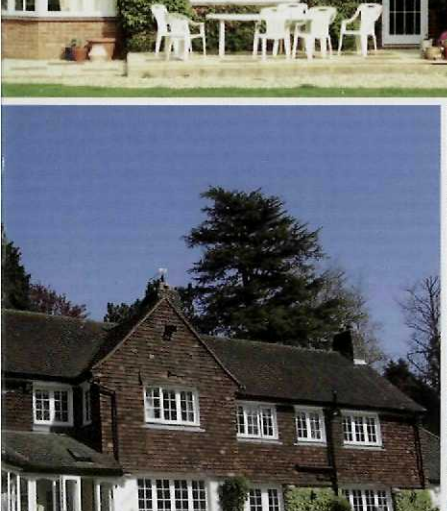
GEORGE BARNSDALE
ESTABLISHED 1884

Casement Windows

















Casement windows have featured in buildings dating back to the 16th century.

Whilst sliding sash windows became the architectural choice for prestigious buildings through the 18th and 19th centuries, casement windows were still prominent in farmhouses and cottages.

The features of casement windows have developed over time, with small glass panes used initially, which increased in size as glass making methods developed, with leaded lights popular in the early 19th century. Smaller pane sizes became popular again in the Edwardian era.

The George Barnsdale Casement range has been developed to allow our ultra-high performance design to be adapted to replicate the typical features throughout the windows history, without compromising performance.

The casement window range provides:

- *A premium product manufactured from* the finest materials and retaining traditional period features.
- Engineered timber providing excellent durability, all from certified, sustainable sources.
- Market leading warranties with a 10 year paint warranty as standard.
- Excellent thermal and weather performance with third party test validation.
- High quality hardware and design features providing enhanced security.

This brochure provides you with information on the window features and the main options that we offer (there is a wider range of options available on the website). If you have any requirements outside of these, we have a wealth of experience in customising our products, whilst maintaining the performance characteristics.

Our company brochure also provides further detail on the products, materials, processes and performance of the George Barnsdale window and door range.

Multipoint Locking



Advanced locking systems are fitted as standard, providing multiple locking points into the frame. In addition to excellent security performance, these fixing points prevent the timber from moving, contributing to the long life of the window.

Internally Beaded



All sashes are glazed from the inside providing enhanced security, improved weather performance, as well as protecting the bead resulting in longer life. The sashes are also drained and vented to ensure the glazing system is protected allowing it to provide long term performance.

Security Claws



Fitted onto the hinge side of the sash, these provide additional strength against forced access for excellent security performance.



Window as shown: Double Frame, bead and astragal b and external.

Hinges



Friction Hinge

Our standard hinge allows for smooth operation of the casement sash opening to a wide angle. The friction holds the sash in position without any additional stays (this and other traditional fittings can be specified for aesthetic reasons). The concealed hinge design means that when the sash is closed, it is not visible from the inside and is only partly visible from outside.



Restrictor Hinge

The restrictor hinge is the same design as the friction hinge, but with a built in safety restrictor. This prevents the window from opening more than 15 degrees, until the restrictor is released by pressing a release button on the bottom hinge.



sash flush casement window with one fixed and one opening sash on friction hinges. ar moulds are standard and cill has a 50mm extension. Paint finish is white internal

Sash & Frame Vents



We offer a wide range of ventilation options, both in the sash and the frame. Options include canopy vents and flush vents in a range of colours and styles. It is also possible to colour match vents if required.

Draught Seals



All products have multiple draught seals which provide excellent weatherproofing and thermal insulation.

Astragal Bars

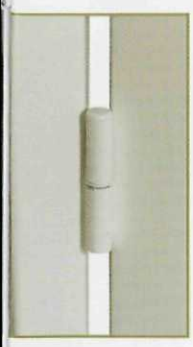


Attention to detail is no clearer than on our astragal bars which, by precisely counterprofiling the sash, give an unparalleled finish. External bars are manufactured from Accoya and dowelled into the sash for exceptional performance.



