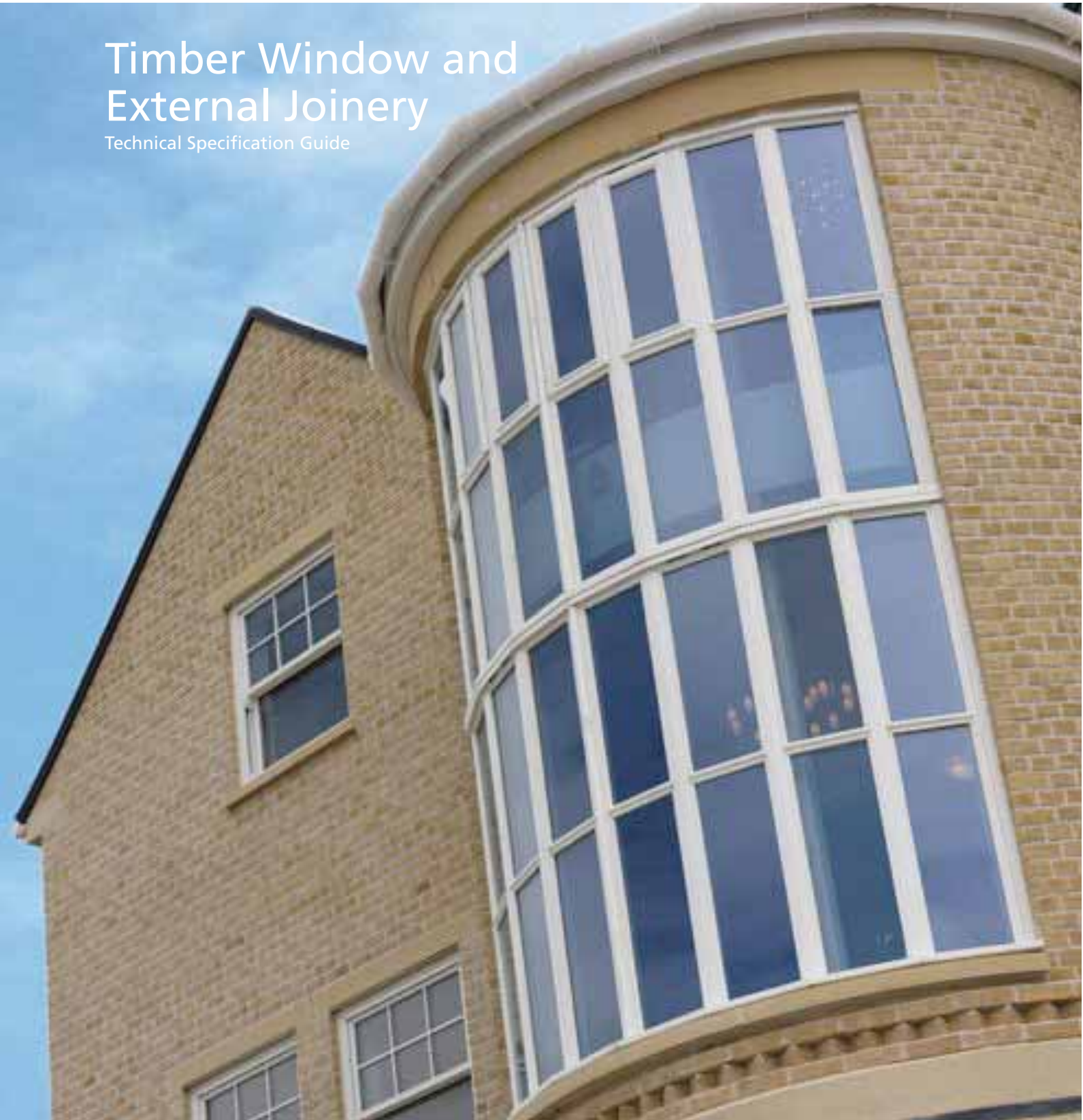


# Timber Window and External Joinery

Technical Specification Guide



# JELD-WEN UK

JELD-WEN UK offers a range of windows in both hardwood and softwood, from plain casement to fully reversible and sliding sash style timber windows, supplied with our latest Hi-Build fully finished paint system provide excellence in performance, long life, reliability and low maintenance.

Modern Housing Schemes, particularly inner city regeneration, demand high performance, security and convenience of use. With some of the most efficient and up-to date machinery in the industry, all our timber window ranges are manufactured to the highest standards, all of which have been approved by the British Woodworking Federation's (BWF) Timber Window Accreditation Scheme (TWAS).

JELD-WEN UK timber windows are licensed under the BSI Timber window scheme. Licence No. KM 95847 ([www.bsi-global.com](http://www.bsi-global.com)).

All our management systems are independently assessed and meet the requirements of ISO 9001:2000.

We are currently working towards accreditation to ISO 14001.

## Supply & Fit Service

Public Sector, Private Sector, Registered Social Landlord, National or Regional Housebuilder, with over £10 million of annual supply & fit contracts supplied, we have a service to support your project. Co-ordinated from our Melton Mowbray manufacturing site all aspects of the contract are managed from start to finish encompassing initial enquiry, scheduling, sales order procedures, pre-site and pre-start meetings, health & safety documentation, product control and on-site installation.

This service is available for certain projects only please contact us to discuss your individual requirements.

## Teamwork

From Housebuilder to Registered Social Landlord we have a nationwide sales team devoted to the needs of your market sector, supported by a factory focussed on developing our product offering along with our first class customer service. Further support comes from our world class Research & Development offices based in Sheffield.

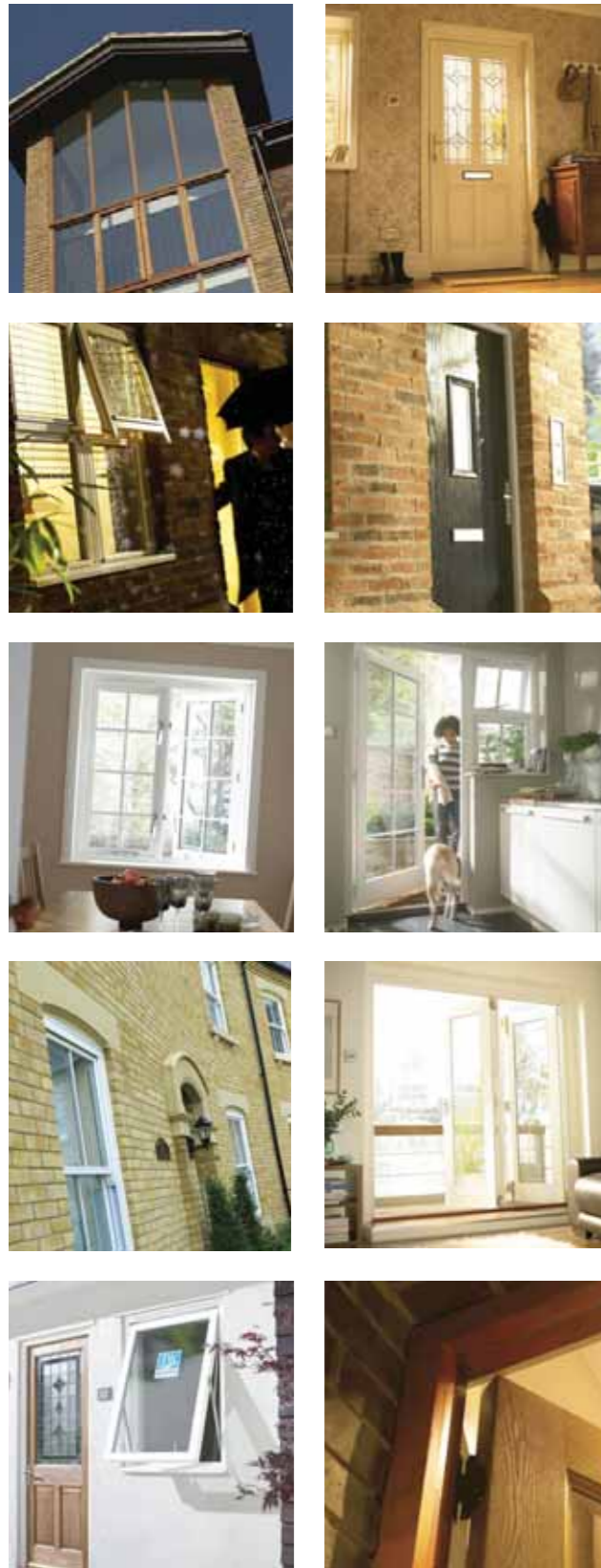
## Customer Care

We have developed a dedicated Customer Care team able to offer a comprehensive service incorporating a controlled document procedure allowing greater visibility.

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## Range Summary



### Bespoke Designer Windows

Windows can form an integral part of the overall development, JELD-WEN can help you to create an impressive facade to the home of your dreams.

We can create almost any custom design in all the ranges listed below. Contact us for more information.

### Energy Rated Windows

**P6-7**

A window's energy performance has traditionally been stated in terms of its U-value. However some manufacturers may quote the centre pane U-value, whilst others quote the whole window U-value therefore the performance of different products may not be readily comparable. Energy ratings are a new simple system of making accurate comparisons between suppliers.

### Sovereign Stormsure Windows

**P33-49**

Sovereign Stormsure windows are made from softwood, protected with an advanced preservative system or selected quality hardwoods and are designed to meet the demanding requirements of today's market. The range includes Casement, Cottage Bar, Horizontal Bar, All Bar and Regency Styles.

### Sliding Sash Windows

**P50-56**

This unique range of windows incorporate stepped sashes for improved performance whilst retaining traditional sight lines.

All windows have extended horns on the top sash and flush to frame sills as standard and available in Non Bar, Marginal Bar, Vertical and All Bar styles.

### Hi-Profile Combi Windows

**P57-61**

The JELD-WEN UK Hi-Profile Combi window range offers the architect and specifier total flexibility in window design and configuration, combined with optimum long term use and maintenance. Incorporating all modes of operation including side and top hung, and fully reversible.

### Kensington Collection

**P64-65**

For that traditional feel to your development we have a range of timber single entrance doorsets.

### Castle Collection

**P66-67**

A range of composite and single entrance doorsets with a wide choice of colours and designs.

### Clifton Single & Double Doorsets

**P68-69**

With Six door styles and three side light widths to choose from, you are sure to find a combination to complete every project. Factory finishing, glazing and hardware options will enhance this chain of custody certified softwood doorset, giving many years of reliability.

### Patio Solutions

**P68-77**

Versatile patio solutions for every home. Patio doors are an ideal way to improve your home and add value to it. Our extensive range gives you many ways to keep rooms light, fresh and airy, whilst still offering the cosy comforts and security of winter nights. What better way to prepare for the start of the new year.

### Door Frames

Imperial or Metric, single entrance, French casement, garage or fire door – JELD-WEN UK have a frame to suit. Available with factory finish paint or stain, factory glazed sidelights all as options. Contact us for more information

# Environmental

JELD-WEN UK's success as a world-class company is, in part, dependant on responsible environmental stewardship, including our approaches to natural resources, waste management and recycling, energy efficiency, air and water emissions, and indoor air quality.

Our long-standing vertically integrated operational model bolsters our ability to maximise resources and provide excellent visibility of the procedures up and down the manufacturing and distribution chain.

JELD-WEN UK employees are committed to ensuring that JELD-WEN UK's operations proactively comply with applicable environmental laws and regulations for the implicit purpose of protecting human health and the environment. JELD-WEN UK employees are encouraged to identify opportunities for integrating environmentally favourable solutions into operations, as well as, into the long-term benefits of the products we manufacture.



## Chain of Custody Certification

All JELD-WEN UK softwood timber windows and doorframes are manufactured from PEFC certified timber supported by full Chain of Custody Certification.

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## Chain of Custody Certification

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## Code for Sustainable Homes

JELD-WEN are able to offer a wide selection of products and specifications designed to aid compliance with this standard and are developing further products with improved performance. Call us to discuss your requirements.

## EcoHomes

The EcoHomes scheme permits housebuilders and designers to have their home designs assessed, considering key issues such as energy efficiency, transport facilities, security and materials selection. It is structured so that the assessment can be carried out at specification, housetype and site specific stages of development.

The EcoHomes standard defines 4 tiers of compliance, which can be used to gain credits; all JELD-WEN UK softwood windows achieve Tier level 2 according to the rules of the EcoHomes guidance 2006 issue 1.1. Credits can be claimed under section 'Responsible sourcing of Materials: Finishing Elements'. To claim these credits timber needs to be one of the four materials selected that make up the largest contribution by volume. Your EcoHomes assessor will give further guidance.

The Green Guide to Housing Specification\* gives a summary rating of A to pre-treated softwood double glazed window frames, painted inside and out. There are credits available under the 'Environmental impact of materials section' of the EcoHomes scheme for using elements that obtain an A rating from the Green Guide for Housing.

Further credits are also available under the 'Construction Site Impacts' section where 80% of site timber is reclaimed, reused or responsibly sourced.

\*Version 3 - due to be updated in early 2008.

## Timber Preservation

JELD-WEN UK protect our external timber products with the market leading Protim 418V preservative system. Protim 418V is a modern, industrial, organic solvent based wood preservative containing no 'red list' biocides. Application is by vacuum low pressure impregnation, giving highly effective protection against wet rot fungi, backed by a 30 year warranty.

Protim 418V is formulated principally for the treatment of joinery and other Hazard Class 3 components, as described in BS EN 335-1. The latest 'V' grade product enables lower quantities of organic solvent to be used in the process than with more traditional wood preservatives. Treatment is in accordance with BS 8417, 30 year desired service life.

## Wood Window Alliance

JELD-WEN is a founder member of the Wood Window Alliance for full details of the objective of this alliance visit: [www.woodalliance.com](http://www.woodalliance.com)



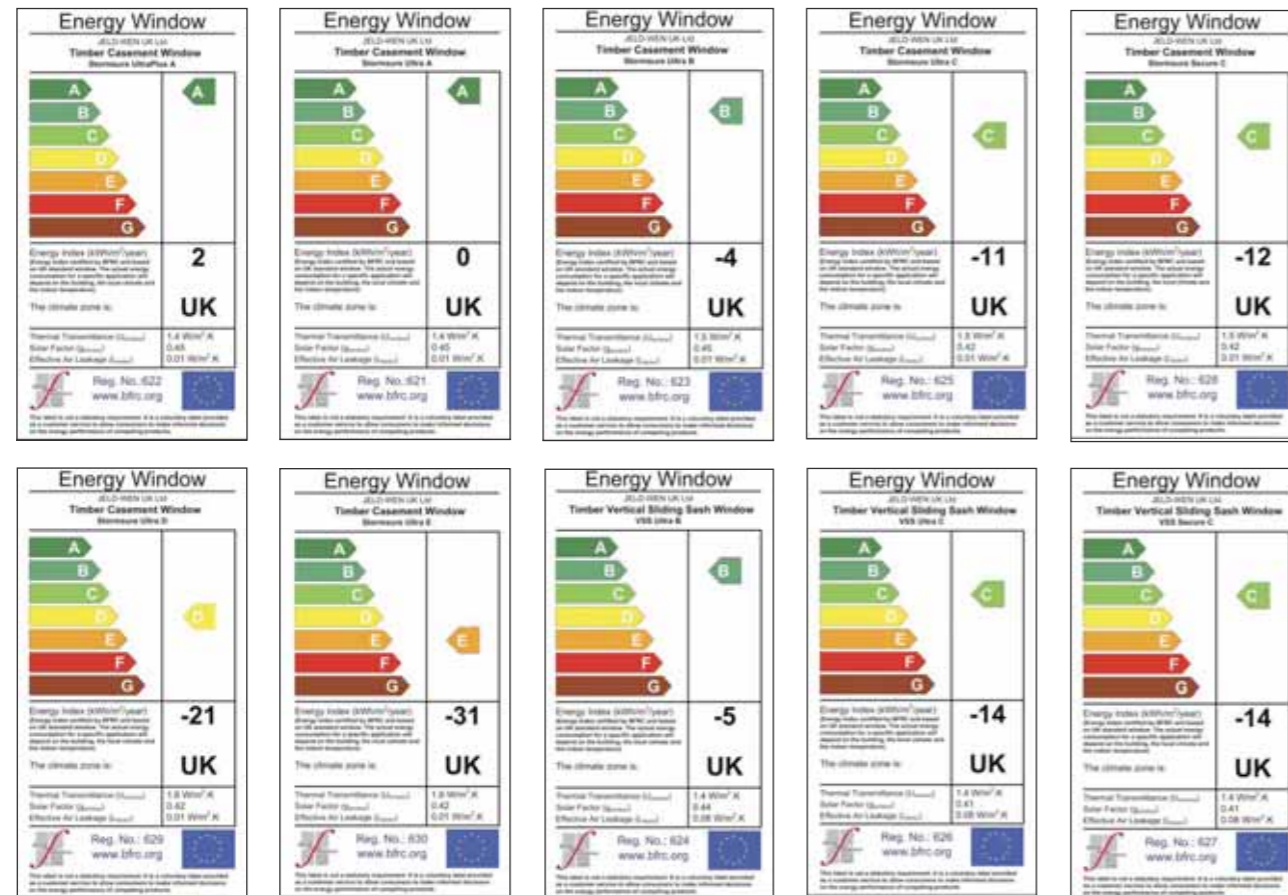
# Energy Rated Windows

A window's energy performance has traditionally been stated in terms of its U-value. However some manufacturers may quote the centre pane U-value, whilst others quote the whole window U-value therefore the performance of different products may not be readily comparable. Energy ratings are a new simple system of making accurate comparisons between suppliers.

### Energy Ratings:

- provide a simple easy method for comparison of the overall energy performance of windows.
- measure U-value, solar gain and air leakage.
- are classified in bands A-G where A is the best.
- are customer friendly, consumers are familiar with the system used on electrical goods.

JELD-WEN have a range of energy rated windows available for specification. Sovereign Stormsure Ultra Range A-E / Vertical Sliding Sash Ultra Range B-C. Call 01664 503453 for more information.



Windows

Windows

# Building Regulations

Windows

The first building controls in the UK date back to the 1660's when legislation was introduced to minimise the risk of fire in buildings following the fire of London. Since then controls on construction activity have developed through necessity with the advent of the industrial revolution, the influx of people into cities and the increasing population. The following pages offer guidance on compliance with the relevant regulations influencing the specification of timber windows.

Performance figures for our products are contained in the relevant product sections of this guide. Updated figures can be found on our website:

[www.jeld-wen.co.uk](http://www.jeld-wen.co.uk)

Full Guidance on the Building Regulations for England and Wales can be found at the Department for Communities and Local Government website:

[www.planningportal.gov.uk](http://www.planningportal.gov.uk)

Guidance on the Building Regulations for Scotland can be found at the Scottish Building Standards Agency website:

[www.sbsa.gov.uk](http://www.sbsa.gov.uk)

Guidance on the Building Regulations for Northern Ireland can be found at the Department of Finance and Personnel website:

[www.dfpni.gov.uk](http://www.dfpni.gov.uk)

AD = Approved Document

TB = Technical Booklet

Sections are from the Technical Handbook covering domestic buildings.

## Conservation of Fuel and Power

ENGLAND AND WALES	AD L1A AND AD L1B
SCOTLAND	SECTION 6
NORTHERN IRELAND	TECHNICAL BOOKLET F

## Ventilation

ENGLAND AND WALES	APPROVED DOCUMENT F
SCOTLAND	SECTION 3
NORTHERN IRELAND	TECHNICAL BOOKLET K

## Means of escape from fire

ENGLAND AND WALES	APPROVED DOCUMENT B
SCOTLAND	SECTION 2
NORTHERN IRELAND	TECHNICAL BOOKLET E

## Smoke Ventilation

ENGLAND AND WALES	APPROVED DOCUMENT B
SCOTLAND	SECTION 2
NORTHERN IRELAND	TECHNICAL BOOKLET E

## Glazing – Safety

ENGLAND AND WALES	APPROVED DOCUMENT N
SCOTLAND	SECTION 4
NORTHERN IRELAND	TECHNICAL BOOKLET V

## Protection from Falling

ENGLAND AND WALES	APPROVED DOCUMENT K
SCOTLAND	SECTION 4
NORTHERN IRELAND	TECHNICAL BOOKLET H

## Other regulatory influences / Accreditation

### BS 8300:2001

Design of buildings and their approaches to meet the needs of disabled people – Code of practice.

### BS 6262:Part 4:1994

Code of Practice for Glazing for Buildings Part 4. Safety related to human impact.

Further details of these standards can be found at the BSI website:

[www.bsi-global.com](http://www.bsi-global.com)

### BS 7950 Secured by Design

Where indicated our frames can comply with the requirements of BS7950: 1997 for security performance of

casement windows in domestic applications.

Further details of the Secured by Design Scheme can be found at:

[www.securedbydesign.com](http://www.securedbydesign.com)



### British Woodworking Federation's Timber Window Accreditation Scheme

JELD-WEN UK's timber window ranges are accredited by this independent scheme.

Further details of this scheme can be found at: [www.bwf.org.uk](http://www.bwf.org.uk)

## Important

Under Secured by Design rules, Fire Egress windows are required to have laminated glass externally and annealed Low E glass internally, when fitted with non locking fastener.

Local SBD requirements may differ so when specifying windows, it is essential to check whether 100% use of laminated glass is a requirement.

