Choosing the right windows

Room by room guide for your selfbuilding project

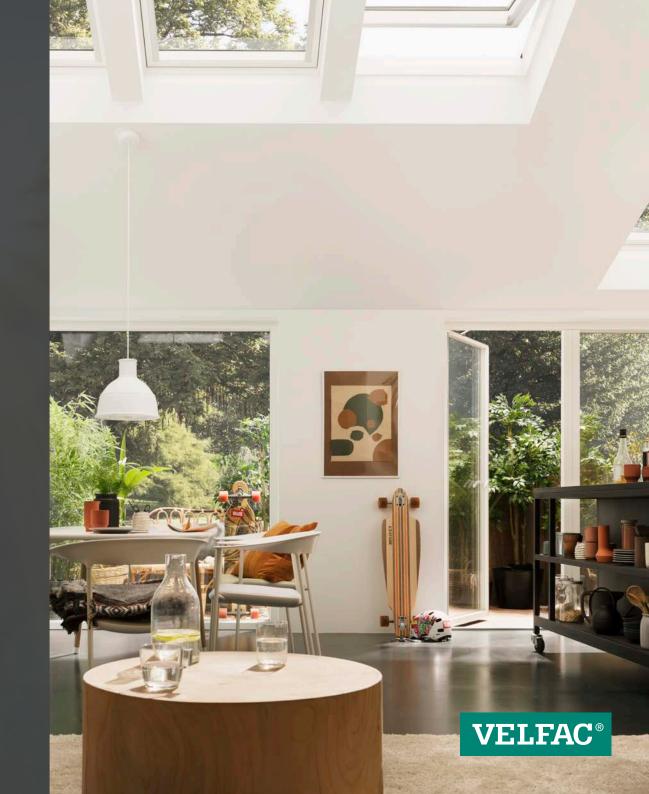


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Choosing the right windows and doors for your home – a whole house approach

> Choosing new windows and doors is not an easy job

Windows and doors are an investment. An investment that can give you an improved home design, money back into your pocket, safety and, last but not least, a better quality of life. This Guide will help you to make an informed decision on the ideal windows and doors for every room in your home, but before you start planning in detail, we recommend a 'whole house' approach as the first stage in window specification. Consider:

> Thermal insulation and indoor climate

Windows with low U-values can dramatically improve the energy performance of your house, and consequently reduce your energy bills, but how many windows – and what size – do you need to achieve your ideal level of insulation and a comfortable indoor climate? The answer depends on the orientation of each room within your home, the levels of light received at different times of the day and year, and the effect of local shade such as near buildings or trees.

> Environment

As a society, we all need to work together to reduce our carbon footprint. Choosing the right windows and doors for your home can help achieve the energy goals set by the UK government and create a better future for our planet.

> Window design and daylight

As you'll see in this Guide, daylight can make all the difference to your enjoyment of a room, and can even improve your sense of wellbeing. But too much daylight can cause overheating, and can discolour furnishings and fittings. Choose slim framed windows to maximise natural light but think carefully about window size and placement, and also consider ways to shade rooms from excessive sunlight.

> Window frame construction

This can make a big difference to the comfort of your home, the size of your energy bills and your ongoing maintenance costs. For example, wood is attractive but needs regular repainting and repair. PVCu is low maintenance but can look heavy and discolour over time. Metal is also low maintenance but can look 'commercial' in a domestic setting. Composite frames combine internal wood with external aluminium – an innovative, low maintenance construction which also delivers a natural interior finish.

> WHEN IN DOUBT, SEEK EXPERT ADVICE

High quality windows are an important investment – so before making any decisions seek expert advice from your builder, architect or window supplier to make sure the windows you install deliver the performance you expect.

Happy reading!



Entrance - think about

- > Security choose a front door which is solidly built and ideally 'Secured By Design' approved (the UK Police initiative to 'design out crime'). Look for features which make forced entry difficult for intruders, such as multi-point locking or glazing fitted from the inside. If you plan to fit opening windows in your hall, also fit lockable restrictors to limit gaps.
- > Front door design how to choose when there's such a variety of designs, materials and colours on offer? Ideally, find a door which complements the external style of your property but remember that modern doors can offer more flexible design options, so a door which looks traditional on the outside can be more contemporary within.
- > Lifetime durability front doors have to withstand all types of weather and constant comings and goings, while looking good and operating efficiently. Look for doors designed to resist warping or sticking, and with long lifespan.
- **> Eliminating draughts** modern front doors offer excellent insulation, and fit tightly into the door frame. To improve insulation further, consider an external or 'through the wall' letter box rather than one fitted into the door itself.

