



The minimal windows 4+ system is exclusive to IQ Glass in the UK. Based on the minimal windows sliding system, the minimal windows 4+ achieves new heights and performances. The deeper rebate allows for thicker glass units for laminated glass or triple glazing. IQ have also had the system tested for Hurricane Resistance to showcase the system's ability to protect against the elements.

#### Maximum Sizes

**Maximum Height** tested max height 4.5m, larger sizes may be available on request

**Maximum Sliding Pane Size** tested max size 12m<sup>2</sup> per pane

**Maximum Fixed Pane Size** 18m<sup>2</sup> per pane

**Maximum Sliding Panel Weight** 1000kg (automation is recommended if doors exceed 500kg per panel)

#### Performance

**Air permeability** Class 4 to EN12207

**Water resistance** E1050 to EN12208, tested with 3.4 litres/m<sup>2</sup>/ min to TAS 202

**Resistance to wind load** C5 to EN12210, tested to +/- 4500Pa wind pressure to TAS 202

**Thermal performance** Uw value 0.8—1.1 (depending on the pane size)

**Hurricane resistance** cyclic wind pressure loading tested to 3510Pa in accordance to TAS 203

**Security** tested to WK2/RC2 at Rosenheim Institute Germany

#### Glass

**Typical Glass Specification** triple glazing with 8mm TXD

**Typical Ug Value** 0.6 W/m<sup>2</sup>K

**Glass Thickness** 50-56mm

**Glass Options** solar control coatings, laminated glasses, triple glazing, low maintenance coatings, low iron glass, heated glass, decorative glass, translucent glass, coloured glass, manifestations, privacy glass, reflective glass, anti condensation glass, bird protection glass. Contact IQ with specific requests.

#### Frame

**Slim aluminium framing with full thermal break**

**Vertical profile** 26mm interlocking profile with ergonomically indented faces

**Bottom profile** 60mm deep base frame with stainless steel track with 20mm thick Neoprene drainage block and integrated 150mm EPDM

**Top profile** 60mm top frame

**Frame depth** depending on configuration, 174mm depth for two track system

**Frame Finishes** PPC in any RAL colour

Product Information Sheet

**Sliding Configuration Examples**

linear sliding panes up to 4 tracks, left/right sliding

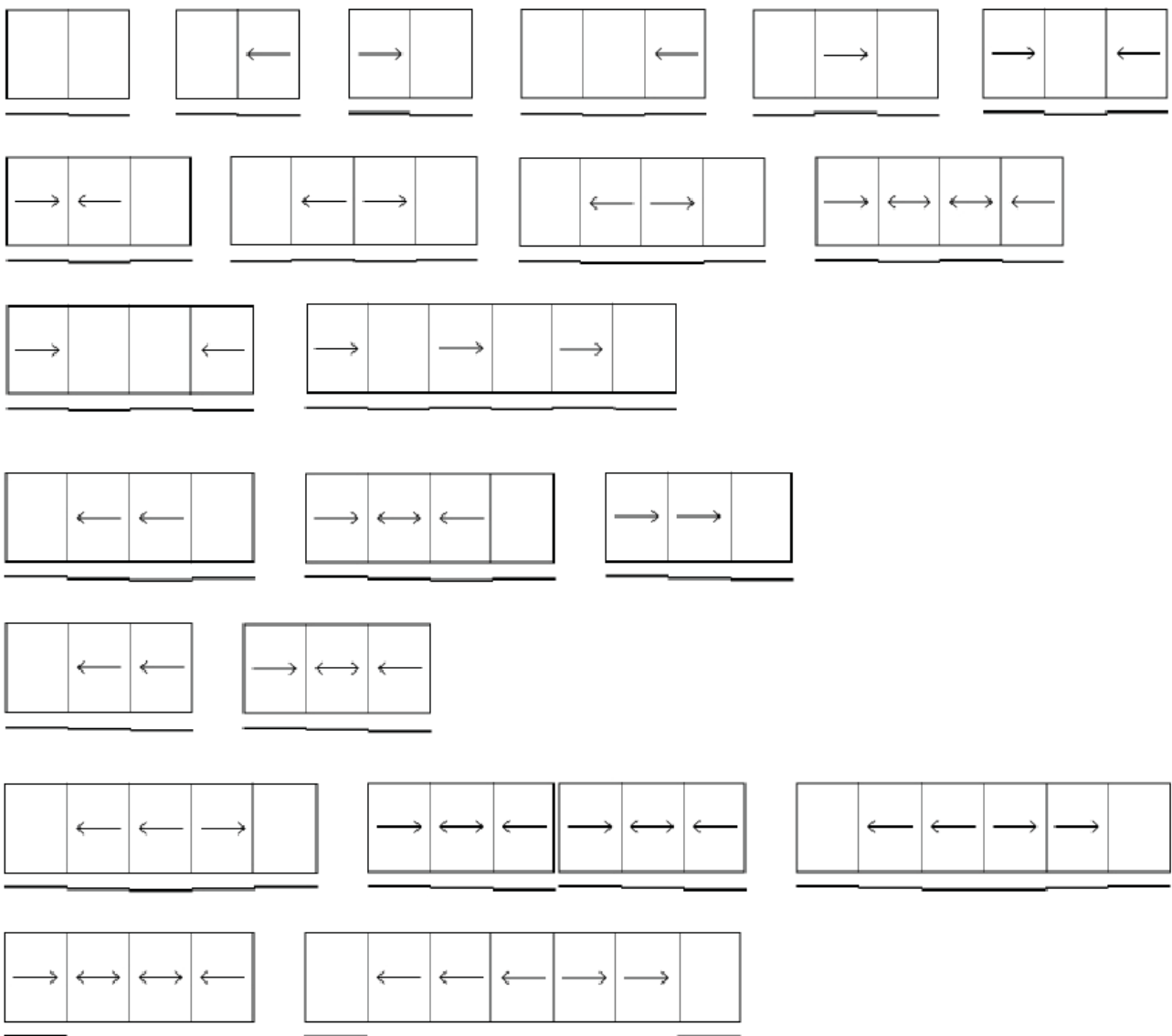
Bi parting possible on same or offset tracks

