

GEORGE BARNSDALE

British made since 1884

Historic Range



Lasting Performance Through Innovation
Timber Windows & Doors

The Development of the Historic Range

Whether you are refurbishing a listed property or planning a new build in a conservation area, you will find that there are specific planning requirements concerning windows and doors.

For replacement windows it is a prerequisite that they replicate the original, not only aesthetically but in material choice and how they are manufactured. Similarly for new builds, the windows and doors should seek to be sympathetic in appearance to neighbouring properties, so that the visual impact of the development is minimised.

After working closely with conservation officers, building control officers and architects, we have developed the George Barnsdale **Historic Range** to specifically meet the stringent planning requirements common for listed buildings and conservation areas, with little compromise on performance.

Performance was a key driver in the design of the **Historic Range**, especially with regards to the glazing systems. Working with planning authorities and conservation officers has allowed us to provide a wide range of narrow double glazing options that meet the aesthetic requirements of the majority of the installations, whilst ensuring high performance backed up by long life guarantees.

Why George Barnsdale?

At George Barnsdale we have been making premium quality timber windows and doors since 1884. Over the years we're proud to have built our reputation on providing beautiful products of the highest quality with an uncompromising attitude towards high performance and long life.

Every window and door is designed, engineered and hand finished at our Donington-based factory in Lincolnshire using the finest materials and state of the art robotic machinery.

Our business focus is achieving lasting product performance through innovation. For the development of the **Historic Range** we have significantly invested in research and product testing to ensure that the range performs to a consistently high standard.

To validate our performance claims we have extensive test data from third party, UKAS approved test houses, and we are able to award industry leading guarantees across the majority of our product range, including:



Historic Range

The **Historic Range** consists of the following standard products:



Sash Windows

With original locking systems and cord and weight balances, our Historic Sash Windows can be supplied with a wide range of original profiles and glazing methods to provide an accurate match to existing designs. High quality hardware is supplied as standard.



Yorkshire Sash Windows

The Historic Yorkshire Sash Window couples a traditional sliding mechanism with advanced draught proofing. There are a wide range of profiles and glazing options to allow it to match with existing windows and an extensive range of glazing, timber and paint options are available.



Flush Casement Windows

The Historic Flush Casement Window has been developed to maintain original aesthetics whilst providing improved performance. There are a wide range of profile glazing, ironmongery, timber and paint options available, all offering our market leading guarantees.



Entrance Doors

We have a collection of Historic Entrance Doors, all with the option of multipoint locking or traditional locks, fully adjustable traditional hinges, as well as excellent weatherproofing. As with our main range, the product can be specified to match any design that you require.

In addition to these standard products, we can manufacture to bespoke requirements. Our customised products still retain the high performance characteristics of the standard range.



Sash Windows



Balance Options

This window is available as a Box Sash with cord and weights, which is the traditional way for the window to operate. There is also a Sash Spring Balance Window option which offers narrower jamb profiles if required.

Accoya Linings

Traditionally a very weak point in Sash Windows, the linings are exposed to the conditions and due to their narrow sections cannot be made from engineered timber. By using Accoya®, an advanced timber with exceptional durability, we ensure that this is no longer an issue.

Layout Options

Our Sash Windows can be designed to replicate almost any existing design. We can supply them with arched heads, internal arches to the sash, as well as a range of bay and bow window designs.

Horn Options

Top and/or bottom sashes can be specified with traditional sash horns. The horn styles pictured here are available as standard and allow most designs to be closely matched.

If required we can match your existing design (we would require a dimensioned drawing or photograph).

Type 1



Type 2



Type 3



Type 4



Ironmongery (for both window types)

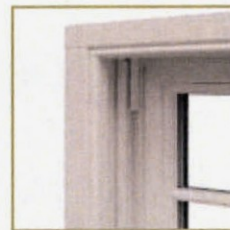
Fitch Catch

Traditional locking catch allowing the window to be closed securely and applying pressure to the meeting rail seal providing excellent weather sealing. The catch comes with a lock as standard, but can be specified without and is available in a range of finishes.



Spring Balances

For the Sash Spring Balance Window option, the balances are available in white and brown, and the tilting channels are provided in white or brown. As standard we will specify the colour that we deem most suitable to the paint colour, but you can specify an alternative if required.