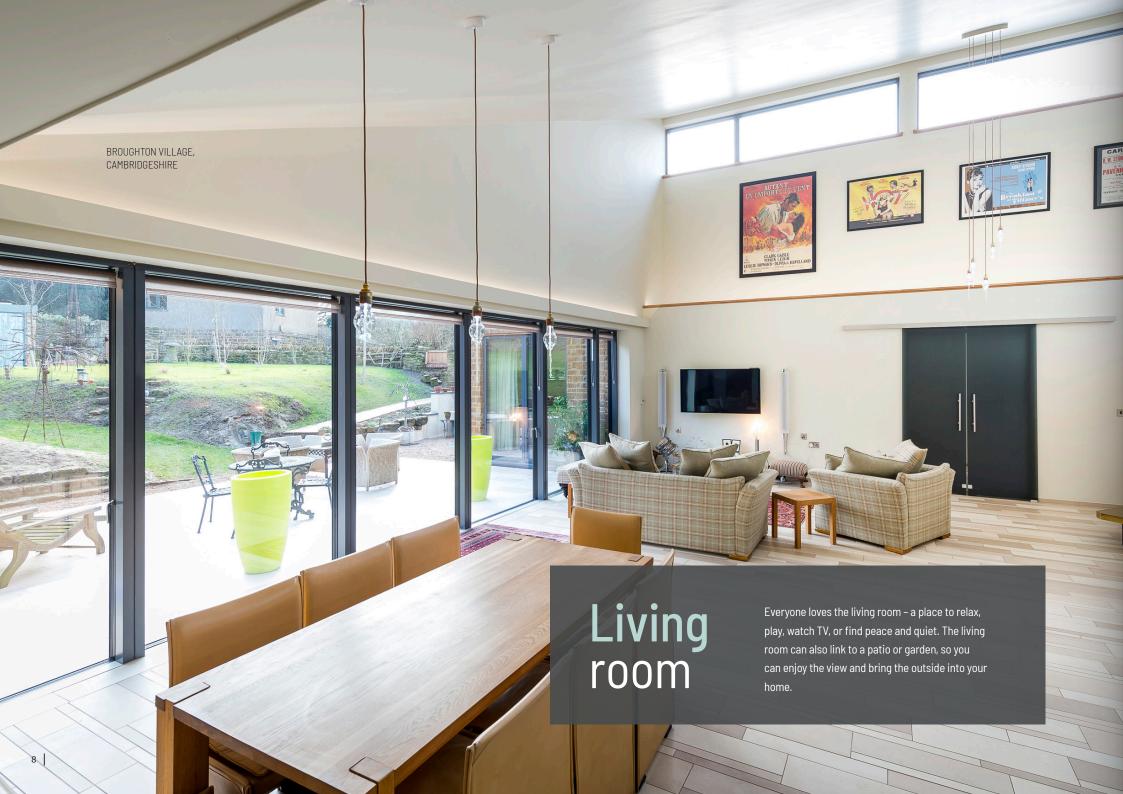


- > Maximising daylight if your entrance hall is dark, increase natural light by choosing a door with a security tested glazed aperture, or install glazed panels around the door you could even create a full-height glazed screen facing part or all of the stairwell. If your hall is long and narrow, clerestory (or high level) windows can bring extra daylight without sacrificing valuable wall space.
- > Safety take expert advice on how to combine windows and stairs. Toughened glass is required by building standards for glazing from floor level up to 800mm, but also avoid placing window handles in places where children could reach them and consider fitting window restrictors and child locks.
- **> Window cleaning** install reversible windows on stairs and landings to allow you to flip the glass pane and clean both sides of the window from the inside.



VELFAC suggestions for your entrance

ENTRANCE · Flush or glazed entrance doors in wood / aluminium DOOR · Available in a number of external designs and can incorporate a range of glass apertures. · High security features including internal beading - to prevent external removal of glazing and multi-point locking · VELFAC Ribo doors can be coupled with fixed windows to create glazed entrance screens SIDEGUIDED · Sidequided window in wood / aluminium WINDOW · Available as single or double opening · When fully opened, a 150mm (minimum) gap allows cleaning from the inside · Can be combined with different windows types (fixed, tophung, sidehung) as they all appear identical **REVERSIBLE** · Reversible window in wood / aluminium WINDOW \cdot The sash can be rotated by up to 170° to allow cleaning from the inside · The window can be reversed to the cleaning position where an automatic catch keeps the window in place FIXED · Fixed window in wood /aluminium WINDOW · Used as source of light, can be combined with opening windows to create beautiful glazed curtain walls. · All VELFAC windows feature the same slim profile whether they open or not



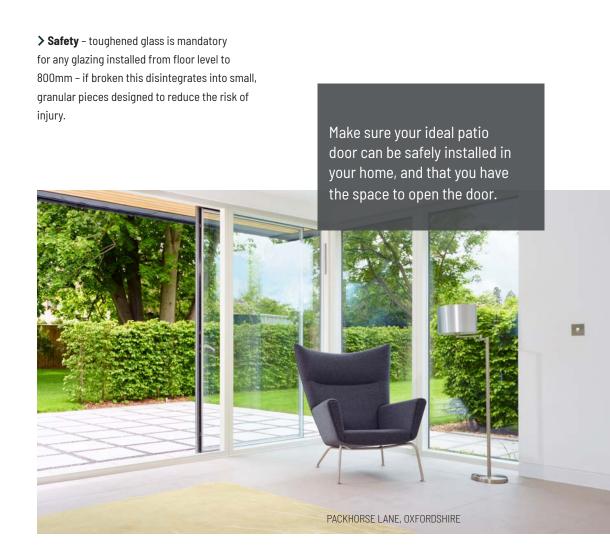
Living room – think about

> Let natural light in – extra daylight brightens a room and reduces artificial heating and lighting. Consider how many windows you can have, depending on the orientation of your home and the position of your living room and choose the perfect combination of door and windows, including full height glazing and glass to glass corner windows.

> Garden or patio access - glazed patio doors are a great addition to a living room. They can be hinged, sliding, or folding, and can create extra wide openings. To find the ideal patio door for your project, consider:

- the floorplan of your living room and the best location for the door
- the construction of your exterior wall (especially above the patio door), and space for sunken tracks or drainage
- space for the patio door when open sliding doors need very little space, while hinged or folding doors need extra room.
- > Insulation and solar gain thermal comfort is vital so that your living room is comfortable all year round, draught free and with an even temperature.

