

---

# minimal windows®

VERTICAL SLIDING SASH WINDOWS

PRODUCT DATA



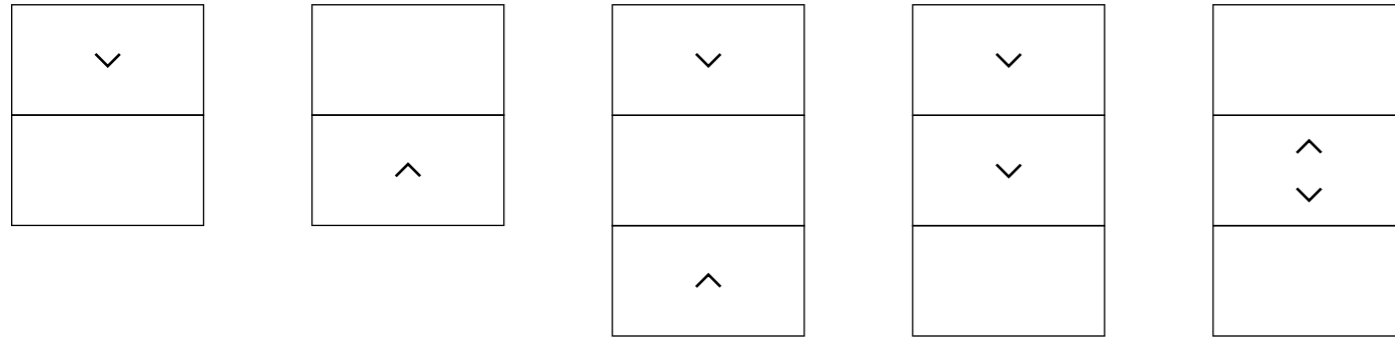
IQ® GLASS

# minimal windows®

## Technical Product Overview

With the use of ultra slim frames, these vertically sliding glass walls offer extremely minimal sightlines of only 20mm horizontally. All other surrounding framework is designed to be hidden by the building finishes for a modern yet beautifully simple window design. As with all solutions from IQ's sliding range, the vertically sliding sash solution offers an architectural resolution that encompasses light and transparency, which is a key element of modern architecture.

### Configurations



These configurations are predetermined and established; however various other sliding configurations are possible on investigation.

### Panel Information

	panel size	maximum width	maximum glass thickness	frame horizontal profile
double glazed unit	8.5m <sup>2</sup>	-	34mm	21mm
triple glazed unit	12m <sup>2</sup>	4.5m	56mm	26mm

*larger sizes may be available on request*

### Glass Specification

Typical Spec	8mm TDX outer / 14mm argon gas cavity / 8mm TDX inner
Typical Ug Value	1.1 W/m <sup>2</sup> k
Max Glass Thickness	34mm (DGU) / 56mm (TGU)
Glass Options	Available on request - Low Iron Glass, Low Maintenance Coatings, Solar Control Coatings, IQ Heated Glass, Privacy Glass, Electro Chromic Glass, Decorative Interlayers (on small sizes), Acoustic Interlayers (on small sizes), Anti Reflective Glass

### Operation

Manual	200x200mm void required either side of vertical sliding sash installation for counter weights
Automated	180mm void required at the top frame for the motor. If the window is taller than it is wide, the motor will be at one side of the vertical sliding sash window. This must be calculated and confirmed on an individual, project by project basis.

### Security

Locking	Standard 2 point lock operated via thrust lever locking handle or electric lock
Handles	Standard powder coated thrust lever, box handle or key (for manual locking)

### Frame Specification

Insulation	Aluminium, thermally broken framing
Finishes	Frames can be PPC or any RAL colour
Horizontal profile	21mm interlocking profile with ergonomically indented faces (26mm for TGU)
Side profile	50mm side frame
Top profile	38mm top frame
Frame depth	To be calculated depending on configuration

### Performance

Thermal	Overall Uw values must be calculated per installation
Air permeability	Class 4 to EN12207
Wind load	Class C4/B5 to EN12210
Water resistance	Class 7A to EN12208
Security	Tested to WK2 at Rosenheim Institute, Germany



## Camlet Way

Three identical vertically sliding sash windows were installed from IQ's minimal windows® system. The vertically sliding sash windows are made with an aluminium frame and maintain a 21mm horizontal sightline. The use of the tall narrow glazing slips into the building envelope offering an interesting design that is unlike most other designs, making the building stand out from the crowd.

