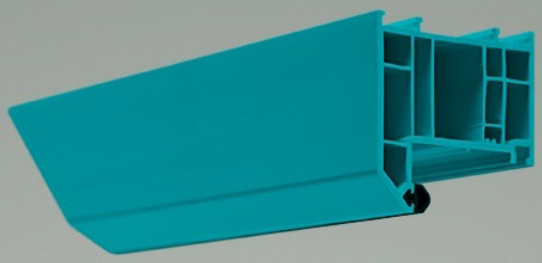
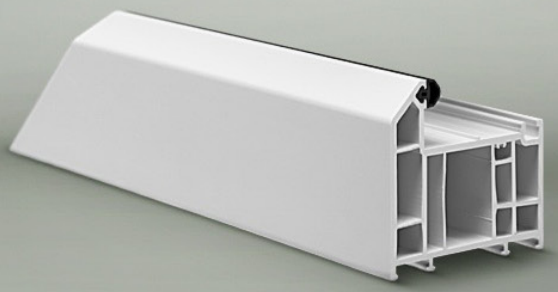
The Systems Guide





calibrewindowsystems.co.uk

CALIBRE

Calibre is a multi chamber, 70mm modern window and door system built in Britain and extruded in the markets leading polymer extrusion facility. It offers a practical and ideal solution for today's domestic refurbishment and new build markets.

A practical and ideal solution for today's domestic refurbishment and new build markets.

An attractive bevelled system, all of the most popular residential window and door styles can be manufactured from Calibre profile including; casements, tilt and turns, bay and bow windows, French windows and doors, and residential doors.

Consisting of 14 profiles and a single 28mm decorative glazing bead and optimised galvanised steel reinforcement sections. Calibre is a straightforward, efficient and effective window system. It is supported by a range of key ancillaries.

It's pre-inserted gasketed profiles are a unique design (patent pending) which reduces complexity and time taken to manufacture along with providing a consistently clean corner finish with minimal hard spots. The gasket also offers easier glazing and a reduced and consistent sightline.

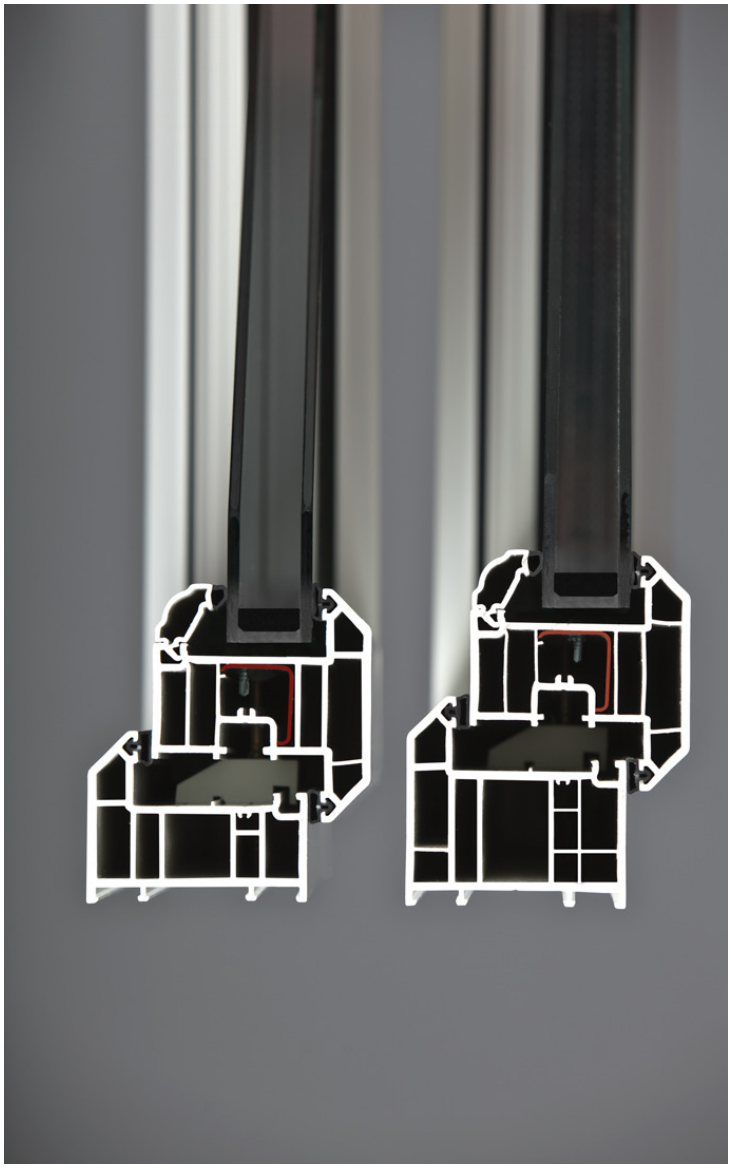
The main Calibre profiles are extruded in accordance with BS EN 12608 in a state of the art extrusion facility. They are also lead free and 100% recyclable.

Calibre is available in a standard clean white glossy finish and in a defined range of laminate finishes.

Applewood on white

Cherrywood on white

Also available are a variety of RAL colours.



All of the latest fittings and hardware (shoot bolts, hook locks and 'dog' bolts) can be used with Calibre and are available from various fittings suppliers.

MATERIAL

Calibre profiles are manufactured from a high performance, market leading formulation offering excellent weather and impact resistance. Providing a clean white, glossy surface finish our profiles are extruded to BS EN 12608 standard.

QUALITY ASSURANCE

Calibre profiles undergo rigorous quality assurance procedures to BS EN/ISO 9001 ensuring consistency and integrity

SOUND INSULATION

Levels of sound insulation depend largely on the glazing used. In general the thicker the glass pane the more sound proof the window.

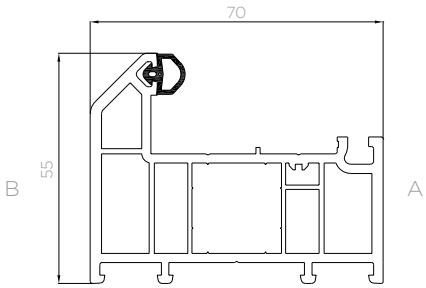
THERMAL PERFORMANCE

As a multi chamber system windows and doors manufactured using Calibre profiles can easily achieve the highest A WER energy rating and comply with all Building Regulations (Part L – England and Wales and Part J – Scotland).

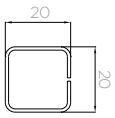
Windows achieving a C rating or above can be included in the Energy Savings Trust scheme and can display their logo.