 Windows installed on south-facing walls will generate solar gain free heat from the sun invaluable in winter but not so much in summer. Coated or tinted windows can be an easy way to control solar gain, and protect fabrics and furnishing from sun damage.
- > Enhanced security ground floor rooms are often most vulnerable to forced entry so windows must be secure. Install windows with security 'built in', such as multi-point locking, internal glazing beads (glass fitted from the inside), or anti-lift devices (for sliding doors).



> Planning an extension?

Think about windows right from the start to ensure your extension doesn't reduce light levels across the living room, or creates a space which can only be used when the weather is warm.

Large windows will increase the flow of light, but make sure insulation is sufficient to ensure even temperatures throughout the year and allows full use of floorspace, right up to the glass.

> Or a conservatory?

Modern windows now offer excellent insulation – so why not combine large windows, patio doors and brick walls to create your own bespoke conservatory, orangery or garden room? A warm, comfortable and versatile space which can be enjoyed all year round.



VELFAC suggestions for your living room





Kitchen and utility rooms

Ventilation, insulation, natural light – all essential for a comfortable and practical kitchen or utility room. Whether from cooking, washing or drying, condensation is the big challenge, especially as the kitchen is often the place where you also dine and entertain.

UWER MILL, ITTLE DOWNHAM

Kitchen - think about

> Excellent insulation – look for windows with low U-values as this means excellent insulation and a warmer and more energy efficient room. Insulation also raises the surface temperature of the glass making condensation less likely.

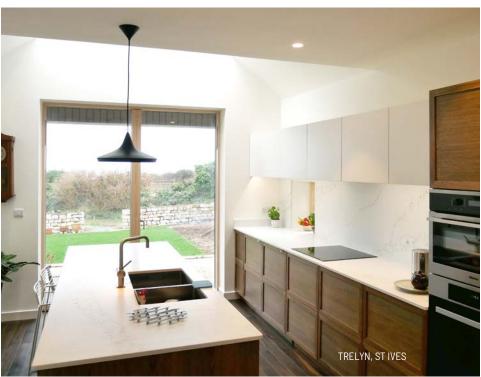
> Ease of use – windows installed above sinks and cabinets bring natural light into workspaces, but can be harder to reach. Top guided windows have handles on the lower frame, making them easier to open and close. When open, top guided windows create gaps at the top and bottom of the pane, ideal for the throughflow of air required to quickly remove excess steam or smoke.

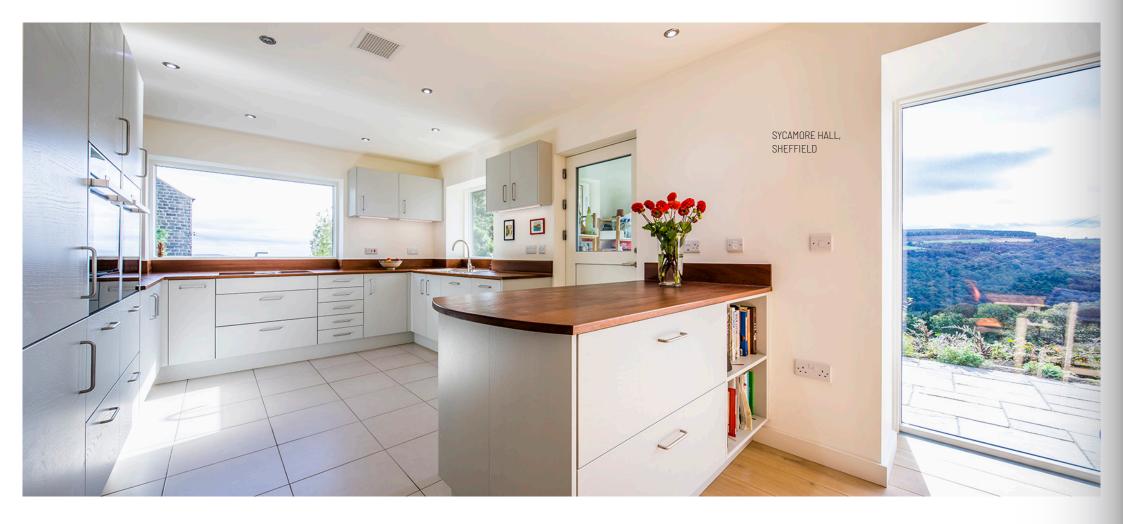
> Click vents – effective click vents in the frame ensure fresh air circulates continuously, whether you are at home or not.



> Patio doors – an increasingly popular addition to a kitchen / dining room, patio doors bring the garden into the home and create a great space for entertaining. Ensure the doors you want offer the insulation you need to keep the kitchen warm and dry and ask an expert to confirm the ideal patio door design for the construction of your house.