Egress Hinge

The egress easy clean hinge option allows the window to be opened to 90 degrees to maximise the opening for escape purposes. In addition it allows the sash, when in the open position, to slide towards the centre of the opening allowing the outside to be accessed for cleaning.



Traditional Butt Hinge

The butt hinge option allows for traditional designs to be accurately matched. The hinges can be complimented with a range of ironmongery options with friction stays and multipoint locks, providing the same ease of use as our standard window or a traditional latch if matching the original design is paramount. The hinges can be powder coated to match the paint colour.



Reversible Hinge

The reversible hinge option allows the window to be completely rotated so that the outside of the glass is on the inside, for easy cleaning.

Hinges can be specified with or without a restrictor. Reversible operation is available on both top and side hung sashes and can be specified alongside fixed and standard opening sashes.

Handle Options

The handle choice has a huge impact on the aesthetics of the window and we provide a range of options to allow you to get the appearance you require.



Standard

Our standard handle provides a traditional ergonomic design with push button locking and a range of colour options. This is an excellent option for a wide range of property styles. Matching fittings available across our window and door ranges.

White | Black | Gold

Polished Chrome | Satin Chrome | Flint



Celtic

Our mid-range handle offers an attractive traditional design coupled with high quality materials. It is available in a range of colours with locking as standard.

Brass | Polished Chrome | Satin Chrome

Bronze



Allart - 0350

Premium quality Frank Allart design based on original period designs. Available in a range of colours with locking as standard. Matching fittings are available across our window and door range.

Brass | Satin Nickel | Satin Chrome

Polished Chrome | Imitation Bronze



Allart - 0352

Premium quality Frank Allart design based on original period designs. Available in a range of colours with locking as standard. Matching fittings are available across our window and door range.

Brass | Satin Nickel | Satin Chrome

Polished Chrome | Imitation Bronze



Monkey Tail

An antique ironwork design giving a rustic appearance ideally suited to traditional cottages and farmhouses. It is available in matt black or antique pewter. Complimentary fittings are available on many of our other products including our door ranges.

Black | Pewter



Bulb End

An antique ironwork design giving a rustic appearance ideally suited to traditional cottages and farmhouses. It is available in matt black or antique pewter. Complimentary fittings are available on many of our other products including our door ranges.

Black | Pewter

Layout/Opening Options

We make all windows to your specification, meaning that we can supply any layout of window that is required. This can include:

Sash Opening: Sashes can either be side hung, top hung, fixed or direct glazed. A French window or false mullion option can also be specified to provide a large opening with two sashes (can allow an opening large enough for a fire escape window, whilst maintaining the original window designs).


Fixed Sash


Side Hung


Top Hung


French/False Mullion

Bay & Bow Windows: We are able to supply all windows in the range as a bay window. We can also provide bow windows (a curved fronted window).


Square Bay


Angled Bay


Bow

Round Work/Arches: We can provide a wide range of curved work designs, including arch top, internal sash arches (to top and bottom rails) as well as simple arch linings.


Arch Top


Internal Arch


Arch Fillet


Circular
(fixed only)

Frame Options

Internal Frame Profile:
The internal frame profile is available with Standard, Ovolo and Pencil Round moulds. Matching sash bead and astragal bar profiles are available and are shown on the next page.


Standard


Ovolo


Pencil Round

Extended Frame Profile:
We offer the following extended frame profiles on our flush casement range (where the outside of the frame is extended resulting in the sash being sat back in the frame).


Bevelled Extended


Ovolo Extended


Pencil Round Extended

Drips:
We have a range of head and transom drips, allowing you to replicate details on your existing windows. If your windows are fitted flush with the outside brickwork, we recommend a head drip is fitted.