Yorkshire Sash Windows



Narrow Profiles

As with all windows in our **Historic Range**, the sashes and frames can be supplied with very narrow profiles allowing them to accurately replicate the appearance of the original windows. This is particularly important on the meeting rail (where the two sashes meet) where we are able to supply a 35mm width for single glazing and a 40mm width for double glazing.

Draught Seals

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

Range of Sash Profiles

As is consistent across the **Historic Range**, there are a wide range of sash glazing profiles available allowing you to accurately match your original windows.

Smooth Operation

Our track system allows the sashes to move simply and smoothly with very little effort. This is further enhanced by our precision manufacturing and high quality fittings.



Layout Options

Our Yorkshire Sash Windows are available in almost any configuration, but the most common are shown here. In addition to the opening types, they can be customised in many other ways to allow them to match accurately with any existing features that may need to be replicated, including profile moulds and widths.

Right Sliding



Left Sliding



Double Sliding



Fixed



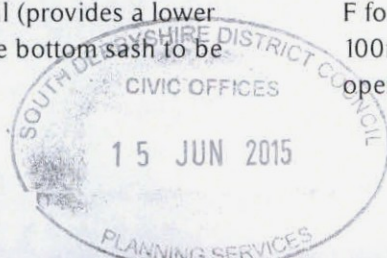
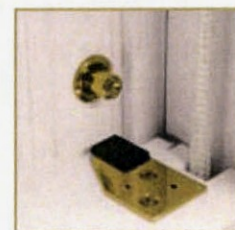
Sash Pulls

Sash pulls are available in a range of finishes and allow the sashes to be easily opened and closed. The sash can be specified without pulls if requested. The top sash is specified as standard with a sash pull on its top rail, but can also be provided with a D handle on the underside of the meeting rail (provides a lower point for access, but requires the bottom sash to be opened to access).

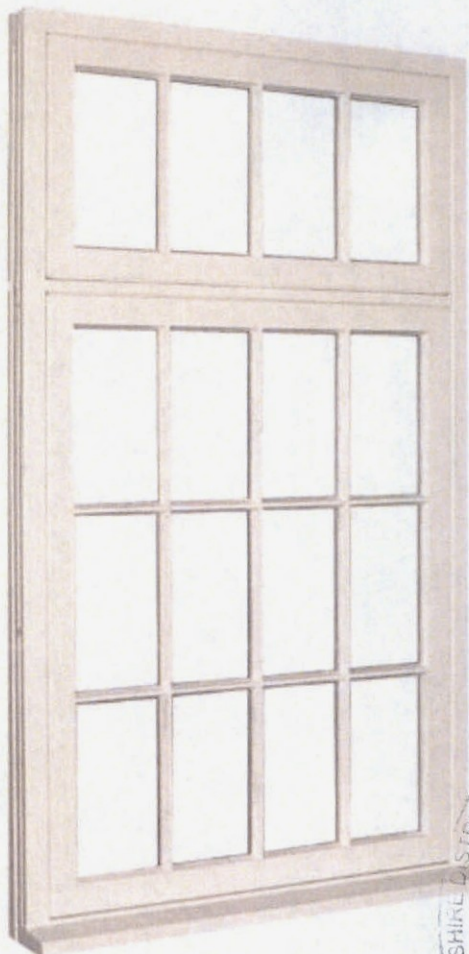


Sash Stops

Sash stops allow the window to be opened for ventilation, but restrict further opening providing safety to people in the building and preventing intruders from lifting the sash to gain access. The stops are fitted as standard at 15mm (usually meets Building Regulation Part F for trickle ventilation), but can also be fitted at 100mm to allow for additional ventilation, whilst still operating as a safety restrictor.



Flush Casement Windows



Narrow Profiles

As with all windows in our **Historic Range**, the sashes and frames can be supplied with very narrow profiles allowing them to accurately replicate the appearance of the original windows.

Multipoint Locks

Multipoint locks are fitted as standard, providing high security and simple opening. The multiple fixing points also prevent the timber from moving, contributing to the long life of the window. We also have a wide range of traditional fittings available.



Draught Seals

We have retained the multiple draught seal design from our **Traditional Range** providing excellent weatherproofing and thermal insulation.

Frame Inside Profiles

Internal Frame Profile:

The internal frame profile is available with Standard, Ovolo and Pencil Round moulds as shown below. Matching sash bead and astragal bar profiles are available.