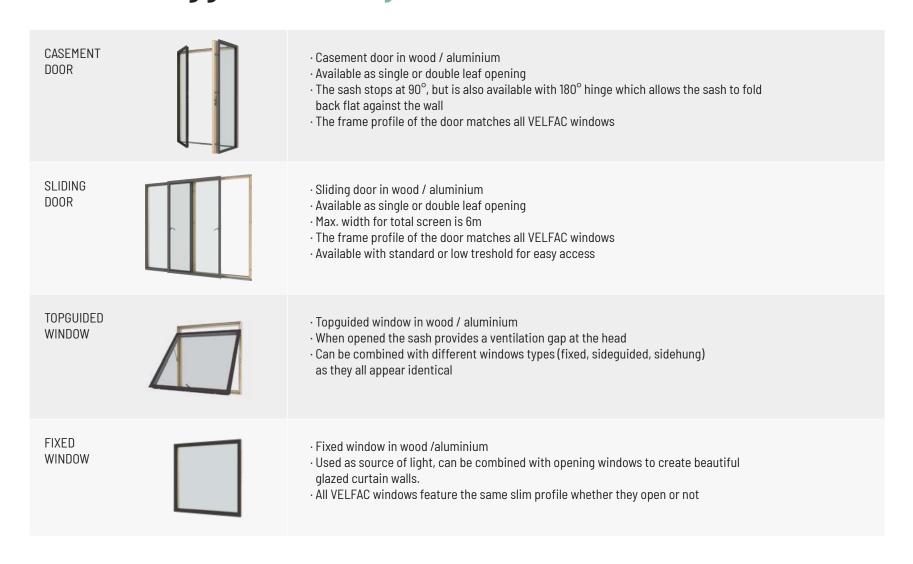


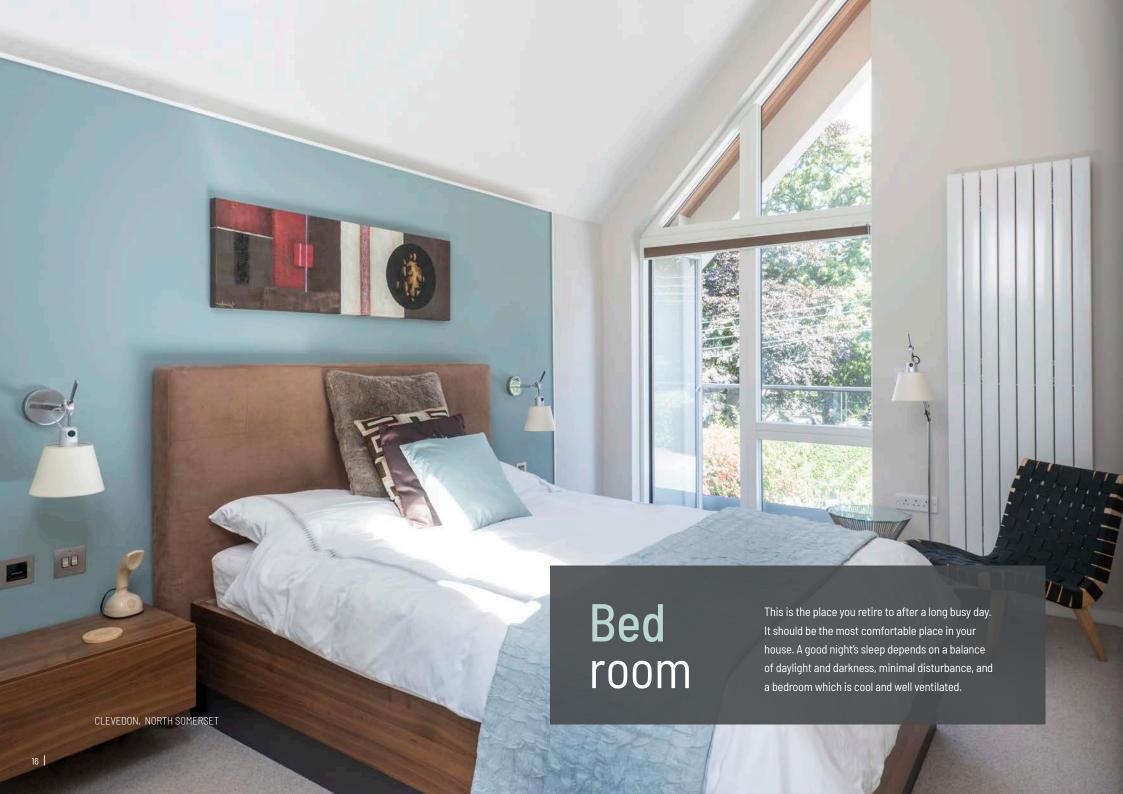
> How to minimise condensation

When warm moist air meets a cold surface it will condense and if not controlled then over time it can cause damage to window frames and encourage mould growth. Occasional condensation is unavoidable, but if the problem persists then you need to improve ventilation and insulation.

Use an extractor fan to remove damp air, leaving it running for up to 10 minutes after cooking. Fit trickle vents into window frames, open windows several times a day and provide more than one gap to give damp air an escape route (otherwise it will be pushed back into the room). Raise the temperature of internal surfaces with good insulation (which also keeps internal temperatures stable) to further minimise opportunities for condensation.