Standard Casement 1230 x 1480	Uf	WER
Fully Reinforced	1.35	A
Standard Reinforced	1.27	A

Uf = U Value of the frame / WER = Window Energy Rating

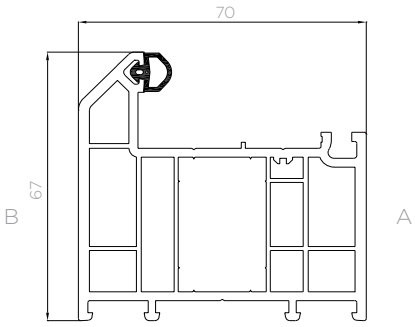


Small Frame
Part No. 504555 (white)
Part No. 584555 (laminated)

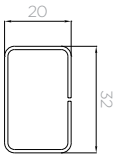


20 x 20 x 1mm Reinforcement
Part No. 216512

Ix = 0.42 cm⁴
Iy = 0.41 cm⁴

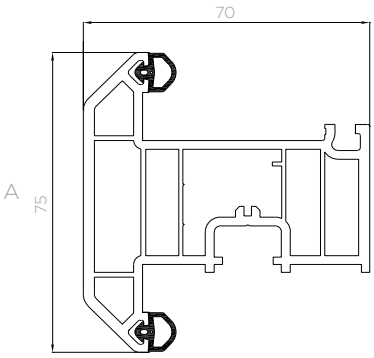


Large Frame
Part No. 504565 (white)
Part No. 584565 (laminated)

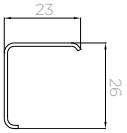


20 x 32 x 1mm Reinforcement
Part No. 216511

Ix = 0.62 cm⁴
Iy = 1.30 cm⁴

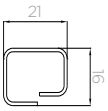


Window Sash
Part No. 504615 (white)
Part No. 584615 (laminated)



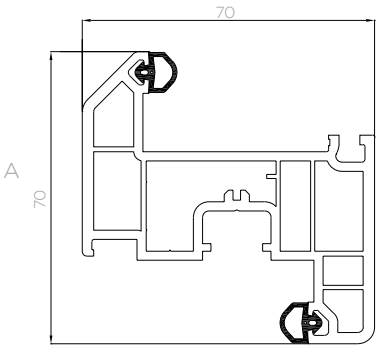
23 x 26 x 1mm Reinforcement
Part No. 216515

Ix = 0.25 cm⁴
Iy = 0.38 cm⁴

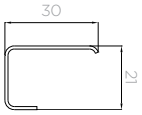


21 x 16 x 1mm Reinforcement
Part No. 216517

Ix = 0.35 cm⁴
Iy = 0.22 cm⁴



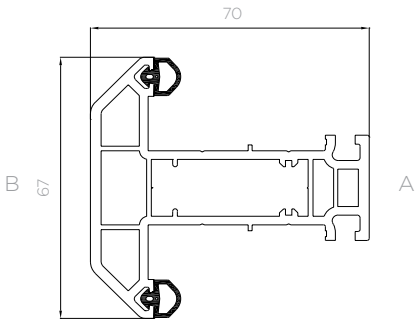
Tilt + Turn Sash
Part No. 504625 (white)
Part No. 584625 (laminated)



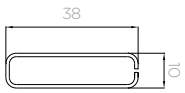
30 x 21 x 1mm Reinforcement
Part No. 216516

Ix = 0.48 cm⁴
Iy = 0.35 cm⁴

Laminated Codes . 221 = Cherrywood A . 261 = Cherrywood B . 321 = Applewood A . 361 = Applewood B

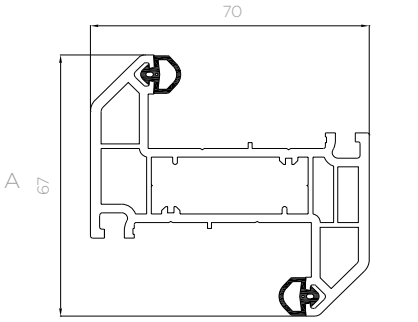


Small T Transom Mullion
Part No. 504575 (white)
Part No. 584575 (laminated)

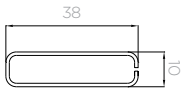


38 x 10 x 1mm Reinforcement
Part No. 216510

Ix = 1.27 cm^4
Iy = 0.15 cm^4

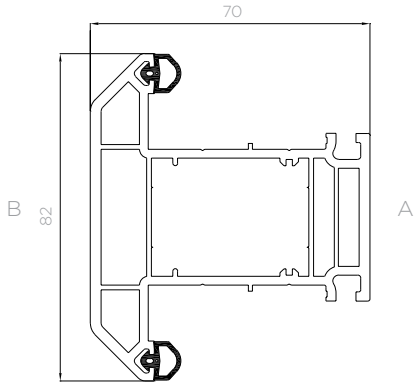


Small Z Transom Mullion
Part No. 504585 (white)
Part No. 584585 (laminated)

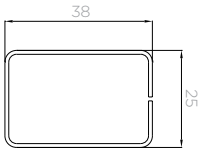


38 x 10 x 1mm Reinforcement
Part No. 216510

Ix = 1.27 cm^4
Iy = 0.15 cm^4

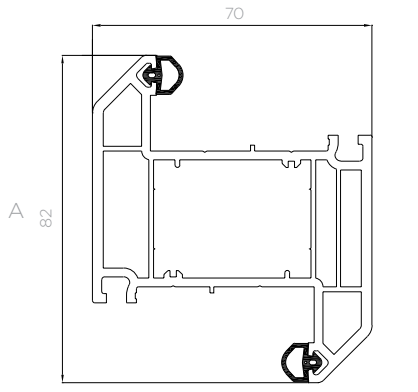


Large T Transom Mullion
Part No. 504595 (white)
Part No. 584595 (laminated)

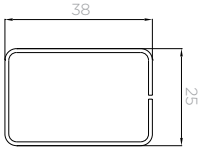


25 x 38 x 1mm Reinforcement
Part No. 216513

Ix = 2.30 cm^4
Iy = 1.23 cm^4



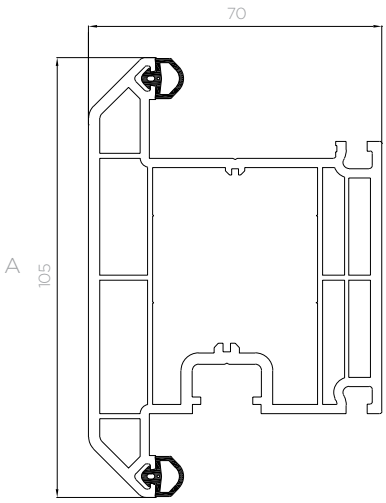
Large Z Transom Mullion
Part No. 504605 (white)
Part No. 584605 (laminated)



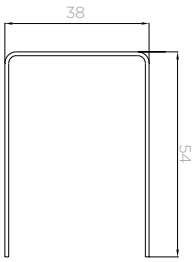
25 x 38 x 1mm Reinforcement
Part No. 216513

Ix = 2.30 cm^4
Iy = 1.23 cm^4

Laminated Codes . 221 = Cherrywood A . 261 = Cherrywood B . 321 = Applewood A . 361 = Applewood B