Standard



Ovolo



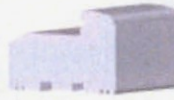
Pencil Round



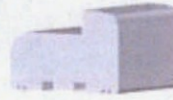
Extended Frame Profile:

We offer the following extended frame profiles across our Flush Casement Windows design (where the outside of the frame is extended resulting in the sash being sat back in the frame):

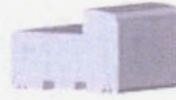
Bevelled Extended



Ovolo Extended



Pencil Round Extended



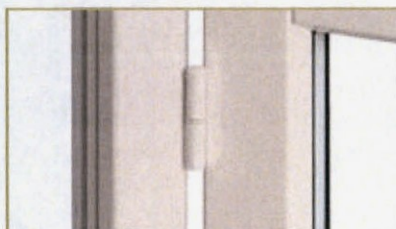
Hardware

We have a range of traditional hardware, allowing the appearance of the window to match even more closely with the original designs if required. These include traditional butt hinges and peg stays, which are both available in a variety of designs.

Peg Stays



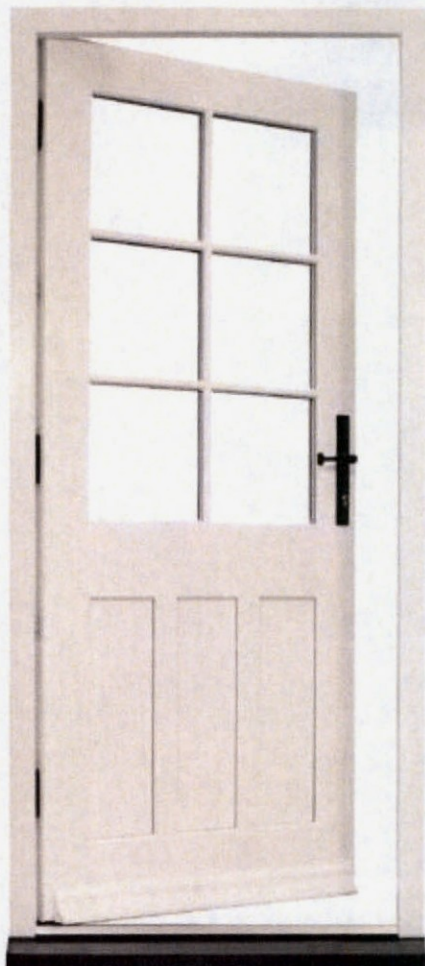
Butt Hinges



Handles



Entrance Doors



Restrictor

Entrance Doors are supplied with a restrictor to limit opening to 90 degrees, preventing damage from the door being blown open against the outside wall.

Adjustable Hinges

Using advanced adjustable hinges the doors can be set up to ensure that they open easily (doors usually require a small amount of adjustment after installation). The hinge is available in the following colour ways:

Brass



Polished Chrome



Nickel



Black



White



Hardwearing Cill

All doors are provided with a teak stained cill as standard, providing a hardwearing finish that is not easily damaged by foot traffic.

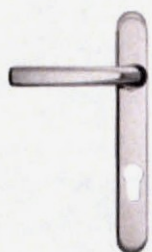
Opening Options

The Historic Doorset range is available with an inward or an outward opening door and can be a single or french door layout. All of the layout designs in our **Traditional Range** are also available in the **Historic Range** (see our Entrance Door brochure or the website for more information).

Hardware

As depicted below, we currently have three hardware collections: Standard, Allart and Kirkpatrick. Each have the following handle options plus a wide range of additional door hardware including letterboxes, door knockers and numbers.

Standard



Allart



1485



1685



Kirkpatrick



2459



2460



The Window Systems

Due to the variations in window styles, listed buildings requirements and planning authority interpretation, we have created two window systems for the Historic Range:

- **Internal Bead with Astragal Bar**
- **External Putty with Structural Glazing Bar**

The main difference between the two systems is that the internal beading option uses a modern internally glazed design for optimal performance and incorporates features from the George Barnsdale **Traditional Range**. Whilst this system is suitable for approximately 75% of all projects we are involved with, for others it can be difficult to exactly replicate the aesthetics and the production methods of the original window. It was for these scenarios that we developed the external putty system. Putty is the traditional method and as such provides the closest match to original windows, whereas beading was introduced to provide longer life (especially on paint adhesion) and an overall better performance.