Opening Corners 65 to 177° opening

Pocket Doors 1 to 3 tracks

Juliet Balconies with integrated frameless balustrade

More sliding configurations are possible, these are just examples of some of the options:



### Hurricane Resistance Testing

IQ undertook independent testing of the minimal windows 4+ sliding system to ensure its suitability for a project we were undertaking in the Bahamas which required Florida Building Code testing.

A sample, measuring 3810mm wide x 3140mm high, was tested at Vinci Technology Centre. The project and all associated installations had to adhere to Florida Building Code Test Protocols TAS 201, 202, and 203 for storm and impact resistance.

#### Extract of Testing Results

Test Number (order)	Test	Test Description	Test Result
1	TAS 202	Air infiltration at 75 Pa	0.92 m3/m of opening joint
2	TAS 202	Static air pressure at ±4500 Pa	No damage, L/160 maximum deflection
3	TAS 202	Water resistance at 600 Pa	No water leakage on internal surfaces designed to remain dry.
4	TAS 201	Large missile impact at 15.5m/s	Inner glass pane remained intact.
5	TAS 203	Cyclic pressure up to 3510 Pa	No damage, over 90% recovery.

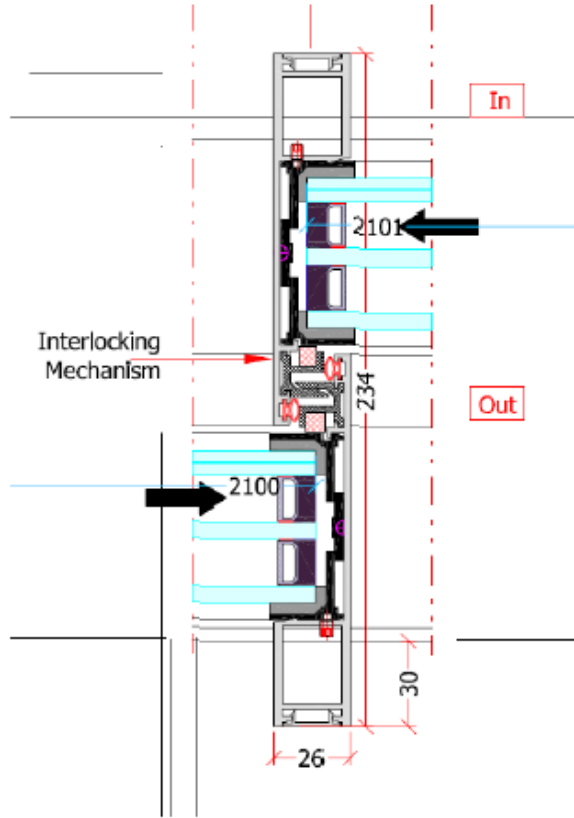
The minimal windows 4+ set up in the testing rig ready for the Hurricane Resistance testing.

