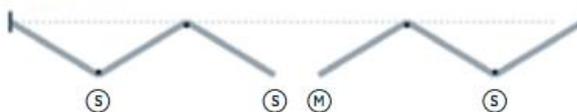
Style 4-2-2



Style 5-5-0



Style 6-3-3

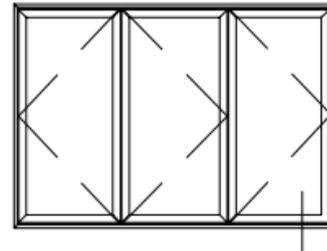
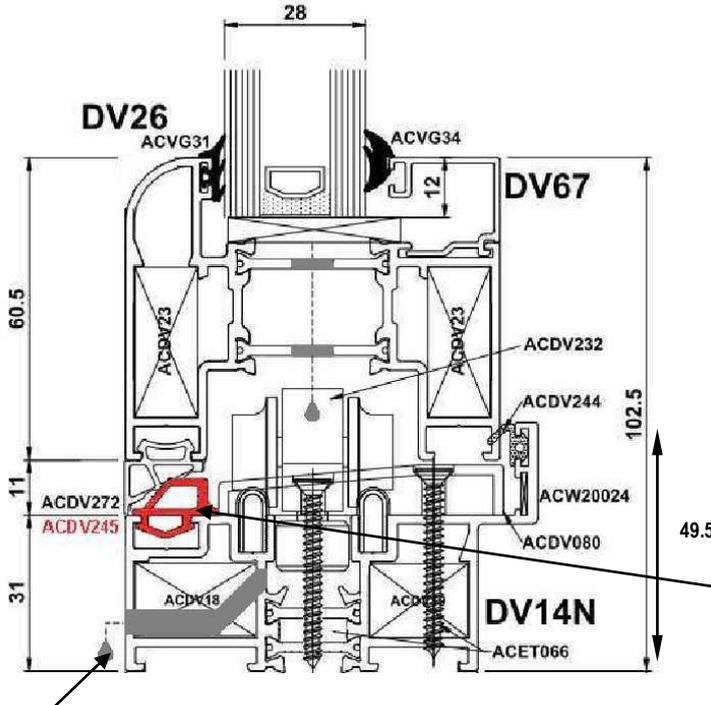


(M) Main door handle (S) Slave door handle

so you think all window companies are the same...think again!

Aluminium 1000 series bifolds

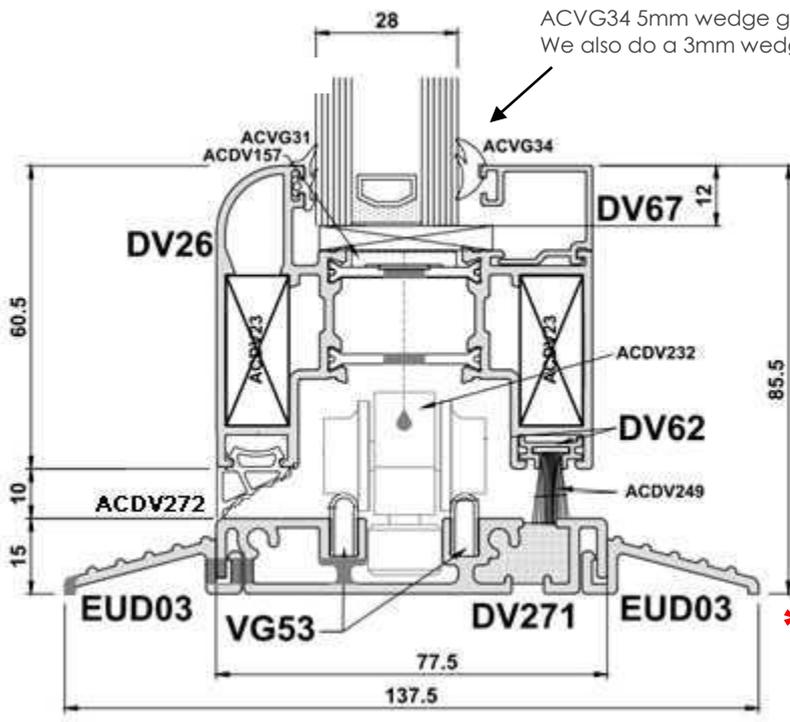
Cross sectional drawings
Standard cill detail



Change of gasket from ACDV272 to ACDV245 gasket on the bottom section of outer frame to allow smoother operation of sashes.

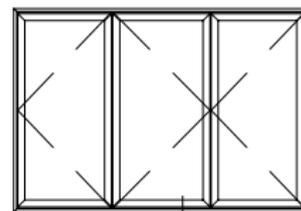
You need to make allowances for the external drainage on both thresholds to ensure that the water can dissipate freely.

Cill detail with low threshold



42mm add on, also used for head vents

Please note
The low threshold is not recommended for external use as it will not give a weather tight seal.



* It is important to ensure that you install a DPC membrane between the cill and the brickwork. You should also seal the underside of the low threshold where the drainage slots are to ensure that water does not seep out.

