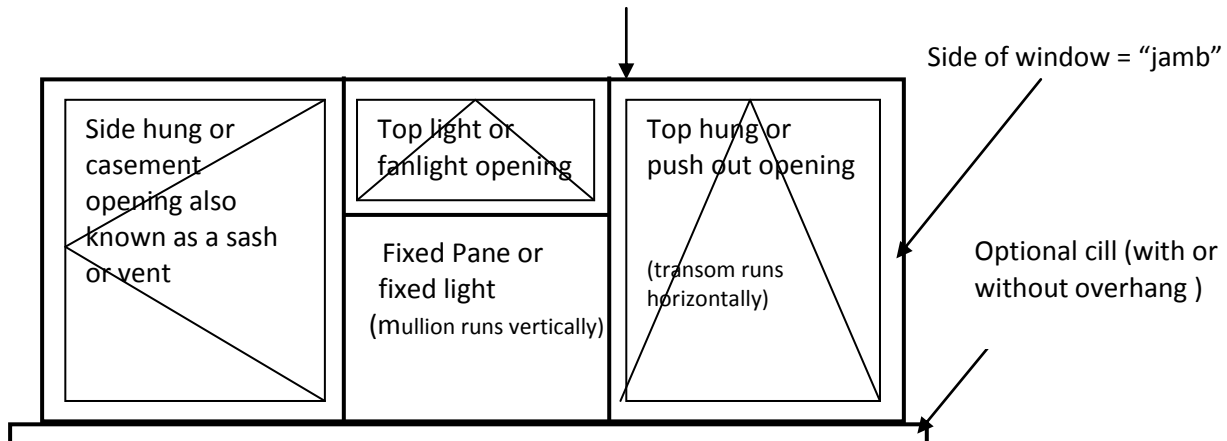


Welcome to the product training

Section 1 – Windows

1. Basic Design Terms Top of window = “head” (outer frame section is 60 x 70mm largest sizes)



The window drawing shows three different types of opening window

Opening windows are shown by the use of a “V” the point of the “V” indicates the side which is hinged; the other end of the “V” indicates the side which will open (where the handle is)

- *The opening window on the left shows a “side opening window” also referred to as a “casement” window meaning side opening*
- *The central section shows an opening window at the top known as a “top light” or “fan light”*
- *The section to the right shows a window hinged from the top known as a “top hung” or “push out”*
- *Where there is no opener this is known as a “fixed pane” or “fixed light”*

The frame

- *The frame around the outside is known as the “outer frame”*
- *The frame at the side of the window is known as the “Jamb”*
- *The top of the frame is known as the “head”*
- *The sections that divide a window are known as “transoms” and “mullions” (transoms run horizontally and mullions run vertically)*

The cill

In most cases the window will require a “cill”. This is an additional section that the window sits on

The cill is deeper (front to back) than the window frame and therefore protrudes at the front of the window frame and provides a run off for rain water

The cill will always be provided oversized in length to allow for an overhang at the ends known as a "horns". If the horns are not required the cill can be trimmed to size. Additionally the cill will be supplied with caps to be applied to the ends of the cill

In some instances the window frame will not require a cill for example when the window frame is to be fitted on top of a stone cill

Windows finishes available as standard are:

White (both sides)	Irish Oak (both sides only)*	Golden Oak (both sides) Golden Oak (white inside)
Rosewood (both sides) Rosewood (white inside)	Black (white inside)	White Grained (both sides)*
Grey (white inside)	Cream (both sides)	* Denotes Ovolo frame only

Window handle finishes available as standard are:

White Chrome Matt silver Gold

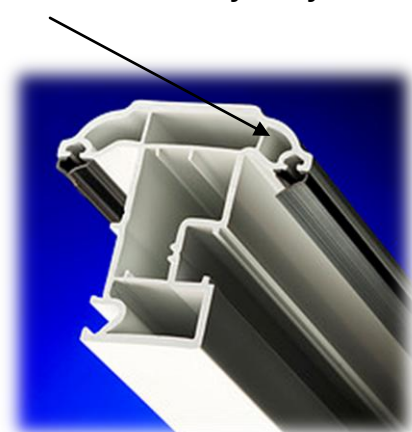
Locking

Windows – Espag locking with night vent (shoot bolt available on request)

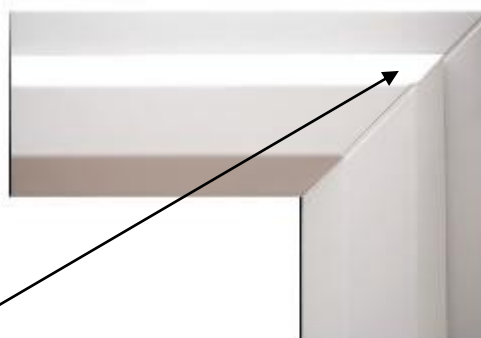
1. Frame and Bead Style

Window frames and glass retaining beads are available in two different design options. Traditional "chamfered" or the more decorative "ovolo" design