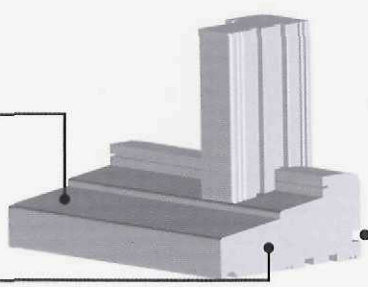

Head Drip


Transom Drip Type 1


Transom Drip Type 2

Cill Extension:
Allows the cill to extend over the brickwork. As standard we offer 30, 50, 70, 90 & 110mm extensions.

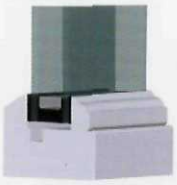
Cill Side Extensions (CSE):
Many replacement windows require cill side extensions. As standard we offer 25, 50, 75 and 100mm extensions.



Window Board Groove (WBG):
Our windows can be specified with a window board groove. We have the option of no groove, as well as offering a range of window boards.

Glazing Bead & Sash Bar Options

Beading:
Our beads are available as Standard, Ovolo and Pencil Round. All sashes in the traditional range are beaded internally to improve security and weather performance and result in a window with longer life.



a. Standard



b. Ovolo



c. Pencil Round

Astragal Bars:
These are matched with the outside sash profile and internal glazing bead. They come with an internal glazing bar as standard.

Solid Glazing Bars:
These are available in any layout and are specified at 43mm wide as standard. This can be increased if required.

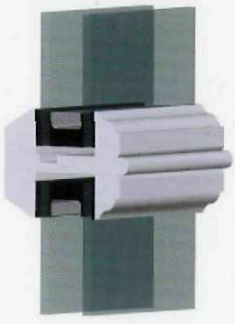


21mm Astragal Bar

a.
b.
c.



30mm Astragal Bar



Solid Glazing Bar

Glass

We have a wide range of options to suit any special requirements you may have including:

Toughened Safety Glass: Toughening process increases strength and safety.

Laminated Security Glass: Laminate provides additional security over a toughened unit.

Acoustic Glass: Increases already high level of sound insulation using specialist laminates and thicker glass.

Solar Control Glass: Allows heat gain from the sun to be matched to the requirements of a building.

Obscure Glass: Available in a wide range of patterns, with a sample shown below (the number in brackets indicates the obscurity on a 5 point scale with 5 being the highest). Additional patterns include sandblasted, Oriel and Oriel Textured (a sandblasted pattern on each float of textured glass). Glass can also be painted and tinted. For the full range please visit our website at www.georgebarnsdale.co.uk.



Arctic (4)



Autumn (3)



Cotswold (5)



Flemish (2)



Stippolyte (4)



Sycamore (2)

Lead: We offer a wide range of options including widths (6, 9 and 12mm), colours (bright and antique) and styles (including square and diamond patterns).

Stained Glass: We can provide coloured glass to your requirements (a photo of an existing design or a drawing is sufficient). These can be supplied with or without lead outlines.

Other Options: We can install all available glazing systems, so please enquire if you have any special requirements. These may include integral blinds or sandblasted/coloured glass to a specific design (for example, your house number or name).

Timber

Our casement windows are manufactured from engineered timber from sustainable sources as standard. The timber is approved by either FSC or PEFC bodies and is selected for its outstanding performance and environmental credentials. As standard we use:

Frames & Sashes: PEFC Redwood WoodHeart® (timber from the central heartwood of the tree, engineered to be free from knots whilst providing excellent stability and durability).

Cill Extension: FSC Hardwood for enhanced durability (the cill extension gets the most weathering).

Coupled with our advanced coating system, this results in a window that retains the characteristics of the timber and will last indefinitely with minimal maintenance.



Redwood WoodHeart®

We can also offer the window in the following timbers if required (see our company brochure for more information):



Red Grandis



European Oak



Sapele



Accoya

Paint

Our advanced coating system has been developed to provide maximum protection, allow the timber to breathe and let the characteristics of the timber show through. This allows us to give a 10 year guarantee on paint finish (a 25 year guarantee may also be available - please contact us for more information).



Colour: We can provide almost any opaque or translucent colour. All we require is a RAL Standard, RAL Design, Natural Colour System (NCS) or British Standard (BS 4800) colour or an actual sample.