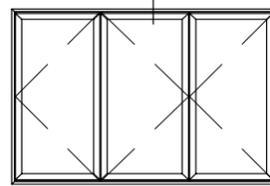
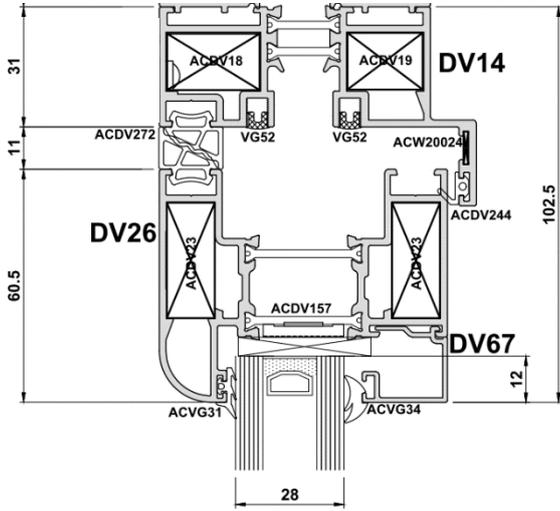
low threshold detail,
ramps supplied loose

Cross sectional drawings

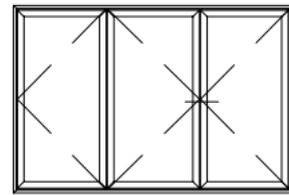
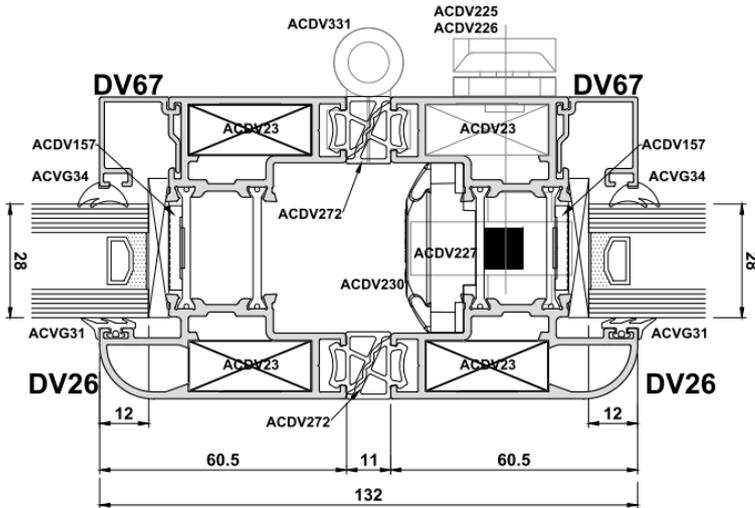
so you think all window companies are the same...think again!

Aluminium 1000 series bifolds

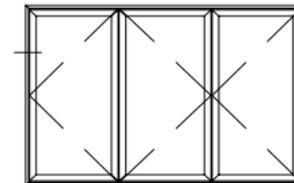
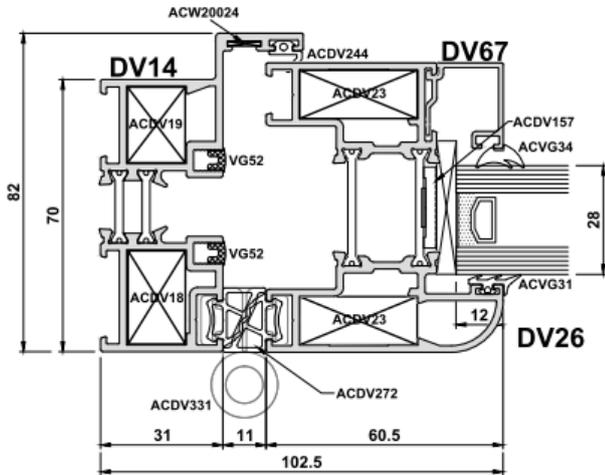
Standard head detail