Ovolo and Chamfered frames and beads



Window frames and beading are available in two different design options. Traditional, chamfered or the more decorative ovolo design, both are the same price



2. Specific Design Terms

Drainage

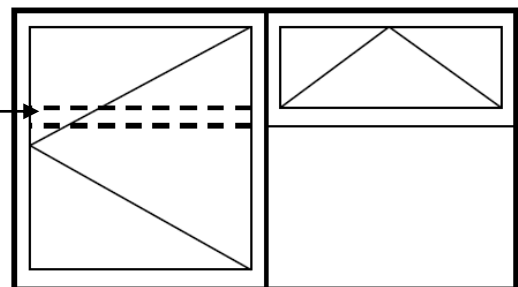
All windows have a drainage facility allowing water which might enter the frame to run away. Where a cill is used the water will run invisible from under the bottom of the frame onto the cill and away

Where no cill is specified (for example the window may be located on to a stone cill) the drainage will be through a small hole in the face of the bottom section of the window frame, this small hole will be covered by a cap

False or “Dummy transom”

Other design terms which are often used in relation to windows include false or dummy mullions. This describes a mullion or transom that is located within an opening window

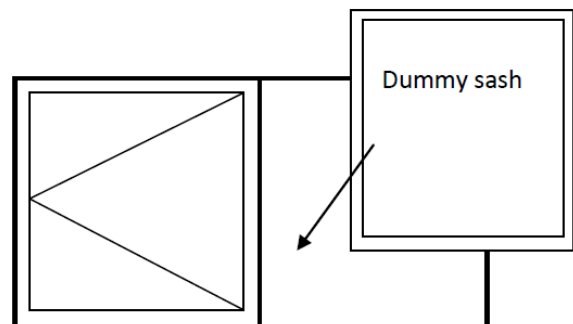
This design allows the full height opener to open as one window (often required for building regulations for fire escape regulations) whilst keeping the appearance of the transom running across the full width of the window



Dummy sash or “Equal sight lines”

This design includes an additional frame, manufactured in the same way as an opener but fixed in place without hinges or handles

This provides equal frame sight lines (symmetry)



Maximum and minimum dimensions for windows with openers

Location	Maximum	Height / Width	Minimum
Top hinged openers	1200	Width	350*
	1200	Height	350
Side hinged openers	750	Width	400
	1200	Height	400
Tilt & turn openers	1500	Width	550
	1500	Height	550

*Ovolo frame minimum width 400

Add on sections

Add on sections are available to extend the width of a window or door thickening the size of the outer frame. They are available in widths 15, 25, or 50mm (or can be combined together)

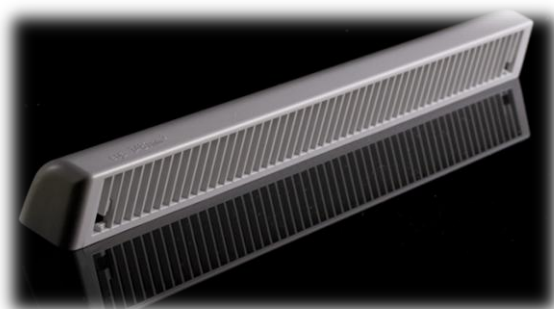
Typical applications are on the hinge side of a door (to ensure the hinge is clear of the plaster line) or where there is very thick plaster (or tiles preventing the frame from being hidden)

Trickle ventilation

Trickle ventilation is a means of allowing a slow flow of air in the property. It is achieved by machining a slot in the window frame profile and fixing a cover over the top which is closable

They are mandatory in all new build domestic properties as a requirement for building regulations approval

In existing properties they are only required when replacing a window which is already fitted with them. This is a requirement for FENSA registration or for building regulations approval



Fire escape openers (domestic houses)

To conform to FENSA (building regulation) rules a means of escape from a window is required for all habitable rooms above ground floor (up to 4.5m above ground)



*A clear opening of 0.33m² is required. This must be at least 450mm wide and x 450mm high
The bottom of the opening must not be more than 1100mm above the floor*

Windows designated as fire escapes will have a special hinge allowing the window to open fully for improved access

The only exception to this rule is when the window is being changed like for like as there is no FENSA requirement to make the window better (although it may need to be proved and photographic evidence should be kept)

Please indicate on the order form when fire hinges are required

Mock sash horns

Mock sash horns are used to give a standard opening window the appearance of a traditional sliding sash window

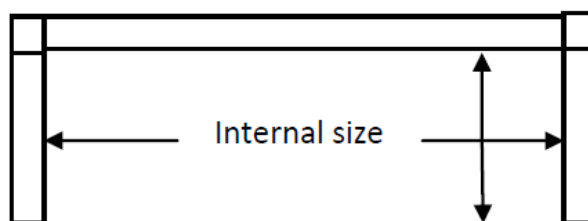
This should not be confused with a mock horn cap often used on inferior systems