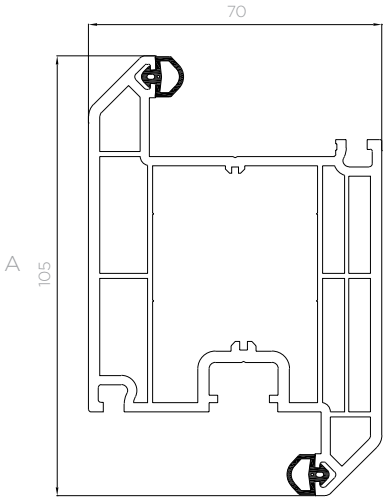


Door T Sash
Part No. 504635 (white)
Part No. 584635 (laminated)

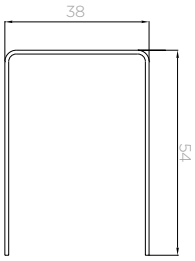


38 x 54 x 1mm Reinforcement
Part No. 216514

Ix = 4.00 cm⁴
Iy = 4.43 cm⁴

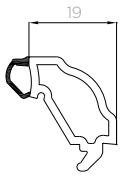


Door Z Sash
Part No. 504645 (white)
Part No. 584645 (laminated)

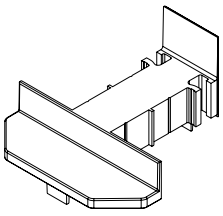


38 x 54 x 1mm Reinforcement
Part No. 216514

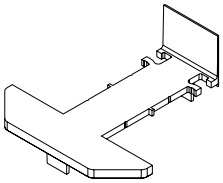
Ix = 4.00 cm⁴
Iy = 4.43 cm⁴



28mm Decorative Glazing Bead
Part No. 504650 (white)

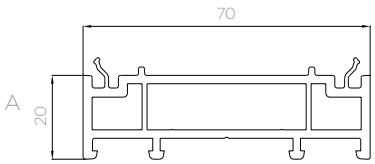


Mullion End Cap
Part No. 216504 (white + coloured)

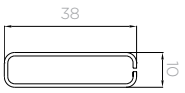


French Door End Cap
Part No. 216505 (white + coloured)

Laminated Codes . 221 = Cherrywood A . 261 = Cherrywood B . 321 = Applewood A . 361 = Applewood B .
Coloured Codes . 001 = White . 002 = Dark Brown . 003 = Light Brown

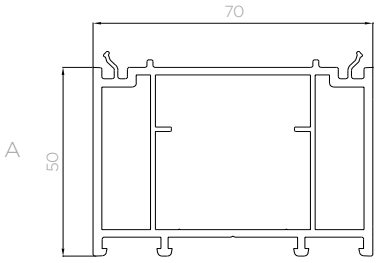


20mm Add On
Part No. 216680 (white)
Part No. 216680 (laminated)

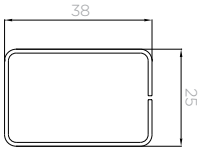


38 x 10 x 1mm Reinforcement
Part No. 216510

Ix = 1.27 cm⁴
Iy = 0.15 cm⁴

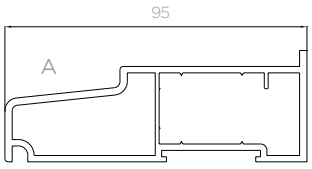


50mm Add On
Part No. 216690 (white)
Part No. 216690 (laminated)

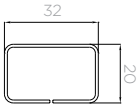


25 x 38 x 1mm Reinforcement
Part No. 216513

Ix = 2.30 cm⁴
Iy = 1.23 cm⁴

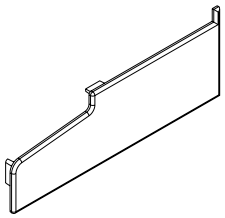


95mm Window Sill
Part No. 504660 (white)
Part No. 584660 (laminated)

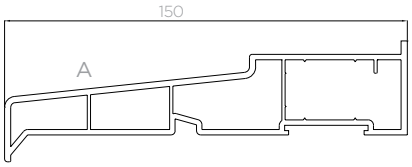


20 x 32 x 1mm Reinforcement
Part No. 216511

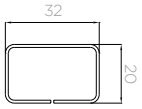
Ix = 1.30 cm⁴
Iy = 0.62 cm⁴



95mm End Cap
Part No. 216500 (white + coloured)

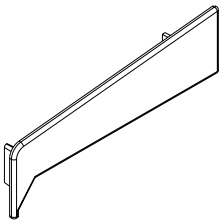


150mm Window Sill
Part No. 504670 (white)
Part No. 584670 (laminated)



20 x 32 x 1mm Reinforcement
Part No. 216511

Ix = 1.30 cm⁴
Iy = 0.62 cm⁴



150mm End Cap
Part No. 216501 (white + coloured)

Laminated Codes . 221 = Cherrywood A . 261 = Cherrywood B . 321 = Applewood A . 361 = Applewood B .
Coloured Codes . 001 = White . 002 = Dark Brown . 003 = Light Brown

It is recommended that Calibre Windows and Doors do not exceed the limits stated below.

Style	Top Hung		Side Hung		French Windows		Tilt + Turn	
Colour	w x h (mm)	Weight (Kg)	w x h (mm)	Weight (Kg)	w x h (mm)	Weight (Kg)	w x h (mm)	Weight (Kg)
White	1200 x 1200	35	650 x 1300	25	650 x 1300	25	1200 x 1200	40
Laminated	1200 x 1200	35	650 x 1300	25	650 x 1300	25	1200 x 1200	40

Style	Residential Door		French Door	
Colour	w x h (mm)	Weight (Kg)	w x h (mm)	Weight (Kg)
White	1000 x 2100	80	750 x 2100	80
Laminated	1000 x 2100	80	750 x 2100	80

Maximum sizes are based on the use of steel reinforcement shown within this guide.

Reinforcement is required for certain applications due to the expansion properties of PVCU. The following section gives general application recommendations:

FRAMES

Reinforcement is required if frames cannot be adequately fixed to masonary.

DOOR FRAMES

Door frames always require reinforcement on all vertical jambs of residential doors and on all four sides of French Doors and Residential Doors with sidelights. Also frame extensions when carrying door load.

DOOR SASHES

All door sashes require reinforcement. For midrails, reinforcement is calculated as a standard transom.

Due to thermal expansion, ALL coloured profiles are required to be fully reinforced with steel, screw fixings at maximum 250mm centres. Reinforcement should start 10mm from the mitre with the first fixing at 50mm from the end.

For white profiles, when reinforced, screw fixings can be increased to maximum 500mm centres.

MAXIMUM ELEMENT SIZES

- White Profiles

Profiles for fixed lights	Max. length 3m; Max area 6m^2
Profiles for multi-lights	Max. length 4m; Max. area 6m^2

Coupled elements greater than 4m in length require a coupler which allows for thermal expansion.