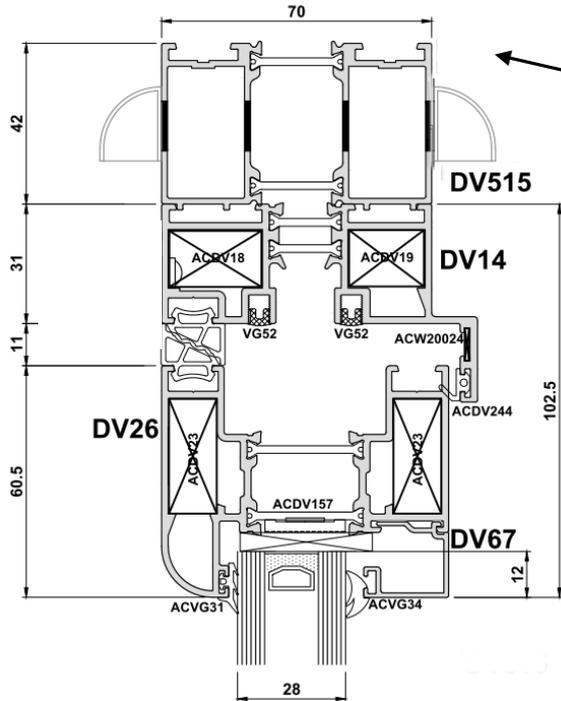
Standard style detail



Standard jamb detail

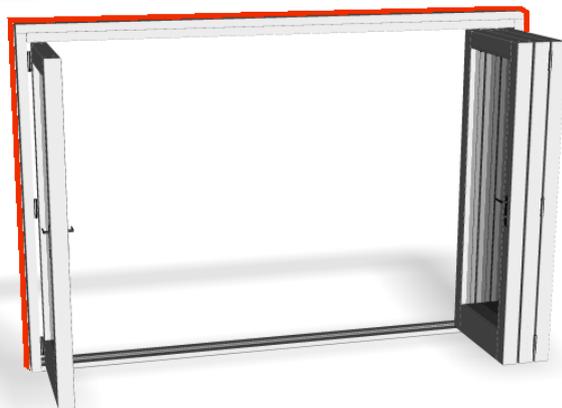


Head detail showing 42mm frame extension and head vents



With the hood of the head vent fitted there is approx.12mm to the outer edge of the 42mm knock on

Large, unsupported openings



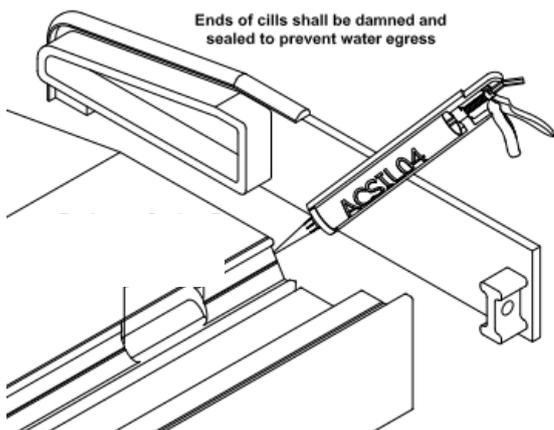
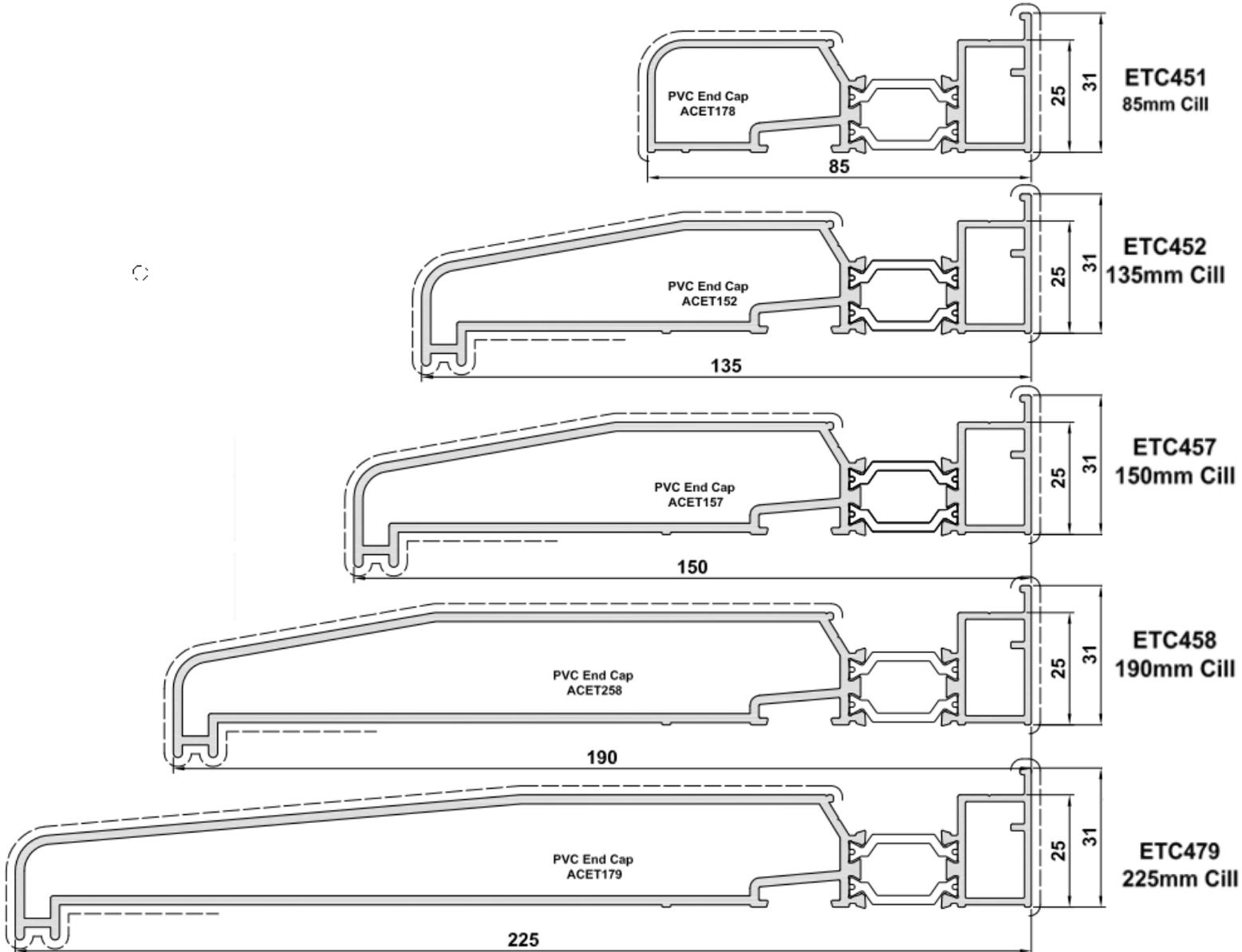
It is important to understand that any frame with a large opening, such as bifolds, wide French doors and patio doors have no structural integrity once open and therefore are not designed to take any loadings from above.