VELFAC suggestions for your kitchen





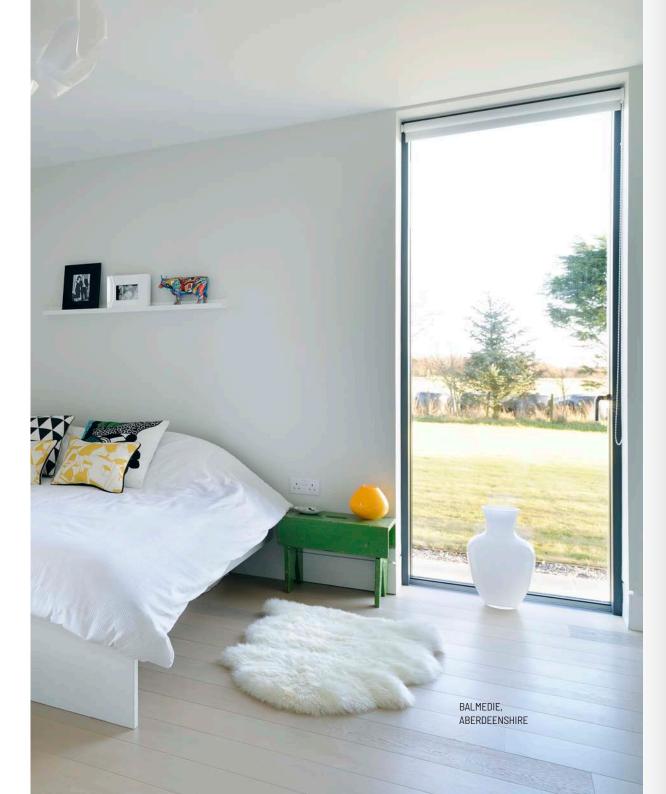
Bedroom - think about

- > Controlling solar gain orientation can make a big difference: do you face east, enjoy the sunset in the west (but also high afternoon temperatures), gain light from the south (but also day-long heat), or face north (with less solar gain and light)? If your bedroom gets too much sun, especially in the afternoon, fit tinted glass, use blinds or curtains, or consider more permanent shading options such as fixed exterior screens.
- > Good ventilation bedrooms can suffer from relatively high humidity which can encourage mould, mildew and dust mites all potentially harmful to health, especially to asthma sufferers, and can trigger allergic reactions. Daily ventilation is essential, so install plenty of opening windows to allow air to flow though the room, and also trickle vents for continuous circulation.
- > Safety and security building regulations prevent the use of key-lock windows on upper floors, and also require escape windows in every bedroom in case of fire. Seek expert advice on the correct window options for your bedrooms, and fit safety restrictors and push-button handles for extra security where needed.
- > Peace and quiet if you live near a constant source of noise such as a busy transport route then windows which offer excellent thermal insulation will also deliver acoustic control. For significant noise reduction consider triple glazing, and also fit acoustic trickle vents which allow ventilation while minimising external noise.



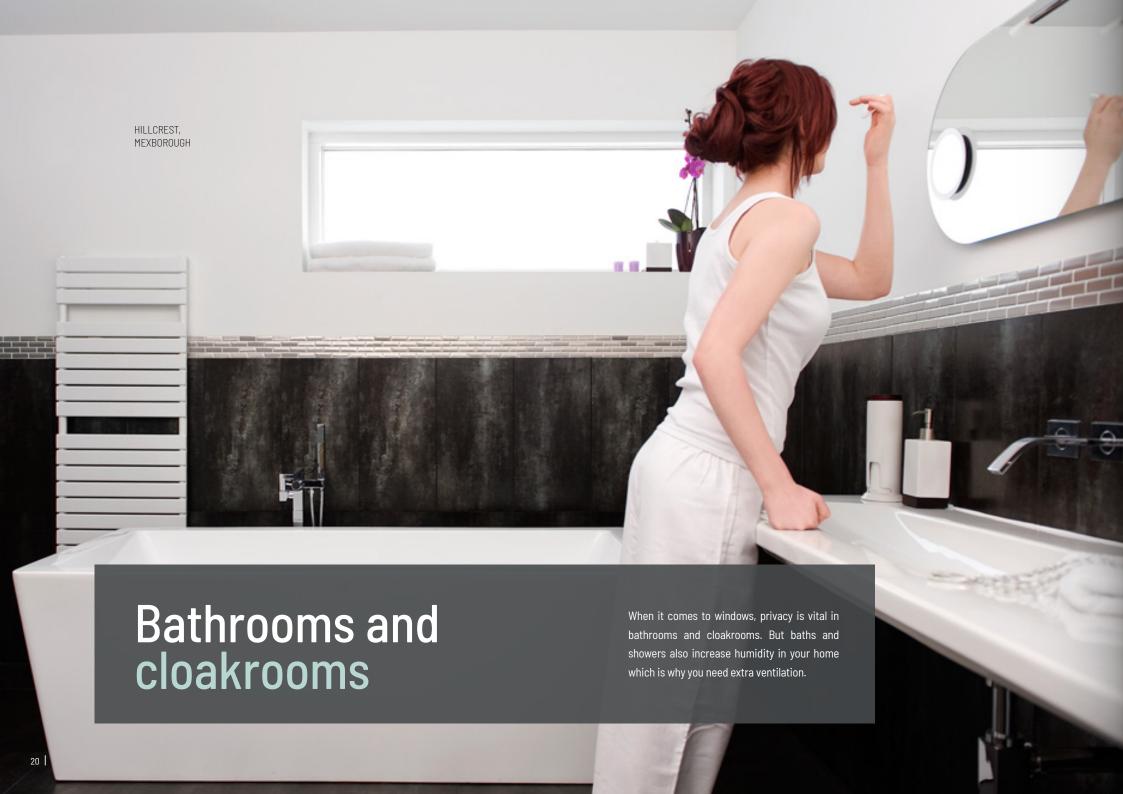


> Balcony? – A bedroom balcony gives added space and the chance to install larger windows. Sliding patio doors are ideal where space is tight, and can create larger openings when open. Or consider a Juliet balcony, in which full height glazed doors open directly onto a fixed external balustrade – this style of balcony brings extra light and air into the bedroom, but requires internal space for the glazed doors to fully open, and also a suitable surface underneath the doors (which won't be damaged by water, for example, if doors are opened after rain).