- Coloured Profiles

Profiles for fixed lights	Max. length 3m; Max area 4m^2
Profiles for multi-lights	Max. length 3m; Max. area 4m^2

Coupled elements greater than 3m in length require a coupler which allows for thermal expansion.

Furthermore, the following special cases should be noted:

If the maximum permissible fixing distance between the frame and the masonry (700mm) is exceeded, the free profile length of the frame must be verified by static calculation.

For fixed glazing the lower frame and supporting members e.g. frame, sill, extension profiles etc, must be reinforced to support glass weights over 100 kg and verified by static calculation. The reinforcement section must fill the reinforcement chamber fully, with a closed reinforcement section.

Maximum permissible deflection caused by wind loading is governed by BS EN 6399 & BS EN 6375. Windows should be designed and constructed in accordance site specific requirements as outlined in BS 6399 and BS 6375, where required a structural engineer should be used to validate the design of windows for specific locations.

Alternatively, if an appropriate figure can be provided by the building designer. The following table can be used to determine the maximum transom and mullion length:

Description and Part No.	Pressure (Pa)	Maximum Lengths for Reinforcement Gauges (mm)	
		No Reinforcement	1mm Reinforcement Part No. 216510
Small T Transom Mullion Part No. 504575 Small Z Transom Mullion Part No. 504585	800	750	1350
	1200	750	1250
	1600	750	1150
	2000	750	1100
	2400	750	1050
		No Reinforcement	1mm Reinforcement Part No. 216513
Large T Transom Mullion Part No. 504595 Large Z Transom Mullion Part No. 504605	800	800	1550
	1200	800	1400
	1600	800	1300
	2000	800	1250
	2400	800	1150

Note: In order to ensure the function of a window sash, the bowing of a transom caused by dead load (glass weight etc) of the profile should not be any greater than 3mm.

It is recommended that Calibre Windows and Doors are manufacturing using the following advice.

STORAGE PVCU PROFILES

Calibre profile packaging must be opened at both ends during storage to prevent condensation and provide ventilation.

Profiles must never be stored in the open – they must be protected from moisture and direct sunlight at all times, even if they are stored behind glass.

They should be stored flat and straight and must be supported along their entire length – uneven storage can cause sagging and distortion.

Avoid using supporting surfaces which have been treated with wood preservatives or other chemicals as this can cause discolouration of the profile when exposed to UV light.

When removing profiles from the stack they must always be lifted lengthways to avoid scratching and damage. Care should be taken to prevent any damage or distortion to the gasket.

It is important that the profiles are at the same temperature as the workshop when processing – at a minimum of 17°C. If the profiles are at a lower temperature they should be brought into the workshop in advance to allow them to warm up – please note that the rate of adjustment is approximately 1°C/hour. To help this process packs should be opened at both ends to allow air circulation.

Processing the profile below the minimum temperature must be avoided as it produces stresses that can lead to cracking.

Any protective foil on the profile should be left in place throughout fabrication (including welding). The protective foil is to be removed immediately after the installation.

Please note; particular care should be taken when storing and handing laminate/coloured profiles as scratch marks and dents are more noticeable and difficult to remove.

STORAGE ALUMINIUM PROFILES

Packaging should be checked for damage and moisture and the profiles unpacked immediately.

Gloves should be worn to prevent marking the profiles.

Contact with water and moisture must be avoided at all times – profiles should be wiped with a soft cloth should they come into contact with moisture.

Moisture can also form when the profile temperature falls below that of the room temperature, due to condensation.

Profiles must be stored in a well ventilated, dust free environment and should under no circumstances be stored in the open.

Sudden changes in temperature should also be avoided.

Contact with brickwork, plaster, steel or other metals must be avoided and the profiles must not stand on a concrete floor.

It is advisable to use aluminium profiles over a short period of time. If stored for a long time they should be protected against oxidisation.

CUTTING PVCU

Cutting speed: 50 – 52m per second.

Suitably toughened metal fine toothed saw blades should be used. High speed steel saw blades must be relief ground with no tooth set.

It is extremely important that all cutting tools are kept sharp as excessive friction produces a film of molten material which can stick to the blade and teeth – this can adversely affect the cleanness of the cut

and therefore the weld.

Cut sections should be processed without delay – at most within 2/3 days. The cut surfaces of the profile must be kept clean and dry, in particular free from machine grease or oil - any contamination can cause faults in the weld thus, reducing corner strength.

DRILLING & MILLING

High-speed, light metal and wood working machines and conventional HSS drilling and milling machines are suitable.

When drilling (triple boring) simultaneously through PVCU and steel in one pass, the drill bits and machine must be compatible to avoid deflection of the drill bits or other damage.

PRE-CHAMBER VENTILATION

To prevent surface swelling due to heat retention in mechanically jointed situation, the pre-chambers of the transom/mullion must be ventilated by drilling 8mm diameter holes at a distance of 20mm from the routed edge. This also applies to sill profiles where all of the chambers require ventilating.

WELDING

A variety of welding methods are possible:

- Machines with the "Contour" welding process – molten PVCU is formed by shaped weld bead restrictors as it emerges making surface cleaning unnecessary.

- With normal weld sprue restrictors for a subsequent trim-off or grooving operation.

- Machines allowing free flow of the welding sprue resulting in subsequent surface polishing. Please note: white profiles only.

- Welding machines with PTFE laminated faced welding plates should be used – thickness should not exceed 0.13mm/ minimum coating 70%.

The weld plates should be kept free of material deposits, grease and oil. The machine manufacturers operating instructions should be followed at all times.

Support blocks should be used at all times when welding – particularly when welding slim profiles.

The welding plate temperature should be 250°C, +/- 5°C – this is the optimal compromise between differing shapes, welding machine types and welding methods and refers to the plate surface including the laminated.

Different heat losses can arise through differing laminated covers, the setting of the control device can deviate from the temperature of the plates. The ideal temperature should be established during the initial commissioning of the welder in conjunction with the machine supplier.

A calibrated temperature probe should be used to check that the optimum temperature is being achieved – this should be used in conjunction with the machine read-out.

With restriction of the welding sprue and "Contour" welding, the weld sprue restrictor temperature is approximately 50°C – this can vary depending upon machine model and types of equipment.

From time to time and particularly after a change of PTFE laminate it is recommended that trial welding is carried out using off-cuts to check the weld status.

The burn off is approximately 2.5mm per profile face (dependent on weld machine type).

The meet time is 25 – 40 seconds, timed from the onset of melt to compression depending on profile cross-section, and the compression force when the profiles are pressed together must be taken into account.

A good weld will be when a creamy smooth to slightly rough welding bead is formed.

Brown coloured weld seams indicate excessive heat leading to scorching of materials or overlong fusion time – this is not an acceptable weld. A grayish discolouration is not a sign of scorching.

With unrestricted weld seams an area of compression 3 – 5mm either side of the weld bead should be noticeable.

The welded frame should only be removed from the machine after a period of 25 – 30 seconds to allow sufficient cooling time. It is important to let the weld cool under normal circumstances – nothing should be used to try and accelerate the cooling time as this will cause brittle welds and the possibility of cracking.