These frames are not designed to take any structural loadings from above so always consult a structural engineer and support the heads appropriately.

This is especially critical in conservatories where, if not correctly supported, the weight of the roof will push down on the frame, causing damage and operational difficulties.

It is vital that you design in a structural support capable of taking the roofs weight. We would urge you to consult a structural engineer at the design stage so that you construct a suitable goal post/lintel to fit between the frame and the roof/loading above.

Cills / Mitred Cills



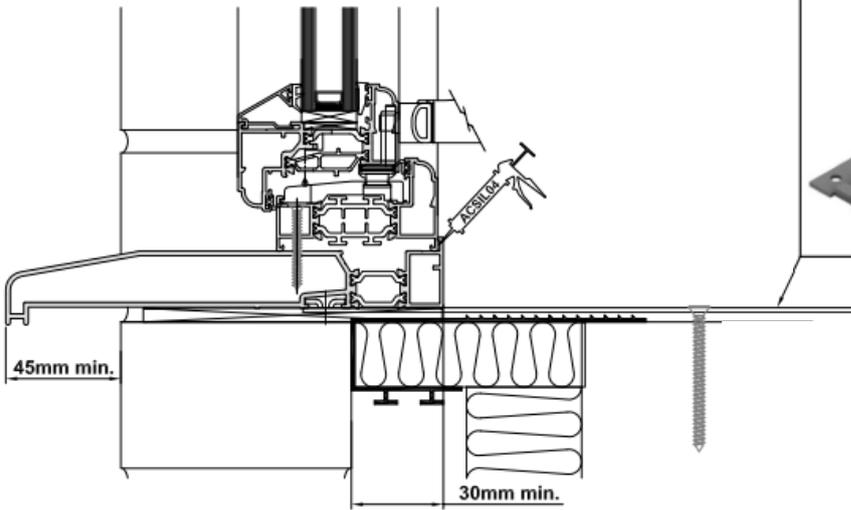
Please Note

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.