The minimal windows 4+ set up ready for the Large missile impact testing, showing the air canon used.

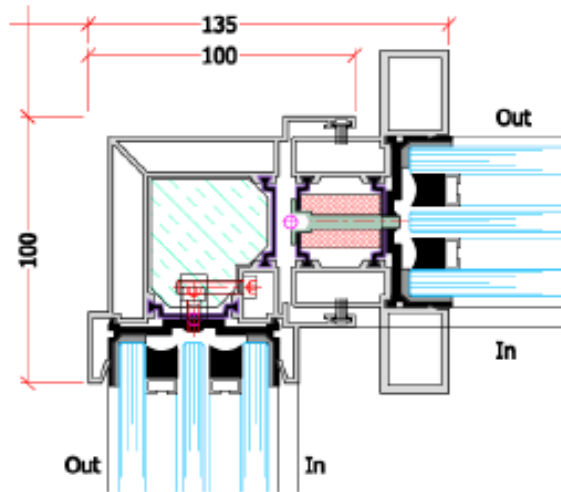


Typical Details

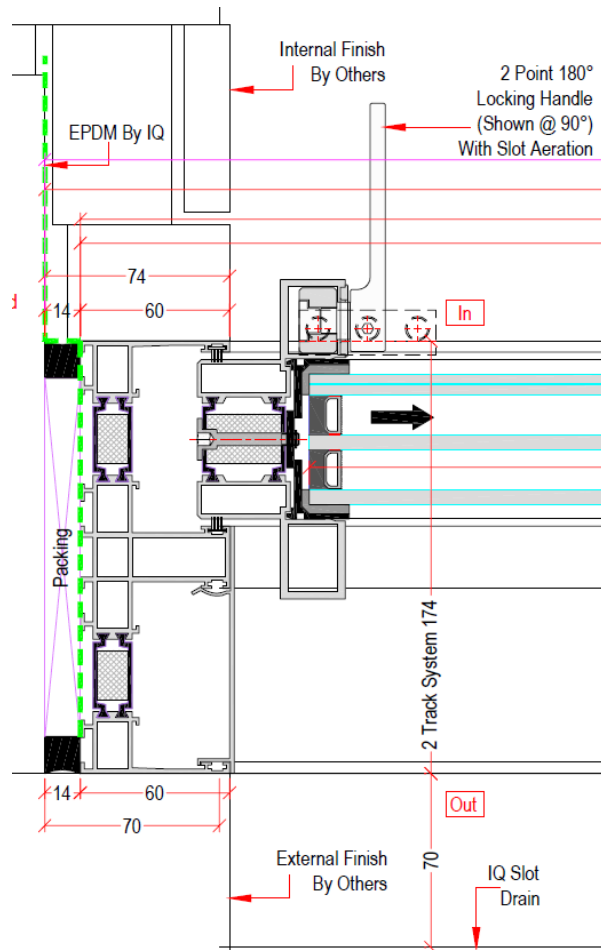
Vertical interlock



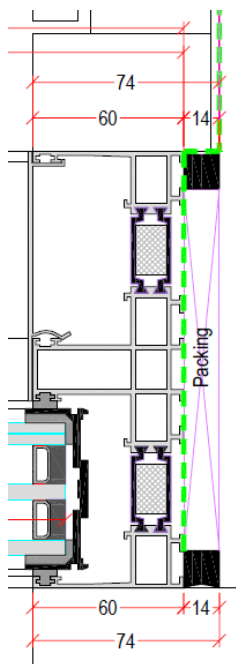
Corner connection for opening corners



Sliding pane wall connection with Slot Aeration

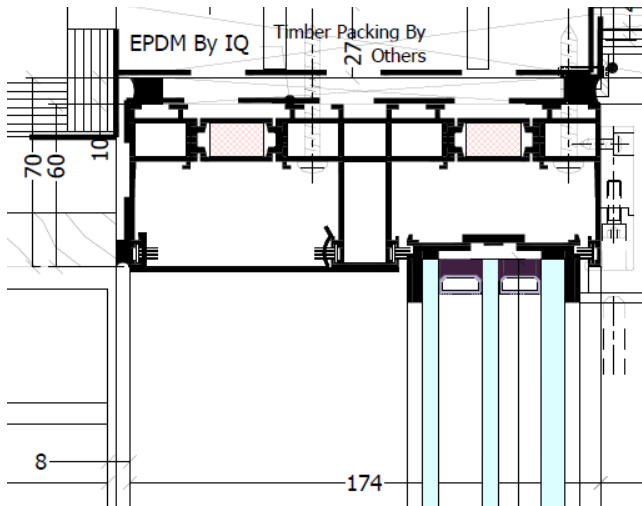


Fixed pane wall connection

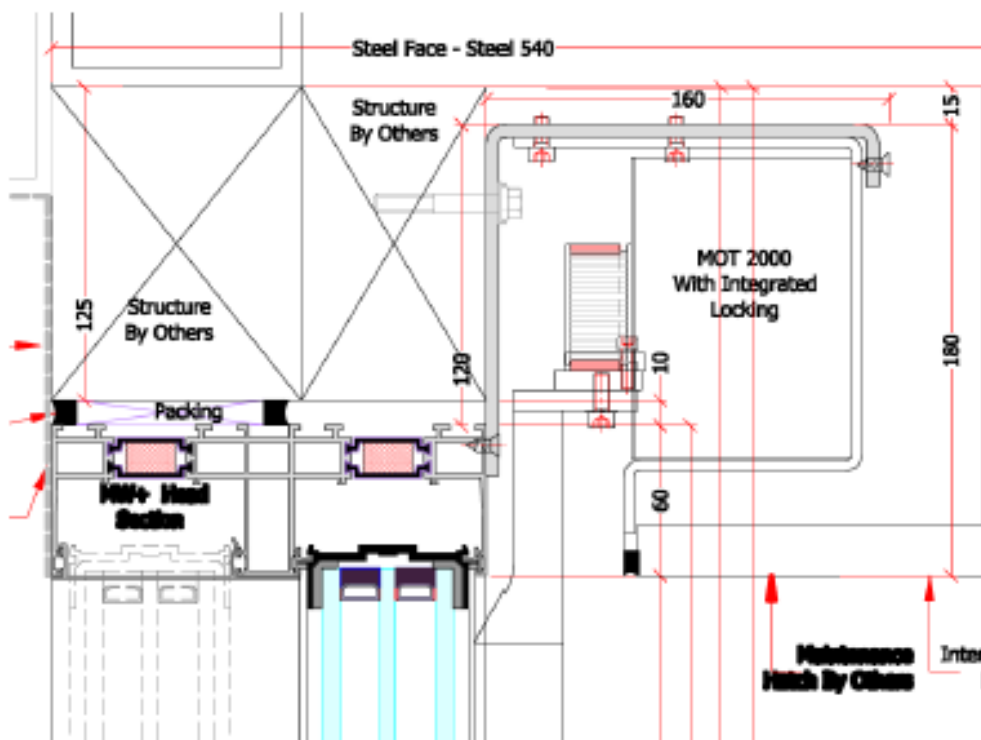


### Typical Head Details

Head detail

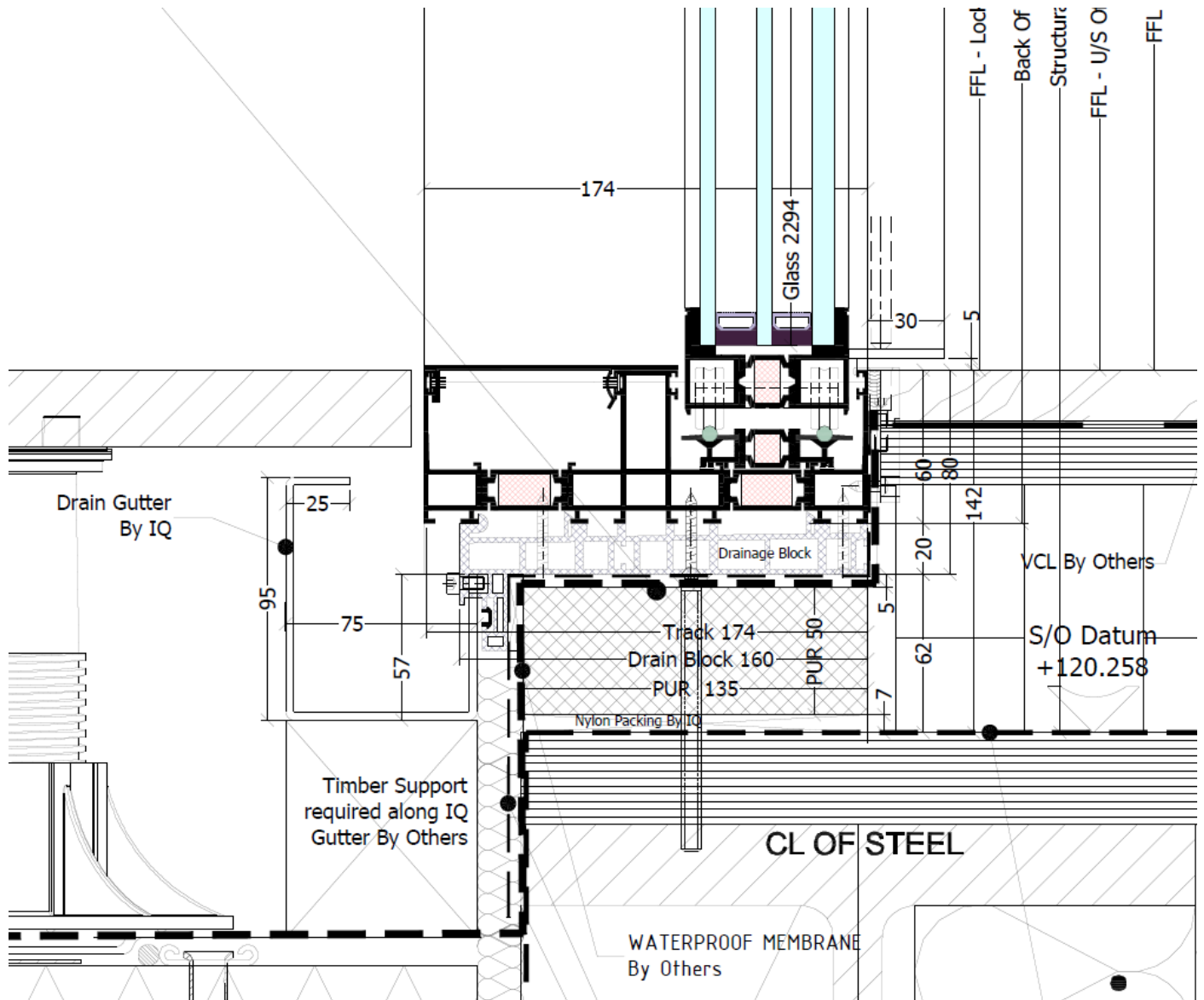


Head detail with MOT 2000 electric motor



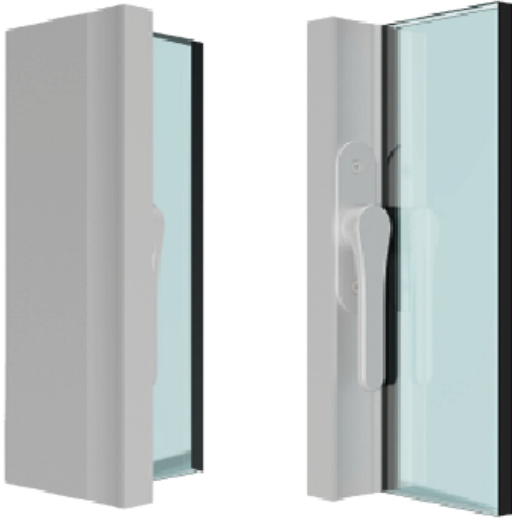
### Typical Base Details

2 track base detail with evaporation channel



## Handles + Locking

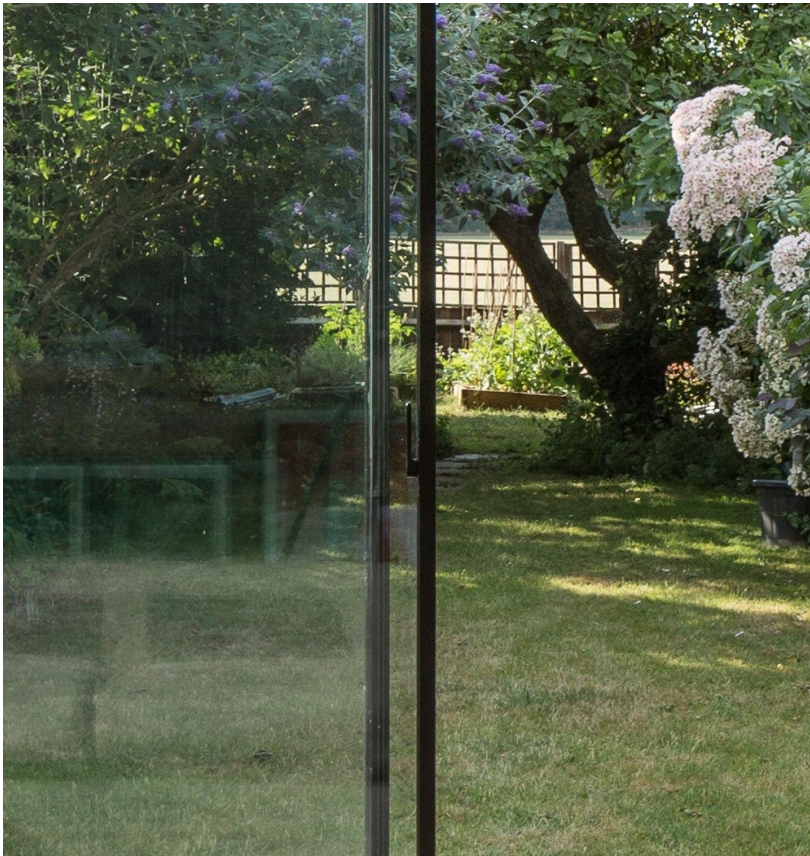
Lock Type 1- manual thrust lever locking



Lock Type 4- manual internal key locking



Image examples of locking



Product Information Sheet

**See minimal windows® at the showroom**

A large purpose built minimal windows® installation is available to view at the IQ Glass UK showroom in Amersham.