Once the weld has cooled and the frame has been removed it should be left for a further 10 minutes before any further processing is carried out.

The cooled weld should produce an angle of 90° – if this is not achieved it will be necessary to re-adjust the profile supports on the welder. To assist in an accurate weld it is recommended that the angle of the machine be set at 91 – 93°.

V welds - additional care should be taken over the temperature setting as a temperature build up can occur at the tips of the transom and mullion profiles. This can lead to collapse of the weld. This should be avoided by reducing the welding temperature by approximately 5°C. It is also recommended that the tip of the V should be removed.

Cruiform welds – it is important that the

through-running reinforcement must be pushed through immediately after welding and care should be taken to ensure the warm weld sprue is pushed through with the reinforcement.

CLEANING THE WELD

There are three alternative methods:

1. "Contour" Welding Method

During welding the molten material is formed into a contoured shape by special weld bead restrictors and makes additional surface treatment unnecessary. The rest of the weld bead should be cut off by machine or by hand with a special knife.

2. Groove-cutting Method

Weld bead restrictors should be used to restrict the weld sprue and a visible channel is then cut into the profile along the weld seam with a grooving machine or router. The maximum depth for this should not exceed 0.7mm. As this process reduces the corner strength by approximately 15% it requires optimal adjustment of the welding machine.

3. Polishing-flat Method

Please note: only suitable for white profiles. The weld sprue should be removed using a weld seam milling machine or a suitable sander. Any roughness should be removed with an orbital, angle or belt sander. A suitable grade of abrasive should be chosen according to the type of sander being used and its operating speed. Generally the grade for coarse sanding lies between 150 and 240 and for fine sanding between 240 and 320. Silicon carbide is particularly recommended due to its uniform grain and structure.

The treatment area should be kept as small as possible and the roughened surface should then be resealed using a suitable solvent so that the general degree of polish is restored. This should be applied using cleaning paper or fibreless cloths – it is important to avoid cloths with synthetic content.

The weld sprue on the inside corner must be removed vertically to the outer wall of the frame. Knocking out with a hammer and chisel must be avoided as this can cause nicks leading to cracking.

The outer corners should be cleaned using an automatic milling machine equipped with a suitable cutter. Hand machines can also be used but take more time and care.

Please note: additional instructions for laminate/coloured profiles:

Only methods 1 or 2 should be used as it is not possible to sand or polish the joints on laminate/coloured frames. Extra care should be taken when using sharp millers, routers and groove knives. Should any of the base material be visible as a result of corner cleaning a coating should be applied to all outward facing sides with the correct colour pen. (When using a colour pen shake well before use so that the colour pigments are well mixed and a good even colour is achieved.)

GASKETS

Calibre profiles are supplied with gaskets. For the best results when welding profile and gasket, sash weld blocks are required with spring loaded guides to provide support for the gasket outer corners. Also with corner cleaning care must be taken not to damage the outside gasket edge.

The use of non-Calibre gaskets will invalidate test certificates, performance data and/or third party certification applicable to Calibre Window Systems.

BAY WINDOWS

If Calibre windows are used in load bearing bay situation – Loads must not be transmitted directly onto a PVCU profile.

Load bearing bay poles must be used in accordance with BS 8213-4 Code of practice for the survey and installation of PVCU/Windows and Door sets.

FITTING THE GLAZING BEAD

The glazing bead should be cut to size using an oscillating saw with the appropriate blocks as required. Generally they should be mitre cut and should be snapped into the channel provided on the main profiles.

Mitre cutting short lengths of bead can cause problems due to the rigidity of the bead – when this occurs the scribed method is preferred. This is where the horizontal bead is cut square to the rebate size with the vertical bead being cut to the appropriate size and shape so that it overlaps the horizontal bead and forms a flush fit. Care should be taken to ensure that there is no opportunity for the ingress of water.

REPAIRS

A number of 3rd party products are available for damaged profiles with holes or cracks (not weld cracks). For best results their instructions should strictly followed. Please note: damage to laminated surfaces are very difficult to repair. Touch-up pens and repair kits are available on the market. However, in extreme cases of damage the frame will need to be replaced.

GLAZING

Calibre has a standard glazing width of 28mm.

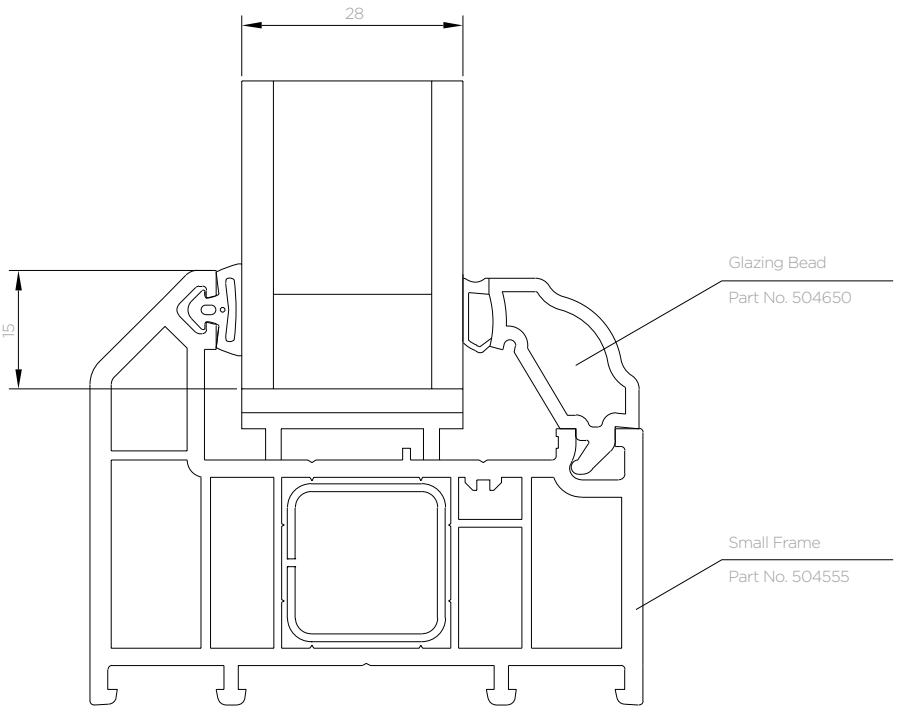
The regulations of the glazing unit manufacturers and BS 6262 requirements should be considered.

Where glazing is completed on site, sashes should not be removed from frames.