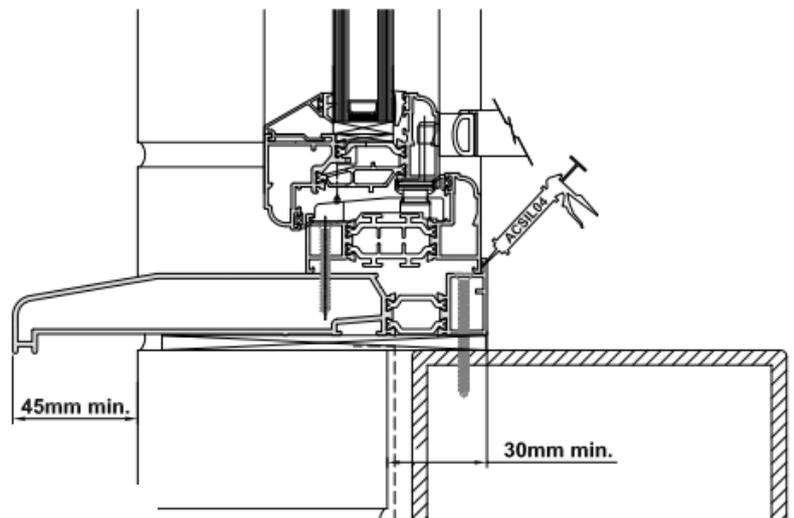
Aluminium 1000 series bifolds

Example Lug Fixing Detail



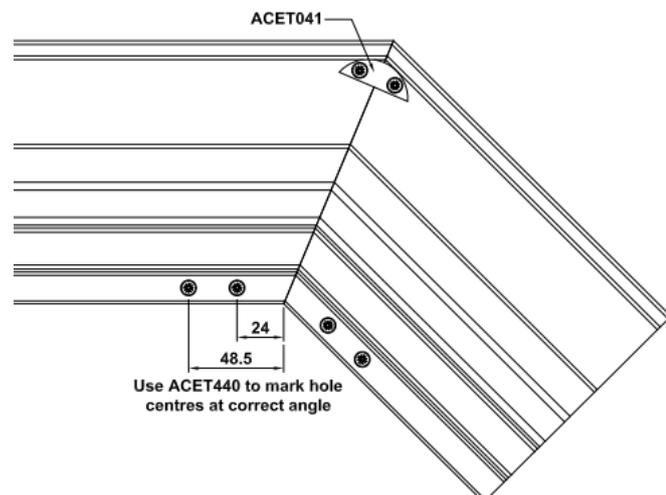
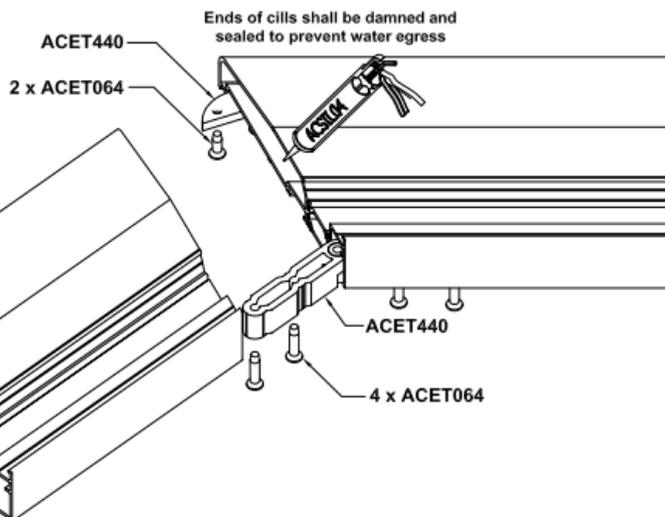
	ACUN23X
	Screw Fixing Lug
	ACUN230: B = 160MM
	ACUN232: B = 240MM
	ACUN233: B = 280MM

Example Direct Fixing Detail



Please Note

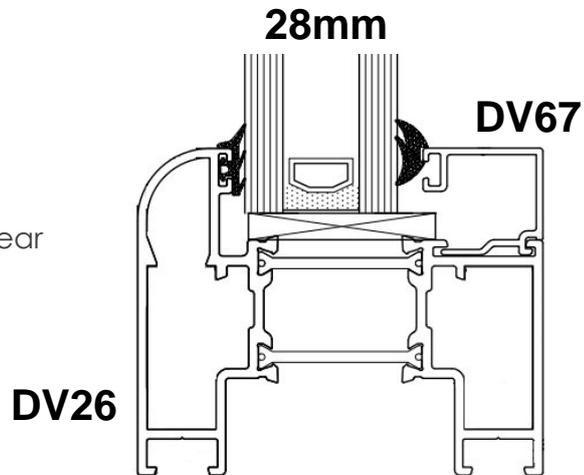
Cill fixing lugs need to be ordered separately they are not included with cills – pack size: Qty 100



U'values for double glazed units

Our standard glass specification is: -

- 28mm double glazed units
- Toughened glass
- 4mm Planitherm +/4mm Planilux clear
- 90% argon gas filled cavity
- 20mm Grey super spacer bar
- 20kg per m²

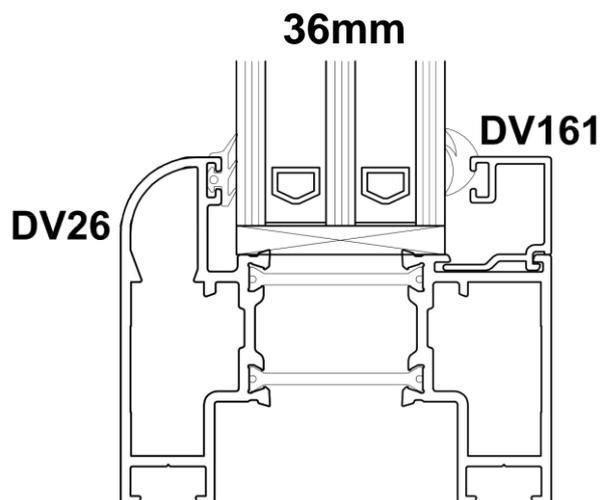


Bifolds incorporating the above specification of double glazing have an overall frame u' value of 1.8W/m²K, with a centre pane u' value of 1.2 W/m²K.

U'values for triple glazed units

As an optional extra We are also able to offer the 1000 series bifold doors with a triple glazed unit with the following specification: -

- 36mm triple glazed units
- Toughened glass
- 4mm Planitherm +/4mm Planitherm +/4mm Planilux clear
- 90% argon gas filled cavity
- 12mm Grey super spacer bar
- 30kg per m²



Bifolds incorporating the above specification of triple glazing have an overall frame u' value of 1.4W/m²K, with a centre pane u' value of 0.8 W/m²K.

You will need to specify at the point of quote/order if you want the triple glazed option otherwise your doors will be processed with the standard double glazed option.

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”.