3. Bay windows

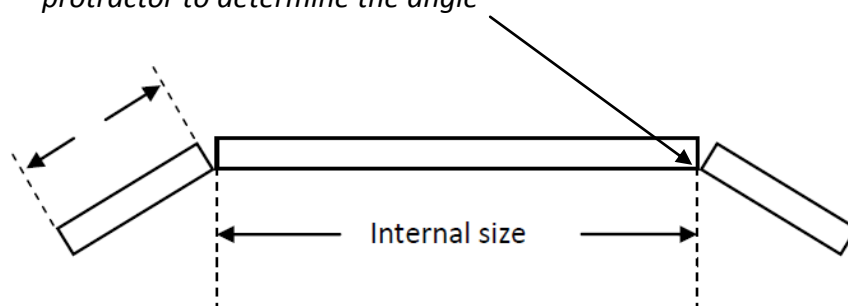
Bay windows whether square or splayed and made in various numbers of sections

They are made up of individual windows which are then joined together by using corner posts. When ordering bay windows please use the bay window order forms which will help to provide the required information



To place an order the following information will be required

- Window height - this is the overall height of the frame required (including any cill)
- Window width – this is the overall width of each section (as shown in the following diagrams)
- For splayed bays the angle of the splay will also be required, this can be achieved by using a specialist angle finder or taking a template of the angle and using a protractor to determine the angle



- *Load bearing – some bay windows are load bearing meaning that they are supporting some structure above (often brickwork)*

When windows are to be used in a load bearing situation there will need to be some other means of support (the replacement window is not load bearing)

A popular solution is a “bay jack”, the diagram shows the various attachments which fit to the corner posts



The bay jack must be full height and pass through the cill so that it sits on the brick work at the bottom and directly under the structure above

It is recommended that you telephone our helpline for further advice

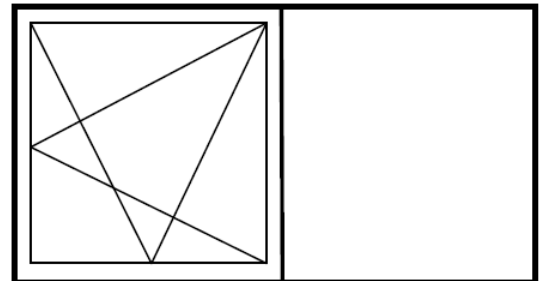
4. Alternative windows

Tilt and turn windows

Tilt and turn windows are different from standard casement windows in the way in which they open



The sash opens in two different ways tilting inwards (hinged from the bottom) which is known as “Tilt” and from the side again opening inward known as “Turn”



Tilt-and-turn PVC-U windows are developments where the unique enables easy, safe cleaning from They are also widely used in where high levels of natural required without compromising



ideal for multi-storey inward-opening sash within the building. commercial buildings, ventilation are security

Sliding sash window

Sliding sash windows are used to replicate old sash style windows also known as Yorkshire lights, they are often found in Georgian or Victorian houses



It is important to remember that the frames are deeper than standard windows and are 128mm front to back

The sashes both slide from the bottom upward and downward from the top

Additionally both sashes tilt inward into the house to facilitate easy cleaning



5. FENSA

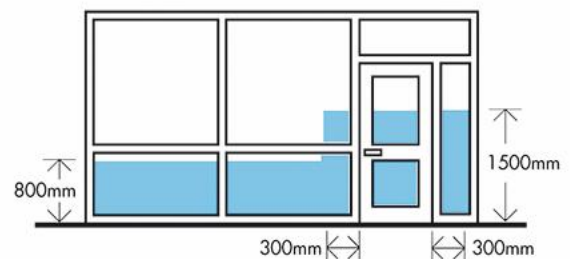
FENSA stands for the Fenestration Self-Assessment scheme. It has been set up by the Glass and Glazing Federation (GGF) and other industry bodies, with government encouragement, in response to the Building Regulations



Windows and doors installed into domestic properties must conform to building regulations. Each installation requires a certificate of compliance (required to sell a house) this can be obtained directly from the local council or alternatively from FENSA

The requirement for approval involves various aspects of the windows and doors. For a full explanation please see "Fensa seminar presentation August 2010" on this website. Briefly the regulations relate to

- *Fire escape openings required on each habitable room above ground floor (listed above)*
- *Minimum background ventilation equal to 1/20th of floor area in each room*
- *Minimum energy efficiency rating for the window - "C" or above*
- *Safety glazing in critical locations*



In all cases replacements can be like for like (there is no requirement to make matters better). However they cannot be made worse

6. Ordering and sizes

You can download order forms from this website. There are forms for windows, doors and bays

When completing an order form the sizes provided should always be the actual size the window is required. These will be different from the size of the brickwork opening as an allowance should be made (typically 10mm) to allow for any unevenness in the brickwork. This allowance must be made by the person measuring the window

The ordering sizes provided must be for the actual size of the finished window. Any deductions for cill or add on will be made in the manufacturing process

When providing a sketch drawing this must always be the outside view

7. Guarantee

- *Window (profile and manufacture) 5 years*
- *Hardware 1 year*
- *Glass 5 Years*