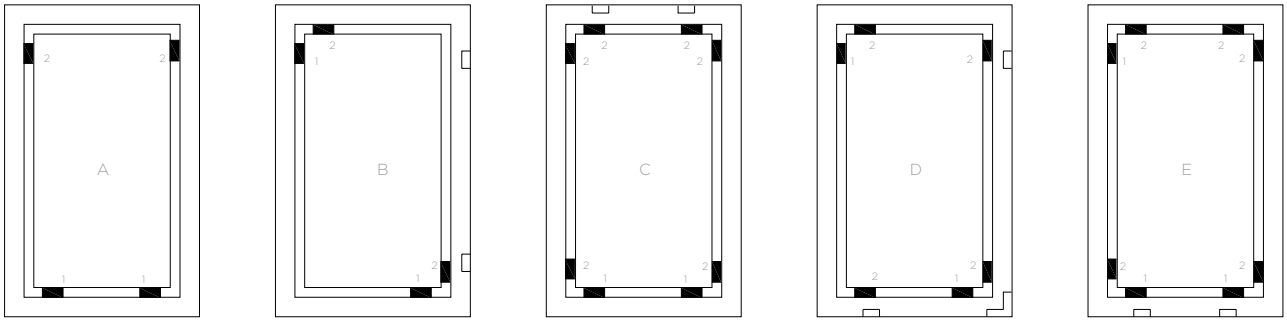
At low temperatures (below 5°C) care should be taken as materials may become brittle.

The glazing units must be properly packed according to the sash type, at a maximum 100mm from the corners, and evenly supported. The packers must not inhibit the drainage route and should be secured with an adhesive material to prevent movement.

GLAZING WIDTH DIAGRAM



GLAZING PACKER DIAGRAM



Fixed Light | Side Hung Sash | Top Hung Sash | Tilt + Turn Sash | Tilt Sash

1 = Load bearing setting blocks, approx. 100mm

2 = Location blocks

HARDWARE

Friction stays, espagnolettes and shoot-bolts can all be used.

Installation drawings and drilling templates should be obtained from the hardware manufacturer and their guidelines regarding limitations and maximum weights must be adhered to.

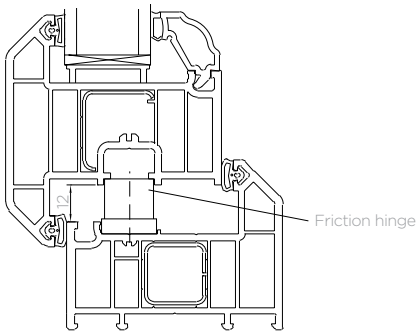
Calibre profiles have been designed so that generally load-bearing fittings are secured by screwing through two profile walls and additional legs inside the sash/frame rebate hollow to increased pullout strength for the screws.

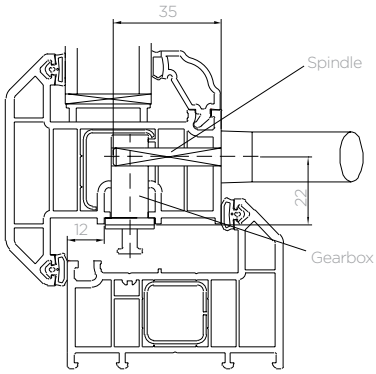
All transom/mullion screws must reach the reinforcement.

Counter-sunk, cross headed self-tapping screws can be used to DIN ISO 7050. If using self-tapping screws it is important to check that a precisely shaped thread-cutting bit is used. Blunt drill bits must not be used as they reduce the anchor strength substantially.

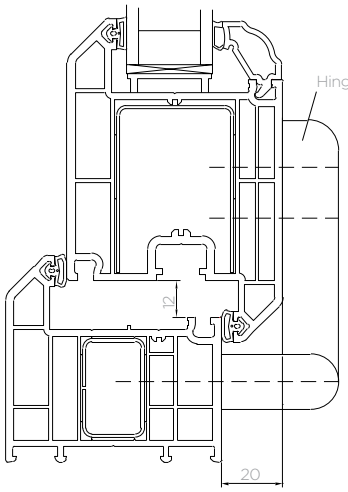
When using electric or pneumatic screwdrivers the clutch needs careful adjustment to prevent stripping the thread of the screw and care must be taken to ensure that the speed does not exceed 600-1000 revolutions/minute as this can cause partial heating of the PVCU material and lead to a reduction in anchorage strength of the screws.

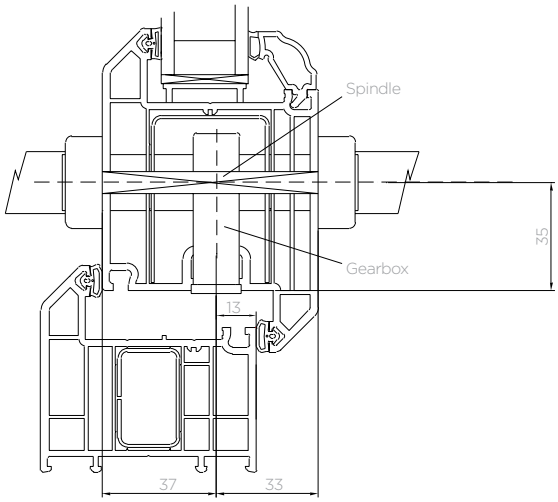
Please note: use of all fittings must be in accordance with relevant manufacturer's instructions.





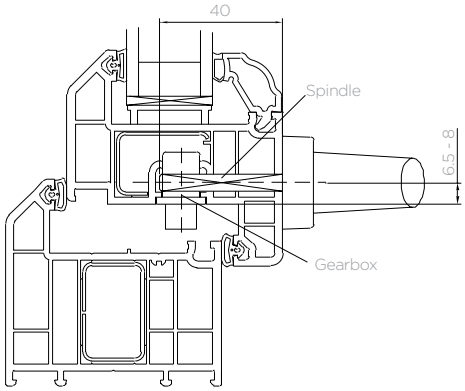
Casement hardware guide:
Hinge stack height = 17mm
Gearbox backset = 22mm
Spindle length = 35mm





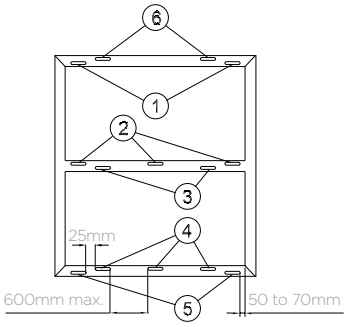
Door hardware guide:
Hinge stack height = 20mm
Gearbox backset = 35mm
Spindle length = 120mm
Cylinder length = 50/45 or 45/50 (95mm overall)

Note: This is only a guide, all details must be checked with the hard-ware supplier.