Also where a window is placed adjacent to a door, at low level or in a hazardous area, it will be necessary to have toughened glass internally in addition to laminated glass externally.

It is the customer's responsibility to request the correct specification at time of quotation and ordering.

## Installation!

Installing windows should be carried out by a FENSA registered contractor or under the suspension and approval of the local Building Control Officer.

# Useful Information

## Glass in Critical Locations

Glazing with which people are likely to come into contact while moving in or about a building shall, if broken on impact, break in a way which is unlikely to cause injury, or shall resist impact without breaking, or shall be shielded or protected from impact.

Glazing should follow the recommendations of BS 6262-4:2005, a code of practice for the safety of glazing relating to human impact. This standard takes into account the publication of harmonized European standards for glass products, including the publication of BS EN 12600 for impact testing and classification of flat glass, and the withdrawal of BS 6206:1981 for the classification of "safety glass".

## Critical Locations

The following locations may be considered "critical" in terms of safety:

- (a) Between the finished floor level and 1500mm above that level in doors and in side panels which are within 300mm of either edge of the door;
- (b) Between the finished floor level and 800mm above that level in the case of windows not included in (a) above;
- (c) Mirrored doors and panels.

Glazing wholly or partly within a critical location should be:

safety glass or, robust or, in small panes or, permanently protected.

## Safety Glass

Safety glass is classified in accordance with BS EN 12600 ( See Table 1).

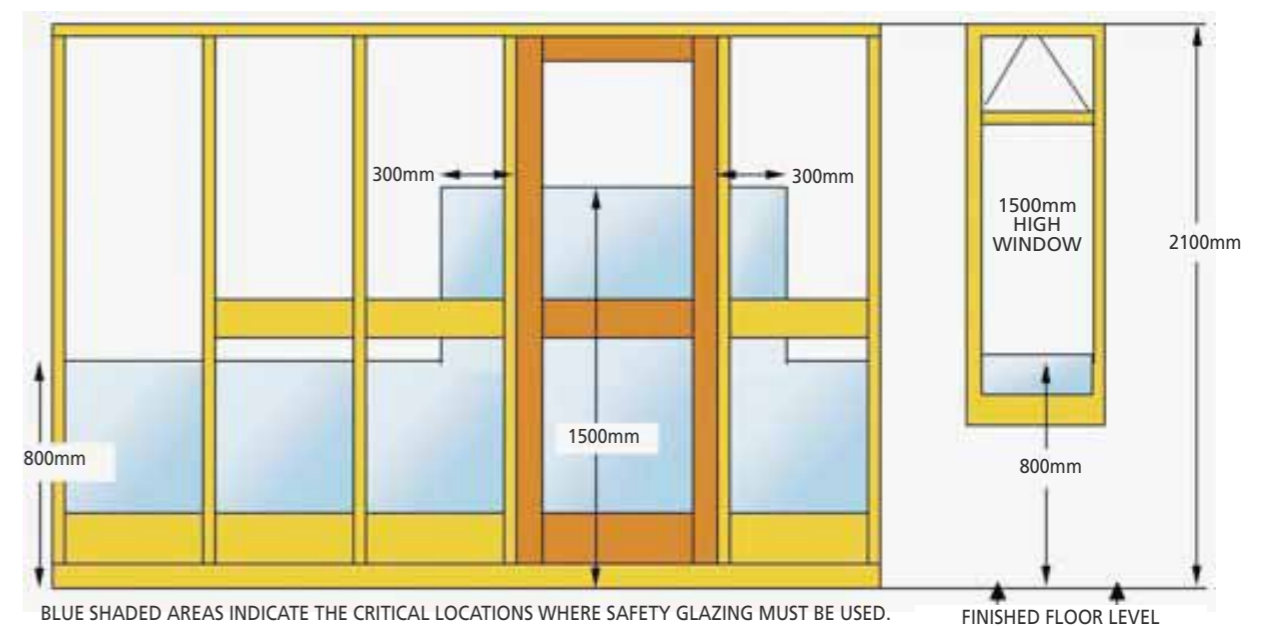
Table 1

Critical Location	Minor dimension of pane	Minimum Recommended Classification (*)
Doors	> 900mm	2
	≤ 900mm	3
Door Side Panels	> 900mm	2
	≤ 900mm	3
Fully backed mirror glazing	> 900mm	2
	≤ 900mm	3
Unbacked mirror glazing accessible from one side only	> 900mm	2 <sub>0</sub>
	≤ 900mm	3 <sub>0</sub>
Low Level Glazed Areas	Irrespective of pane dimension	3 <sub>0</sub>
Bathing Areas	Irrespective of pane dimension	3
Areas of Special Risk	Irrespective of pane dimension	3

(\*) This is part of the full classification in accordance with BS 12600:2002 and represents the drop height at which the glass either did not break or broke safely. The second and third parts of the classification showing the mode of breakage of the material and the drop height at which the material did not break or broke in the fashion of laminated glass i.e. the broken glass offered containment, are not required for the classification of safety glass in BS 6262-4.

(o) In these locations the safety glass is only required to be tested and classified for the face that, when installed, is likely to be impacted.

## Safety Glazing Locations Made Simple



Windows

# Co-ordinated Brickwork Module Window Sizes

## BS644 Co-ordinating Sizes Explained

### Marking of Safety Glass

Installed safety glass shall be clearly and indelibly marked with the following:

- The name or trade mark of the manufacturer, merchant or installer;
- The identifier of the product standard to which the glass conforms. (e.g. BS EN 12150, BS EN 14449 etc.);
- The classification according to BS EN 12600.

### Exceptions:

#### Small Panes

Ordinary annealed glass, not less than 6mm thick, may be used in small panes up to a maximum width of 250mm and an area not exceeding 0.5m<sup>2</sup>.

(Traditional leaded lights and copper lights may use glass 4mm thick.)

#### Robustness

Annealed glass that does not normally comply with BS EN 12600 can be used in critical locations when the nominal thickness and dimensions are as listed in Table 2 and all four edges are supported.

**Table 2**

Nominal Thickness (BS 952-1 (12))	Maximum pane size
8mm	1100mm x 1100mm
10mm	2250mm x 2250mm
12mm	4500mm x 4500mm
15mm or thicker	No limits

### Permanent Screen Protection

If glazing in a critical location is protected by a suitably designed protective screen system the glass does not need to be safety glass.

### Areas of Special Risk

In all those parts of buildings where the planned activity generates a special risk, for example indoor sports facilities, all glazing should conform to Table 1 (see page 9). In these situations it may be necessary to consider a higher level of performance or additional safeguards such as protective rails or screens or manifestation.

### Glazing in Bathing Areas

Any glazing forming part of a bath or shower screen, or located adjacent to, or surrounding a bath, swimming pool, or other associated wet area, constitutes a potential danger because of the possibility of a person slipping on a wet surface.

### Definitions

#### Safety Glass

Glass product conforming to BS EN 572-3, BS EN 572-6, BS EN 12150-1, BS EN ISO 12543-2, EN 14179-1 or BS EN 13024-1 that has a performance classification in accordance with BS EN 12600.

#### Unbacked mirror glazing

Glazing which has either no backing or only partial backing behind its entire area, or has a backing that does not retain its integrity or is cracked or broken when tested as described in BS 7449:1991, Annex A.

Where glazing is situated in a window where it is likely to be subject to accidental human impact, precautions should be taken to reduce the risk of injuries by:

- selecting glazing of a suitable type, thickness and size, primarily with reference to impact behaviour and safety characteristics as established by testing in accordance with BS 6206
- providing mechanical protection to the glazing
- enhancing a person's awareness of the presence of transparent glazing

If glazing does not have permanent screen protection;

- for glazing wholly, or partly, within 300mm from a door and within 1500mm from the floor or in other locations within 800mm of the floor the pane will be toughened or laminated and will conform, when tested, to class B of BS 6206
- in some circumstances, if the smaller dimension of the pane is 250mm or less and it's area is 0.5m<sup>2</sup> or less then glass with a nominal thickness of 6mm not conforming to class B of BS 6206 may be used.

JELD-WEN UK supply factory glazed windows above 1350mm with the low level units as toughened (tempered) safety glass

### References

- BS 6262-4: Glazing for building – Part 4: Code of practice for safety related to human impact (Updated and republished in 2005)
- BS EN 12600:2002 Glass in building – Pendulum test – Impact test method and classification for flat glass
- BS EN 12150-1 Glass in building – Thermally toughened soda lime silicate safety glass – Part 1 : Definition and description
- BS EN 14449 Glass in building – Laminated glass and laminated safety glass – Evaluation of conformity.
- BS 6206:1981 Specification for impact performance requirements for flat safety glass and safety plastics for use in buildings
- BS EN 572-3 Glass in building – Basic soda lime silicate glass products – Part 3: Polished wired glass
- BS EN 572-6 Glass in building – Basic soda lime silicate glass products – Part 6: Polished wired glass
- BS EN ISO 12543-2 Glass in building – Laminated glass and laminated safety glass – Part 1: Laminated safety glass
- BS EN 14179-1 Glass in building – Heat soaked thermally toughened soda lime silicate safety glass – Part 1: Definition and description
- BS EN 13024-1 Glass in building – Thermally toughened borosilicate safety glass – Part 1: Definition and description
- BS EN 14428 Shower enclosures – Functional requirements and test methods
- BS 952-1 Glass for glazing – Part 1: Classification
- BS 7449:1991 Specification for inclusion of glass in the construction of furniture other than tables or trolleys, including cabinets, shelving systems and wall hung or free standing mirrors

### Co-ordinated brickwork module window sizes

EQUAL DIVIDE RANGE	BS644					
STRUCTURAL OPENING	493	635	920	1205	1775	2344
WINDOW WIDTH	483	625	910	1195	1765	2334

METRIC MODULAR RANGE	BS644					
STRUCTURAL OPENING	300	600	900	1200	1800	2400
WINDOW WIDTH	290	590	890	1190	1790	2390

### Structural Opening Heights

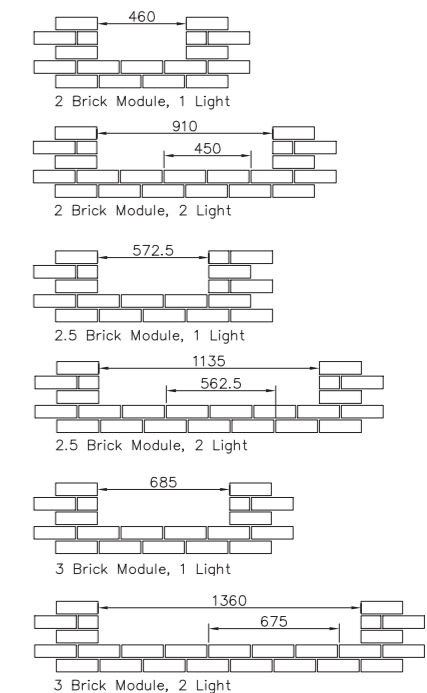
These are based on brick course heights (65mm brick + 10mm mortar course).  
E.g. 900mm = 12 brick courses

2 Brick Module Increment = (2x215)+(2x10) = 450mm  
 2.5 Brick Module Increment = (2x215)+102.5+(3x10) = 562.5mm  
 3 Brick Module Increment = (3x215)+(3x10) = 675mm

2 BRICK MODULE	STANDARD BRICK 215 X 102.5 X 65, STANDARD 10mm PERPS BETWEEN BRICKS			
	1 LIGHT	2 LIGHT	3 LIGHT	4 LIGHT
STRUCTURAL OPENING	460	910	1360	1810
WINDOW WIDTH	450	900	1350	1800

2.5 BRICK MODULE	STANDARD BRICK 215 X 102.5 X 65, STANDARD 10mm PERPS BETWEEN BRICKS			
	1 LIGHT	2 LIGHT	3 LIGHT	4 LIGHT
STRUCTURAL OPENING	572.5	1135	1697.5	2260
WINDOW WIDTH	562.5	1125	1687.5	2250

3 BRICK MODULE	STANDARD BRICK 215 X 102.5 X 65, STANDARD 10mm PERPS BETWEEN BRICKS			
	1 LIGHT	2 LIGHT	3 LIGHT	4 LIGHT
STRUCTURAL OPENING	685	1360	2035	2710
WINDOW WIDTH	675	1350	2025	2700



# Glazing

## Glazing

All JELD-WEN UK timber windows are designed to accept 24mm insulating glass units incorporating Low E glass to comply with the requirements of the amendments to Building Regulations Approved Document 'L'.

Low emissivity (Low E) has a surface coating which substantially improves its energy efficiency. This coating lets the sun's rays through but reflects heat back into the room.

### Factory Glazed Windows

Our standard glazing specification for Stormsure and Vertical Sliding Sash ranges achieves a whole window U-value of 1.8 W/m<sup>2</sup>K. For Combi Hi-Profile of 1.5 W/m<sup>2</sup>K is achieved.

We can currently achieve whole window U-value as low as 1.1 W/m<sup>2</sup>K.

We are constantly adding to our range of specifications including triple and gas filled options.

Call us to discuss your requirements.

### Obscure Glass

Obscure glass is available in the following patterns: Ice effect, Leaf effect, Tulip effect and Dew effect. Shown left. Ice effect will be supplied unless specified otherwise.

### Toughened Tempered Safety Glass

All safety glazing and insulating glass units, where applicable, are marked with the appropriate identification to ensure correct, safe installation and permanent traceability.

### Laminated Glass (external pane)

Recommended for an enhanced degree of resistance against breakage and entry.

### Leaded Glass

Available diamond leaded or rectangular leaded as shown above right.

### Factory Double Glazing – Recommended

Glazing is undertaken in controlled factory conditions which ensures quality, reliability and strict adherence to correct glazing practices, BS 6262:1982, including a 5mm clearance between the edge of the glass unit and the rebate and NHBC recommendations at all times. For the best overall quality, we recommend factory finishing with Hi-Build stain or Hi-Build paint and factory double glazing.

## Sound attenuation through windows

Increased awareness of external noise nuisance has increased the requirement for windows with good acoustic performance to be specified. Planning consents given on sites in inner cities or near to railways, major roads or airports now require high levels of acoustic performance. Often these can be easily met, and even omitting the trickle ventilator in the window head will substantially improve acoustic performance. Higher acoustic performance can be achieved by use of special glazing, or by triple acoustic glazing. JELD-WEN UK has experience in meeting such requirements.

Acoustic performance tables are shown within each window range section. This information will be regularly updated and published on our website.

### Energy Rated Range (see page 6)

Stormsure Ultra energy rated windows from A to E and Vertical Sliding Sash Ultra range from B to C are now available to order. Contact us on 01664 503 453 for further information and prices.



\* NOT AVAILABLE WITH SIMULATED DIVIDED LIGHT DESIGN



### Specialist Glazing Options

If your glazing requirement is not shown above contact us with your requirements.

### Glass Film Protection

For factory glazed windows we recommend the glass film protection option.

# Guarantees for Timber Window Products

In keeping with our quality policy, JELD-WEN UK offers the following guarantees on its products:

**30** YEAR GUARANTEE  
**30 year guarantee against fungal attack**

Against rot and fungal attack on all external timber components.

**10** YEAR GUARANTEE  
**10 year guarantee against manufacturing defects**

On all products against manufacturing defects. JELD-WEN UK will accept no responsibility for products cut down in size after receipt, or when utility or structural strength is impaired in fitting or application of hardware.

**10** YEAR GUARANTEE  
**10 year guarantee on Hi-Build white factory painted external joinery in accordance with EN 927/1-7**

**6** YEAR GUARANTEE  
**6 year guarantee on Hi-Build factory stained external joinery in accordance with EN 927/1-7**

Finished joinery is guaranteed against blistering, cracking, flaking or erosion excluding natural resin extrusion and movement around knots. Annual inspection should be made and touching up carried out as necessary in areas of wear and tear (for example, exposed areas of window sills or where the paint film has been breached).

This guarantee to the finished product is also on condition that:

- No physical or chemical damage to the window or coating has occurred.
- No repairs or alterations to the surrounding buildings have occurred which are detrimental to the joinery performance.
- No failure of the coating has occurred caused by failure of ancillary products, or glazing.
- No damage to the coatings has occurred prior to, or during, installation.
- No damage to the coating has occurred, caused by bad maintenance of the building or poor design of the building.

### Make specifying your project simple!

Request our specifier CD by visiting [www.jeld-wen.co.uk](http://www.jeld-wen.co.uk) and selecting request a brochure or download the CAD drawings from [www.fastrackcad.com](http://www.fastrackcad.com)

**10** YEAR GUARANTEE  
**10 year guarantee on insulating glass units**

Only insulating glass units supplied by JELD-WEN UK are covered by this Guarantee, these are stamped and identified accordingly.

Site re-glazing costs are not covered by this guarantee. Where windows are supplied factory glazed all elements of the glazing system are covered by this guarantee. These guarantees are subject to JELD-WEN UK Terms and Conditions of Sale. Defects that are caused in whole or in part by failure to adhere to JELD-WEN UK recommendations relating to storage, handling, installation, decoration, glazing and maintenance, are not covered by these guarantees.

Download the JELD-WEN Home Owners Guide from [www.jeld-wen.co.uk](http://www.jeld-wen.co.uk)

## Site Practices

### The JELD-WEN UK Cavity Closer System for installing Timber Windows

The cavity closer system is supplied to suit 50mm, 75mm or 100mm cavities which need to be specified at time of ordering.

By using our cavity closer system the builder has the opportunity to ensure accuracy in their window apertures during construction; an engineered fit for the windows when ready for installation; and guaranteed compliance with Part L in closing the cavity and correctly positioning the windows.

Fixing packs including all the necessary components for fitting the JELD-WEN UK window are available separately.

When ordering the window to fit into a cavity closer, always advise on the order, "Window to be installed into cavity closer."

To comply with the robust details of Part L 2006, when using the cavity closer system, windows can be installed using the standard 158mm sill. Depending on your building design other sill dimensions may be suitable and it is the customer's responsibility to ensure the correct sill is specified at the time of ordering.

When using cavity closers in timber frame construction, please consult JELD-WEN UK technical department to ensure the correct product specification is used.

### Use of JELD-WEN UK Cavity Closer system as a Fire Stop

The JELD-WEN UK Cavity Closer system cannot be used as a fire stop in Timber frame construction.

Fire stops are not normally required in conventional masonry/masonry construction.

Should a fire stop be required there are a number of proprietary products available that can be specified for use in conjunction with our cavity closer system.

Please refer to BBA Certificate available to download from our website [www.jeld-wen.co.uk](http://www.jeld-wen.co.uk).

### Fitting Instructions

Copies of the current fitting instructions for our products are available for download from our website [www.jeld-wen.co.uk](http://www.jeld-wen.co.uk).



# Care of Timber Windows on Site

Timber windows are accurate components designed and manufactured using the best available techniques to produce performance rated components.

The way they are handled and stored on site can affect their long-term performance. Good practice avoids damage, maintains quality and saves money.

Windows are available as joinery items supplied:

- with a primer or stain base coat for site glazing and finishing
- as factory glazed components requiring site finishing
- as factory glazed and fully finished windows.

Each type needs careful handling and protection although the actual requirements vary slightly.

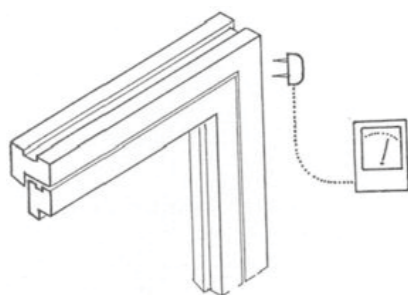
### Delivery and Storage

#### Check windows at the time of delivery

Windows should be checked at the time of delivery to ensure that they are in accordance with the order schedule, the delivery is complete and that each window, including any protective packaging, is not damaged.

For long term performance of the window and finish, it is important that this moisture content is maintained during storage on site and during the construction process.

BS 644: Timber Windows recommends that the moisture content of timber windows should be between 13% and 19% although fully factory finished windows may be of a lower moisture content.



Wherever possible the sequence of deliveries should be co-ordinated to site requirements in order that windows are not kept on site unfixured for longer than necessary. The storage place should be prepared in advance and the windows unloaded straight into it.

#### Handle windows carefully

Windows should be lifted by the main frame (not by the opening casements or the glazing bars) and carried in a vertical position to avoid any tendency to distort.

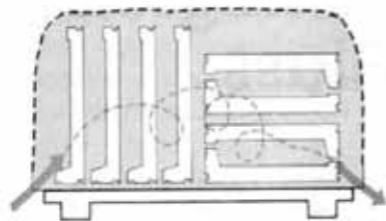
When windows are protected by shrink wrapping, or other protective packaging, this should be kept in place as long as possible.

#### Windows should be stored under cover

Windows should be stored under cover even if fully finished, preferably inside a building. If they have to be stored outside they must be kept clear of the ground on level bearers and protected from dampness and sunlight with a tarpaulin.

Polythene sheeting should not be used as this can act like a greenhouse and encourage damp or humid conditions.

There must be space for air circulation around and between the windows.

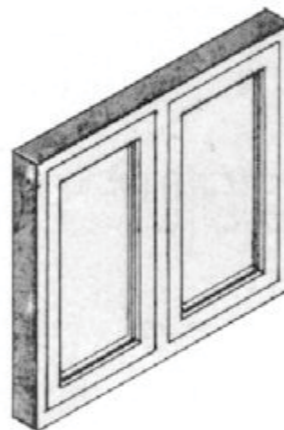


When stored inside a building, windows should be protected from dirt and damage but without restricting air circulation.