George Barnsdale Standard Colours:

Opaque*



White
RAL 9016



Off White
RAL 9001



Cream
RAL 1015



Pebble Grey
RAL 7032



Cement Grey
RAL 7033



Moss Green
RAL 6005



Pastel Blue
RAL 5024



Night Blue
RAL 5022



Ruby Red
RAL 3003



Jet Black
RAL 9005

Translucent*



Light Oak
(on WoodHeart®)



Teak
(on WoodHeart®)



Mahogany
(on WoodHeart®)



Walnut
(on WoodHeart®)



Light Oak
(on Red Grandis)



Teak
(on Red Grandis)



Mahogany
(on Red Grandis)



Walnut
(on Red Grandis)



Light Oak
(on Sapele)



Teak
(on Sapele)



Light Oak
(on Oak)



Teak
(on Oak)

Dual Colour: We can provide dual colour windows with a different colour inside to out or frame to sash. This also allows for the frame and sash to have a different dual colour specification if required.

*please note that actual colours may vary due to the print process

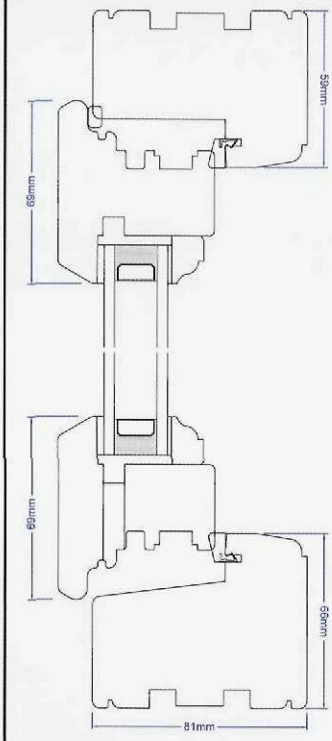
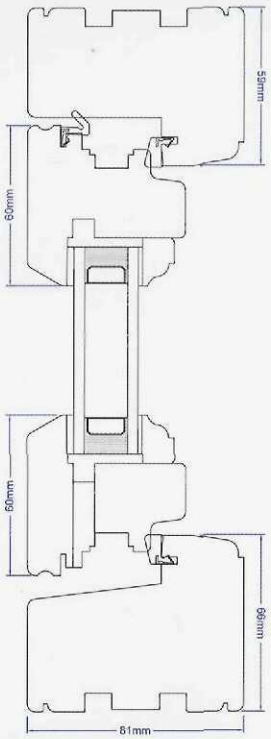
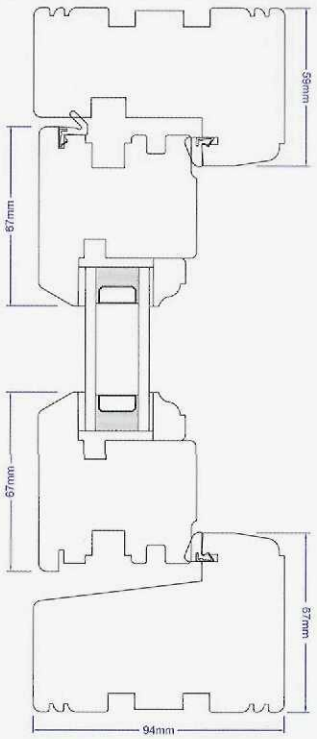
Guarantees

Our industry leading manufacturer backed guarantees:

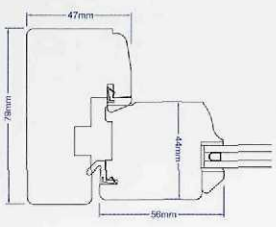


Sectional Details/Performance

The following information is a summary for each window range. The stormproof and flush casement windows are also available in 94mm frame thicknesses. For detailed drawings and test reports, please visit our website.