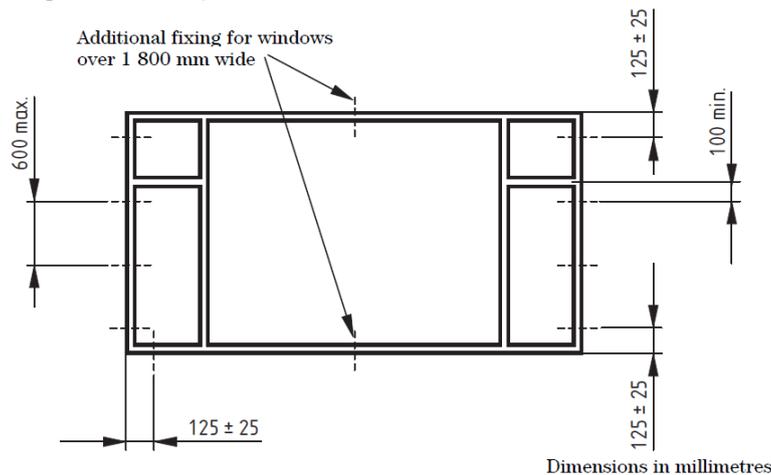
NOTE 2 The gap required for effective polyurethane foam fixing at the head is 10 mm to 15 mm.

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 doorsets 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

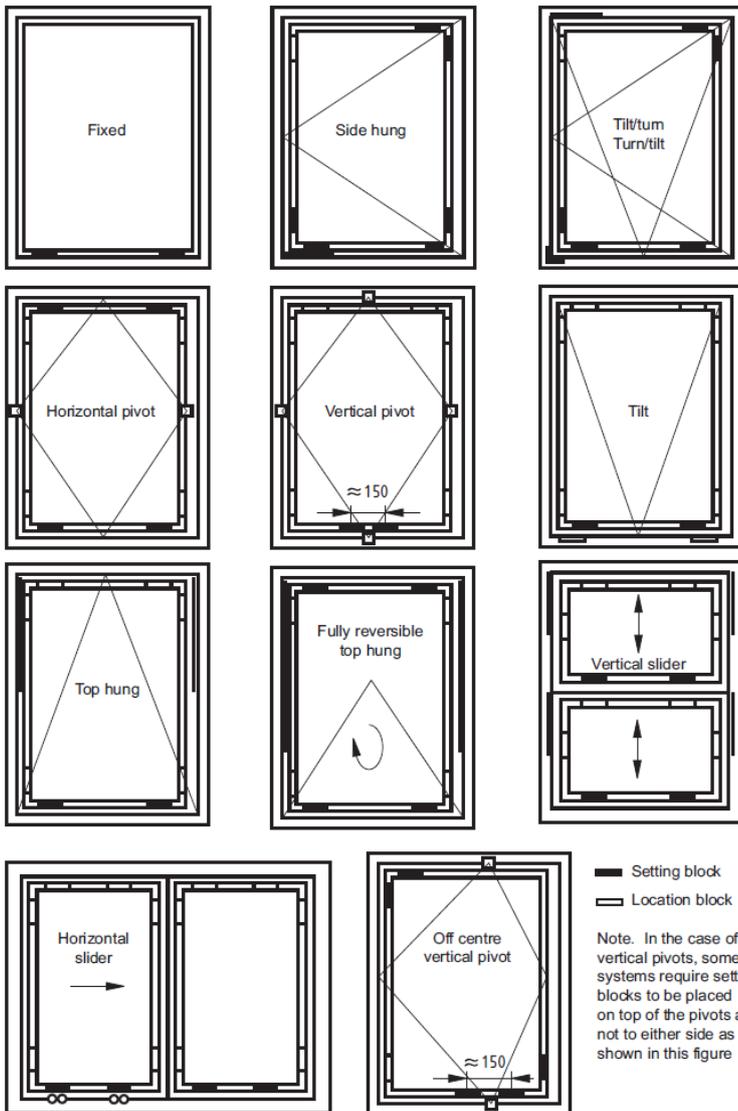


When building up components on coupled frames, care should be taken to keep coupling joints equal, and frames both aligned and plumb. Coupled assemblies should be fastened together in accordance with the manufacturer's instructions. Where the coupling is structural, the system supplier's recommendations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

Care should be taken to ensure windows and doorsets 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.



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

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

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

Please note
We recommend the use of cavity trays with all aluminium bifold doors.

■ Setting block
□ Location block

Note. In the case of vertical pivots, some systems require setting blocks to be placed on top of the pivots and not to either side as shown in this figure