#### Protect windows during site operations

Ensure that the moisture content of the timber is kept close to the level at which it was when the window was manufactured.

Whenever possible store windows in the sequence they will be needed with codes or identifying marks visible to avoid double handling. Avoid dragging them across each other if stacked. Windows which have projecting sills or have the hardware fitted must, if stacked, have spacers between them to avoid damage.



**Preglazed windows need a little extra care, to avoid damage and glass breakage. Retain the protective packaging and make sure it is not possible for water to lay in glazed rebates by storing vertically.**

Preglazed and prefinished windows should ideally be fitted into preformed openings and not 'built in' to masonry walls.

#### Treat windows like a piece of furniture

Prefinished windows should retain their protective packaging until the latest possible time but make sure it cannot collect water if it has small tears in it.

Care should be taken when removing packaging to avoid damaging the finish.



# Installing Timber Windows

The way in which they are installed can affect their performance. Good installation practice avoids damage, maintains quality and saves money.

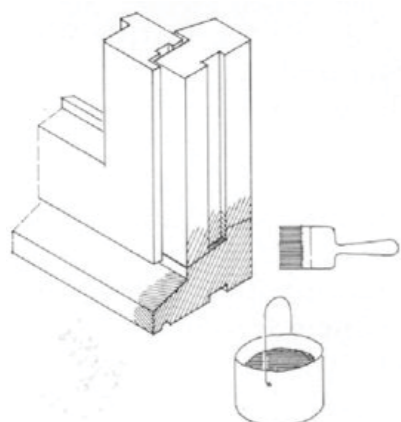
Windows are available as joinery items supplied with a primer or stain base coat for site glazing and finishing, as factory glazed components requiring site finishing or as factory glazed and fully finished windows.

## Installation

### Windows should be fitted square

Windows should be fitted square, true and plumb and fixed in accordance with the manufacturer's instructions or the project specification.

Protect surfaces from mortar droppings. If any part of the window is cut or drilled, swab the newly exposed timber with a suitable preservative material and recoat with primer or stain.



## Protection

With prefinished and preglazed windows the manufacturers' protection should be left in place unless this interferes with the integrity of the DPC and seals.

More care is necessary when fitting pre-finished units.

Any timber which is cut during the course of installation must be treated with a compatible preservative.

Note: Cutting or damaging a window may invalidate the manufacturers guarantee.

## Forming openings

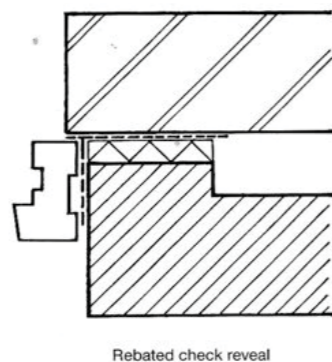
Windows can be fitted either during the course of construction or fitted into pre-formed openings at a later stage.

A tight fit of adjacent materials should be avoided where there is a danger of distortion in the frame. Side tolerances however should not exceed 10mm on each side.

When not building-in, openings can be formed using either proprietary templates or site constructed templates. These templates should produce opening that are in the order of 10mm to 20mm larger than actual window size.

In exposed conditions consideration should be given to using a rebated check reveal (Figure 1).

Fig 1



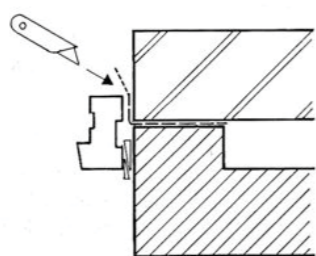
Rebated check reveal

## Fitting

DPCs should be fitted as the construction proceeds. This can be achieved either by fixing the DPC to the frame prior to building in or by fitting the DPC into the structure when making pre-formed openings. In the latter case it is often convenient to use wider DPCs than needed (Figure 2).

Avoid forming a cold bridge when fitting windows.

Fig 2



Using wider dpc for retrofit windows  
Excess dpc is cut off after window is fitted

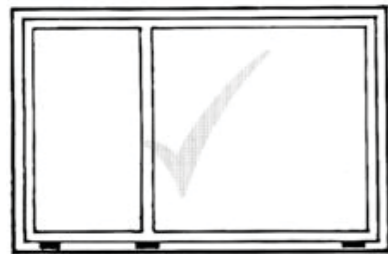


# Installing Timber Windows

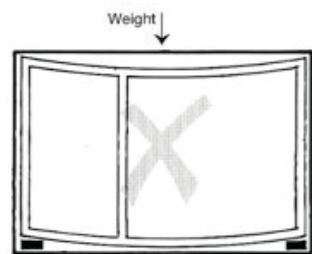
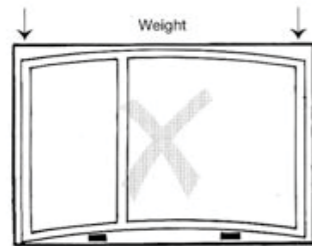
## Support

Windows should be supported on durable packings at a maximum of 150mm from each jamb and beneath mullions. The window should be fitted level and plumb (Figure 3). When building-in, continuous support at sill level can be provided by a mortar bed.

Fig 3



± 150mm



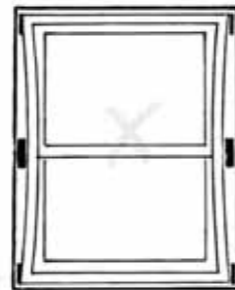
Support for the frame should such as to prevent distortion and should not damage any protection or finish.

Side packings should be located where fixings occur and fitted without distorting the frame.

Particular care is necessary when providing packings to sliding sash windows where even minor distortions can prevent the movement of the sashes or introduce excessive clearance to sashes (Figure 4).

When fitting packings it is advisable to check the operation of all types of windows prior to final fixing.

Fig 4



Vertical Sliding Sash  
pinched due to excessive mullion packs



Vertical Sliding Sash  
should fall out if sides of frame are not correctly fixed

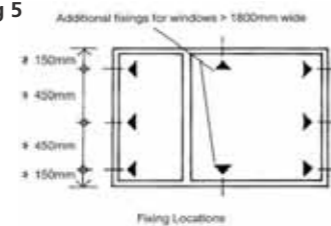
## Fixing

Side fixings should be provided at 150mm from top and bottom of frame and a maximum 450mm between c/s. Where a window exceeds 1800mm in width or is formed with two or more units, fixings should be provided at head and sill (Figure 5).

Special requirements may be necessary when fixing windows into preformed openings.

Unless internally fitted fixing clips are used (Figure 6) it will be necessary to fix through the frame. Where possible, choose unobtrusive locations. If a cavity closer is used refer to the JELD-WEN UK fitting information leaflet.

Fig 5



Purpose made nylon frame fixings are available. These utilise the same diameter hole through the timber as well as the substrate. The fixing is usually supplied complete with the screw.

Alternative fixings include a proprietary screw device which enables the window to be adjusted in position on the screw fixings (Figure 7).



### Sealing

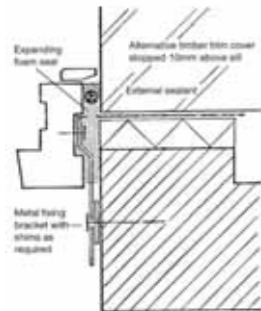
To prevent air infiltration between the window and adjacent wall the gap between the window and wall should be sealed. A polythene backed sealing strip can be fitted prior to building-in or alternatively an expanding foam seal or mineral wool can be fitted after building-in is completed.

These will expand after a period of time to fill the gap (Figure 6).

An additional seal can then be provided by a silicone or polysulphide based sealant.

Alternatively a timber cover strip can be provided which should be fitted over the foam seal. This strip should be cut 10mm short of the sill. This method permits any moisture which reaches the foam seal to escape.

Fig 6



### Finishing

Windows with factory applied primer or base coat stain should have at least one of the finishing coats applied and the back of frames should be coated before installation. It is recommended that decoration be commenced as soon as possible after delivery or installation (preferably within days). Prolonged exposure of bare timber or primary/base coats will affect the long-term performance of subsequent coats.

#### Ensure surfaces and edges are in good condition before applying finishing coats

If the primer or base coat stain has deteriorated it should be recoated before further finishing coats are applied.

If the primed / base coated windows have been exposed on site without further decoration for longer than 3 months (either fitted in the building or in an open storage area) the primer / base coat must be sanded back and a fresh primer / base coat applied.

Finishing should be carried out in dry weather using good exterior quality materials in accordance with our recommendation.

On external surfaces, the finish should be an exterior quality paint or a 'high build' stain. ('Low build' types of stain should not be used on external surfaces.) Second coats or undercoats must be applied within 3 months of primed/base coated windows becoming exposed to the elements.

It should be noted that the use of dark coloured paint or stain finishes on windows, particularly if located on the south or south west elevations of buildings, will result in high surface temperatures and can increase the risk of resin exudation through the finish.

Factory finished windows should be checked for any on-site damage to the finish and any small areas made good in accordance with our recommendations.

### Site Glazing

Glazing rebates and backs of beads should be sealed with an appropriate sealant.

Use a suitable glazing system. Avoid using glazing compounds which can dry out.

Proprietary glazing materials, tapes or glazing gaskets must be applied in accordance with the manufacturer's recommendations.

### Installation options

Timber windows can be installed into all types of building designs from timber frame to traditional masonry construction.

JELD-WEN UK windows are available with a number of optional extras to aid installation.

For buildings with vertical tiling or timber cladding specify window surrounds available in 3 sizes – 70mm, 100mm & 135mm. All window types are available with a selection of sill depths dependant on your design option. Extended sill nosings are not a preferred design option due to their vulnerability to damage and long term erosion. If not adequately maintained this could lead to premature failure of the decoration system.

For certain schemes JELD-WEN UK are able to offer a fully co-ordinated supply & fit service contact us to discuss your requirements.



## Factory Finishing

Timber windows, supplied with our latest Hi-build fully finished paint system offer excellence in performance, long life, reliability and low maintenance.

Reliability in paint performance starts with the timber itself. Careful control of the moisture content of timber in our factory ensures windows are manufactured to match their conditions in service. Our preservation system underlies the products' reliability matched with the preparation and application of the paint system itself.

Whether an opaque paint or translucent stain finish is required, both start with the application of a basecoat. The paint or stain film is then built up on this foundation, with attention to surface preparation, cleanliness and temperature at each stage. The result is a three-coat high build system that provides a tough, durable coating that is good for many years. **So good, in fact, that we put our name to it for 10 years on Hi-Build white paint and 6 years on Hi-Build stains. See the guarantee section of this catalogue for full details.**

Apart from an occasional wash down with a pH neutral soap solution initially and then every 6 months, and a touch up to make good any minor damage from installation, or a window-cleaner's ladder, the paint film will last and last. Never use an acid or alkali brick or stone cleaner. Planned maintenance will guarantee continued long life.

### Fully Finished

Windows are now supplied as standard, manufactured from knot free engineered timber.

### Primed, Base-coat Stained

Windows can be supplied primed, with knotting treatment pre-applied, or in a translucent basecoat stain. This is the base level, from which decoration must be built up on-site. While it is possible to get good finishes from products supplied primed or base-coated, care and attention is required to ensure knotting is further applied where necessary, surfaces are clean, dry and rubbed down between coats and an adequate film thickness is achieved.

While JELD-WEN UK makes every effort to ensure frames are ready for decoration when delivered, no guarantee of paint finish or performance can be given on windows supplied unfinished, or finished by others.

### To order your choice please specify one of the following:

- Hi-Build fully finished white (other colours available at extra cost to special order, minimum quantities of 50 frames apply. RAL colour required)
- Hi-build stain finish
- Part-finished white
- Part-finished stain
- Primed only
- Basecoat-stained only

We recommend you use the JELD-WEN cavity closer system when installing factory primed windows.

### Make specifying your project simple!

Request our specifier CD by visiting [www.jeld-wen.co.uk](http://www.jeld-wen.co.uk) and selecting request a brochure or download the CAD drawings from [www.fastrackcad.com](http://www.fastrackcad.com)



**Levels of Finishing**

Basecoat Only – Basecoat Joinery should be overcoated as soon as possible after receipt and certainly within 1 month of delivery to site as guidelines laid down in line with British Standards.

**Fully Finished**

No Further coats are required on site. The numbers of coats depends on shade requirements but In all cases fully finished items will have a minimum of 300 microns wet film (120 microns dry film) applied.

**Installation**

It is important to avoid damage to the surface coating when installing fully finished windows and doors. Fixing by lugs or fixing straps is recommended, to avoid drilling through a painted surface.

Colour finishes other than those shown, are available to special order quantity restrictions apply please contact us to discuss your requirements.

Please note as timber is a natural material, certain finishes may not match exactly from frame to frame particularly when using hardwoods.

**Standard Options**



BASECOAT STAIN (SOFTWOOD ONLY)

**Stain Fully Finished**



HI-BUILD STAIN (BAL TIC) (PICTURED IN HARDWOOD)

**Fully Finished Paint**



PRIMED (WHITE) FOR SITE FINISHING



HI-BUILD PAINT (WHITE) FULLY FINISHED AS STANDARD

**Optional Finishes**



BUTTERMILK FULLY FINISHED



GARDENIA FULLY FINISHED



DUSKY GREY†



CANBERRA SLIDING FOLDING PATIO DOORSET

Other options are available at an extra cost to special order, minimum quantities of 50 frames apply (please supply a RAL colour on application).

COLOURS SHOWN ARE AS CLOSE AS PRINTING PROCESS ALLOWS.

†MATCHING HEADLINE VENTS AVAILABLE AT EXTRA COST



# Bay Windows

## Bay windows; Installation and Compliance with Part L

Bay windows, whether square or splay (angled) require careful consideration when planning building detail and installation. The Building Regulations, Approved Document L, require that the thermal performance around openings achieve levels that some traditional methods of bay window installation cannot meet. (The same applies to plain flat windows, but in those situations, the solution is relatively straightforward.)

Traditionally, the various types of bays were set against plain brickwork with the joints made by butting the jambs, or corner posts, up to the brickwork. In some situations a "birds-mouth" detail was used to set the bay window into the corner of the brickwork. Most of these details create a "cold bridge" at this joint, unacceptable under current Regulations.

### The Solution:

There are several ways of ensuring compliance with Part L, and not one "right" solution. In this brochure we illustrate two recommended details, but there are others. All our bay window dimensions stated on these pages refer to the actual brickwork. This enables architects and builders to plan the brickwork detail in compliance with the Regulations as they choose. Whatever method is chosen, the joint between the window and the structure must comply.

## Recommended Detail Returned Cavity ②

In this arrangement the brickwork is brought up to the edge of the window, using angle or cut brick, reproducing the joint between a flat window and the wall. This gives a good thermal detail and an elegant, attractive appearance.

## Recommended Detail Extended Jambs and/or Corner Posts ③

By adding an angled timber extension piece to the bay window jamb, the frame can effectively be altered to form a square edge to build to, and simplify the brickwork. While easier to build, this can produce a bulky appearance internally, particularly on smaller bays.

## Bay Window Sills

As with all windows today, attention to bay window sill detail is also very important. To meet the requirements of the published "Robust Detail" and achieve a 30mm overhang of the window frame over the cavity, a 158mm wide sill is essential when using plain brickwork. If a cant brick or similar detail is used, sill width will be different.

**Note:** The insulation of the (horizontal) roof and underside details of bay windows also require careful attention to ensure compliance, particularly where the bay projects beyond the structure. This needs to be discussed with your architect or local Building Control Officer.

\* BIRDS MOUTH DETAIL IS NOT SHOWN. PLEASE CONTACT JELD-WEN UK FOR MORE INFORMATION.

SQUARE BAY ①		ALL STANDARD MODULE RETURNS ARE 630		
SQUARE BAY STANDARD MODULE	FRONT MODULE WIDTH mm	DIM A mm	DIM B mm	DIM C mm
2 LIGHTS ON FRONT ELEVATION	1200	1234	1439	752
3 LIGHTS ON FRONT ELEVATION	1770	1804	2008	752
4 LIGHTS ON FRONT ELEVATION	2339	2373	2578	752

SQUARE BAY ①		ALL STANDARD MODULE RETURNS ARE 488		
SQUARE BAY STANDARD MODULE	FRONT MODULE WIDTH mm	DIM A mm	DIM B mm	DIM C mm
2 LIGHTS ON FRONT ELEVATION	915	949	1154	609
3 LIGHTS ON FRONT ELEVATION	1342	1376	1581	609
4 LIGHTS ON FRONT ELEVATION	1770	1804	2009	609

SEE DIAGRAMS OPPOSITE



## For Sovereign Stormsure Square Bays (SQ) – One & Two Return Ends.

## 45° Splay Bays (SP) – One & Two Return Ends.

### How to Order

Bays are made up from any combination of windows from the Sovereign Stormsure range. Return ends are generally 630mm wide windows or 488mm wide if narrow module. For Square Bays use SQ, for Splay Bays use SP.

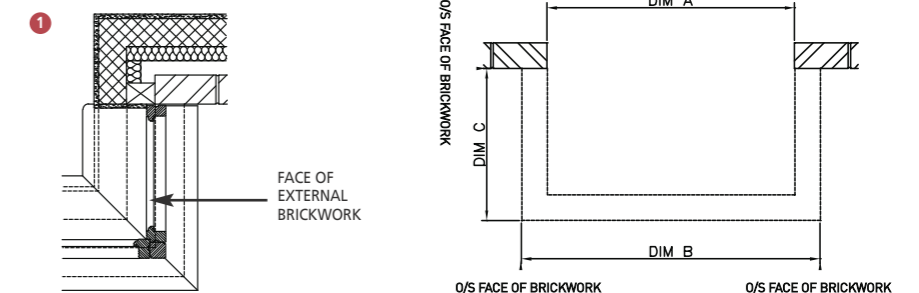
Codes are made up as follows:

- Two return ends SQ  
One return end SQR
- Number of lights on front elevation. 2,3,4,5  
Add N suffix if narrow light.  
Add H suffix if hardwood.
- Window codes from left to right, viewed from outside.
- State "As Catalogue" or "Opposite Catalogue" if windows are handable.

### Example:

SQ3/LEW112C AS/LEW312CVC/LEW112C OPP

Trickle ventilators giving 8000mm<sup>2</sup> of free area \*ventilation generally positioned centrally, are supplied as standard with each bay.

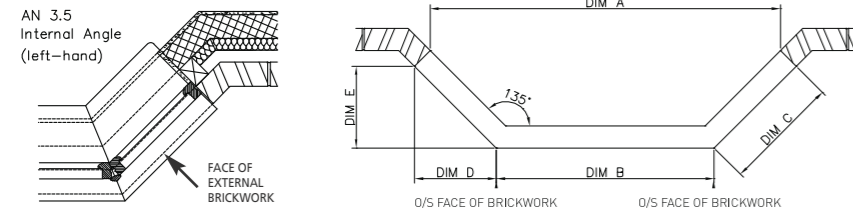


\*for equivalent area figures refer to individual window range sections.

# Bay Windows

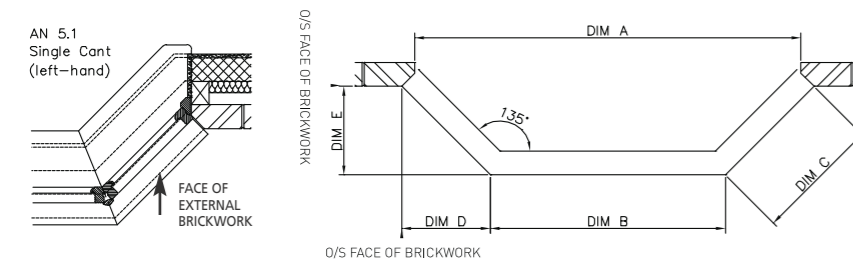
Special bay windows are available to order. You must provide the following information:

- 1) Brickwork opening dimensions (Dim B + D – where applicable).
- 2) Brickwork projection (External face) Dim E or C.
- 3) Installation details i.e. Part L 2002 robust detail.



45° SPLAY BAY AN 3.5 2		ALL STANDARD MODULE RETURNS ARE 630				
45 SPLAY BAY STANDARD MODULE	FRONT MODULE WIDTH mm	DIM A mm	DIM B mm	DIM C mm	DIM D mm	DIM E mm
2 LIGHTS ON FRONT ELEVATION	1200	2101	1288	677	478	478
3 LIGHTS ON FRONT ELEVATION	1770	2671	1858	677	478	478
4 LIGHTS ON FRONT ELEVATION	2332	3240	2427	677	478	478

45° SPLAY BAY AN 3.5 2		ALL STANDARD MODULE RETURNS ARE 488				
45 SPLAY BAY STANDARD MODULE	FRONT MODULE WIDTH mm	DIM A mm	DIM B mm	DIM C mm	DIM D mm	DIM E mm
2 LIGHTS ON FRONT ELEVATION	915	1615	1003	535	378	378
3 LIGHTS ON FRONT ELEVATION	1342	2042	1430	535	378	378
4 LIGHTS ON FRONT ELEVATION	1770	2470	1858	535	378	378



NB: THIS IS NOT A BIRDS MOUTH SITUATION

45° SPLAY BAY AN 5.1 3		ALL STANDARD MODULE RETURNS ARE 630				
45 SPLAY BAY STANDARD MODULE	FRONT MODULE WIDTH mm	DIM A mm	DIM B mm	DIM C mm	DIM D mm	DIM E mm
2 LIGHTS ON FRONT ELEVATION	1200	2133	1288	677	478	478
3 LIGHTS ON FRONT ELEVATION	1770	2703	1858	677	478	478
4 LIGHTS ON FRONT ELEVATION	2332	3272	2427	677	478	478

45° SPLAY BAY AN 5.1 3		ALL STANDARD MODULE RETURNS ARE 488				
45 SPLAY BAY STANDARD MODULE	FRONT MODULE WIDTH mm	DIM A mm	DIM B mm	DIM C mm	DIM D mm	DIM E mm
2 LIGHTS ON FRONT ELEVATION	915	1648	1003	535	378	378
3 LIGHTS ON FRONT ELEVATION	1342	2075	1430	535	378	378
4 LIGHTS ON FRONT ELEVATION	1770	2503	1858	535	378	378

### Important

Bay windows are not designed to be load bearing – if in doubt as to your requirements contact either your architect or JELD-WEN UK technical (01302 394 541).