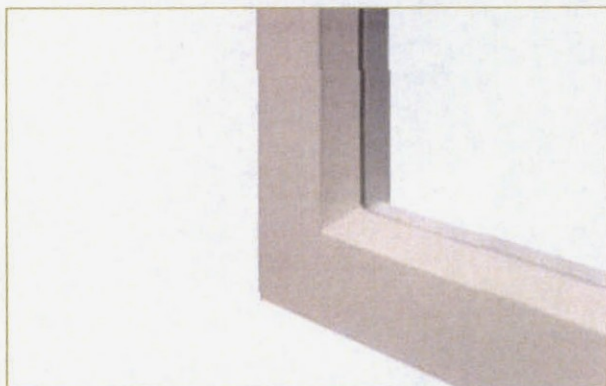
Internal Bead with Astragal Bar

This window system uses a modern internally glazed design for optimal performance. 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.



External Putty with Structural Glazing Bar

This window system closely replicates the aesthetics and the production methods of the original product, and as a consequence is the more costly option. Whilst this system still performs well, it doesn't match the optimal performance of the system with internal bead. As a result, the external putty system carries different guarantees, with no guarantee being given on the sash edge where it meets the putty. Consequently, this section of the putty window system will require a regular maintenance check and if the midcoat is visible, a touch-up will be required (this is simple to see as the midcoat is a different colour).



Internal Bead with Astragal Bar Window System

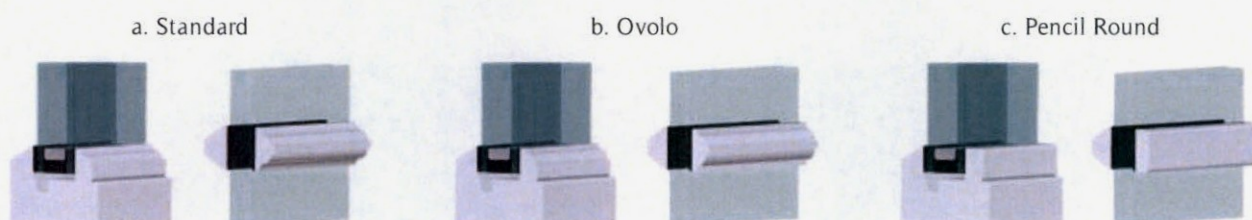
The Internal Bead with Astragal Bar window system not only provides optimal performance, but can be closely matched to the original aesthetics by incorporating specific design features from the Historic Range, including sash beading and glazing bars.

Sash Beading:

Our beads are available as Standard, Ovolo and Pencil Round. As with our **Traditional Range**, all sashes are beaded internally to improve security and weather performance, resulting in a window that has a longer life.

Astragal Bars:

As standard, we provide a 21mm astragal bar and offer an optional interbar. These are matched with the outside sash profile and internal glazing bead and come with an internal glazing bar as standard.



Glazing:

As with our **Traditional Range**, the internal bead with astragal bar window system uses a high performance glazing system optimised for thermal efficiency and a clear neutral appearance, resulting in increased light coming into your property, a clearer view and lower heating costs.

Glass Options:

From the Barnsdale Standard Glass Range we have a wide range of options to suit any special requirement 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 an already high level of sound insulation using specialist laminates and thicker glass.

Solar Control Glass:

Allows the heat gain from the sun to be matched to the requirements of a building.

Obscure Glass:

These are available in a wide range of designs that include textured, etched, sandblasted and painted finished - visit www.georgebarnsdale.co.uk to view the full range.



Glazing Method	Safety Glass	THERMAL		ACOUSTIC		Guarantee	Delivery	Price
		U_{glass}	U_{window}	R_w				
Barnsdale Standard	Double	Toughened or Laminated	1.1 - 1.7	1.4 - 1.9	31 - 36	10yrs	Standard	£

Please note: All above values are indicative and will vary dependent on window/door size and configuration.