Glazing Guide for Bifold doors

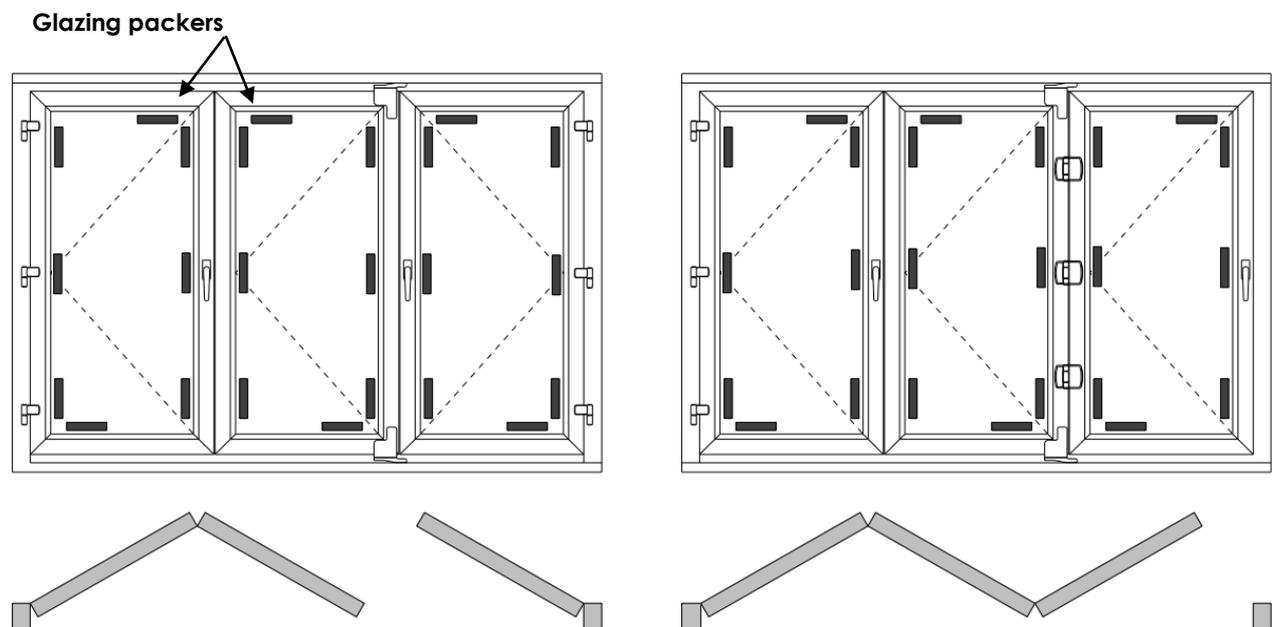
Bifold door sashes are heavy, and although the dead weight is supported on the hinge side there is nothing on the lock side to support the weight. Correct toe and healing of each sash is therefore essential to prevent the doors dropping and catching.

To stop a door sash dropping it needs to be braced diagonally corner to corner by inserting plastic packers between the glass and the frame. On the hinge side of the sash the packers go at the bottom corner, whilst on the lock side the packers go at the top (opposite corner).

Please note that the glass unit for the master door will be 6mm narrower than the other units, this is to allow enough room for you to place a thin plastic packer between the unit and the lock casing which protrudes into the glazing chamber on the 1000 series.

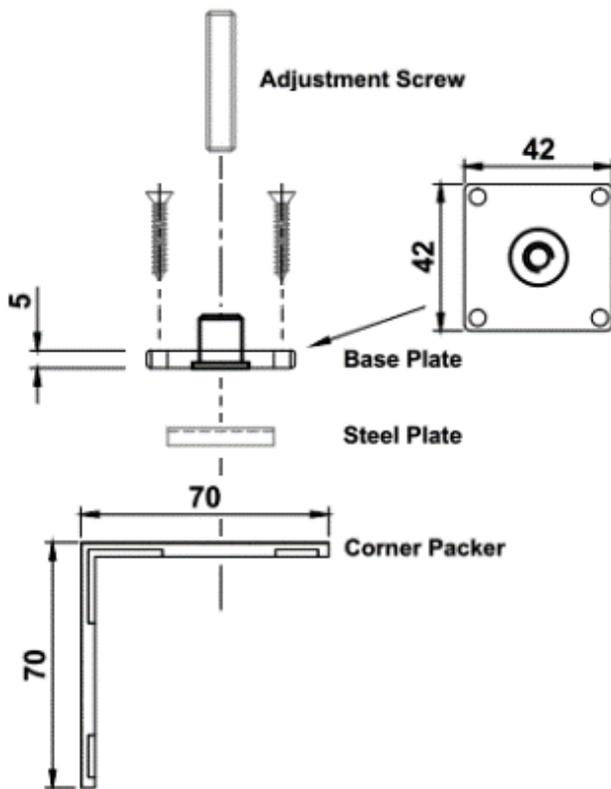
Bridging packers must be used to support the glazing packers and it is advisable to use a blob of silicon underneath the packers to stop them dropping/moving. Failure to use the correct bridging packers/packers will result in the doors dropping which may cause the locks to catch.

Below is a visual guide on where to locate the packers for two difference styles of doors, you should use the same principle when glazing other configurations.



Toe & Heeler Guide for sashes over 1000mm

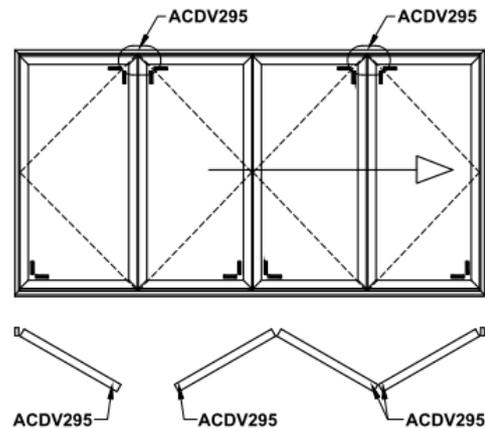
All bifold door sashes wider than 1000mm and up to the maximum 1200mm must be fitted with a toe and heeler device (ACDV295) and this device comes in 4 parts as shown below.