VELFAC suggestions for your bedroom

SUN GLASS · VELFAC SUN glass is designed to reduce solar gain and glare, and is normally used in south- or west-facing façades with large window sections • The glazing reflects up to 60% of the heat from the sun, but it allows plenty of natural light to enter the room **SIDEHUNG** · Sidehung window in wood / aluminium WINDOW · Available as single or double leaf opening · The sash stops at 90° · Can be combined with different windows types (fixed, tophung, sidequided) as they all appear identical **ACOUSTIC** · VELFAC acoustic vent is designed to provide both fresh air and noise control in buildings VENT when combined with VFI FAC SOUND windows. INWARD · Inward opening Juliette door in wood / aluminium **OPENING** · Designed for upper floor applications, where a Juliette Balcony requires the door to open inwards DOOR · Available as single or double leaf opening · The door has a tilt function for ventilation



Bathroom - think about

- > Opening windows install at least one opening window to limit use of extractor fans. A window left open for 20 minutes can significantly reduce condensation, and the risk of mould and moisture damage to paintwork, sealant and fittings.
- > Choose the right opening function, considering ventilation ... if the bathroom is large, you can choose any opening function available, but if you are planning a small cloakroom or toilet, consider a top guided window. This creates a gap at the top and bottom of the pane which encourages better air circulation, reducing the space needed to operate the window.
- > ... ease of use top guided windows have handles on the bottom of the frame which are easier to reach if you have to lean across a bath, washbasin or toilet.
- > ... and privacy ... a top guided window only needs to be opened slightly for good ventilation, which also maintains privacy.



> Mix opaque and clear glass – there's lots of choice when selecting opaque glass, from laminated to textured, and modern or traditional styles. However, opaque glass reduces levels of natural light so choose the right level of opacity for your bathroom, or install additional clear glass windows to brighten the room using blinds to give privacy when you need it.



Satin



Pacific



Carré



Cotswold



Mat Lam



VELFAC suggestions for your bathroom

TOPGUIDED · Topquided window in wood / aluminium WINDOW · When opened the sash provides a ventilation gap at the head · Can be combined with different windows types (fixed, sideguided, sidehung) as they all appear identical CLICK · Click vent in natural anodized finish **VENT** · Not visible from outside · Documentation on airflow can be supplied for specific projects · Suitable for all VELFAC windows and patio doors STANDARD · Window restrictor with corrosion-proof zinc-aluminium surface finish RESTRICTOR · Limits opening of the window to 5-10cm. · The restrictor can be locked in the ventilation position DÉCOR · VELFAC DÉCOR is available in five different designs: Satin, Pacific, Cotswold, Carré or OPAQUE Matt Lam (glass laminated with a matt foil to give a sandblasted appearance) **GLASS** · Matt laminated glass also reduces the risk of injury should the glass break

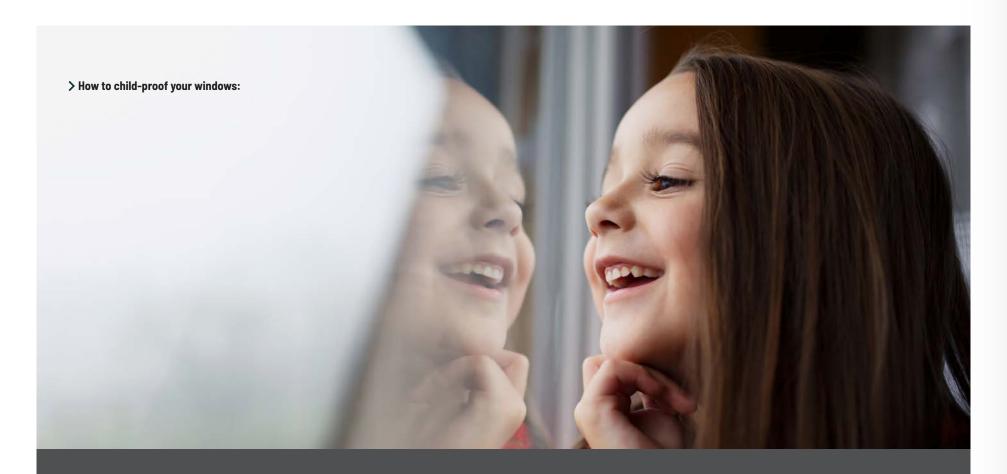


Kids' room - think about

- > Light when you need it kids' rooms have to be versatile, full of light when it's time to play but easy to dim when it's time for a nap. Choose slim-framed windows to bring maximum daylight into even the smallest room, and fit thick curtains or black-out blinds to cut light levels when needed.
- > Good insulation and ventilation well insulated windows minimise draughts and cold spots. High humidity levels can affect allergies and complicate respiratory diseases brought on by biological agents such as mites and mildew. One of the best ways of tackling house dust mites is to reduce relative humidity. Open your kids' room windows daily for at least 15 minutes. Fit easy-release safety restrictors which allow windows to open for ventilation while limiting the gap.
- > Security Install child-proof windows for a complete peace of mind.

 If possible, don't make it easy for children to climb onto window cills place furniture with care. Children may trip on loose rugs or mats, so keep them away from glass doors and windows.





- Choose sidehung windows with handles placed mid way up the frame, out of reach of small hands.
- Install manually operated window restrictors which limit window opening to a few centimetres, preventing the risk of a child accidently opening a window and falling out.
- Make sure handles are secure and 'difficult' to use, so they can't be opened accidentally 'child buttons' on a handle, for example, must be depressed before the window can be opened and comply with building regulations restricting the use of key-lock windows on upper floors.
- Any windows installed up to 800mm above floor level, must be glazed with toughened glass.