External Putty with Structural Glazing Bar Window System

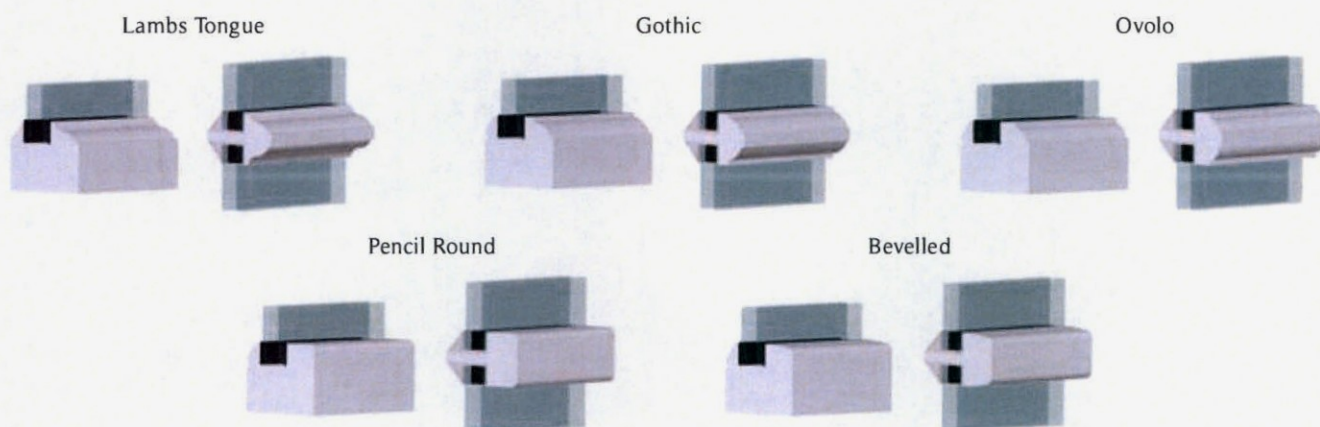
This externally glazed system has a range of design features, including sash profiles and glazing bars, to allow an accurate match with existing designs.

Sash Profiles:

Our externally glazed system has a range of sash profiles allowing for an accurate match with existing designs. We have a wide range of sash profiles that allow us to match almost any original glazing system, as shown below. Our standard range uses a 44mm sash, but we have a variety of thicknesses available to suit specific requirements.

Glazing Bars:

The glazing bars are matched with the outside sash profile. A solid glazing bar measures 21mm for single glazing and 24mm for double glazing.



Glazing:

We have a **Barnsdale Historic Glass Range** which has been carefully selected based on suppliers providing proven test data to ensure that they meet our performance requirements and will achieve our guarantees.

Glass Options:

From the **Barnsdale Historic Glass Range** we have a wide range of options, including:

Single Glazing:

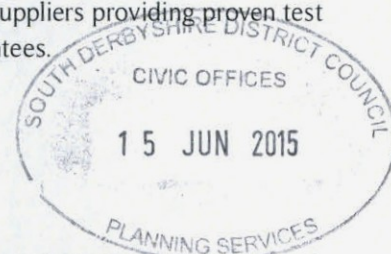
Available in a range of thicknesses, with toughening, security and acoustic laminates, and solar control options available.

Historic Double Glazing:

Due to the narrow sashes and sightlines, the specification of double glazed units becomes more complicated, requiring special gases to provide thermal insulation and advanced edge seals to space and seal the glass. Our standard narrow double glazed unit uses warm edge spacer bar and Krypton gas to provide good thermal insulation. Toughening, security and acoustic laminates, as well as solar control options are also available on this product.

Pilkington Spacia (Vacuum Glass):

By creating a vacuum between the two panes, this glass is the best performing and also the narrowest. The use of this glass allows most products to meet the thermal performance criteria outlined in the Building Regulations. In order to achieve a vacuum the glass uses micro spacers within the unit and has a plug in the corner (the point where the air is extracted). This has an aesthetic impact, but these are not visible from more than a few metres.



Histoglass:

This is a very well regarded narrow glazing solution that has been accepted by many planning departments and will be accepted without the need to submit a sample, making the process quicker and simpler. The glass is similar to our Historic Glazing option, but uses an aluminium spacer with a wide range of colour options available. The glass is also available with different glass manufacturing processes including Hand Drawn, Machine Drawn and Cylinder Glass, allowing it to very accurately replicate the optics created by older glass.