DESIGN			
Window Type	Stormproof	Flush	Reversible Flush
Horizontal Section Profile			
THERMAL			
U_W (Standard)	maximum of 1.6 W/m²K		
U_W (Best)	up to 1.1 W/m²K	up to 1.0 W/m²K	up to 1.1 W/m²K
Energy Rating	up to A		
WEATHER			
Air Permeability	Class 4		
Wind Resistance	Pass		
Water Tightness	Pass		
ACOUSTIC			
Noise Reduction	up to 38dB		
SECURITY			
Can conform to	BS 7950		

Historic Flush Casement Window



Developed to satisfy aesthetic and planning requirements, where a large sash is not permitted and there are strict rules regarding the window design in place. This range comes with a wide choice of sash profiles for single and double glazed systems using traditional moulds as well as our standard glazing options.

Whilst these products do not have the same thermal performance as our traditional range, they still perform extremely well and maintain the other performance properties of the traditional range.

See our Historic Range brochure for more information.

The Warren, Ashtead, Surry

The installation of high performance, long life, flush casement windows, entrance doors and patio doors for the refurbishment of a picturesque home in Surrey.

Project Details



Product: Flush casement windows, inward opening entrance doors and outward opening French patio doorsets.

Timber: Windows from Redwood WoodHeart®; Doorsets from Redwood WoodHeart® (frames) and Red Grandis (doors).

Finishes: Fully finished white to interior and exterior.

Client: Private residential client.

Project



In partnership with one of our approved installers, George Barnsdale & Sons supplied and installed a range of timber windows and doorsets for a residential property in Surrey.

Our approved installer visited the site, discussed the requirements with the client and then surveyed the property.

The clients had very specific requirements for the refurbishment including the need to replicate the original windows and the astragal bar detail. A high performance and tested window design was provided to meet the client's requirements.

All windows were manufactured from PEFC approved Redwood WoodHeart® and fully finished in white. The entrance doors and the French patio doorset were manufactured from FSC approved Red Grandis. The installation was completed by our approved installer, who fitted the windows to our usual high standards and ensured minimum disruption during the process. On completion the client was provided with all paperwork including FENSA installation approvals (authority providing planning consent) and guarantees on the products, including a 10 year warranty on the paint finish. This project resulted in the combination of modern performance requirements with period features and styling, significantly improving the appearance of the building.

"Thank you for the wonderful job your team has made of our windows - they do look fantastic. The men were a pleasure to have working here, and always left everything clean and tidy. We would have no hesitation in recommending your company to anyone else. Thank you very much."

Mr & Mrs Willis, Homeowners

Houldsworth Mill, Stockport

Houldsworth Mill was built in the late 1860s and was a great cotton mill of its time and the primary source of employment in the area. It has now been converted into residential housing and is owned by The Guinness Partnership which owns over 50,000 homes and employs nearly 2000 staff delivering services to more than 100,000 customers nationwide. The Mill is in a conservation area and was originally refurbished in 2000 by the association.

Project Details



Product: Flush casement windows (Fully Finished Windows).

Timber: Redwood WoodHeart®.

Finishes: Fully finished white to interior and exterior (WF378).

Architect: Michael Dyson Associates.

Contractors: ROK Building Limited.

Client: Guinness Northern Counties.

Project



This converted Victorian Mill needed to replace windows from another supplier which had been fitted during the original 2000 refurbishment and had proved to have poor performance. Local conservation requirements meant that a matched design was needed to replicate the original arched top style, with elegant and slimmer sections and vents that were invisible. Improved acoustic performance was desirable for residents in this busy location with shops and a sports club in close vicinity.

George Barnsdale manufactured arched top, high performance flush casement windows. Direct glazed panels were required to give slender timber profiles, but these require external beading which are left vulnerable to the weather, so Accoya beads were specified to give a more stable window and better long term performance. For opening sashes, the tried and tested internal beading system from Barnsdales gave a high performance fully ventilated system. Vents were specially hidden in transoms to satisfy the conservation aesthetic. The final specification provided:

- Slender timber sections to give an elegant appearance.
- Long term durable product with excellent proven weather performance to replace poorly designed failing products.
- Long lasting factory applied paint finishes.
- Excellent acoustic properties developed through comprehensive acoustic testing.