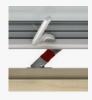
VELFAC suggestions for your kids' room

SIDEHUNG WINDOW



- · Sidehung window in wood / aluminium
- · Available as single or double leaf opening
- · The sash stops at 90°
- · Can be combined with different windows types (fixed, tophung, sideguided) as they all appear identical

STANDARD RESTRICTOR



- · Window restrictor with corrosion-proof zinc-aluminium surface finish
- · Limits opening of the window to 5-10cm.
- · The restrictor can be locked in the ventilation position

HANDLE WITH CHILD-LOCK

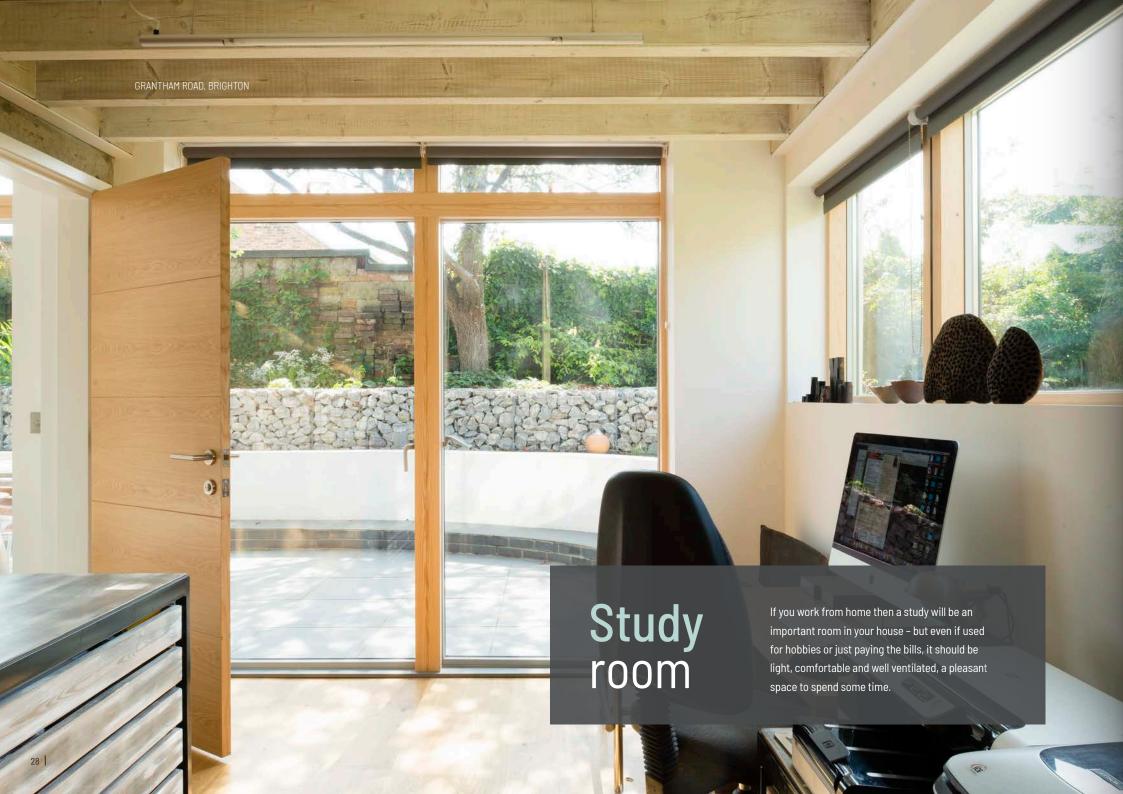


- · Press and hold the child lock button while turning the handle to open the window
- · Handle made in thermal material which is warm to the touch
- · Brush/satin surface finish
- · Also available with a key lock

SAFETY GLASS



- \cdot VELFAC SAFETY glass must be used in areas where glazing is at risk from human impact (safe breakage) or to form a physical barrier between levels (containment)
- · It is typically used in any window/door positioned below 800mm
- · VELFAC SAFETY glass meets all National and European standards