			THERMAL		ACOUSTIC			
Glazing Method		Safety Glass	U _{glass}	U _{window}	R _n	Guarantee	Delivery	Price
Single Glazed	Single	Toughened or Laminated	5. 7	4.5	29	10yrs	Standard	£
Barnsdale Historic	Double	Toughened or Laminated	1.2 - 2.1	1.5 - 2.1	31 - 35	5yrs	Standard	££
Pilkington Spacia	Vacuum Double	Safety Film	1.4	1.6	34	10yrs	+ 6 weeks	££££
Histoglass	Double	Toughened or Laminated	1.5 - 1.9	1.8 - 2.1	31	7yrs	+ 6 weeks	£££££

*Please note: All above values are indicative and will vary dependent on window/door size and configuration.



Choosing the right window system for you

I want to exactly match the aesthetic detail of the windows that I am replacing.

Putty is the traditional method and as such provides the closest match to the original windows. For the external putty window system we offer a range of sash options to match almost any original glazing system. In addition we supply matching structural bars, which is deemed to be a better fit with the original compared with astragal bars. However, a balance has to be struck between maintaining the exact aesthetic detail of the existing windows, which level of thermal performance you want to achieve and how much you want to spend.

I would like to achieve the best thermal performance.

The Barnsdale Standard Glazing Unit is used for the internal bead window system and is a high performing double glazed unit. Out of the **Historic Range**, this provides the best thermal performance.

I prefer a system that requires minimal maintenance.

The beading method has been introduced to provide longer life (especially on paint adhesion), and thus improves performance. For the internally beaded window system we provide industry leading, manufacturer backed guarantees, including:



Some of these guarantees do apply to the externally puttied system - *please call us direct for further information.*

Which system is preferred by Planning Officers?

In the development of the **Historic Range**, we worked closely with conservation officers, building control officers and architects. It is always advisable to approach your appointed conservation officer with your preferences and the best way to get changes approved is to provide detailed information regarding the proposed replacements. To aid this we are able to provide detailed drawings of all products and options to support this brochure. We also have a wide selection of samples that can be provided to support a meeting. Our approved installers and members of our technical team are happy to support these meetings if required.

The Lancasters, Hyde Park, London

The Lancasters was originally an elegant parade of 15 magnificent stucco-fronted Grade II listed houses dating from the mid-nineteenth century. Restoration by London's leading team of developers, architects and interior designers has created a unique fusion of traditional architecture with brand new design and construction.

Project Details

Product:	800 doors and windows.
Timber:	Red Grandis for the doors and WoodHeart® for the door frames and windows.
Finishes:	Fully finished white to interior and exterior.
Architect:	Nilsson Architects.
Contractors:	Woolf Ltd.
Client:	Northacre plc & Minerva plc.



Project

Over a three year period, George Barnsdale supplied and installed 800 doors and windows for one of the most exclusive residential developments in Central London – The Lancasters.

The majority of the 77 properties face south with views onto, or across Hyde Park. Each home has been designed around the grandeur of the original architecture and interior features of the building, such as high ceilings, ornate cornicing and fireplaces.

Grade II listed and made up of 15 stucco-fronted houses dating back to the 19th century, this large scale development presented some interesting challenges. George Barnsdale manufactured a range of traditional box and tilt & slide sliding sash windows, inward opening doors and sliding doors, all made to measure and finished with our high quality white paint finish. We liaised with architects to design doors and windows that would compliment the period and French Renaissance style of the building.

The project's architects specified FSC® certified timber and as The Lancasters is a listed development we had to seriously consider the aesthetics of the wood as well as its performance, stability and natural durability.

The door frames and windows were manufactured from Redwood WoodHeart®. This is x-ray selected engineered timber and is a similar product to the original timber used by the Victorians.

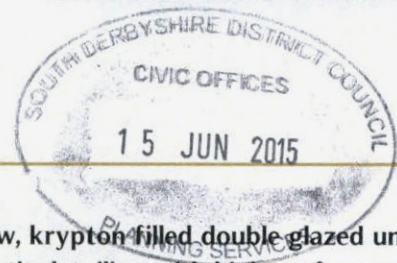
We decided to use engineered Red Grandis for the production of the doors as it is FSC® certified and has received third party testing by TRADA Technology Ltd, where it achieved great results for natural durability and resistance to fungi, which is very positive for long term performance.

From an aesthetics point of view, we needed something that would look sympathetic to The Lancasters heritage. Red Grandis is a high quality, flawless, uniform timber that lends itself well to a variety of styles and shades and its consistent colour means wood stain can be applied to achieve the desired effect.