ACDV295 Glass Adjuster Kit

The Base Plate and Adjustment Screw are pre fitted to the sash in the factory.

The Steel Plate and Corner Packer will come in the stores package and must be used in place of standard packers in the corners where the device is fitted.



The packer will require a notch to be cut out when fitting 28mm units to allow the bead to sit in place, as shown below.



Cut out a notch here to allow the bead to sit correctly on 28mm units.



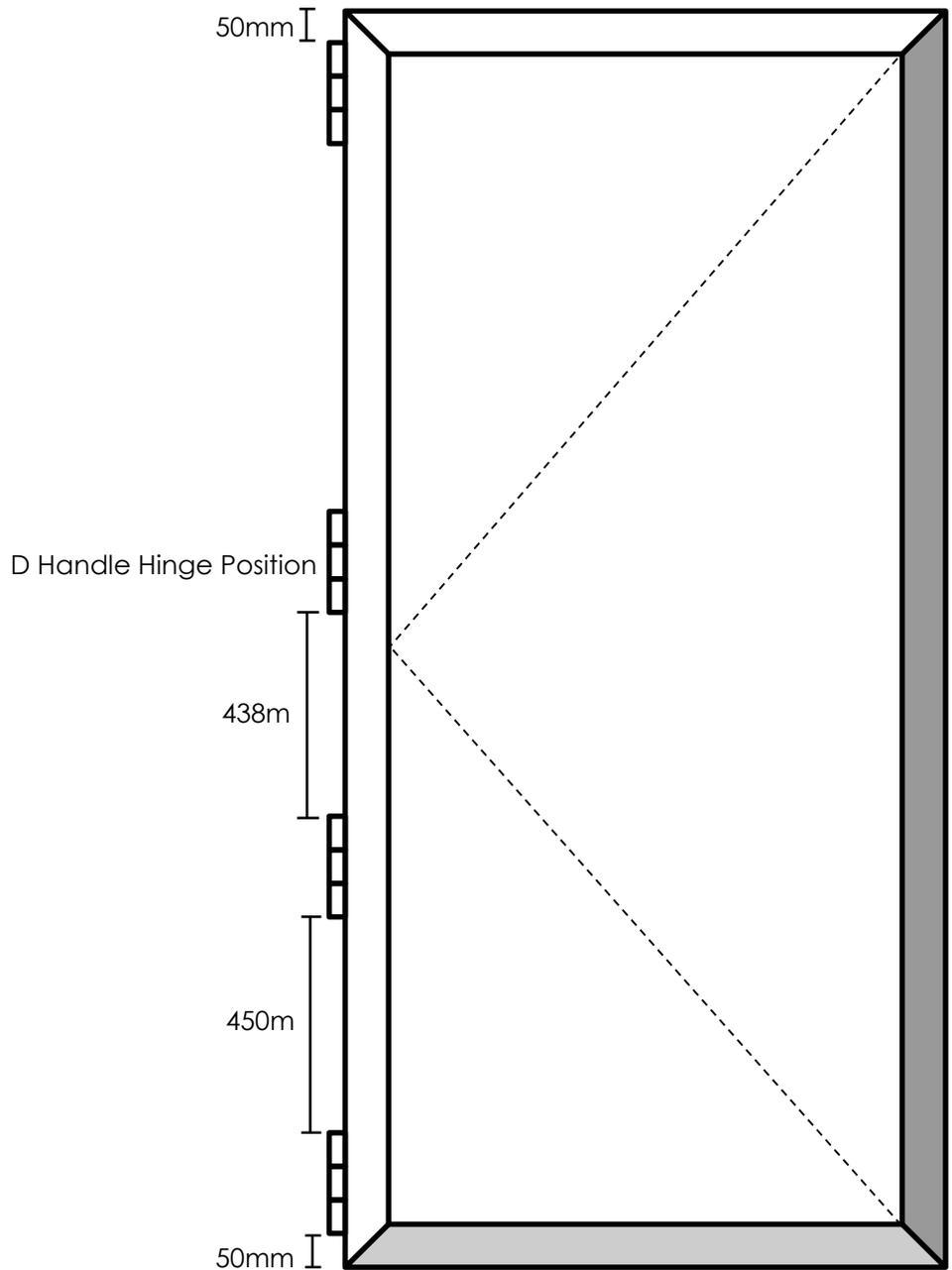
Please Note: Failure to install all of the parts will invalidate the guarantee and could potentially shatter the glass unit.

Hinge Positions

Below are the standard positions for the hinges on a Bifold door. The positions of the hinges are reliant on the shootbolt locking mechanism.



Hinge Height 86mm



Each measurement is from the bottom/top of the profile to the bottom/top of the hinge as indicated