"We decided to go with George Barnsdales because they simply offered the best product and they did exactly what we wanted. We also appreciated the fact that Barnsdales had been around forever and had a solid reputation and history behind them that offered us the guarantee and confidence that we needed – they were never just a standard joinery firm.

"Overall we are really happy with the solution from George Barnsdales and whenever we have a window replacement job now, we use their pricing as a benchmark, as we know that they provide real value for money."

Philip Holland, Service Manager Maintenance – Leasehold, Guinness Northern Counties

For more case studies on projects like yours please visit www.georgebarnsdale.co.uk.

About Us

At George Barnsdale, we have been making premium quality timber windows and doors since 1884.

Every window and door is designed, engineered and hand finished in the UK by our team of skilled craftsmen using the finest materials and state of the art robotic machinery.

Our technical team provide expert support and advice to ensure our products meet your aesthetic and performance requirements, enhance UK building regulations and reflect the character of your building.

Investment in research, development and testing has enabled us to achieve the very highest levels in thermal, weatherproof, security and acoustic performance, in a range of products that have been sourced and manufactured in a sustainable way.

Credentials for Lasting Performance

Design: Internally beaded for security and long life; Double and triple gaskets for class leading weather performance; Traditional designs matching period features with a specialist range for listed buildings (historic range) and modern buildings (contemporary range); Designs fully tested by UKAS approved third party test houses.

Timber: Use of high quality engineered timber providing excellent durability and stability characteristics; Range of redwoods and hardwoods available; All timber sourced sustainably through either FSC or PEFC certification schemes.

Paint: Cutting edge robotic paint facility allowing precise control of paint application; advanced coating system providing excellent protection, whilst allowing the characteristics of the timber to remain visible; 10 year guarantee with no redecorating required available on most products (7 years for stain finish).

Glass: High performance glazing with Saint Gobain Planitherm Total+, argon fill and warm edge spacer as standard; Many options including security, safety, acoustic, thermal, solar gain/reduction, obscure patterns, triple glazed unites, slim units (including Pilkington Legacy and Histoglass); Internally beaded, drained and vented glazing systems for improved performance and life; All units tested to BS EN 1279 and supplied with a 10 year warranty (except some slim unit options). Our glazing systems are supplied to a higher specification than the industry standard - see our website technical area for more information.

Fittings: High quality fittings used as standard; Wide range of colour and style options; Products meet BS 7950 / PAS 23/24 requirements where applicable; All fittings covered by 5 year guarantee.

Thermal: Optimised designs through thermal modelling by in-house BFRC simulator; Products can meet an A rating; First A rated timber window in UK; Window U-value and Window Energy Rating displayed on all quotations; Window U values less than 1 W/m²K available on most products; Passivhaus window option now available.

Wind/Water: Double/triple seals around the window provide excellent sealing from weather; Investment in research, development and testing have optimised designs and extensive test data is available to validate performance.

Acoustic: Draught seals and advanced glazing provides excellent noise reduction as standard. Our acoustic glass range can provide further improvements if required (a range of test data in accordance with BS EN ISO 717-1 is available).

Security: High security fittings supplied as standard; Increased security specification is available if required; Windows can be manufactured to achieve BS EN ISO 7950 (requirement for Secure by Design) if required; Doors can be manufactured to PAS 23/24 if required.

Certifications & Standards

FM 89764

BS 644
Licence No. KM 89727

energy saving recommended

The mark of responsible forestry
FSC® C021044

Promoting sustainable forest management
www.pefc.org
PEFC/16-44-917

BRITISH WOODWORKING FEDERATION

TWA SCHEME

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INVESTORS IN PEOPLE

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Tel: 01775 823000 | Fax: 01775 823010 | Email: sales@georgebarnsdale.co.uk | Web: www.georgebarnsdale.co.uk