The sliding door installation is installed outside in a purpose built example dwelling so that all details can be realised fully in a built environment.

Our minimal windows® example is installed outside and is subjected to real UK weather conditions throughout its lifetime. This gives architects, specifiers and their clients a true indication of how the system operates over time.

Variations of the minimal windows® system on show are:

- 90° opening corner
- Single track pocket door
- Three Pane Slider
- Two Pane Slider
- Type 1 Lock
- Type 4 Lock
- minimal windows® as a window
- Vitra Pivot

If you would like to make an appointment to view the minimal windows® please get in touch with your sales representative at IQ.



[Click here to view videos of our showroom](#)





## Product Information Sheet

**How to specify a minimal window® from IQ Glass**

The minimal windows® system is exclusive to IQ Glass in the UK. The aluminium window and door 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® 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® 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® 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® 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® 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 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® 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 minimal windows® product before order?**

We have several minimal window® configurations available to view at our showroom in Amersham. These aluminium windows and doors have been installed in a purpose built structure, exposed to the environment and used on a day to day basis. This will enable you to see just how well the minimal window® system withstands the wet British climate and how smoothly they operate over time.

If you or your clients would like to see the minimal windows® products in person just contact us and arrange an appointment at the showroom.

## Product Information Sheet

**Downloads and Other Useful Information****The minimal windows® product page**

Here you can

- Read the product specification information
- Download relevant technical documents (such as NBS Specifications and Standard Details)
- Download the minimal windows® Premium Brochure
- Read associated technical articles
- Click through to see UK case studies that include minimal windows®
- See associated or complementary products to form a full glazing package

[Click here for the minimal windows® 4+ Product Page](#)**minimal windows® Case Studies**

Here you can

- See images of completed projects by IQ that include minimal windows®
- Investigate what additional glazing products were used in conjunction with minimal windows®
- See a range of architectural projects that used minimal windows®

[Click here for the minimal windows® Case Studies](#)**The minimal windows® Premium Brochure**

Here you can

- See all the technical information shown here in a more graphical format
- See more project examples of minimal windows®
- Useful to showcase the product to the end client

[Click here for the minimal windows® Premium Brochure](#)**The IQ Sliding Doors eBook**

Here you can

- Compare minimal windows® to other sliding door systems
- Investigate alternative sliding doors available from IQ
- Compare the cost of minimal windows® to other sliding doors from IQ

[Click here for the sliding doors eBook](#)