# Sliding Sash Bays

### How to order

Sliding sash Square and Splay Bays can be made up from any combination of windows from the Sliding Sash range.

Codes are made up as follows:

- Square Bays with 2 return ends **SQ**
- Square Bays with 1 return end **SQR**
- 30° Splay Bay with 2 return ends **SP30**
- 45° Splay Bay with 2 return ends **SP45**
- 60° Splay Bay with 2 return ends **SP60**
- 30° Splay Bay with 1 return end **SPR30**
- 45° Splay Bay with 1 return end **SPR45**
- 60° Splay Bay with 1 return end **SPR60**

Window codes from left to right, viewed from outside.

### Example: SQ/VS0613/VS1613/VS0613

Brickwork needs to be constructed to allow the bay installation to meet the guidance in building standards.

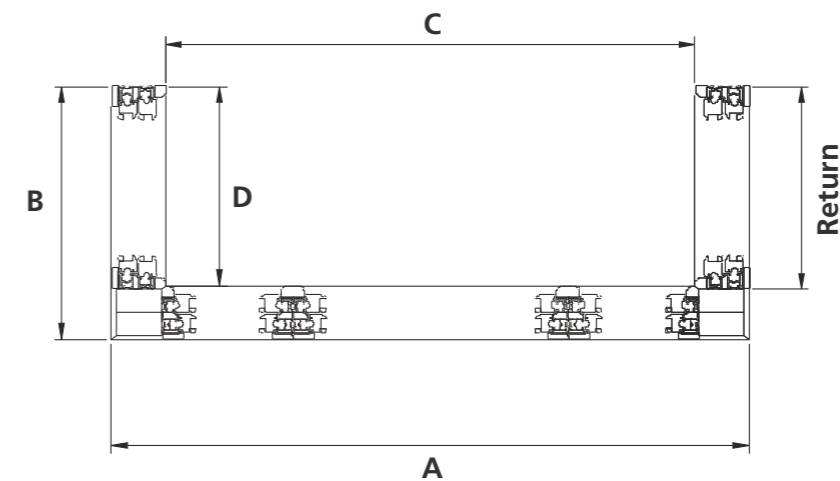
Special bay windows are available to order. You must provide the following information:

- 1) Brickwork opening dimensions.
- 2) Brickwork projection (External face).
- 3) Installation details i.e. Part L 2002 robust detail.

### Note:

Dimensions given for assembled bay window and are not brickwork dimensions.

### Square Bay



BAY FRONT*	BAY RETURN*	DIM A	DIM B	DIM C	DIM D
1665mm	630mm	1979mm	787mm	1644mm	620mm
1665mm	855mm	1979mm	1012mm	1644mm	845mm
1710mm	630mm	2024mm	787mm	1689mm	620mm
1710mm	855mm	2024mm	1012mm	1689mm	845mm
1890mm	630mm	2204mm	787mm	1869mm	620mm
1890mm	855mm	2204mm	1012mm	1869mm	845mm

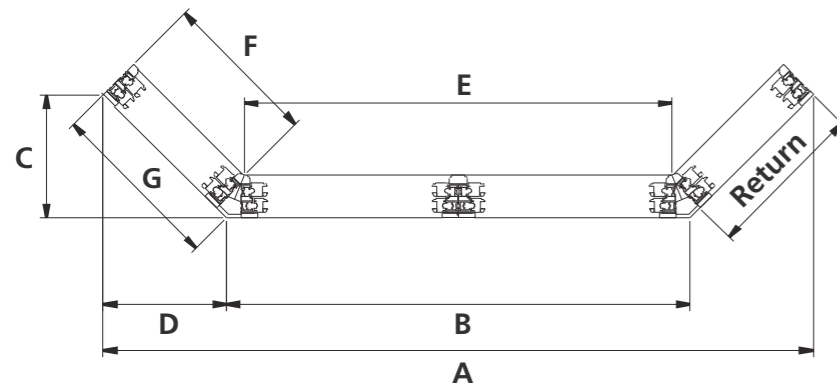
\*THESE SIZES ARE FINISHED OVERALL FRAME SIZES

# Sovereign Stormsure Range Performance

Windows

Windows

## Splay Bay 45°



BAY FRONT*	BAY RETURN*	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G
1080mm	630mm	2163mm	1193mm	485mm	485mm	1054mm	617mm	686mm
1080mm	855mm	2482mm	1193mm	644mm	644mm	1054mm	842mm	911mm
1665mm	630mm	2747mm	1776mm	485mm	485mm	1638mm	617mm	686mm
1665mm	855mm	3065mm	1776mm	644mm	644mm	1638mm	842mm	911mm
1710mm	630mm	2792mm	1821mm	485mm	485mm	1683mm	617mm	686mm
1710mm	855mm	3110mm	1821mm	644mm	644mm	1683mm	842mm	911mm
1890mm	630mm	2972mm	2001mm	485mm	485mm	1864mm	617mm	686mm
1890mm	855mm	3290mm	2001mm	644mm	644mm	1864mm	842mm	911mm

\*THESE SIZES ARE FINISHED OVERALL FRAME SIZES



## Construction

Sovereign Stormsure windows are made from softwood, protected with an advanced preservative system or selected quality hardwood. Softwood windows are fully PEFC Chain of Custody Certified.\*

\*PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION.

## Window Sections

Standard finished sections are as follows:

- Frame head - 93mm x 68mm
- Frame jambs - 67mm x 56mm
- Frame sills - 158mm x 68mm
- Frame mullion - 67mm x 56mm
- Frame bars - 55mm x 46mm
- Sash rails - 55mm x 67mm
- Sash bars - 55mm x 46mm

## Glazing

Window Frames are available factory glazed or unglazed. See page 12 for full glazing options.

Using glazing rebates of 18mm x 42mm Sovereign Stormsure windows will accept 24mm (4:16:4) insulating glass units as standard. The glazing system is fully drained and vented with a sloping bottom platform. A full 5mm clearance is provided between the insulating glass unit and rebate, in compliance with BS 6262.

## Ventilators

Flush fitting ventilators are supplied fitted as standard to all Sovereign Stormsure windows. These provide geometric area of 8000mm<sup>2</sup> on windows 915mm and wider, 4000mm<sup>2</sup> on windows below that size, down to 488mm wide. Available in white or brown. A 'no vent' option is also available.

VENTILATION PERFORMANCE FIGURES		
GEOMETRIC AREA <sup>1</sup>	4000mm <sup>2</sup>	8000mm <sup>2</sup>
EQUIVALENT AREA	3050mm <sup>2</sup>	6100mm <sup>2</sup>



## Individual Window Range Performance

### Stormsure BS6375

When tested in accordance with BS6375: Part 1: 2004 Performance of windows and doors. Classification for weather tightness and guidance on selection and specification.

Sovereign Stormsure Windows achieve an exposure rating of 2000 pa and also an air permeability of Class 4. Sovereign Stormsure windows also meet the requirements of BS6375: Part 2: 1987 Operation and Strength Performance.

### BS 7950 Secured by Design range

A security enhanced window range which complies with the requirement of BS 7950: 1997 for security performance of casement windows in domestic applications.

All windows with SBD option indicated are available to this standard specification.

- Softwood window either basecoat stained or primed.
- Factory glazed with annealed Low E insulating glass units.
- Butt hinges. Top hung sashes are supplied with projecting hinge as standard.
- Shoot bolt espagnolette locking.
- Simulated divided light glazing design where appropriate.

Energy rated range available see page 6.

## Ordering Windows

Sovereign Stormsure softwood windows are supplied with a standard 158mm nominal sill, basecoat stained with brown ventilator(s) and gold effect ironmongery. Sizes of windows shown are co-ordinating sizes Ref:BS 644, see page 11. Actual sizes of frames are 5mm less in height and width than shown in this section. This is not an installation clearance.

Windows shown with\* can be supplied either hand. The drawings show the window as viewed from the outside of the building. Please state either "As catalogue" or "Opposite catalogue" when ordering. Windows will be supplied "As catalogue" if not specified.

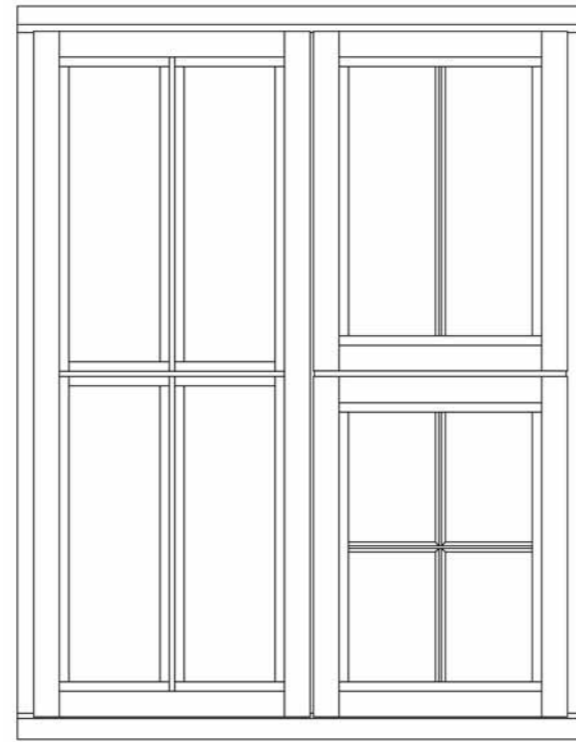
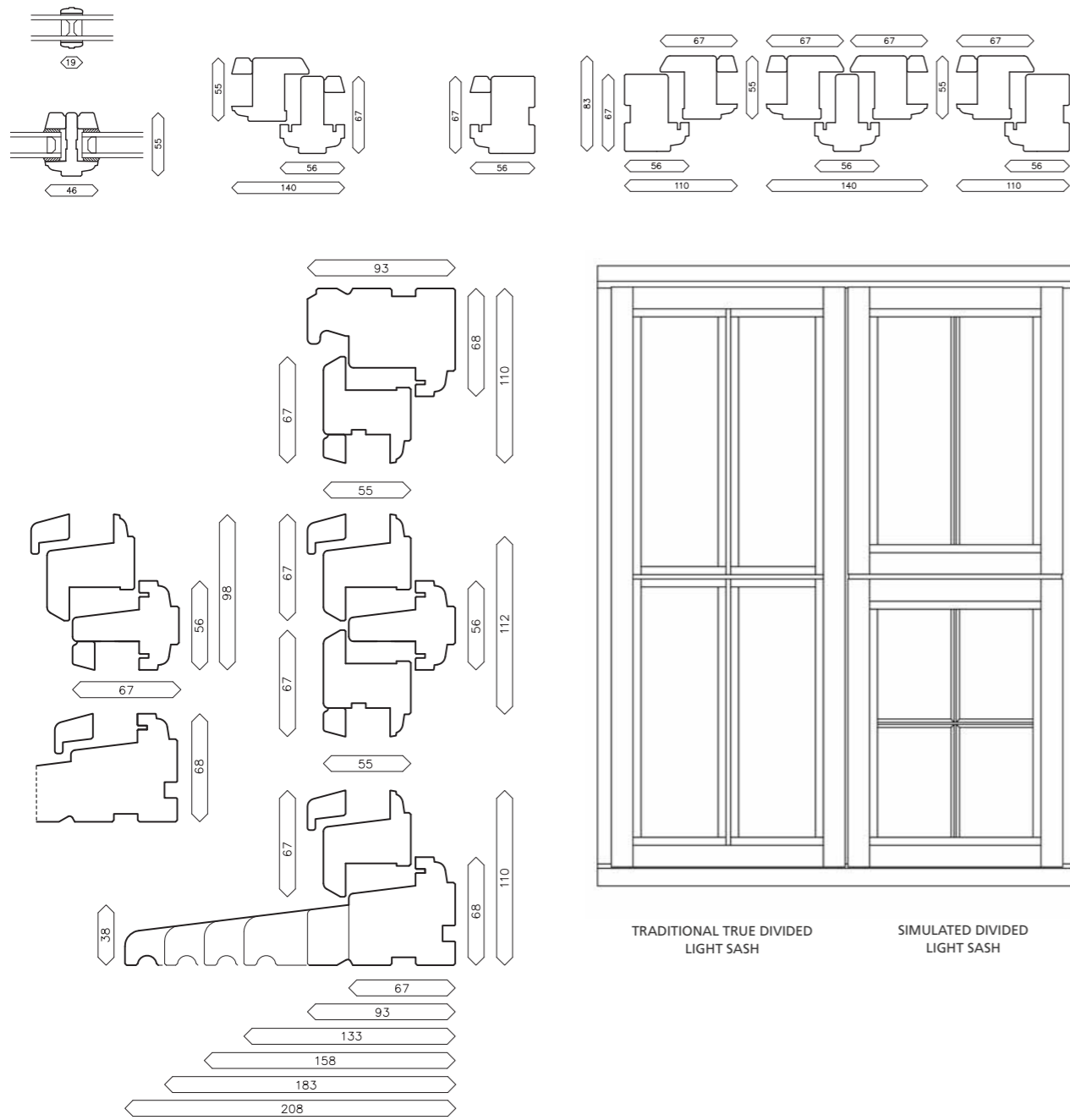
- A narrow 93mm stub sill is available as well as extended sills to widths of 208mm. Care must be taken to ensure that the correct sill width is specified to suit the brickwork detail and Approved Document 'L' 2006 amendments.
- Factory glazed windows are supplied with 24mm clear Low E insulating glass units with silver spacer bar. We offer a wide range of alternative glazing units including obscure and leaded, this is detailed on page 12.
- Alternative white ventilators are also available.
- Beige weathership is fitted as standard, white or brown are available as an option. Please specify at time of ordering.

## U-value Declaration

IGU DESCRIPTION				CENTRE-PANE U-VALUE OF DOUBLE GLAZED UNIT (U-VALUE; W/m <sup>2</sup> K)	THERMAL TRANSMITTANCE OF WHOLE WINDOW (U-VALUE; W/m <sup>2</sup> K)	SOLAR TRANSMITTANCE OF WHOLE WINDOW (G-FACTOR)
OUTER PANE	INNER PANE	SPACER BAR	CAVITY FILL	STORMSURE		
UNCOATED GLASS (4mm THICK)	HARD COAT LOW-E EN = 0.13 (4mm THICK)	ALUMINIUM	AIR (CAVITY 16mm)	1.7	1.9	0.442
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	ALUMINIUM	AIR (CAVITY 16mm)	1.4	1.8	0.417
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	WARM EDGE (STANDARD)	AIR (CAVITY 16mm)	1.4	1.6	0.417
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	WARM EDGE (STANDARD)	90% ARGON (CAVITY 16mm)	1.2	1.5	0.417

# Section Details

Windows



Windows

# Ironmongery

Windows

All Sovereign Stormsure windows are supplied fitted with ironmongery. Standard windows have butt hinges to all openings with at least one lockable fastener to side hung casements. Top hung windows have at least one lockable stay.

## Ironmongery Options

For extra convenience an espagnolette multipoint locking system can be fitted, operated by one handle.

## Fire Escape: Building Regulations

The requirement of Approved Document B, 2000 edition, states that window openings must be 450mm or wider. A 630mm wide single casement side hung window fitted with butt or fire escape projecting hinge will comply providing the window is 900mm or higher to provide a clear opening greater than 0.33m<sup>2</sup>.

Fire Escape windows are available to order in bespoke designs in 2, 3 and 4 light options. They are not available top hung.

All windows supplied with fire escape projecting hinges are supplied with non-locking fasteners. Non-locking fasteners are available on standard windows where used in fire escape situations. Releasable Restrictors are recommended for use on windows provided for fire escapes.

## Espagnolette Locking

Espagnolette locking offers a multipoint locking mechanism and is available as an option on most window types. Standard on our BS 7950 Secured by Design range.

## Mobility/Special Needs

Certain styles (above 1200mm high) of Sovereign Stormsure windows can be adapted to comply with the mobility requirements of BS 5619, incorporating low level espagnolette locking and cord operated ventilators. For more information, please contact our Estimating Department on 01664 485 500.

### OTHER OPTIONS

CONCEALED RESTRICTORS

FIRE ESCAPE PROJECTING HINGE

### Important

We can offer projecting hinges on top hung Regency windows should it be required, but these must not be used for access for cleaning the external glass. This will contravene the requirements of BS 8213:part 1:2004 appendix D and could cause serious injury. Particular care is needed with compliance with Scottish Building Regulations part P2.3 where applicable.

## Sovereign Stormsure Hardware<sup>†</sup>



GOLD EFFECT HANDLE



BRASS EFFECT HANDLE



CHROME EFFECT HANDLE



WHITE EFFECT HANDLE

<sup>†</sup> ESPAGNOLETTE HANDLE FROM THE COMBI WINDOW RANGE CAN BE USED ON THE STORMSURE RANGE AT AN EXTRA COST.

## Optional Projecting Hinges

Optional projecting hinges can be fitted to opening side hung casements for ease of cleaning. An optional restrictor, (supplied fitted) is available.



OPTIONAL ESPAGNOLETTE LOCKING (AT EXTRA COST)



OPTIONAL PROJECTING HINGE



SIMULATED DIVIDED LIGHT



TRADITIONAL DIVIDED LIGHT



CONSERVATION FRET

### Make specifying your project simple!

Request our specifier CD by visiting [www.jeld-wen.co.uk](http://www.jeld-wen.co.uk) and selecting request a brochure or download the CAD drawings from [www.fastrackcad.com](http://www.fastrackcad.com)

Windows

# Acoustic Performance

## Sound attenuation through Sovereign Stormsure windows

Increased awareness of external noise nuisance has increased the requirement for windows with good acoustic performance to be specified. Planning consents given on sites in inner cities or near to railways, major roads or airports now require high levels of acoustic

performance. Often these can be easily met, and even omitting the trickle ventilator in the window head will substantially improve acoustic performance. Higher acoustic performance can be achieved by use of special glazing, or by triple acoustic glazing. JELD-WEN UK has experience in meeting such requirements.