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



Hamsell Cottage, Penshurst, Kent



George Barnsdale manufactured traditional windows and doors with narrow, krypton filled double glazed units for this Grade II listed residential property in Kent, matching historic aesthetic detailing with high performance.

Project Details

Product: 23 flush casement windows, 1 inward opening entrance doorset and 1 outward opening French doorset with sidelights.

Timber: Red Grandis.

Finishes: Fully finished white to interior and exterior.

Site Address: Poundsbridge, Penshurst, Kent.

Client: Private residential client.



Project

The owner commissioned this project with the aim of improving the appearance of this 16th century Medieval Hall House property and improving energy efficiency, whilst maintaining its character. As custodians of an ancient building, there were many, very specific requirements and constraints placed upon the owners by the Conservation Officer, before conservation and planning permissions were considered and granted.

Usually, single or secondary glazing is normally only permitted on listed properties; very few historic properties in the Sevenoaks District Council area are granted permission for double glazing. The predominant causes for rejection are: style of casements; internal and external glazing bars and the cavity thickness and reflective properties of the glazing unit.

After detailed window specifications were provided by George Barnsdale, discussions between the owner and the Conservation Officer provided assurance to the local Planning Team on the suitability of our proposed glazing solution, the most high performance and cost effective double glazed system in our **Historic Range**. The Conservation Officer fully endorsed the application on the basis that the narrow glazed system with its 6mm gap and overall product design accurately replicated the aesthetics of existing windows and the traditional design expected of a historic property of this style and age whilst, at the same time, achieving an excellent improvement in thermal efficiency.

Once listed building approval was granted, we manufactured flush casement windows and doorsets from Red Grandis timber which were fully finished in a traditional white. The historic design was completed with the use of black monkey tail handles for all the windows and black Kirkpatrick handles for all the doors providing additional enhanced security to the owner.

This project involved a number of design challenges key to ensure that the original character was preserved and that no damage occurred to the exposed beams, hanging tile-work or the wattle and daub render. The design specifications within our **Historic Range** allowed the bespoke, handmade windows and doors to closely replicate the traditional design. The high performance glazing system provided exceptional thermal performance with an average U-Value of 1.5 W/m²K and a Window Energy Rating of B resulting in immediate energy savings to the owner.

"The installation went very, very well, especially considering the age and the idiosyncrasies of the building. The windows look amazing, stunning in fact, and we have had to turn the heating down in the rooms where the windows have been fitted!"

Lorraine Kirker, Homeowner

"We got so much help and support from the George Barnsdale team, from the start of the project right through to completion. They supply such a great product and it was a pleasure installing such high quality."

Derek Dalton, Windows Plus, specialist window installer

Timber

Our historic windows and doors 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.

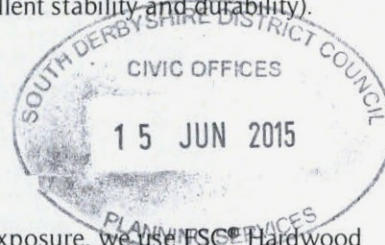
Upon request we can provide products with individual Chain of Custody FSC® certification.

As a standard we use:

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



Redwood WoodHeart®



Cill Extension: As the cill extension gets the most weathering due to exposure, we use FSC® Hardwood for enhanced durability.

We realise that design needs may require alternative timber, so we can also offer the window in the following timbers if required:



Red Grandis



European Oak



Sapele



Accoya®

Paint

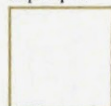
Our advanced coating system has been developed to provide maximum protection, allow the timber to breathe and let the characteristics of the timber show through. This allows us to give a 10 year guarantee on paint finish for the internal bead with astragal bar window system.

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



Pastel Blue
RAL 5024

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

Credentials for Lasting Performance

Hardware

We only use high quality fittings as standard, and offer a wide range of colour and style options. All window fittings can meet BS EN 150 7950 and door fittings can meet PAS 23/24 requirements and are covered by a 10 year guarantee.

Security

High Security fittings are supplied on all of our products as standard. Increased security specification is available if required. For example, windows can be manufactured to achieve BS EN 150 7950 (requirement for Secure by Design) and doors can be manufactured to PAS 23/24.

Certifications & Standards



The mark of
responsible forestry
FSC® C021044



BS 644
Licence No. KM 89727



FM 89764



GEORGE BARNSDALE

British made since 1884

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