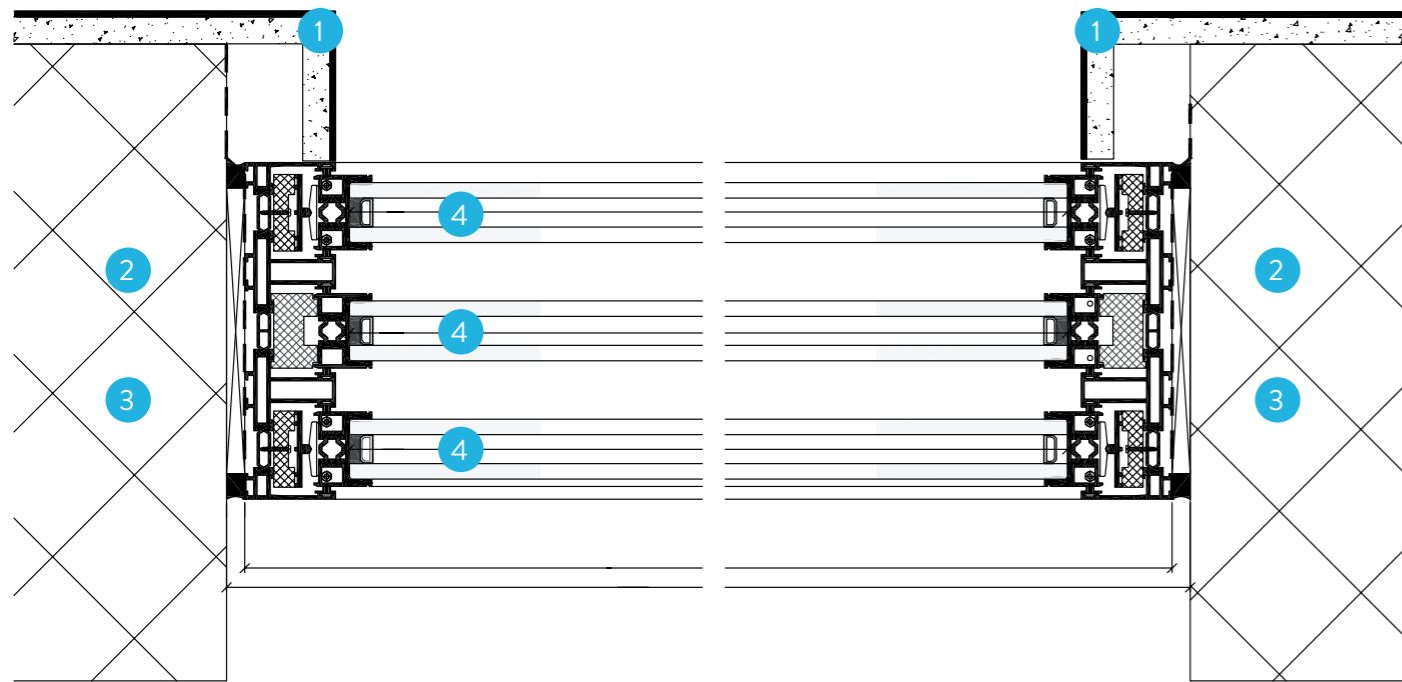
Architect Lees Munday Architects  
Barnet, London, UK