Windows

Windows

PRODUCT IDENTIFICATION:  
W112C STORMSURE (4F-16-4F)  
TITON TRICKLE VENT BLANKED OFF

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	22.6	
125	21.9	22.2
160	22.1	
200	14.9	
250	24.0	19.0
315	31.1	
400	32.2	
500	33.4	33.3
630	34.6	
800	34.5	
1000	34.5	35.7
1250	37.7	
1600	39.4	
2000	41.2	39.9
2500	39.2	
3150	36.5	
4000	37.9	38.0
5000	40.4	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 35 (-3;-7) DB

PRODUCT IDENTIFICATION:  
W112C STORMSURE (4F-16-4F)  
TITON TRICKLE VENT CLOSED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	21.6	
125	20.2	20.8
160	20.6	
200	14.7	
250	23.0	18.7
315	28.4	
400	28.2	
500	28.0	27.7
630	27.0	
800	24.1	
1000	24.7	25.3
1250	27.7	
1600	29.4	
2000	33.4	30.2
2500	29.0	
3150	30.5	
4000	32.4	31.9
5000	33.5	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 28 (-1;-3) DB

PRODUCT IDENTIFICATION:  
W112C STORMSURE (4F-16-4F)  
GLIDEVALE TRICKLE VENT OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	17.9	
125	18.0	18.0
160	18.2	
200	14.2	
250	21.8	17.9
315	24.1	
400	24.4	
500	25.0	25.0
630	25.6	
800	21.7	
1000	19.0	18.8
1250	16.9	
1600	17.9	
2000	19.9	19.1
2500	19.8	
3150	19.8	
4000	21.0	21.0
5000	22.7	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 20 (-1; 0) DB

PRODUCT IDENTIFICATION:  
W112C STORMSURE (4F-16-4F)  
GLIDEVALE TRICKLE VENT CLOSED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	20.1	
125	19.1	19.9
160	20.6	
200	14.1	
250	23.0	18.1
315	27.2	
400	26.9	
500	27.1	27.0
630	26.9	
800	22.4	
1000	20.7	21.8
1250	22.4	
1600	23.9	
2000	26.4	25.6
2500	27.1	
3150	28.8	
4000	30.7	30.3
5000	32.1	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 25 (-1; -2) DB

PRODUCT IDENTIFICATION:  
W112C STORMSURE (4F-16-4F)  
TITON TRICKLE VENT OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	19.3	
125	18.5	18.8
160	18.5	
200	14.1	
250	21.0	17.7
315	24.2	
400	24.8	
500	24.6	24.4
630	23.8	
800	21.3	
1000	20.1	20.8
1250	20.9	
1600	19.4	
2000	21.1	20.5
2500	21.2	
3150	20.2	
4000	21.8	21.4
5000	22.6	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 21 (0;0) DB

PRODUCT IDENTIFICATION:  
W112C STORMSURE (4F-16-6.4L)  
VENTS BLANKED OFF

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	23.1	
125	22.2	23.3
160	25.0	
200	22.4	
250	28.6	26.0
315	33.1	
400	33.8	
500	35.3	35.1
630	36.5	
800	35.4	
1000	35.8	36.4
1250	38.6	
1600	39.8	
2000	40.5	40.0
2500	39.9	
3150	40.7	
4000	41.2	41.6
5000	43.5	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 37 (-1; -4) DB

PRODUCT IDENTIFICATION:  
W112C STORMSURE (4F-16-4F)  
TITON SELECT HOOD VENT OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	17.5	
125	17.9	17.7
160	17.8	
200	13.5	
250	21.0	17.2
315	23.4	
400	24.1	
500	23.8	24.4
630	25.6	
800	23.1	
1000	20.8	20.5
1250	18.7	
1600	19.2	
2000	19.9	19.7
2500	20.1	
3150	19.5	
4000	20.6	20.4
5000	21.2	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 21 (-1; -1) DB

PRODUCT IDENTIFICATION:  
W112C STORMSURE (4F-16-6F)  
VENTS BLANKED OFF

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	22.1	
125	22.3	23.0
160	25.2	
200	22.4	
250	28.1	25.8
315	32.3	
400	32.8	
500	34.1	33.8
630	34.8	
800	33.6	
1000	33.7	33.6
1250	33.4	
1600	34.0	
2000	38.0	36.4
2500	38.8	
3150	39.3	
4000	39.4	39.3
5000	39.3	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 35 (-1; -3) DB

PRODUCT IDENTIFICATION:  
W112C STORMSURE (6F-10-10F)  
VENTS BLANKED OFF

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	25.0	
125	25.6	25.4
160	25.7	
200	26.8	
250	28.2	28.6
315	32.9	
400	35.1	
500	36.6	36.0
630	36.5	
800	35.1	
1000	36.0	36.0
1250	37.0	
1600	38.1	
2000	39.2	39.1
2500	40.5	
3150	43.0	
4000	42.4	43.3
5000	45.0	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 37 (-1; -3) DB

PRODUCT IDENTIFICATION:  
AW4/ STORMSURE WINDOW WITH 4-14-6.8PVB GLASS  
VENTS REMOVED AND BLOCKED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	17.7	
63+	20.3	19.6
80+	22.2	
100	19.7	
125	24.7	21.9
160	23.0	
200	20.9	
250	27.2	24.6
315	33.6	
400	32.6	
500	35.6	34.5
630	36.2	
800	36.0	
1000	35.6	36.4
1250	38.0	
1600	41.4	
2000	42.30	41.6
2500	41.30	
3150	39.3	
4000	39.0	39.5
5000	40.4	
6300+	45.3	
8000+	48.1	47.6
1000+	51.4	
AVERAGE 100-3150		33.0

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 37 (-2; -5) DB

PRODUCT IDENTIFICATION:  
AW4/ STORMSURE WINDOW WITH 4-14-6.8PVB GLASS  
2 X TITON R16-4000 VENTS CLOSED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	17.5	
63+	20.4	19.5
80+	21.9	
100	17.8	
125	23.6	20.3
160	21.4	
200	20.3	
250	26.0	23.6
315	29.3	
400	29.4	
500	28.7	28.4
630	27.4	
800	24.6	
1000	23.3	23.9
1250	24.0	
1600	27.7	
2000	31.3	29.2
2500	29.2	
3150	30.7	
4000	32.2	31.9
5000	33.0	
6300+	36.9	
8000+	39.4	39.1
1000+	42.8	
AVERAGE 100-3150		25.9

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 28 (-1; -3) DB

PRODUCT IDENTIFICATION:  
AW4/ STORMSURE WINDOW WITH 4-14-6.8PVB GLASS  
2 X TITON R16-4000 VENTS OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	16.4	
63+	18.4	17.0
80+	20.0	
100	14.9	
125	20.9	16.9
160	16.7	
200	17.0	
250	21.9	19.9
315	23.7	
400	24.4	
500	23.6	23.7
630	23.3	
800	21.3	
1000	20.6	19.7
1250	18.0	
1600	15.9	
2000	16.9	17.0
2500	18.5	
3150	17.2	
4000	19.1	18.7
5000	20.5	
6300+	22.7	
8000+	25.3	25.1
1000+	30.4	
AVERAGE 100-3150		19.7

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 19 (-1; -0) DB

# Rapid Ventilation and Daylight Area Figures

Windows

Windows

## Casement

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
107C	225225	312417
109C	289575	389367
110C	353925	466317
112C	418275	543267
113C	482625	620217
207C	537642	312417
209C	678942	389367
210C	820242	466317
212C	961542	543267
213C	1102842	620217
207CC	450450	624834
209CC	579150	778734
210CC	707850	932634
212CC	836550	1086534
213CC	965250	1240434
307CC	762867	624834
309CC	968517	778734
310CC	1174167	932634
312CC	1379817	1086534
313CC	1585467	1240434
409CMC	1357884	778734
410CMC	1640484	932634
412CMC	1923084	1086534
413CMC	2205684	1240434

## Casement Narrow Module

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
N07C	150675	228984
N09C	193725	285384
N10C	236775	341784
N12C	279825	398184
N13C	322875	454584
2N07C	379659	228984
2N09C	479109	285384
2N10C	578559	341784
2N12C	678009	398184
2N13C	777459	454584
2N07CC	301350	457968
2N09CC	387450	570768
2N10CC	473550	683568
2N12CC	559650	796368
2N13CC	645750	909168
3N07CC	530334	457968
3N09CC	672834	570768
3N10CC	815334	683568
3N12CC	957834	796368
3N13CC	1100334	909168
4N09CMC	958218	570768
4N10CMC	1157118	683568
4N12CMC	1356018	796368
4N13CMC	1554918	909168

## Casement with Vents

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
107V	227157	125172
109V	304107	125172
110V	381057	125172
112V	458007	125172
113V	534957	125172
115V	611907	125172
209T	618882	360639
210T	760182	437589
212T	901482	514539
213T	1042782	591489
215T	1184082	668439
207CV	452382	437589
209CV	593682	514539
210CV	734982	591489
212CV	876282	668439
213CV	1017582	745389
309CVC	883257	903906
310CVC	1088907	1057806
312CVC	1294557	1211706
313CVC	1500207	1365606
409CVVC	1187364	1029078
410CVVC	1469964	1182978
412CVVC	1752564	1336878
413CVVC	2035164	1499778

## Casement Landscape

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
2N09W	480522	194712
2N10W	600222	194712
2N12W	719922	194712
2N13W	839622	194712
2N15W	959322	194712
209W	656937	264252
210W	819387	264252
212W	981837	264252
213W	1144287	264252
215W	1306737	264252
310CW	1173312	730569
312CW	1400112	807519
313CW	1626912	884469
310C	1338372	466317
312C	1565172	543267
313C	1791972	620217
310WWW	1200444	389424
312WWW	1439844	389424
313WWW	1679244	389424
410CWC	1527237	1196886
412CWC	1818387	1350786
413CWC	2109537	150468

## Cottage SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
C109CSDL	268960	389367
C110CSDL	330460	466317
C112CSDL	391960	543267
C113CSDL	453460	620217
C209CSDL	592975	389367
C210CSDL	718825	466317
C212CSDL	844675	543267
C213CSDL	970525	620217
C209CCSDL	537920	778734
C210CCSDL	660920	932634
C212CCSDL	783920	1086534
C213CCSDL	906920	1240434
C309CSDL	841320	778734
C310CSDL	1025820	932634
C312CSDL	1210320	1086534
C313CSDL	1394820	1240434
C410CMCSDL	1144720	78734
C412CMCSDL	1390720	932634
C413CMCSDL	1636720	1086534
C415CMCSDL	1882720	1240434

## Cottage TDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
C109CTDL	240907	389367
C110CTDL	298357	466317
C112CTDL	355807	543267
C113CTDL	413257	620217
C209CTDL	504295	389367
C210CTDL	631328	466317
C212CTDL	758828	543267
C213CTDL	886328	620217
C209CCTDL	481814	778734
C210CCTDL	596714	932634
C212CCTDL	711614	1086534
C213CCTDL	826514	1240434
C309CCTDL	745202	778734
C310CCTDL	929685	932634
C312CCTDL	1114635	1086534
C313CCTDL	1299585	1240434
C410CMCTDL	1008590	778734
C412CMCTDL	1262656	932634
C413CMCTDL	1517656	1086534
C415CMCTDL	1772656	1240434

## Casement with Vents Narrow Module

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
N07V	162104	91744
N09V	218504	91744
N10V	274904	91744
N12V	331304	91744
2N07C	312779	320728
2N09CV	412229	377128
2N10CV	511679	433528
2N12CV	611129	489928

## Direct Glazed

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
104DG	158517	0
106DG	235467	0
107DG	312417	0
109DG	389367	0
110D	466317	0
112DG	543267	0
113D	620217	0
204DG	334647	0
206DG	497097	0
207DG	659547	0
209DG	821997	0
210DG	984447	0
212DG	1146897	0
213DG	1309347	0

## Casement Transom

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
109T	229515	360639
110T	293865	437589
112T	358215	514539
113T	422565	591489
115T	486915	668439
210TX	731454	437589
212TX	872754	514539
213TX	1014054	591489
215TX	1155354	668439
310TXT	1338489	875178
312TXT	1544139	1029078
313TXT	1749789	1182978
315TXT	1955439	1336878
310T	1278312	437589
312T	1505112	514539
313T	1731912	591489
315T	1958712	668439
410TT	1547208	875178
412TT	1786608	1029078
413TT	2026008	1182978
415TT	2265408	1336878

## Casement Fire Escape

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
2N10FE	473550	725382
2N12FE	559650	84508

## Cottage Divided Casement SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
C109DSDL	219350	180319.5
C110DSDL	280850	218794.5
C112DSDL	342350	257269.5
C113DSDL	403850	295744.5
C2N10DSDL	476075	340347
C2N12DSDL	580325	400197
C2N13DSDL	684575	460047
C209CDSDL	524300	380674.5
C210CDSDL	671300	461899.5
C212CDSDL	818300	543124.5
C213CDSDL	965300	624349.5
C309CDCSDL	743650	560994
C310CDCSDL	952150	680694
C312CDCSDL	1160650	800394
C313CDCSDL	1369150	920094
C410CDDCSDL	1342600	923799
C412CDDCSDL	1636600	1086249
C413CDDCSDL	1930600	1248699

## Cottage Divided Casement TDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
C109DSDL	204905	180319.5
C110DSDL	262355	218794.5
C112DSDL	319805	257269.5
C113DSDL	377255	295744.5
C2N10DSDL	457580	340347
C2N12DSDL	557780	400197
C2N13DSDL	657980	460047
C209CDSDL	509855	380674.5
C210CDSDL	652805	461899.5
C212CDSDL	795755	543124.5
C213CDSDL	938705	624349.5
C309CDSDL	714760	560994
C310CDSDL	915160	680694
C312CDSDL	1115560	800394
C313CDSDL	1315960	920094
C410CDDSDL	1305610	923799
C412CDDSDL	1591510	1086249
C413CDDSDL	1877410	1248699

## Horizontal Bar SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
H107CSDL	217074	312417
H109CSDL	281424	389367
H110CSDL	345774	466317
H112CSDL	410124	543267
H113CSDL	474474	620217
H207CSDL	519744	312417
H209CSDL	661044	389367
H210CSDL	802344	466317
H212CSDL	943644	543267
H213CSDL	1084944	620217
H209CCSDL	562848	778734
H210CCSDL	691548	932634
H212CCSDL	820248	1086534
H213CCSDL	948948	1240434
H309CCSDL	942468	778734
H310CCSDL	1148118	932634
H312CCSDL	1353768	1086534
H313CCSDL	1559418	1240434
H410CMCSDL	1604688	932634
H412CMCSDL	1887288	1086534
H413CMCSDL	2169888	1240434

### Horizontal Bar TDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
H107CTDL	205491	312417
H109CTDL	269841	389367
H110CTDL	334191	466317
H112CTDL	398541	543267
H113CTDL	462891	620217
H207CTDL	494823	312417
H209CTDL	635610	389367
H210CTDL	776910	466317
H212CTDL	918210	543267
H213CTDL	1059510	620217
H209CCTDL	539682	778734
H210CCTDL	668382	932634
H212CCTDL	797082	1086534
H213CCTDL	925782	1240434
H309CCTDL	905451	778734
H310CCTDL	1111101	932634
H312CCTDL	1316751	1086534
H313CCTDL	1522401	1240434
H410CMCTDL	1553820	932634
H412CMCTDL	1836420	1086534
H413CMCTDL	2119020	1240434

### Horizontal Bar Narrow Module SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
HN09CSDL	188272	285384
HN10CSDL	231322	341784
HN12CSDL	274372	398184
HN13SD	317422	454584
H2N09CSDL	466512	285384
H2N10CSDL	565962	341784
H2N12CSDL	665412	398184
H2N13CSDL	764862	454584
H2N09CSD	376544	570768
H2N10CSD	462644	683568
H2N12CSD	548744	796368
H2N13CSD	634844	909168
H3N09CSDL	654784	570768
H3N10CSDL	797284	683568
H3N12CSDL	939784	796368
H3N13CSDL	1082284	909168
H4N10CMCSDL	1131924	683568
H4N12CMCSDL	1330824	796368
H4N13CMCSDL	1529724	909168

### Horizontal Bar Divided Casement

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
HN09D	153545	132164
HN10D	196595	160364
HN12D	239645	188564
H109D	229515	180319.5
H110D	293865	218794.5
H112D	358215	257269.5
H113D	422565	295744.5
H2N10D	489090	340347
H2N12D	596190	400197
H2N13	703290	460047

### Horizontal Bar Divided Casement SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
H209CDSDL	510939	569686.5
H210CDS	639639	685111.5
H212CDSDL	768339	800536.5
H213CDSDL	897039	915961.5
H309CDCSDL	792363	959053.5
H310CDCSDL	985413	1151428.5
H312CDCSDL	1178463	1343803.5
H313CDCSDL	1371513	1536178.5
H410CDDCSDL	1279278	1370223
H412CDDCSDL	1536678	1601073
H413CDDCSDL	1794078	1831923

### Horizontal Bar Narrow Module TDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
HN09CTDL	268088	285384
HN10CTDL	223573	341784
HN12CTDL	266623	398184
HN13TDL	309673	454584
H2N09CTDL	536176	285384
H2N10CTDL	548061	341784
H2N12CTDL	647511	398184
H2N13CTDL	746961	454584
H2N09CCTDL	536176	570768
H2N10CCTDL	447146	683568
H2N12CCTDL	533246	796368
H2N13CCTDL	619346	909168
H3N09CCTDL	804264	570768
H3N10CCTDL	771634	683568
H3N12CCTDL	914134	796368
H3N13CCTDL	1056634	909168
H4N10CMCTDL	1096122	683568
H4N12CMCTDL	1295022	796368
H4N13CMCTDL	1493922	909168

### Top Hung

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
104A	96525	158517
106A	160875	235467
107A	225225	312417
109A	289575	389367
110A	353925	466317
112A	418275	543267
2N04A	160650	246582
2N06A	267750	366282
2N07A	374850	485982
2N09A	481950	605682
2N10A	589050	725382
2N12A	696150	845082
204A	224775	334647
206A	374625	497097
207A	524475	659547
209A	674325	821997
210A	824175	984447
212A	974025	1146897
304AE	407232	246582
306AE	634032	366282
307AE	860832	485982
309AE	1087632	605682
310AE	1313342	725382
312AE	1541232	845082

### Horizontal Bar Divided Casement TDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
H209CDTDL	499356	569686.5
H210CDTDL	628056	685111.5
H212CDTDL	756756	800536.5
H213CDTDL	885456	915961.5
H309CDCTDL	769197	959053.5
H310CDCTDL	962247	1151428.5
H312CDCTDL	1155297	1343803.5
H313CDCTDL	1348347	1536178.5
H410CDDCTDL	1256112	1370223
H412CDDCTDL	1513512	1601073
H413CDDCTDL	1770912	1831923

### Top Hung with Sidelights

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
113AS	479097	466317
115AS	576792	543267
2N13AS	783762	725382
2N15AS	942732	845082
213AS	1088427	984447
215AS	1308672	1146897

### All Bar Casement Vents

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
B110TSDL	273060	437589
B112TSDL	326770	514539
B113TSDL	388270	591489
B107VSDL	157850	125172
B109VSDL	211560	125172
B110VSDL	273060	125172
B112VSDL	326770	125172
B113VSDL	388270	125172
B207CVSDL	365310	437589
B209CVSDL	472730	514539
B210CVSDL	595730	591489
B212CVSDL	703150	668439
B213CVSDL	826150	745389
B309CVCSL	733900	903906
B310CVCSL	918400	1057806
B312CVCSL	1079530	1211706
B313CVCSL	1264030	1365606
B410CVVCSL	1191460	1182978
B412CVVCSL	1406300	1336878
B413CVVCSL	1652300	1490778

### All Bar Transom

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
B213TXSDL	776540	591489
B215TXSDL	883960	668439
B313TXSDL	1164810	1182978
B315TXSDL	1325940	1336878
B415TXSDL	1638780	1336878

### All Bar Casement Vents Narrow Module

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
BN07CSDL	145222	312417
BN09CSDL	182819	389367
BN10CSDL	225869	466317
BN12CSDL	263466	543267
BN09VSDL	148092	91744
BN10VSDL	191142	91744
BN12VSDL	228739	91744
B2N10CVSDL	373961	433528
B2N12CVSDL	454608	489928
B2N10WSDL	450216	114240
B2N12WSDL	538772	114240

### Regency Non Bar

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
SRN07	134603	103964
SRN09	177653	132164
SRN10	220703	160364
SRN12	263753	188564
SRN13	306803	216764
SRN15	371378	244964
SR107	201201	141844.5
SR109	265551	180319.5
SR110	329901	218794.5
SR112	394251	257269.5
SR113	458601	295744.5
SR115	555126	334219.5
SR116	611668.5	372694.5
SR2N07	329612.5	220647
SR2N09	435287.5	280497
SR2N10	540962.5	340347
SR2N12	646637.5	400197
SR2N13	752312.5	460047
SR2N15	857987.5	519897
SR2N16	963662.5	579747
SR209	618381	380674.5
SR210	768231	461899.5
SR212	918081	543124.5
SR213	1067931	624349.5
SR215	1292706	705574.5
SR216	152773.5	786799.5
SR210D	659802	437589
SR212D	788502	514539
SR213D	917202	668439
SR215D	1110252	745389
SR216D	133337	668439
SR4N10	1098132	680694
SR4N12	1312332	800394
SR4N13	1526532	920094
SR4N15	1847832	1039794

### All Bar Casement

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
B106CSDL	207460	312417
B109CSDL	261170	389367
B110CSDL	322670	466317
B112CSDL	376380	543267
B113CSD	437880	620217
B207CSDL	414920	312417
B209CSDL	522340	389367
B210CSDL	645340	466317
B212CSDL	752760	543267
B213CSDL	875760	620217
B309CCSDL	783510	778734
B310CCSDL	968010	932634
B312CCSDL	1129140	1086534
B313CCSD	1313640	124043

### Regency Vertical Bar SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
SRV107SDL	192290	141844.5
SRV109SDL	253790	180319.5
SRV110SDL	315290	218794.5
SRV112SDL	376790	257269.5
SRV113SDL	438290	295744.5
SRV115SDL	499790	334219.5
SRV116SDL	561290	372694.5
SRV2N07SDL	354434.5	220647
SRV2N09SDL	466409.5	280497
SRV2N10SDL	578384.5	340347
SRV2N12SDL	690359.5	400197
SRV2N13SDL	802334.5	460047
SRV2N15SDL	914309.5	519897
SRV2N16SDL	1026284.5	579747
SRV209SDL	606620	380674.5
SRV210SDL	753620	461899.5
SRV212SDL	900620	543124.5
SRV213SDL	1047620	624349.5
SRV215SDL	1194620	705574.5
SRV216SDL	1341620	786799.5
SRV4N10SDL	1068910	680694
SRV4N12SDL	1277410	800394
SRV4N13SDL	1485910	920094
SRV4N15SDL	1694410	1039794
SRV4N16SDL	1902910	1159494
SRV410SDL	1507240	923799
SRV412SDL	1801240	1086249
SRV413SDL	2095240	1248699

## Regency Vertical Bar TDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
SRV107TDL	179627	141844.5
SRV109TDL	237077	180319.5
SRV110TDL	294527	218794.5
SRV112TDL	351977	257269.5
SRV113TDL	409427	295744.5
SRV115TDL	466877	334219.5
SRV116TDL	524327	372694.5
SRV2N07TDL	313292	220647
SRV2N09TDL	413492	280497
SRV2N10TDL	513692	340347
SRV2N12TDL	613892	400197
SRV2N13TDL	714092	460047
SRV2N15TDL	814292	519897
SRV2N16T	914492	579747
SRV209TDL	589907	380674.5
SRV210TDL	732857	461899.5
SRV212TDL	875807	543124.5
SRV213TDL	1018757	624349.5
SRV215TDL	1161707	705574.5
SRV216TDL	1304657	786799.5
SRV4N10TDL	1027384	680694
SRV4N12TDL	1227784	800394
SRV4N13TDL	1428184	920094
SRV4N15TDL	1628584	1039794
SRV4N16TDL	1828984	1159494
SRV410TDL	1465714	923799
SRV412TDL	1751614	1086249
SRV413TDL	2037514	1248699

## Regency all Bar SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
SRBN07SDL	134603	103964
SRBN09SDL	172200	103964
SRBN10SDL	215250	103964
SRBN12SDL	138477.5	188564
SRBN13SDL	181527.5	188564
SRBN15SDL	219124.5	188564
SRB107SDL	192290	141844.5
SRB109SDL	246000	141844.5
SRB110SDL	307500	141844.5
SRB112SDL	361210	257269.5
SRB113SDL	422710	257269.5
SRB115SDL	476420	257269.5
SRB116SDL	537920	257269.5
SRB2N07SDL	317044	220647
SRB2N09SDL	405600	220647
SRB2N10SDL	507000	220647
SRB2N12SDL	595556	326170
SRB2N13SDL	696956	326170
SRB2N15SDL	785512	326170
SRB2N16SDL	886912	326170
SRB207SDL	441798	299449.5
SRB209SDL	565200	299449.5
SRB210SDL	706500	299449.5
SRB212SDL	829902	543124.5
SRB213SDL	971202	543124.5
SRB215SDL	1094604	543124.5
SRB216SDL	1235904	543124.5
SRB210DSDL	615000	283689
SRD212DSDL	722420	514539
SRB4N10SDL	1014000	441294
SRB4N12SDL	1191112	652340
SRB4N13SDL	1393912	652340
SRB4N15SDL	1571024	652340
SRB4N16SDL	1773824	652340



# Window Designs

Sovereign Stormsure windows are manufactured in a range of standard co-ordinated brickwork module windows size (see page 11). They can also be manufactured to bespoke sizes by special order. Please contact JELD-WEN UK for details.