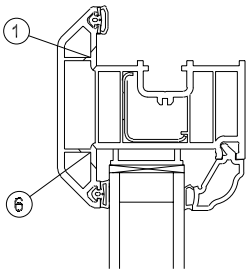


Tilt + Turn hardware guide:
Gearbox backset = 6.5-8mm
Spindle length = 40mm

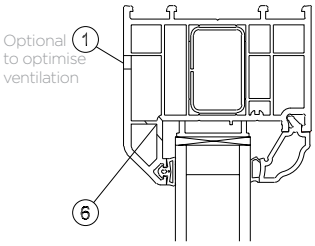
DRAINAGE AND EQUALISATION



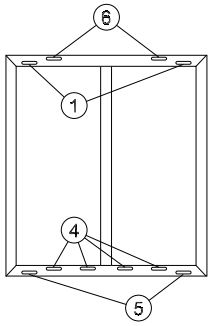
Sash with transom or mullion

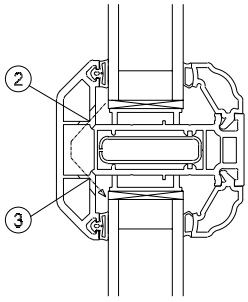


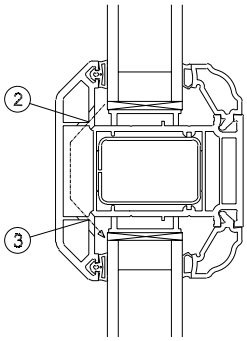
Fixed glazing in frame with transom or mullion

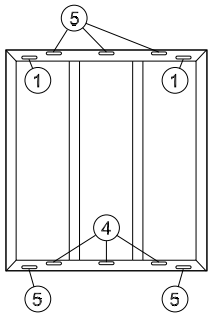


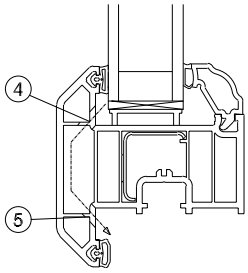
Note: use 5mm x 25mm slots for pressure equalisations and drainage of glazing rebate.

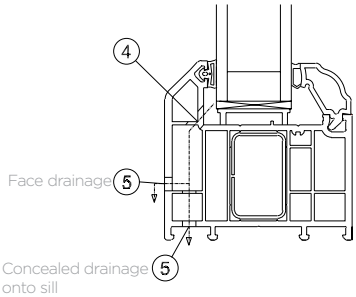




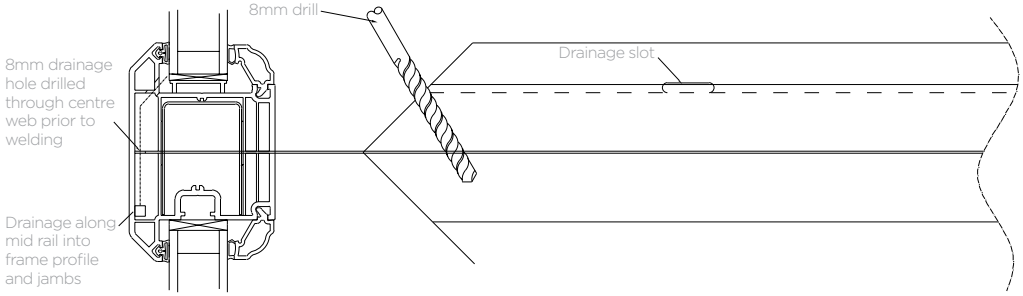




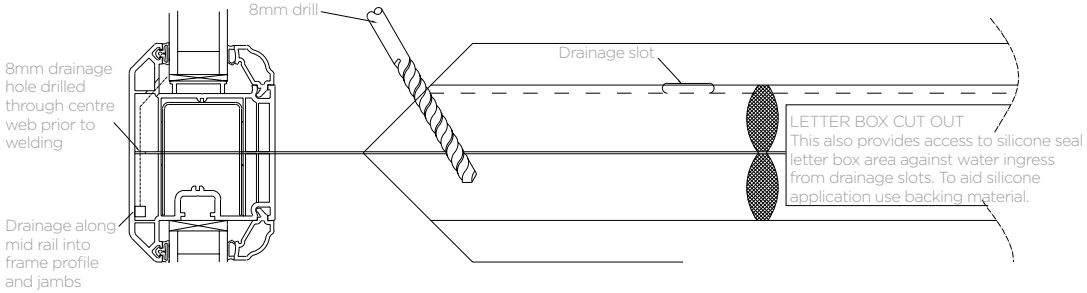




MID RAIL DRAINAGE



MID RAIL DRAINAGE WITH LETTERBOX



It is recommended that Calibre Windows and Doors are installed using the following advice. Further information can be obtained from The British Plastics Federation Code of Practice documents and British Standard Windows, Doors and Rooflights – Part 4 Code of Practice for the survey and installation of windows and external doorsets. BS 8213-4.

TRANSPORTATION

When transporting window/door units they must be protected to prevent damage caused by slippage, distortion, twisting or bowing. Soft interlayers should be used to stop the window/door units lying directly against each other. However, packaging that completely encloses the window/door may cause a build up of heat - particular care in this regard should be taken with coloured windows.

Care should be taken when protecting window/doors units to ensure that the packaging is suitable and that it does not have an adverse effect on the quality of the window/door unit.

STORAGE

Window/door units that are stored on a construction site should be placed on a firm base of timber battens and protected from soiling. Protection from direct sunlight is also recommended - using a tarpaulin or other similar material.

INSTALLATION PREPARATION

Permission to start the installation should be obtained from the customer.

FIT

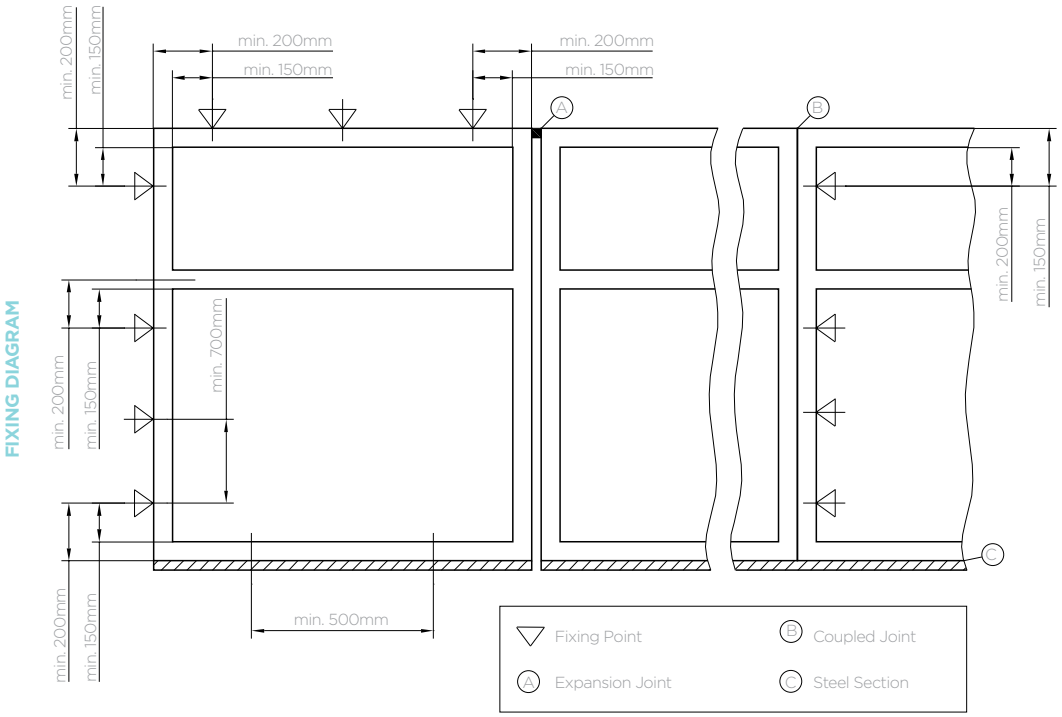
The installation must be perfectly level, vertically plumb and correctly aligned. The fabricator/installer must notify the customer in writing of any deviation from these requirements.