# minimal windows<sup>®</sup>

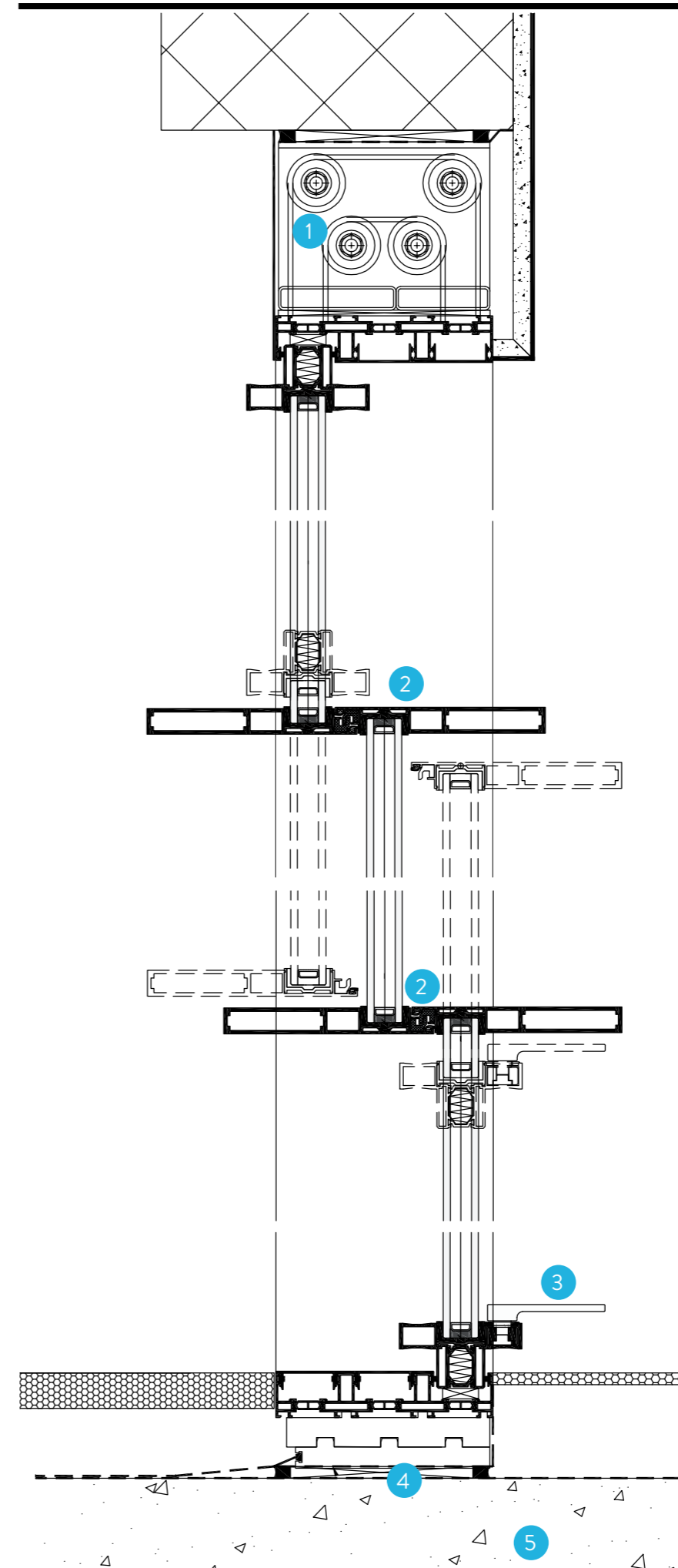
Counter Balanced - Automated Operation

The minimally framed opening system functions by connecting the vertically sliding glass units to an integrated and hidden pulley system. Through the engineering of counterweighting the glass panes can slide naturally upwards manually. Even with oversized glass units the system operation can be manual and smooth.



Top View Example

- 1 Internal finish by others
- 2 Solid structure required by others
- 3 Mechanical area
- 4 Glass



Side View Example

- 1 Motor for automated operation - 180mm void required for the motor. If the window is taller than it is wide, the motor will be at one side of the vertical sliding sash window
- 2 Interlocking mechanism
- 3 2 point 180° locking handle (shown at 90°)
- 4 Drainage block
- 5 Solid concrete upstand required by others

## Dormers

The main feature of this project was the design and installation of a double height minimal guillotine window system. This vertically sliding sash window was designed to be counterweighted; this allows the homeowner to lift the lower pane which draws down the top pane causing all panes to line up with the fixed centre pane. The space where the lower pane was, now becomes a fully open transition between the indoor and outdoor living spaces.