## Plain Casement

mm	630mm	1200mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm and 1350mm.

## Plain Casement

mm	630mm	1200mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm and 1350mm.

## Casement – with Casement Vents

mm	630mm	1200mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm, 1350mm and 1500mm.

## Casement – Narrow Module with Casement Vents

mm	488mm	915mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm and 1200mm.

## Direct Glazed

mm	630mm	1200mm

The windows above are available in the following heights: 450mm, 600mm, 750mm, 900mm, 1050mm, 1200mm and 1350mm.

## Casement – Fire Escape

mm	915mm

The windows above are available in the following heights: 1050mm and 1200mm.

## Casement – Transom

mm	630mm	1200mm	1770mm	1770mm	2339mm

The windows above are available in the following heights: 900mm, 1050mm, 1200mm, 1350mm and 1500mm.

## Casement – with Casement Vents

mm	630mm	1200mm	1770mm	1770mm	2339mm

Available to order in bespoke sizes call JELD-WEN UK to discuss your requirements.

## Casement – Landscape

mm	915mm	1200mm	1770mm	1770mm	1770mm	2339mm

The windows above are available in the following heights: 900mm, 1050mm, 1200mm, 1350mm and 1500mm.

## Cottage

mm	630mm	1200mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 900mm, 1050mm, 1200mm and 1350mm.

## Cottage – Divided Casement

mm	630mm	915mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 900mm, 1050mm, 1200mm and 1350mm.

## Horizontal Bar

mm	630mm	1200mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm and 1350mm.

## Horizontal Bar – Narrow Module

mm	488mm	915mm	915mm	1342mm	1770mm

The windows above are available in the following heights: 900mm, 1050mm, 1200mm and 1350mm.

## Horizontal Bar – Divided Casement and Horizontal Bar – Divided Casement Narrow Module

mm	488mm	630mm	915mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 900mm, 1050mm, 1200mm and 1350mm.

Available to order in bespoke sizes call JELD-WEN UK to discuss your requirements.

**Top Hung**

mm	630mm	915mm	1200mm	1770mm

The windows above are available in the following heights: 450mm, 600mm, 750mm, 900mm, 1050mm and 1200mm.

**All Bar – with Casement Vents†**

mm	630mm*	630mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm and 1350mm.

**All Bar – with Casement Vents – Narrow Module†**

mm	488mm	488mm	915mm	915mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm and 1200mm†.

**All Bar and All Bar – Transom†**

mm	630mm	1200mm	1200mm	1770mm	1770mm	2339mm

**Top Hung with Sublight**

mm	630mm	915mm	1200mm

WINDOWS SHOWN WITH \* CAN BE SUPPLIED EITHER HAND. † GLAZING BAR HEIGHT MAY VARY DEPENDING ON DESIGN AND HEIGHT OF FRAME.

The windows pictured left are available in the following heights: 750mm, 900mm, 1050mm, 1200mm, 1350mm and 1500mm†.

Available to order in bespoke sizes call JELD-WEN UK to discuss your requirements.

**Regency – Non Bar**

mm	488mm	630mm	915mm	1200mm	1200mm	1770mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm, 1350mm, 1200mm and 1650mm†.

**Regency – Vertical Bar**

mm	488mm	630mm	915mm	1200mm	1770mm	2339mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm, 1350mm, 1200mm and 1650mm†.

**Regency – All Bar†**

mm	488mm	630mm	915mm	1200mm	1200mm	1770mm

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm, 1350mm, 1200mm and 1650mm†.

**Circular Windows**

SIZE	600mm DIAMETER W120BE	600mm DIAMETER W120BP

**Arched Head Windows**

WIDTH AND HEIGHT SOFTWOOD	915mm X 1800mm W918B1	915mm X 1800mm W918A	915mm X 1800mm W918B

WINDOWS SHOWN WITH \* CAN BE SUPPLIED EITHER HAND. † GLAZING BAR HEIGHT MAY VARY DEPENDING ON DESIGN AND HEIGHT OR FRAME.

Available to order in bespoke sizes call JELD-WEN UK to discuss your requirements.

# Fully Glazed Sliding Sash

A unique range of timber windows incorporating stepped sashes for improved performance whilst retaining traditional sight lines. Supplied fully glazed with 24mm Low E insulating glass units. Ventilation is via concealed ventilator(s) through the head section. All windows have extended horns on the top sash and flush to frame sills as standard.

## Accreditation

Our sliding sash range is fully endorsed by the BWF under its Timber Window Accreditation Scheme. Under the scheme all aspects from specification to manufacture are assessed and approved prior to accreditation.

## Timber

Softwood PEFC Certified.

## Preservation

Every timber window manufactured by JELD-WEN UK is either manufactured from timber not requiring preservation or protected by an advanced timber preservation system.

## Fire Escape

The minimum size for fire egress frames is 860 x 1350mm.

## Finishing

All windows are supplied primed as standard or basecoat stained as an option. Part or fully finished options are also available. Large windows may be supplied with sashes sent separately for ease of frame fixing, handling and to reduce risk of damage. Factory Finishing recommended.

## PVC-U Jambs

All windows have special PVC-U jambs faced with timber. The PVC-U jambs are supplied white on primed windows and brown on stained windows. These jambs have the advantage of stepped sashes for improved weather performance. PVC-U jambs are an integral part of the frame and cannot be removed separately.

## Sills

Standard flush 168 x 56mm or an alternative projecting sill option of 196 x 56mm is also available (price on application).

Section Sizes:

- Frame Head 54mm x 170mm
- Frame Jambs 65mm x 170mm
- Sash Rails
  - Top Sash Rail 52mm
  - Meeting Rail 44mm
  - Bottom Rail 79mm

## Glazing

Glazing Rebates: All windows have rebates of 18 x 42mm and are fully glazed with a drained and vented glazing system. All Sliding Sash windows are supplied factory double glazed with Low E annealed or toughened glass, plain or obscure, in compliance with Approved Document 'L'.

Energy rated range available see page 6 for details.



## Ventilation System

Background ventilation is provided to comply with the Requirement F1 of the Building Regulations and Regulation 23 of the Building Standards (Scotland) Regulations. Face fixed Titon Trimvent® select ventilators are available in white or brown. 8000mm<sup>2</sup> geometric area is supplied fitted on windows 860mm and wider, 4000mm<sup>2</sup> on windows below that size. Windows below 488mm wide are not fitted with ventilators.

## Individual Window Range Performance

When tested in accordance with BS6375: Part 1: 2004 Performance of windows and doors. Classification for weather tightness and guidance on selection and specification Sovereign Stormsure Windows achieve an exposure rating of 2000 pa. Vertical sliding Sash windows also meet the requirements of BS6375: Part 2: 1987 Operation and Strength Performance.

## Individual Window Range Performance

When tested in accordance with BS6375: Part 1: 2004 Performance of windows and doors. Classification for weather tightness and guidance on selection and specification Sovereign Stormsure Windows achieve an exposure rating of 2000 pa. Vertical sliding Sash windows also meet the requirements of BS6375: Part 2: 1987 Operation and Strength Performance.

VENTILATION PERFORMANCE FIGURES		
GEOMETRIC AREA†	4000mm <sup>2</sup>	8000mm <sup>2</sup>
EQUIVALENT AREA	2607mm <sup>2</sup>	5214mm <sup>2</sup>

## U-value Declaration

IGU DESCRIPTION				CENTRE-PANE U-VALUE OF DOUBLE GLAZED UNIT (U-VALUE; W/m <sup>2</sup> K)	THERMAL TRANSMITTANCE OF WHOLE WINDOW (U-VALUE; W/m <sup>2</sup> K)	SOLAR TRANSMITTANCE OF WHOLE WINDOW (G-FACTOR)
OUTER PANE	INNER PANE	SPACER BAR	CAVITY FILL			
UNCOATED GLASS (4mm THICK)	HARD COAT LOW-E EN = 0.13 (4mm THICK)	ALUMINIUM	AIR (CAVITY 16mm)	1.7	1.9	0.433
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	ALUMINIUM	AIR (CAVITY 16mm)	1.4	1.8	0.408
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	WARM EDGE (STANDARD)	AIR (CAVITY 16mm)	1.4	1.6	0.408
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	WARM EDGE (STANDARD)	90% ARGON (CAVITY 16mm)	1.2	1.5	0.408

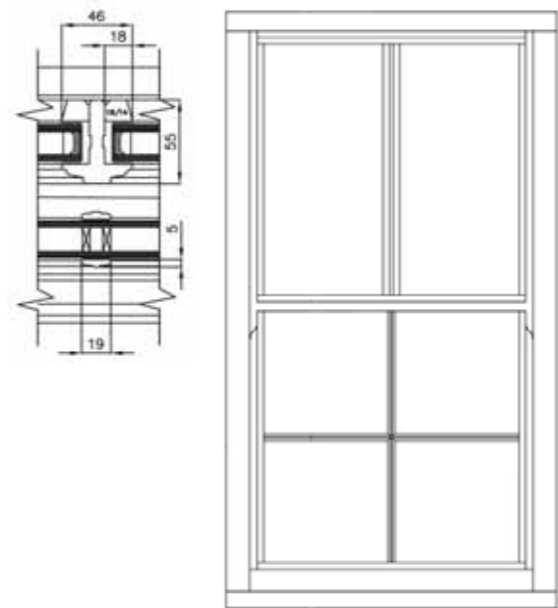
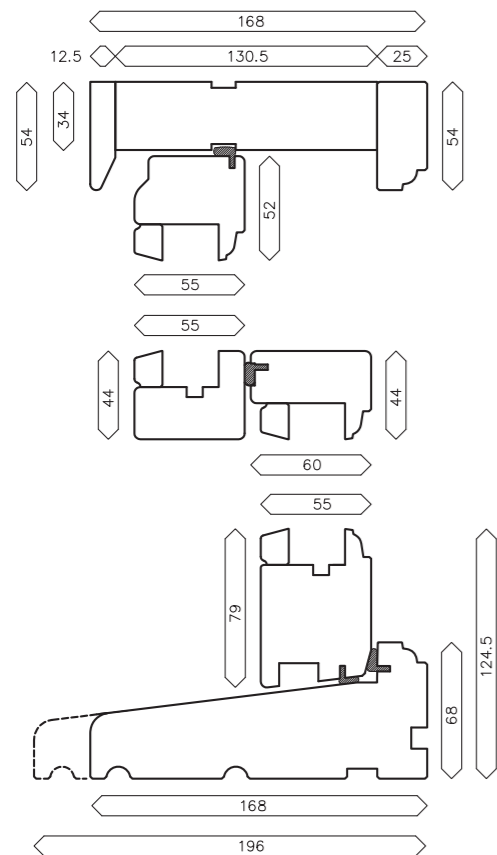
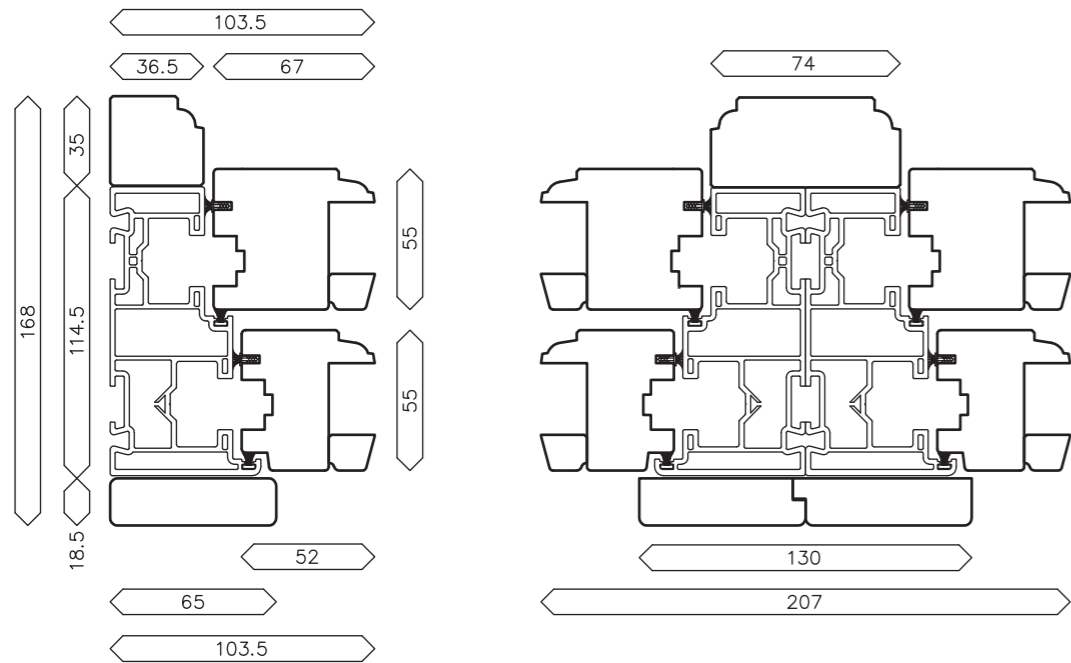
For Scotland only<sup>1</sup>



# Section Details

# Acoustic Performances

Windows



PRODUCT IDENTIFICATION:  
VS1010 TIMBER VERTICAL SLIDING SASH WINDOW  
WITH 2X TITON SELECT S 16 4000 TRICKLE VENTS  
BOTH CLOSED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	20.7	
125	16.9	18.3
160	18.1	
200	18.0	
250	21.9	20.4
315	23.0	
400	21.8	
500	20.0	18.3
630	15.5	
800	16.5	
1000	20.3	18.6
1250	20.2	
1600	20.8	
2000	24.4	23.3
2500	27.3	
3150	27.9	
4000	28.8	28.8
5000	29.8	
AVERAGE 100-3150		20.9

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 21 (0;-2) DB

PRODUCT IDENTIFICATION:  
VS1010 TIMBER VERTICAL SLIDING SASH WINDOW  
WITH 2X TITON SELECT S 16 4000 TRICKLE VENTS  
BOTH OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	19.4	
125	16.0	17.3
160	17.2	
200	17.6	
250	21.1	19.8
315	22.4	
400	21.7	
500	20.6	19.1
630	16.7	
800	12.6	
1000	13.6	14.1
1250	17.3	
1600	16.4	
2000	19.2	18.7
2500	22.9	
3150	24.0	
4000	26.6	25.3
5000	25.9	
AVERAGE 100-3150		26.9

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 18 (-1;-2) DB

PRODUCT IDENTIFICATION:  
AW6/ VERTICAL SLIDING SASH WINDOWS WITH  
4-16-4 GLASS VENTS REMOVED AND BLOCKED OFF

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	15.7	
63+	19.5	18.4
80+	22.8	
100	15.8	
125	20.8	17.4
160	16.9	
200	14.2	
250	21.4	18.1
315	30.2	
400	26.4	
500	29.2	28.2
630	29.9	
800	30.3	
1000	31.3	30.9
1250	31.3	
1600	31.8	
2000	33.4	32.9
2500	33.9	
3150	33.3	
4000	35.0	34.7
5000	36.5	
6300+	39.8	
8000+	41.4	41.4
1000+	44.2	
AVERAGE 100-3150		26.9

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 30 (-1; -4) DB

PRODUCT IDENTIFICATION: AW6/ VERTICAL SLIDING  
SASH WINDOWS WITH 4-16-6.8PVB GLASS 2 X TITON  
R16-4000 VENTS - CLOSED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	16.2	
63+	20.2	18.6
80+	21.4	
100	17.0	
125	20.4	17.9
160	17.0	
200	18.7	
250	23.4	21.7
315	26.5	
400	24.7	
500	23.0	21.2
630	18.4	
800	14.4	
1000	18.8	17.2
1250	21.4	
1600	18.7	
2000	21.3	21.0
2500	25.1	
3150	24.9	
4000	24.2	25.0
5000	26.3	
6300+	30.9	
8000+	35.5	34.1
1000+	40.9	
AVERAGE 100-3150		20.9

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 21 (-1; -2) DB

PRODUCT IDENTIFICATION: AW6/VERTICAL SLIDING  
SASH WINDOWS WITH 4-16-6.8PVB GLASS VENTS  
REMOVED AND BLOCKED OFF

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	19.2	
63+	21.1	20.9
80+	23.3	
100	18.6	
125	22.8	19.8
160	19.0	
200	19.4	
250	25.5	23.1
315	32.6	
400	29.9	
500	31.1	30.5
630	30.4	
800	30.2	
1000	30.6	30.5
1250	30.9	
1600	31.8	
2000	32.7	32.6
2500	33.3	
3150	34.3	
4000	36.4	35.6
5000	36.3	
6300+	38.8	
8000+	41.1	40.9
1000+	44.6	
AVERAGE 100-3150		28.3

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 3 (0; -3) DB

PRODUCT IDENTIFICATION: AW6/VERTICAL SLIDING  
SASH WINDOWS WITH 4-16-6.8PVB GLASS 2 X TITON  
R16-4000 VENTS - OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	14.6	
63+	19.6	17.4
80+	20.5	
100	16.4	
125	20.7	17.5
160	16.5	
200	18.1	
250	23.4	21.2
315	25.4	
400	24.9	
500	23.4	22.3
630	20.0	
800	14.5	
1000	15.2	16.0
1250	20.0	
1600	17.8	
2000	19.8	19.7
2500	23.0	
3150	21.1	
4000	21.8	22.3
5000	23.3	
6300+	27.7	
8000+	31.7	30.7
1000+	37.2	
AVERAGE 100-3150		20.1

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 19 (0; -1) DB

Windows

# Rapid Ventilation and Daylight Area Figures

# Window Designs

Windows

Windows

## Non Bar

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS0410	156024	109450	
VS0413	215424	150700	
VS0416	274824	191950	
VS0610	333324	199000	
VS0613	460224	274000	
VS0616	587124	349000	
VS0810	510624	288550	
VS0813	705024	397300	
VS0816	899424	506050	
VS1010	687924	378100	
VS1013	949824	520600	
VS1016	1211724	663100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1610	822672	507450	288550
VS1613	1135872	698700	397300
VS1616	1449072	889950	506050
CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS1710	1021248	577100	
VS1713	1410048	794600	
VS1716	1798848	1012100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1810	999972	597000	378100
VS1813	1380672	822000	520600
VS1816	1761372	1047000	663100

## Vertical Bar SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS0610VBSDL	318352	199000	
VS0613VBSDL	439552	274000	
VS0616VBSDL	560752	349000	
VS0810VBSDL	495652	288550	
VS0813VBSDL	684352	397300	
VS0816VBSDL	873052	506050	
VS1010VBSDL	672952	378100	
VS1013VBSDL	929152	520600	
VS1016VBSDL	1185352	663100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1610VBSDL	807700	507450	288550
VS1613VBSDL	1115200	698700	397300
VS1616VBSDL	1422700	889950	506050
CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS1710VBSDL	495652	577100	
VS1713VBSDL	684352	794600	
VS1716VBSDL	873052	1012100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1810VBSDL	985000	597000	378100
VS1813VBSDL	1360000	822000	520600
VS1816VBSDL	1735000	1047000	663100