FIXING

Special window fixings, such as stepped metal strips or lugs, can be used in most situations and allow expansion movement, particularly with larger window/door units. These are fixed to the frame with screws or by location between the frame lugs. Fixing to the building fabric should be achieved with screw and wallplug. Nails or rivets must not be used to fix to frames.

Steel or plastic hollow dowels with a central screw can be used directly through the frame profile and into the building fabric. These will provide horizontal and vertical support but must not be used for the lower member as the rebate bed is punctured

FIXING DIAGRAM



allowing water ingress.

All anchoring materials must be protected against corrosion, be suitable for the building fabric and be suitable to withstand the stresses transmitted. With walls of light construction - breeze, aerated concrete, etc., extra long plugs should be used to ensure an adequate fixing.

Due to thermal expansion, fixings must be at least 200mm externally - or 150mm internally - from any weld or joint. Fixings should be positioned close to the hinges if possible – this will help to spread the load.

The distance between fixings must not exceed 700mm. When fixing to steel rails or surrounds the fixing should be a minimum of 500mm centres.

Sills or other profiles must not bridge expansion joints and affect the joint movement.

Packing must be located at fixing points.

MINIMUM SEALANT JOINT WIDTH

White element size	Up to 3m = 5mm Up to 3m - 4m = 7.5mm
Non-white element size	Up to 2.5m = 7.5mm

Note: Width 't' depends on gap 'b' and needs to be checked against manufacturers recommendations.

MOVEMENT COMPENSATION

An adequate gap should be left between the window/door and the building to ensure that damage is not caused due to linear expansion, contraction or building distortion. This will depend on the size and colour of the window/door, and mastic choice of the external seal. e.g., the expansion range of silicone is 25% of the gap width.
Where the reveal is rebated, a minimum 10mm distance must be maintained between frame edge and rebate.
Expansion differentials are dependent upon temperature and frame material.
PVCU White = 1.6mm/m maximum.
PVCU coloured = 2.4mm/m maximum.

INSTALLATION

Prior to any work starting, the aperture measurements and window/door unit size should be checked to ensure compatibility. The window/door unit should be trued up by means of wedges, which should be removed after the unit has been fixed. If this is not possible, care must be taken to ensure stresses, from the building, cannot be transmitted to the element and the linear expansion is not inhibited. Wedges must only be set at the points where the window is attached to the building fabric. Extreme care must be taken when installing window/door units at temperatures below 5°C and any impact to frame and sash must be avoided. The protective tape must be removed immediately after installation. When plastering profile surfaces must be protected.

MASONRY UNION

The joint between window/door units and masonry must contain a foam sealing strip - polyethylene foam or similar material to act as a backing for the pointing mastic. If thermal or sound insulation is critical then the joint can be completely filled with mineral or sound insulation wool. Gaps should not be filled with either mortar or plaster. If a foam filling is used, the manufacturer's instructions must be carefully read and strictly adhered to. The foam must be compatible to the frame material and the sealing mastic. Contact with any coloured or laminated surface should be avoided. Areas of cured PU foam must not remain exposed to the atmosphere. Bituminous materials must not be used for these joints.

Windows should be attached by fixing bolts, not fixing brackets, if foam filling is to be applied to the areas between the elements and building fabric.

SEALING

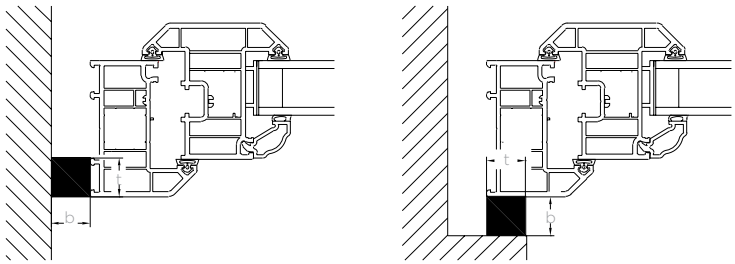
An elastic mastic should be used to form the external seal, which should be compatible with the frame material. The mastic manufacturer's instructions should be followed. If a damp proofing membrane has been specified, construction must be carried out in accordance with the specific circumstances and the architect or surveyors specifications.

ADDITIONAL SECURITY

Rigid packing must be inserted between the frame and wall adjacent to fixings and locking points.

All fixings must be suitable for the wall material and be positioned close to the locking points.

MINIMUM SEALANT JOINT WIDTH DIAGRAM



It is recommended that Calibre Windows and Doors are cleaned and maintained using the following advice.

Windows and Doors made from the Calibre Window and Door System require very little maintenance. However, so as to ensure that the new PVCU windows retain their appearance you should bear the following advice in mind:

CLEANING

Slightly dirty frames should be cleaned with warm water and washing up liquid.

Abrasive cleaners as well as dry cleaning with a duster should be avoided.

Cleaning solutions and polishes that contain solvents or thinners should not be used (aggressive chemicals like these will attack the window frame and seals).

Rust patches will only appear as a result of external metal particles from the outside atmosphere.

Under no circumstances should felt-tip pens or ink based markers be used on white PVCU or laminate/coloured profiles.

MAINTENANCE

The moving parts of fittings (hinges and handles) should be lightly oiled once or twice a year to ensure that your windows will always open smoothly.

Most fittings have a built-in adjustment facility so if a window should begin to stick you should contact your local dealer as only a trained window installer has the skill to make the necessary adjustments.

VENTILATION

Windows made from the Calibre Window and Door System have been designed to close very tightly and save energy. The new windows will be considerably better sealed than the old ones and if they are double glazed will, under normal circumstances, prevent condensation. However, where humidity levels are high, condensation may occur on cold surfaces in the room, correct ventilation can help with this.

Windows should be open on a daily basis to allow the moist air out and fresh air in.

Tilt + Turn style windows can be ventilated by leaving the windows in the tilt position for a few minutes.

just results.

Introducing the new Calibre Window Systems range. Built in Britain Calibre gives you the best of everything you need and cuts out everything you don't. The result is a stylish, yet reliable profile system with solid performance: everything you would expect from the top brands, except the price. Calibre Window Systems deliver quality, performance and service at exceptional value.

No frills. No fuss. No headaches.

SGV1.0613

CALIBRE

THE PERFECT PROFILE