Architect DP Architects

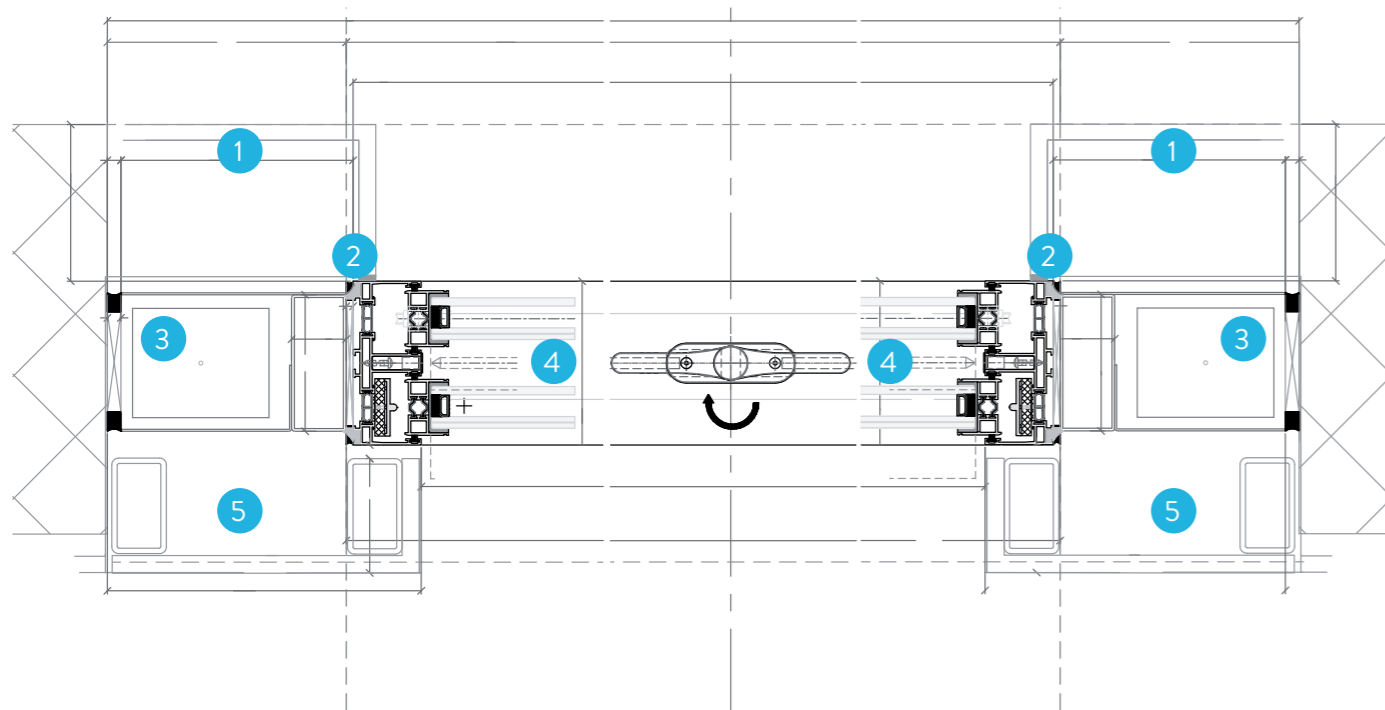
Henley-on-Thames, UK



# minimal windows<sup>®</sup>

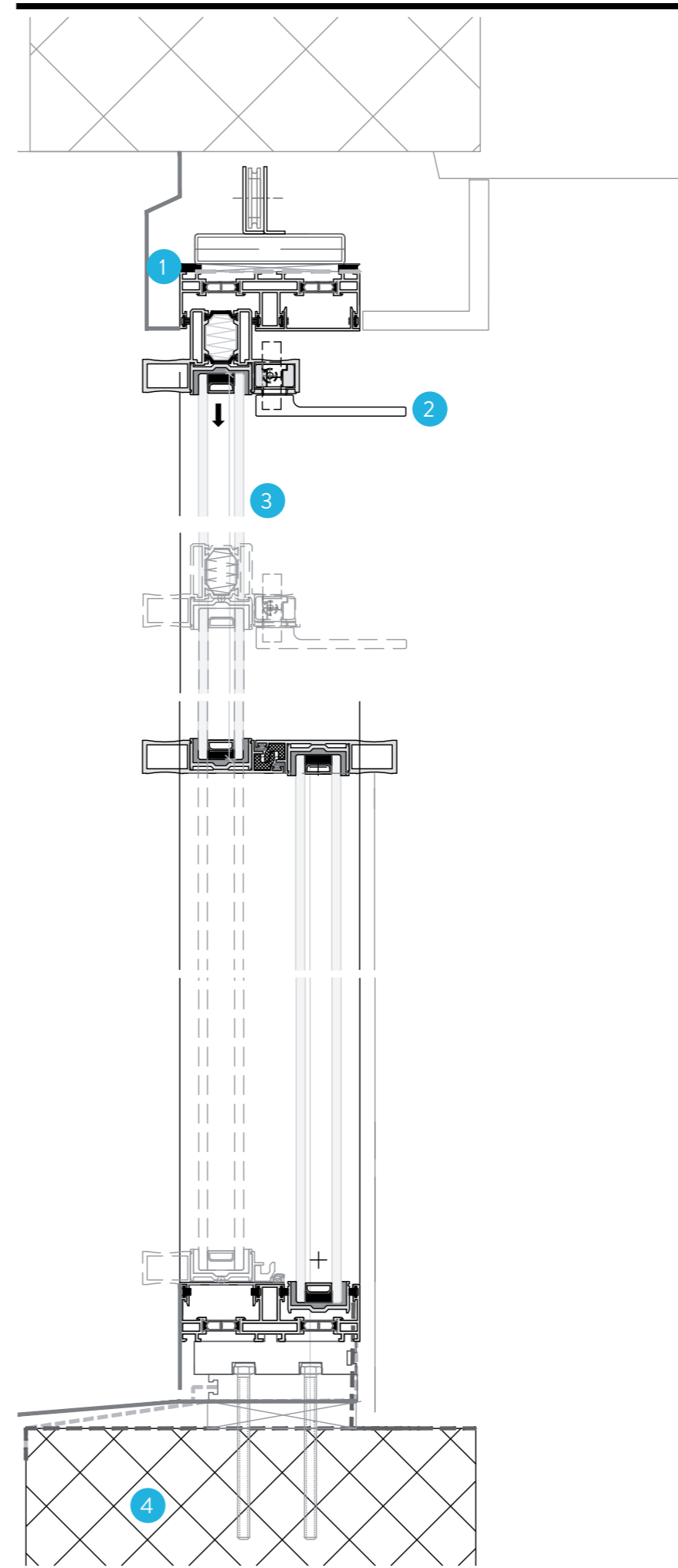
## Counter Weighted - Manual Operation

This pulley-weight solution is hidden within the head of the sliding glass wall with full design details available for CAD integration. The vertically sliding glass moves smoothly via a multiple pane connection through this internal counterweight system. Two or more sliding glass panes can be used within each elevation. Operation on the majority of installations can be manual via this internal pulley system however motorised operation is also possible.



### Top View Example

- 1 External finish by others
- 2 Low modulus silicone to structure
- 3 Sash counter weight - approx. 200 x 200mm void required
- 4 2 track system 120
- 5 Removable trim by others for access, internal finish by others



### Side View Example

- 1 Low modulus silicone to structure
- 2 2 point 180° locking handle (shown at 90°), operated with a window pole
- 3 2 track system 120
- 4 Solid concrete upstand by others

# minimal windows®

## How to Specify

- UK manufacturer for guaranteed supply
- Efficient lead times
- Large or bespoke sizes available upon request
- Fully tested for wind loading
- Fully thermally broken frame
- Flexible design for structural glazing

The minimal windows® Vertical Sash Window system is exclusive to IQ Glass in the UK. The aluminium window system is the first choice for architects and designers all over the UK looking for slim frame design with modern performance values. If you would like to specify a minimal window® Vertical Sash Window on your project just speak to the team at IQ who would be happy to assist.

### Speak to the team at IQ

The team at IQ are the experts in our product range. If you are considering using a minimal window® Vertical Sash Window product on your project speak to the team at IQ who will be able to advise you on the best solution for your intended design, ensure that all specification criteria are met and advise the feasibility to areas of the installation you may not have considered.