## Marginal Bar SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS0810MBSL	480680	288550	
VS0813MBSL	663680	397300	
VS0816MBSL	846680	506050	
VS1010MBSL	657980	378100	
VS1013MBSL	908480	520600	
VS1016MBSL	1158980	663100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1610MBSL	792728	507450	288550
VS1613MBSL	1094528	698700	397300
VS1616MBSL	1396328	889950	506050
CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS1710MBSL	961360	577100	
VS1713MBSL	1327360	794600	
VS1716MBSL	1693360	1012100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1810MBSL	970028	597000	378100
VS1813MBSL	1339328	822000	520600
VS1816MBSL	1708628	1047000	663100

## Semi-Circular

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)
LEVSSEM6	91751	0
LEVSSEM8	199709	0
LEVSSEM10	345710	0
LEVSSEM6B	69414	0
LEVSSEM8B	166795	0
LEVSSEM10B	302437	0

## Vertical Bar TDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS0610VBTDL	297076	199000	
VS0613VBTDL	410176	274000	
VS0616VBTDL	523276	349000	
VS0810VBTDL	474376	288550	
VS0813VBTDL	654976	397300	
VS0816VBTDL	835576	506050	
VS1010VBTDL	651676	378100	
VS1013VBTDL	899776	520600	
VS1016VBTDL	1147876	663100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1610VBTDL	786424	507450	288550
VS1613VBTDL	1085824	698700	397300
VS1616VBTDL	1385224	889950	506050
CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS1710VBTDL	948752	577100	
VS1713VBTDL	1309952	794600	
VS1716VBTDL	1671152	1012100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1810VBTDL	963724	597000	378100
VS1813VBTDL	1330624	822000	520600
VS1816VBTDL	1697524	1047000	663100

## Marginal Bar TDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS0810MBTDL	438128	288550	
VS0813MBTDL	604928	397300	
VS0816MBTDL	771728	506050	
VS1010MBTDL	615428	378100	
VS1013MBTDL	849728	520600	
VS1016MBTDL	1084028	663100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1610MBTDL	750176	507450	288550
VS1613MBTDL	1035776	698700	397300
VS1616MBTDL	1321376	889950	506050
CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS1710MBTDL	876256	577100	
VS1713MBTDL	1209856	794600	
VS1716MBTDL	1543456	1012100	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1810MBTDL	927476	597000	378100
VS1813MBTDL	1280576	822000	520600
VS1816MBTDL	1633676	1047000	663100

## All Bar SDL

CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS0410BSDL	152262	68200	
VS0413BSDL	207900	150700	
VS0416BSDL	263538	150700	
VS0610BSDL	310676	124000	
VS0613BSDL	424200	274000	
VS0616BSDL	537724	274000	
VS0810BSDL	469090	179800	
VS0813BSDL	640500	397300	
VS0816BSDL	811910	397300	
VS1010BSDL	627504	316200	
VS1013BSDL	856800	520600	
VS1016BSDL	1086096	520600	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1610BSDL	773614	316200	179800
VS1613BSDL	848400	698700	397300
VS1616BSDL	1613172	698700	397300
CODE	DAYLIGHT (MM²)	VENTILATION (MM²)	
VS1710BSDL	938180	359600	
VS1713BSDL	1281000	794600	
VS1716BSDL	1623820	794600	
CODE	DAYLIGHT (MM²)	VENTILATION SL OPEN (MM²)	VENTILATION SL FIXED (MM²)
VS1810BSDL	932028	372000	235600
VS1813BSDL	1272600	822000	520600
VS1816BSDL	1613172	822000	520600

## Non Bar



The windows above are available in the following heights: 1050mm, 1350mm and 1650mm.

## Vertical Bar (Simulated Divided Lights)

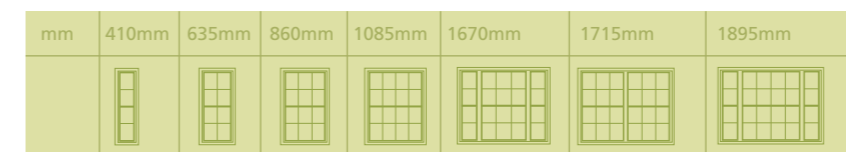


The windows above are available in the following heights: 1050mm, 1350mm and 1650mm.

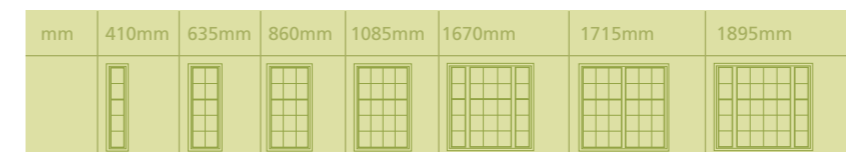
## All Bar (Simulated Divided Lights)



The windows above are available in the following heights: 1050mm.



The windows above are available in the following heights: 1350mm.



The windows above are available in the following heights: 1650mm.

Available to order in bespoke sizes call JELD-WEN UK to discuss your requirements.

# Hi-Profile Combi 1.5

Featuring Yale Hardware

The JELD-WEN UK Hi-Profile Combi 1.5 range of windows is an advanced window system providing a complete suite of operational options, with a consistent look and sightlines.

### These options offer set modes of operation:

- Top Turn - Fully reversible
- Side Turn - Fully reversible
- Top Hung - Protecting hinge
- Side Hung - Butt hinge
- Side Hung - Protecting hinge

### All feature the following benefits as standard:

- Common appearance to all hinge options.
- Internally beaded throughout.
- High Performance to BS 6375 Part 1.
- Fully Sashed – constant sight lines.
- Softwood PEFC certified.
- Cockspur handles and keeps.
- Basecoat stain or primed to order.
- Factory glazing with Low E glazing for full compliance with Approved Document L amendments 2006.
- 86mm flush sill.
- 24mm Low E insulating glass units for optimum thermal performance with a 16mm wide sealed cavity when glazed with 4-16-4 units.

### Bespoke sizes including:

- Standard joinery size range.
- Brick co-ordinated sizes.
- Architectural opportunities.

### In addition the following options are available:

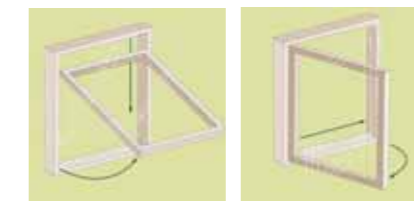
- Fully finished Hi-build Paint system.
- Selected quality Hardwood.
- Espagnolette locking and shoot bolts to BS 7950 Enhanced Security requirements.
- Sill options -127, 152, 177 and 202mm
- Engineered knot-free timber for strength, stability and reliability.
- Glazing - Enhanced acoustic and Thermal performance specifications.

### Square Bays and 45° Splay Bays

Square Bays can be factory assembled to special order using any Hi-Profile window. Return ends are generally 600mm wide.

### Individual Window Range Performance

When tested in accordance with BS6375: Part 1: 1989 Performance of windows and doors. Classification for weather tightness and guidance on selection and specification Hi-Profile Combi achieve an exposure rating of 2500 pa Special. Hi-Profile Combi windows also meet the requirements of BS6375: Part 2: 1987 Operation and Strength Performance.



TOP HUNG REVERSIBLE SIDE HUNG REVERSIBLE



### Rapid Ventilation and Daylight Area

CODE	DAYLIGHT (MM <sup>2</sup> )	VENTILATION (MM <sup>2</sup> )
0607	185193	279531
0609	239343	348381
0610	293493	417231
0612	347643	486081
0613	401793	554931
0615	455943	623781
0907	339093	462231
0909	438243	576081
0910	537393	689931
0912	636543	803781
0913	735693	917631
0915	834843	1031481
1207	197505	588294
1209	255255	733194
1210	313005	878094
1212	370755	1022994
1213	428505	1167894
1215	486255	1312794
1507	274455	770994
1509	354705	960894
1510	434955	1150794
1512	515205	1340694
1513	595455	1530594
1515	675705	1720494
1807	201609	897057
1809	260559	1118007
1810	319509	1338957
1812	378459	1559907
1813	437409	1780857
1815	496359	2001807



### Marginal Bar (Simulated Divided Lights)

mm	860mm	1085mm	1670mm	1715mm	1895mm

The windows above are available in the following heights: 1050mm, 1350mm and 1650mm.

### Marginal Bar (Traditional Beaded)

mm	860mm	1085mm	1670mm	1715mm	1895mm

The windows above are available in the following heights: 1050mm, 1350mm and 1650mm.

### Vertical Bar (Traditional Beaded)

mm	635mm	860mm	1085mm	1715mm

The windows above are available in the following heights: 1050mm, 1350mm and 1650mm.

### Semi-Circular Feature Windows

mm	635mm	860mm	1085mm

### Traditionally Beaded

mm	635mm	860mm	1085mm

Available to order in bespoke sizes call JELD-WEN UK to discuss your requirements.

**U-value Declaration**



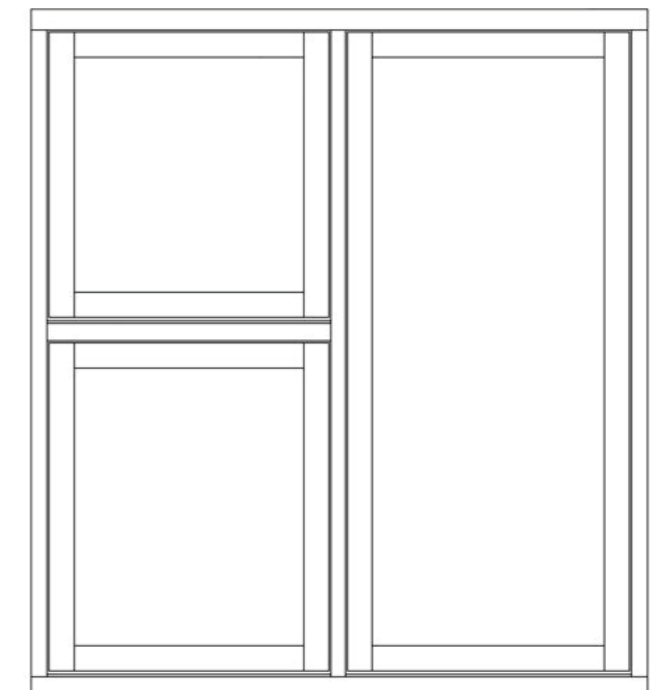
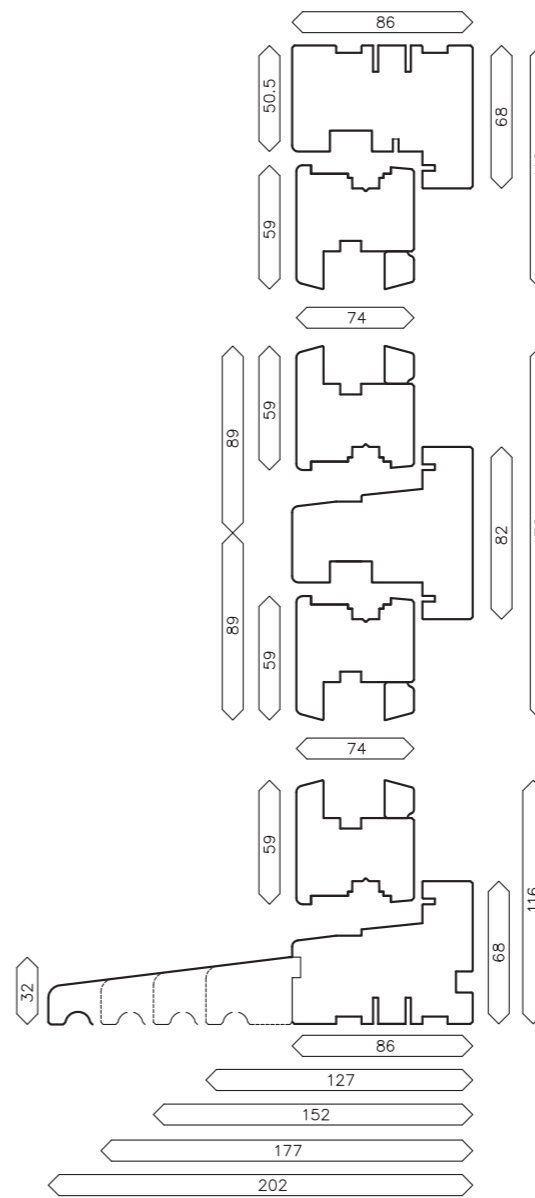
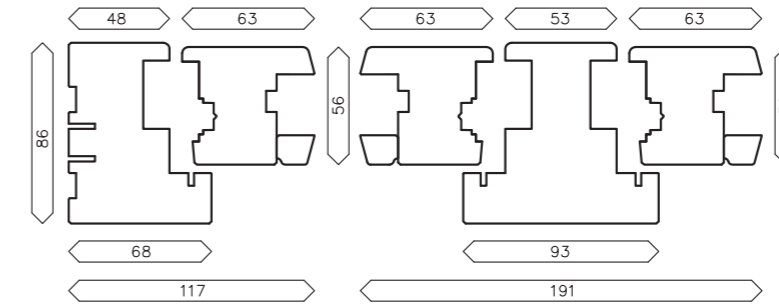
IGU DESCRIPTION				CENTRE-PANE U-VALUE OF DOUBLE GLAZED UNIT (U-VALUE; W/m²K)	THERMAL TRANSMITTANCE OF WHOLE WINDOW (U-VALUE; W/m²K)	SOLAR TRANSMITTANCE OF WHOLE WINDOW (G-FACTOR)
OUTER PANE	INNER PANE	SPACER BAR	CAVITY FILL			HI PROFILE COMBI
UNCOATED GLASS (4mm THICK)	HARD COAT LOW-E EN = 0.13 (4mm THICK)	ALUMINIUM	AIR (CAVITY 16mm)	1.7	1.9	0.362
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	ALUMINIUM	AIR (CAVITY 16mm)	1.4	1.8	0.341
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	WARM EDGE (STANDARD)	AIR (CAVITY 16mm)	1.4	1.6	0.341
UNCOATED GLASS (4mm THICK)	SOFT COAT LOW-E EN = 0.04 (4mm THICK)	WARM EDGE (STANDARD)	90% ARGON (CAVITY 16mm)	1.2	1.5	0.341

**Fire Escape**

Minimum window size for fire egress, see page 62.

VENTILATION PERFORMANCE FIGURES		
GEOMETRIC AREA <sup>†</sup>	4000mm <sup>2</sup>	8000mm <sup>2</sup>
EQUIVALENT AREA	2244mm <sup>2</sup>	4488mm <sup>2</sup>

Hi-Profile Combi windows are available in a wide range of bespoke sizes and designs. Attractive glazing designs using simulated divided lights are available to complement the range. Please call JELD-WEN UK to discuss your requirements.



# Acoustic Performance and Window Designs

Windows

PRODUCT IDENTIFICATION:  
2 X HI-PROFILE COMBI WINDOWS WITH 1X TITON  
SELECT R 16 4000 TRICKLE VENTILATOR IN EACH,  
BOTH CLOSED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	19.7	
125	21.6	20.0
160	19.0	
200	18.3	
250	17.7	19.3
315	24.6	
400	28.7	
500	26.6	26.6
630	25.2	
800	23.0	
1000	24.6	24.6
1250	26.9	
1600	28.1	
2000	27.6	27.9
2500	28.0	
3150	31.1	
4000	31.1	31.9
5000	34.1	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 27 (-1;-3) DB

PRODUCT IDENTIFICATION:  
2 X HI-PROFILE COMBI WINDOWS WITH 1X TITON  
SELECT R 16 4000 TRICKLE VENTILATOR IN EACH,  
BOTH OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	18.5	
125	20.2	18.5
160	17.4	
200	17.6	
250	17.3	18.7
315	23.3	
400	26.1	
500	24.1	24.5
630	23.8	
800	21.9	
1000	19.3	19.8
1250	18.7	
1600	20.2	
2000	20.4	20.1
2500	19.7	
3150	21.6	
4000	22.5	22.8
5000	24.9	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 21 (-1;-1) DB

PRODUCT IDENTIFICATION:  
2 X HI-PROFILE COMBI WINDOWS

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
100	20.4	
125	22.5	20.0
160	18.3	
200	18.4	
250	17.0	19.1
315	26.4	
400	30.1	
500	30.2	30.4
630	30.9	
800	32.6	
1000	30.4	30.4
1250	28.9	
1600	29.3	
2000	31.5	31.4
2500	35.3	
3150	35.4	
4000	33.7	34.9
5000	35.9	

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 31 (-2;-4) DB

PRODUCT IDENTIFICATION: AWS/COMBI WINDOW  
WITH 4-14-6.8PVB GLASS 2 X TITON R16-4000 VENTS  
CLOSED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	10.8	
63+	18.1	14.4
80+	20.5	
100	15.9	
125	21.5	18.5
160	20.1	
200	19.2	
250	22.6	21.9
315	26.9	
400	27.0	
500	25.8	25.5
630	24.1	
800	20.0	
1000	18.7	20.2
1250	23.0	
1600	22.8	
2000	24.1	24.1
2500	25.7	
3150	27.7	
4000	28.4	28.3
5000	28.8	
6300+	32.8	
8000+	35.9	35.5
1000+	42.0	
AVERAGE 100-3150		22.8

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 24 (-1;-2) DB

PRODUCT IDENTIFICATION: AWS/ COMBI WINDOW WITH 4-14-6.8PVB GLASS 2 X  
TITON R16-4000 VENTS - OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	10.6	
63+	17.7	14.1
80+	19.1	
100	15.5	
125	20.7	17.8
160	18.9	
200	18.5	
250	21.7	21.1
315	25.8	
400	25.8	
500	24.6	24.8
630	24.1	
800	22.0	
1000	16.5	17.6
1250	16.3	
1600	20.7	
2000	20.8	20.5
2500	20.2	
3150	21.4	
4000	22.3	22.4
5000	24.2	
6300+	27.5	
8000+	30.7	30.2
1000+	36.3	
AVERAGE 100-3150		20.8

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 20 (0; -1) DB

PRODUCT IDENTIFICATION: AWS/ COMBI WINDOW WITH 4-14-6.8PVB GLASS  
VENTS REMOVED AND HOLES BLOCKED OFF

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	8.8	
63+	16.7	12.7
80+	20.5	
100	18.0	
125	23.1	20.8
160	23.5	
200	21.8	
250	24.8	24.4
315	30.2	
400	29.6	
500	30.0	30.1
630	30.8	
800	30.8	
1000	30.0	28.4
1250	26.0	
1600	23.9	
2000	27.4	26.6
2500	31.2	
3150	33.7	
4000	31.6	31.8
5000	30.5	
6300+	35.3	
8000+	38.5	37.9
1000+	43.4	
AVERAGE 100-3150		27.2

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 29 (-1;-2) DB

PRODUCT IDENTIFICATION: AWS/ COMBI WINDOW  
(AQ-109) WITH 4-14-6.8PVB GLASS VENTS REMOVED  
AND HOLES BLOACKED OFF

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	12.5	
63+	21.1	16.3
80+	22.5	
100	19.5	
125	25.6	22.4
160	25.2	
200	23.9	
250	26.7	26.6
315	34.7	
400	35.3	
500	35.9	36.0
630	36.9	
800	37.8	
1000	38.1	37.0
1250	35.6	
1600	35.6	
2000	37.2	36.9
2500	38.3	
3150	37.8	
4000	36.5	37.1
5000	37.2	
6300+	42.6	
8000+	44.9	44.7
1000+	48.4	
AVERAGE 100-3150		32.8

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 36 (-1;-3) DB

PRODUCT IDENTIFICATION: AWS/ COMBI WINDOW  
(AQ-109) WITH 4-14-6.8PVB GLASS 2 X TITON  
R16-4000 VENTS - CLOSED

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	10.7	
63+	19.1	14.6
80+	22.1	
100	17.9	
125	23.7	20.5
160	22.1	
200	20.9	
250	24.9	23.8
315	29.5	
400	29.2	
500	28.2	27.1
630	25.0	
800	22.1	
1000	21.6	23.0
1250	26.9	
1600	30.4	
2000	28.7	29.4
2500	29.2	
3150	31.0	
4000	32.10	32.1
5000	33.5	
6300+	37.2	
8000+	40.3	39.0
1000+	45.7	
AVERAGE 100-3150		25.7

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 27 (-1;-2) DB

PRODUCT IDENTIFICATION: AWS/COMBI WINDOW  
(AQ-109) WITH 4-14-6.8PVB GLASS 2 X TITON  
R16-4000 VENTS OPEN

FREQ F HZ	SOUND REDUCTION INDEX, dB	
	1/3 OCT	1/1 OCT
50+	11.1	
63+	17.7	14.6
80+	19.8	
100	16.0	
125	22.3	18.7
160	20.1	
200	18.9	
250	23.3	21.9
315	26.9	
400	27.2	
500	26.3	25.8
630	24.4	
800	22.6	
1000	15.8	17.6
1250	17.0	
1600	23.4	
2000	22.1	22.0
2500	20.9	
3150	22.5	
4000	23.8	23.9
5000	25.9	
6300+	28.8	
8000+	31.8	31.4
1000+	37.9	
AVERAGE 100-3150		21.9

RATING ACCORDING TO BS EN ISO 717-1:1997  
RW(C,CTR) = 21 (-1;-1) DB

## Side Hung Reversible

mm	630mm *	900mm *	1200mm *	1500mm *	1800mm *

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm, 1350mm and 1500mm.  
Also available in made-to-measure sizes.