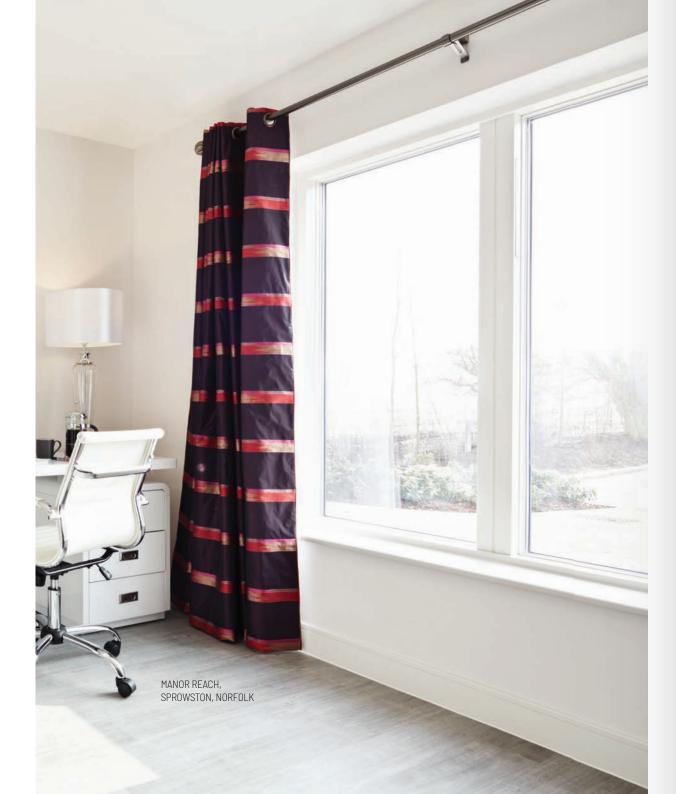


Study room - think about

- > Maximising daylight research shows that daylight has many positive effects people who spend more time in natural light are often more productive and alert, more creative, and have a greater sense of wellbeing. Natural light makes people feel more cheerful and energised, and can also increase concentration. It's therefore important to use windows to bring as much natural light as possible into your study, and if the room is small, choose windows with slim frames and no mullions or glazing bars as these can reduce the flow of light.
- **> Emphasising space** study rooms are often small, so use slim framed windows to create an illusion of more space. You can mix and match window sizes and shapes for your own unique facade combination.
- > Peace and quiet make sure the windows you install can block out any unnecessary noise that could disturb your concentration. High quality double glazing offers good acoustic control, but consider triple glazing if you need extra noise insulation (it will also keep the room warmer as well).



- > Effective ventilation ensure your study has at least one opening window to ensure good ventilation. Top guided windows open to create a gap at both top and bottom to ensure the effective throughflow of air ideal if you only have one window in the room.
- > Security if your study is on the ground floor then 'burglar-proof' windows with multi-point locking, for example, and internal glazing beads give added protection to valuable equipment. For more secure ventilation, lockable restrictors mean you don't have to close the window every time you leave the room.



VELFAC suggestions for your study room

WINDOWS



- · VELFAC windows in wood / aluminium
- · 54mm frame profile
- \cdot Up to 50% more daylight entering the interior compared to standard windows
- \cdot Uniform appearance, regardless of opening function

REVERSIBLE WINDOW



- · Reversible window in wood / aluminium
- \cdot The sash can be rotated by up to 170 $^{\circ}$ to allow cleaning from the inside
- \cdot The window can be reversed to the cleaning position where an automatic catch keeps the window in place

CASEMENT DOOR



- · Casement door in wood / aluminium
- · Available as single or double leaf opening
- \cdot The sash stops at 90°, but is also available with 180° hinge which allows the sash to fold back flat against the wall
- \cdot The frame profile of the door matches all VELFAC windows

A guide to ordering your new windows and doors when you buy VELFAC your units will fit and perform exactly as you expect.

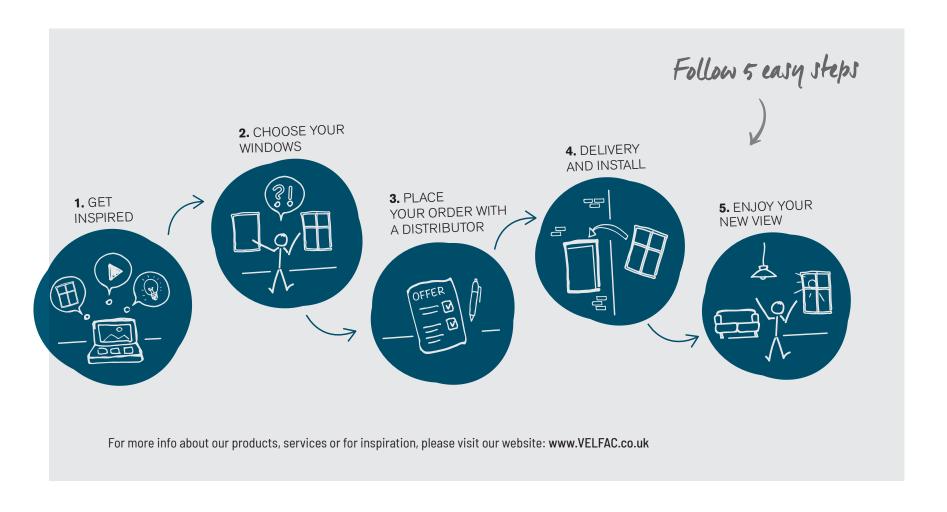
VELFAC windows and doors are bespoke to your project – so they can be designed in a wide range of shapes and sizes to meet your tastes and needs.

All our windows and doors are made of easy recyclable materials -wood, aluminium and glass - so they not only look beautiful, but they also bring a host of benefits, both for your home and for the planet.

- > Visit our website For product information, case studies, design and installation videos and much more, visit the VELFAC website the ideal place to start the process.
- > Contact us for early stage advice and guidance Windows and doors not only influence project style and design, but also thermal, acoustic performance, and security level of your home, so it's important to think about glazing as soon as possible. We don't mind how early you contact us our team will review your plans and refer you to the most suitable distributor for your project.

- > See our products at the distributor showroom our distributors have showrooms where you can view and operate our range of windows and doors and receive advice on windows shapes, opening functions, colours, and glass options.
- > **Ask for a quote** our distributors will gather all your requirements and provide a no obligation quote for your project.
- > The ordering process As soon as you are happy with your specification and quote, your order will be sent to manufacture. As VELFAC windows and doors are all made to measure, allow up to nine weeks from order confirmation to delivery on site, ready for installation.
- **> Delivery and installation** Together with your new windows and doors, your appointed distributor can offer a number of services, including the supervision of offloading of deliveries, supply of complementary products and installation for a complete peace of mind.
- > Warranties and after-sales service We offer a 12 year warranty on our windows, and 5 years on our doors, with every unit carrying a unique ID number so we can quickly identify spare parts should they be needed.

Looking for new windows?















The mark of responsible forestry FSC* C101947

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