### Get a Quotation

We advise our customers to get a quotation for their intended minimal window® Vertical Sash Window installations from IQ. This allows us all to ensure that the preferred product and design is within budget. If it is not we can help you adjust the specification to reach all performance, design and budgetary requirements.

### Add us to your NBS Specification

To assist you in specification we have created individual NBS Specification sheets for the minimal window® Vertical Sash Window product. These, easy to navigate, documents contain all the vital information needed for specification. They are available for you to complete on your own, alternatively ask your sales representative at IQ to complete this on your behalf

### Place the Order

When ready you (or your client or the builder) can then place the order for your minimal window® Vertical Sash Window with us. A full in-house handover will take place and your project will be passed to the contracts and design team. Once your project deposit is placed we will then undertake full design drawings



- Frameless glazing design
- Designed for effective installation
- Triple glazing possible
- High performance glass specification
- A range of additional glass finishes possible
- Fully realised solution

for the installation and any other additional glazing works. Please allow at least 20 working days for the design process.

The project will be appointed a dedicated contracts manager who will oversee the installation process. The estimated lead time for a minimal window® Vertical Sash Window is 10 to 12 weeks depending on system and material chosen. This may be longer for specialist installations. This will be confirmed on order.

### Where can I see the system before order?

We have several installations of structural glazing available to view at our showroom in Amersham.

If you or your clients would like to arrange a virtual or in person visit to the showroom just contact us to arrange an appointment at the showroom.





**IQ Headquarters**

Sky House, Raans Road,  
Amersham, Buckinghamshire  
HP6 6JQ, UK

01494 722 880

[hello@iqglassuk.com](mailto:hello@iqglassuk.com)

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