## Top Hung Reversible

mm	630mm *	900mm *	1200mm *	1500mm *	1800mm *

The windows above are available in the following heights: 750mm, 900mm, 1050mm, 1200mm, 1350mm and 1500mm.  
Also available in made-to-measure sizes.

# Product Limitations by Range

## SOVERIEGN STORMSURE PRODUCT LIMITATIONS ONE LIGHT FRAME SIZES

HINGE TYPE	MIN. WIDTH X MIN. HEIGHT	MAX. WIDTH X MAX. HEIGHT
SIDE HUNG BUTT	450mm X 450mm	731mm X 1350mm *(a)
	450mm X 450mm	630mm X 1500mm *(b)
SIDE HUNG BUTT FIRE EGRESS	630mm X 900mm	
TOP HUNG BUTT	450mm X 355mm	1231mm X 1200mm
SIDE HUNG PROJECTING	479mm X 592mm	698mm X 1350mm
TOP HUNG PROJECTING	455mm X 380mm	1231mm X 1200mm
SIDE HUNG EGRESS PROJECTING	567mm X 590mm	630mm X 1500mm

\*(a) BASED ON MAXIMUM WIDTH \*(b) BASED ON MAXIMUM HEIGHT

## VERTICAL SLIDING SASH PRODUCT LIMITATIONS ONE LIGHT FRAME SIZES

HINGE TYPE	MIN. WIDTH X MIN. HEIGHT	MAX. WIDTH X MAX. HEIGHT
N/A	405mm X 750mm FIXED SASHES	1200mm X 2100mm
FIRE EGRESS	860mm X 1350mm	N/A

## HI-PROFILE COMBI PRODUCT LIMITATIONS ONE LIGHT FRAME SIZES Maximum window size is 3005mm wide x 2705 high (depending on configuration)

HINGE	TYPE	MAX. SASH WEIGHT	FRAME SIZE MIN. WIDTH X HEIGHT	FRAME SIZE MIN. WIDTH X HEIGHT
SIDE HUNG PROJECTING	30kg		450mm X 664mm	895**mm X 1380mm
				825mm X 1495**mm
SIDE HUNG BUTT	45kg		450mm X 450mm	895**mm X 1380mm
				825mm X 1495**mm
SIDE TURN FULLY REVERSIBLE	50kg		512mm X 664mm	895**mm X 1380mm
				825mm X 1495**mm
TOP TURN FULLY REVERSIBLE	60kg		512mm X 418mm	1495**mm X 1325mm
				1255mm X 1580**mm
FIXED SASH	N/A		300mm X 310mm	3000mm X 2700mm

\*\*INDICATES THE MAX FRAME HEIGHT/WIDTH.  
\* INDICATES THE 450MM CLEAR OPENING. THIS IS THE ABSOLUTE MIN.

HINGE TYPE	FIRE EGRESS MINIMUM FRAMESIZE MAX. WIDTH X MAX. HEIGHT
SIDE HUNG PROJECTING	768*mm X 878*mm
SIDE HUNG BUTT	630mm X 875mm
SIDE TURN FULLY REVERSIBLE	712*mm X 878mm
TOP TURN FULLY REVERSIBLE	878mm X 868*mm
FIXED SASH	N/A

THE ABOVE FIGURES ARE REPRESENTATIVE FOR SINGLE LIGHT WINDOW DESIGNS. THEY DO NOT REPRESENT THE FULL RANGE OF DESIGNS MANUFACTURED BY JELD-WEN UK. PLEASE CONTACT US TO DISCUSS YOUR FULL SCHEME DESIGN REQUIREMENTS.

### Make specifying your project simple!

Request our specifier CD by visiting [www.jeld-wen.co.uk](http://www.jeld-wen.co.uk) and selecting request a brochure or download the CAD drawings from [www.fastrackcad.com](http://www.fastrackcad.com)



WINDOW SURROUND



# Kensington

This range of distinctive external doorsets features original glazing designs.

Subtle colours from taupe, soft charcoal grey to the palest rose complement any décor, and a mixture of obscure and clear glass sections adds visual interest. The units are triple glazed, using black leading and bevelled glass, for even more appealing reflections of light.

The Kensington Collection is FSC Chain of Custody Certified.

This means the timber used to manufacture these doors comes from forests which are well managed according to strict environmental standards.

Sturdily built from high quality hardwood, these engineered 44mm doors will create a striking impression for any entrance.

Practical as well as beautiful, complete with 5" stiles to take a wide range of locking mechanisms.

We supply the door unfinished, ready for you to decorate to your taste. Fully factory finished option for your frame available.

## Standard Specifications

- Factory glazed door
- Unfinished for your choice of paint or stain
- Brown adjustable hinge
- Multi point locking
- Silver handle
- PEFC Certified Softwood basecoat stained frame
- Mobility threshold (see our brochure for further details)

## Optional Extras

- Factory finishing to frame only (doorleaf is always unfinished & factory glazed as depicted)
- Letter plate, security chain and viewer in gold and silver
- Gold handle and cylinder thumbturn handle in gold and silver
- White adjustable hinge
- Secured By Design



REDESDALE



CROFT



HARLEQUIN



THORNBURY



EVERSLEY

\*DOOR SIZE  
1981MM X 838MM  
(6'6" X 2'9")

DOOR	DOORSET SIZE*	CODE	U-Value W/M <sup>2</sup> K
REDESDALE	932mm x 2100mm	29REDS+DS	2.3
CROFT	932mm x 2100mm	29CRFT+DS	1.9
HARLEQUIN	932mm x 2100mm	29HARL+DS	2.4
THORNBURY	932mm x 2100mm	29THOR+DS	2.4
EVERSLEY	932mm x 2100mm	29EVES+DS	2.3

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# Castle

The composite door is best described as a combination of the top attributes of all types of modern door materials.

## Door Finish

The scratch resistant pre-pigmented skins are through coloured in a choice of five popular colours. The through colour means the skin is coloured throughout and therefore minor damage will not reveal a different colour beneath like some other doors.

Two hand stained finishes are also available for the traditional timber look, Light Oak and Mahogany. These are not through coloured.

All skins are manufactured with a woodgrain effect creating the look of real timber. Durable and long lasting the factory finished doorset requires no further site decoration making installation quicker.

All doors are supplied with a white interior finish. Exterior finish can be selected from the range below.

## Standard Specifications

- White adjustable interior hinge
- Fullex lock Secured By Design
- Silver effect fittings
- Factory finished Hi Build white frame
- Factory glazed obscure ice effect
- Silver effect letter plate & security viewer
- Fully finished door in your choice of colour
- Mobility threshold
- Glass unit
  - 6.4mm laminated outer pane
  - 15.5mm silver spacer bar
  - 4mm toughened inner pane

Door & Code	Doorset Size	Door Size 44mm Thick
<b>DUNSTER</b>		
26DTR+DSFF	856x2100mm	762x1981mm
29DTR+DSFF	937x2100mm	838x1981mm
30DTR+DSFF	1008x2100mm	914x1981mm
<b>CLIFFORD</b>		
26CFD+DSFF	856x2100mm	762x1981mm
29CFD+DSFF	937x2100mm	838x1981mm
30CFD+DSFF	1008x2100mm	914x1981mm
<b>WALDEN</b>		
26WDN+DSFF	856x2100mm	762x1981mm
29WDN+DSFF	937x2100mm	838x1981mm
30WDN+DSFF	1008x2100mm	914x1981mm
<b>TILSBURY</b>		
26TBY+DSFF	856x2100mm	762x1981mm
29TBY+DSFF	937x2100mm	838x1981mm
30TBY+DSFF	1008x2100mm	914x1981mm
<b>BARDNARD</b>		
26BND+DSFF	856x2100mm	762x1981mm
29BND+DSFF	937x2100mm	838x1981mm
30BND+DSFF	1008x2100mm	914x1981mm
<b>UPNOR</b>		
26UPR+DSFF	856x2100mm	762x1981mm
29UPR+DSFF	937x2100mm	838x1981mm
30UPR+DSFF	1008x2100mm	914x1981mm
<b>RISING</b>		
26RSG+DSFF	856x2100mm	762x1981mm
29RSG+DSFF	937x2100mm	838x1981mm
30RSG+DSFF	1008x2100mm	914x1981mm
<b>COTTAGE*</b>		
26COT+DSFF	856x2100mm	762x1981mm
29COT+DSFF	937x2100mm	838x1981mm
30COT+DSFF	1008x2100mm	914x1981mm
<b>KEEP*</b>		
26KEP+DSFF	856x2100mm	762x1981mm
29KEP+DSFF	937x2100mm	838x1981mm
30KEP+DSFF	1008x2100mm	914x1981mm
<b>STRAND*</b>		
26STR+DSFF	856x2100mm	762x1981mm
29STR+DSFF	937x2100mm	838x1981mm
30STR+DSFF	1008x2100mm	914x1981mm



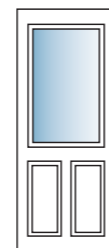
DUNSTER



CLIFFORD



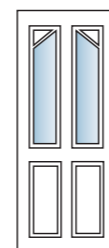
WALDEN



TILSBURY



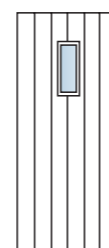
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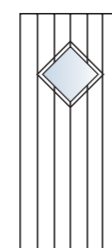
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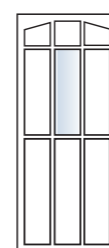
RISING



COTTAGE\*



KEEP\*



STRAND\*

\*THROUGH COLOURS ONLY

## Through Colour Door Finishes



## Stained Effect



## Optional Extras

- Gold fittings
- Brown adjustable hinges
- Gold or silver effect security chain
- Glazing clear or other obscure effects



# Clifton

## The Clifton Single and Double Softwood Doorset

PEFC Chain of Custody Certified softwood single and double doorsets. 54mm thick door leaf. Available from 856mm width up to 3000mm.

The Clifton doorset is manufactured from engineered knot free clear timber available in 6 door styles.

- Doors and sidelights are supplied with factory fitted 24mm clear Low E insulating glass units. Other glazing options available.
- Doors are supplied with ironmongery, ventilator and multipoint locking.
- Door leaf is 54mm thick.

Manufactured from engineered knot-free clear timber. It complies fully with Building Regulation Part 'L' and can achieve part M compliance depending on installation detail. With a 54mm door leaf thickness the Clifton doorset is the ideal choice for your home.

### Glazing

We supply Clifton doors and sidelights with factory-fitted 24mm clear Low E insulating glass units, with a centre pane U-Value of 1.4 W/m<sup>2</sup>K. Other glazing options are available at extra cost, these include leaded designs and simulated divided lights. The whole Clifton doorset has a U-Value of 1.9W/m<sup>2</sup>K.

### Finishing

All Clifton doorsets are treated with an advanced preservative system. We supply them with one coat of harmonising base stain or primer, ready for your choice of finish. We recommend Hi-Build factory.

### Hardware

These doors come complete with ironmongery and multi-point locking. Silver effect fittings and threshold are standard, or you can choose the gold effect threshold.

### Weathermoulds

For those more exposed locations Aluminium Rain Deflector Weathermoulds are supplied loose for on site fitting.



2XGG



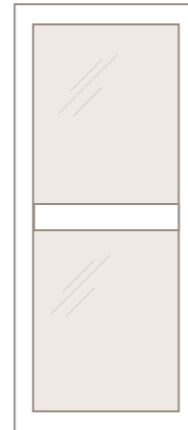
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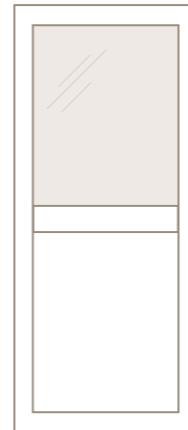
PATTERN 70



PATTERN SC



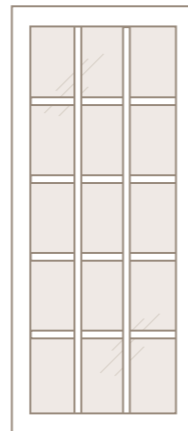
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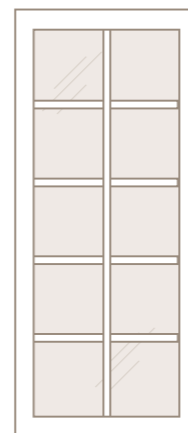
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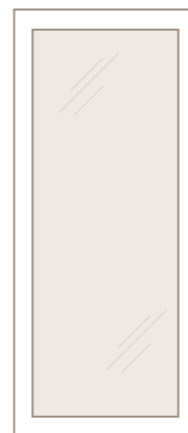
PATT 70



PATT SA



PATT SC



PATT 10



# Canberra

The Canberra concept patio doors, combines the style and elegance of a classic French door, with the space saving benefits of a sliding door.

The sliding and folding mechanism allows for full opening access to both the internal living space and the outdoor patio or garden area. Even when closed the full height glazed doors bring in maximum light, so even on cold and wintry days you'll reap the benefits of the Canberra.

Doors are supplied base coat stained as standard or primed, as an option, for you to finish yourself. Fully finished stained, or white painted finishes are also available.

The doors are fixed through the head directly into the lintel, which holds the doors and mechanism in place. The head track has pre-drilled clearance holes for structural fixings to go through into the lintel. The doors are hung on pre-fitted wheeled carrier sets, allowing for smooth operation. The doors simply slide and fold against each other into the corner of the frame and are available in several folding configurations, depending on the opening width, of 3, 4, 5 and 6 leaf.

The frame is supplied in a pack for site assembly. The doors are supplied glazed, pre drilled and packed separately. Full fitting instructions are supplied for on site assembly

- Energy efficient to Building Regulations Approved Document L
- Weather Resistant to BS6375 part 1
- 10 year manufacturing guarantee\*
- 30 year guarantee against rot and fungal attack\*
- 10 year guarantee against factory glazed insulating glass unit failure\*
- Low level sill fitted for ease of access
- Timber from verified legal source
- Key lockable drop bolts, night latch and mortise lock - or hook latch depending on configuration

\*Product guarantees are subject to care and maintenance in accordance with JELD-WEN's instructions.

## Hardware Style

Beautifully finished in titanium gold or brushed stainless steel, the hardware provides the right finishing touches to the Canberra patio doors.



WIDTH	NO. OF DOORS	DOOR CONFIGURATION
1800	2	2L* or 2R*
2100	3	2L1R or 2R1L
2400	3	2L1R or 2R1L
3000	4	4L or 4R, or 2L2R*, or 3L1R, or 1L3R
3600	5	4L1R or 1L4R, or 3L2R, or 2L3R
4200	6	5L1R, or 1L5R, or 4L2R*, or 2L4R*, or 3L3R

\*These configurations can be locked from the inside only.



# Wellington

Building on the popularity of the Canberra range we have introduced the Wellington sliding folding door constructed from 44mm engineered components factory glazed with 16mm Low E argon gas filled units. This construction brings superior thermal performance to aid in meeting the requirements of Approved Document L, as well as improved structural stability.

Available in choice of softwood high build factory finished white or unfinished hardwood in a range of 3 widths 1800, 2100 and 2400mm each with 3 door panels sliding in the same direction to give the maximum clear opening.

The brushed stainless steel hardware provides effortless finger tip smooth sliding operation and the locking bolts on the panel enable the Wellington doorset to be used as a single entrance door leaf.

Supplied pre-machined ready for assembly in a frame pack, hardware pack and door leaf pack.

Designed in 3 popular sizes the Wellington is perfect for bringing the outside in to your home enabling you to make the most of those warm summer nights.

Functional and practical the full height glazed door panels ensure the maximum amount of light is brought in to the home all year round.

- Softwood fully finished in white
- Hardwood unfinished
- Tri-fold operation
- 44mm engineered construction
- Factory glazed 16mm Low E Argon filled insulating glass units
- Trickle ventilation
- Brushed stainless steel fittings
- Silver effect handle
- Weather-stripped frame
- Multi-point locking

## SOFTWOOD BASECOAT STAINED

CODE	CONFIGURATION	BRICKWARE OPENING HEIGHT x WIDTH	FRAME SIZE HEIGHT x WIDTH
WELL18HU	3L or 3R	1805mm x 2105mm	1795mm x 2095mm
WELL21HU	3L or 3R	2105mm x 2105mm	2095mm x 2095mm
WELL24HU	3L or 3R	2405mm x 2105mm	2395mm x 2095mm

## HARDWOOD UN-FINISHED

CODE	CONFIGURATION	BRICKWARE OPENING HEIGHT x WIDTH	FRAME SIZE HEIGHT x WIDTH
WELL18HU	3L or 3R	1805mm x 2105mm	1795mm x 2095mm
WELL21HU	3L or 3R	2105mm x 2105mm	2095mm x 2095mm
WELL24HU	3L or 3R	2405mm x 2105mm	2395mm x 2095mm

## SOFTWOOD FACTORY FINISHED WHITE

CODE	CONFIGURATION	BRICKWARE OPENING HEIGHT x WIDTH	FRAME SIZE HEIGHT x WIDTH
WELL18HU	3L or 3R	1805mm x 2105mm	1795mm x 2095mm
WELL21HU	3L or 3R	2105mm x 2105mm	2095mm x 2095mm
WELL24HU	3L or 3R	2405mm x 2105mm	2395mm x 2095mm



# Rio

The new FSC hardwood Rio doorset is available in four attractive designs. Supplied in an easy to assemble flat-pack form where the frame and door components are pre-machined ready to receive the multi-point locking system, hinges, dead bolts, handles and trickle vents.

The Rio doorset is factory-glazed with 24mm clear Low E argon filled insulating glass units and arrives unfinished in superb quality hardwood ready for your choice of stain to suit your chosen décor. Combined with the 54mm thick door construction this brings superior thermal performance to aid in meeting the requirements of Approved Document 'L'. The right hand door opens first, when viewed from the outside and is supplied with gold effect handles. The hardware pack is approved by the Association of British Insurers.

The Rio doorset comes with a 10 year guarantee against manufacturing defects (excluding the hardware fixtures and fittings) in addition to the following features:

- FSC Chain of Custody Certified
- 54mm hardwood construction
- factory-glazed with 24mm Low E argon filled insulating glass units
- pre-machined frame and door leaves to accept fittings
- left hand push opening door
- opening out operation
- gold effect fittings
- multi-point locking
- trickle ventilation
- weather-stripped frame
- flying mullion design
- available in 3 sizes to suit brickwork openings 1200, 1500 and 1800mm wide all 2100mm high
- 4 door designs PATT SC, GG, 20 and PATT SH



PATT SC



PATT GG



PATT 20

PATT SH (PICTURED OPPOSITE)



# Ledbury

With its simple, modern design, the Ledbury sliding patio door can enhance many styles of property. It saves floor space, lets in plenty of natural light and offers a number of practical features:

- 4-point locking system
- anti-lift block
- full-height interlocks
- beadless glazing system
- anti-slam lock design
- optional Hi-Build stain or white paint finish
- whole product U-Value of 2.0 W/m<sup>2</sup>K.

## Glazing

All Ledbury doors are fitted with Low E, argon gas filled 18mm insulating glass units, manufactured using tempered safety glass in slimline sections. We also offer the following options:

- diamond and rectangular leaded designs (proportions may differ from those in our window ranges)
- georgian or marginal bar-style fretting to provide Simulated Divided Lights, compatible with our window ranges

# Flockton

The Flockton patio doorset comes with a pair of factory-glazed double outward opening doors and with an optional mobility access threshold. The door leaf is 54mm thick.

We can now supply the Flockton in a width to suit your opening up to a maximum 1795mm door size. The height will remain standard at 2095mm. (Flockton panel doors are only available in standard sizes).

## Glazing

We supply the Flockton factory-fitted with hermetically sealed, 24mm Low E insulating glass units with a centre pane U-Value of 1.4W/m<sup>2</sup>K. It's toughened as standard, with silver spacer bars. We also offer the following options:

- laminated glass
- leaded glass (design proportions may differ from those in our window ranges)
- georgian-style fretting and integra bars to provide Simulated Divided Lights
- other designs are available upon request
- whole product U-Value 1.9W/m<sup>2</sup>K

## Ledbury Double Slide

To achieve maximum opening width, the Ledbury is available in a double sliding option. The continuous head and sill create a neat overall appearance.

## Wing Lights (coupled) for Patio Doors

To give you more options when designing your patio doors or conservatory, you can use wing lights in conjunction with any Ledbury patio door.

## Ordering Ledbury Patio Doors

When ordering, please state whether you want the left hand 'L' or right hand 'R' door to slide open when viewed from the outside. Some Ledbury patio doors are available fully factory assembled. Please call us on 01664 485 500 for details.

## Finishing

We supply them base coat stained or primed, ready for staining or painting to the shade of your choice. We recommend Hi-Build factory finishes for these products. Not available in Light Oak finish.

## Fitting

We supply the doors assembled, with the frame packed separately for easy handling.

## Handing

The right hand door opens first when viewed from the outside of the building.

## Hardware

The Flockton comes with factory-fitted ironmongery, ventilator and multi-point locking system as standard. Handles have a silver effect finish.

## Flockton Wing Lights

You can use wing lights in conjunction with any Flockton patio door to create a wide French door feature – or combine them to form conservatory wall panels.



The Ledbury – Externally Sliding Timber Patio Door with Low E Glazing



The Flockton – High Performance Hardwood French Doorset



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