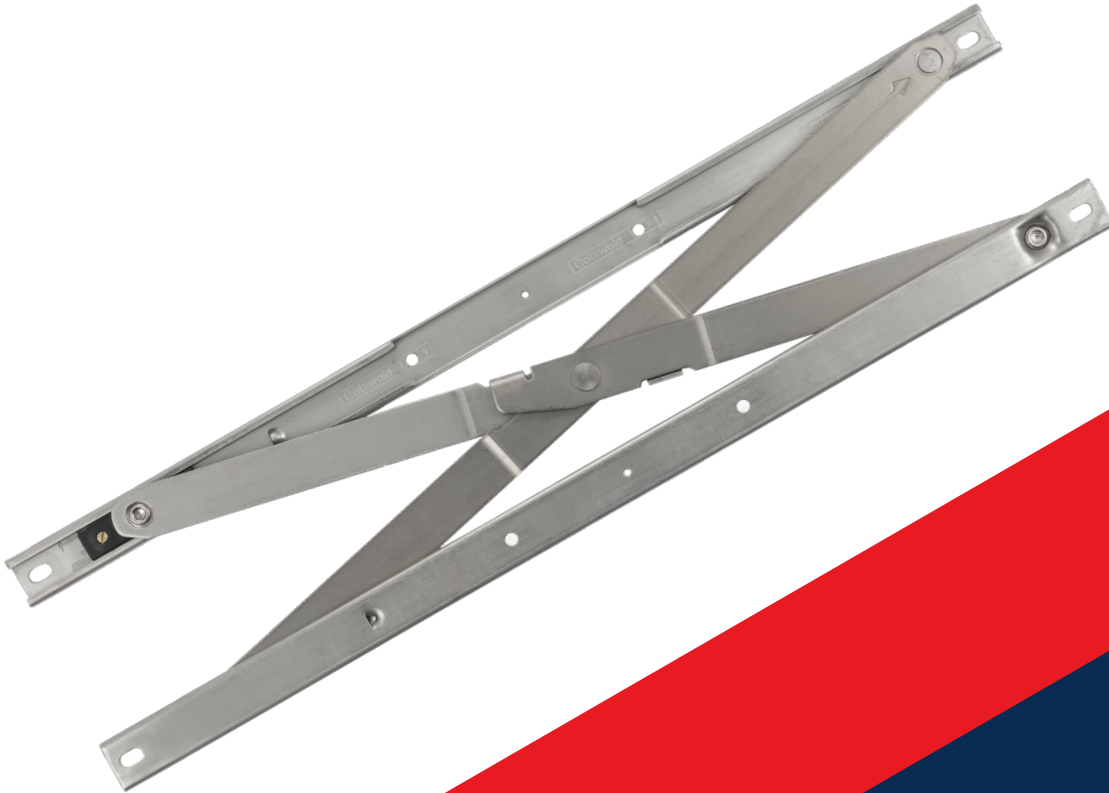


DATASHEET



Cotswold
Architectural Products



Heavy Duty Parallel Ultra
Friction Stay

Heavy Duty Parallel Ultra Friction Stays

Cotswold's Heavy duty parallel stays for enhanced performance on timber and a large selection of aluminium profiles, for curtain walled and structurally glazed buildings.

- Closes inline which allows for greater choice in profile section. Hinge mechanism is fully concealed when the sash is closed.
- Parallel opening windows offer ultimate natural ventilation by allowing a balanced air flow around the entire opening.
- Can be connected to a building management system as part of an automated solution for climate control.
- Can be operated manually or using electric motors.
- Sash adjustment feature for use with heavier vents.
- Composite steel/plastic slider for strength, durability and smooth operation.
- Manufactured from high grade Austenitic Stainless Steel for enhanced corrosion resistance. Even in the most corrosive environments.
- A modular solution that can be used on larger or non-rectangular shaped vents. Providing design freedom using a combination of hinge sizes and configurations.
- Full technical and sales support available which will cover consultancy per project basis and on-site advice when necessary.
- Available in 11", 18" and 36" lengths and 16.9 or 21mm stack heights

Recommended Maximum Window Weights and Rebate Sizes

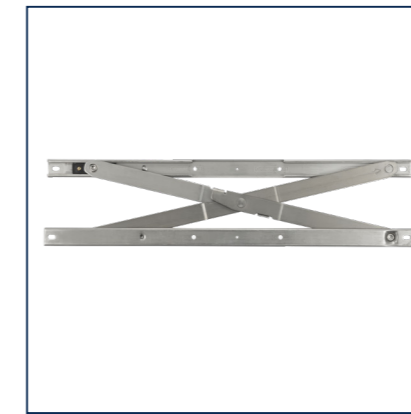
Product	Max. Vent Width (mm)	Max. Vent Height (mm)	Max. Vent Weight (kg)	Opening Distance (mm)	Cavity
11" PARALLEL	350	750	25	95	16.9-1.0mm or 21.0-1.0mm
18" PARALLEL	1200	1000	100	180	16.9-1.0mm or 21.0-1.0mm
36" PARALLEL	2000	2000	200 (motorised)	180	16.9-1.0mm or 21.0-1.0mm

Important Information:

- We recommend a minimum of 4 parallel stays per window.
- Vent height and width is measured form rebate to rebate (not overall size or outer frame size), on conventionally glazed systems, for structurally glazed systems this is the minimum distance required to fit the hinge.
- The above table is for guidance only, please contact Cotswold for advice regarding specific hardware specifications.
- Two operating handles to be positioned centrally, one on each side unless agreed and specified by Cotswold on manually operated windows
- Opening distance is the movement measured from the closed position to the recommended open position for the type of operation stated.

Part Codes

Product	Description
PARUL11 17MM	11" PARALLEL ULTRA 17MM STACK HEIGHT (RH / LH) PAIR
PARUL11 21MM	11" PARALLEL ULTRA 21MM STACK HEIGHT (RH / LH) PAIR
PARUL18 17MM	18" PARALLEL ULTRA 17MM STACK HEIGHT (RH / LH) PAIR
PARUL18 21MM	18" PARALLEL ULTRA 21MM STACK HEIGHT (RH / LH) PAIR
PARUL36 17MM	36" PARALLEL ULTRA 17MM STACK HEIGHT (RH / LH) PAIR
PARUL36 21MM	36" PARALLEL ULTRA 21MM STACK HEIGHT (RH / LH) PAIR



Optimum Performance Tested to last



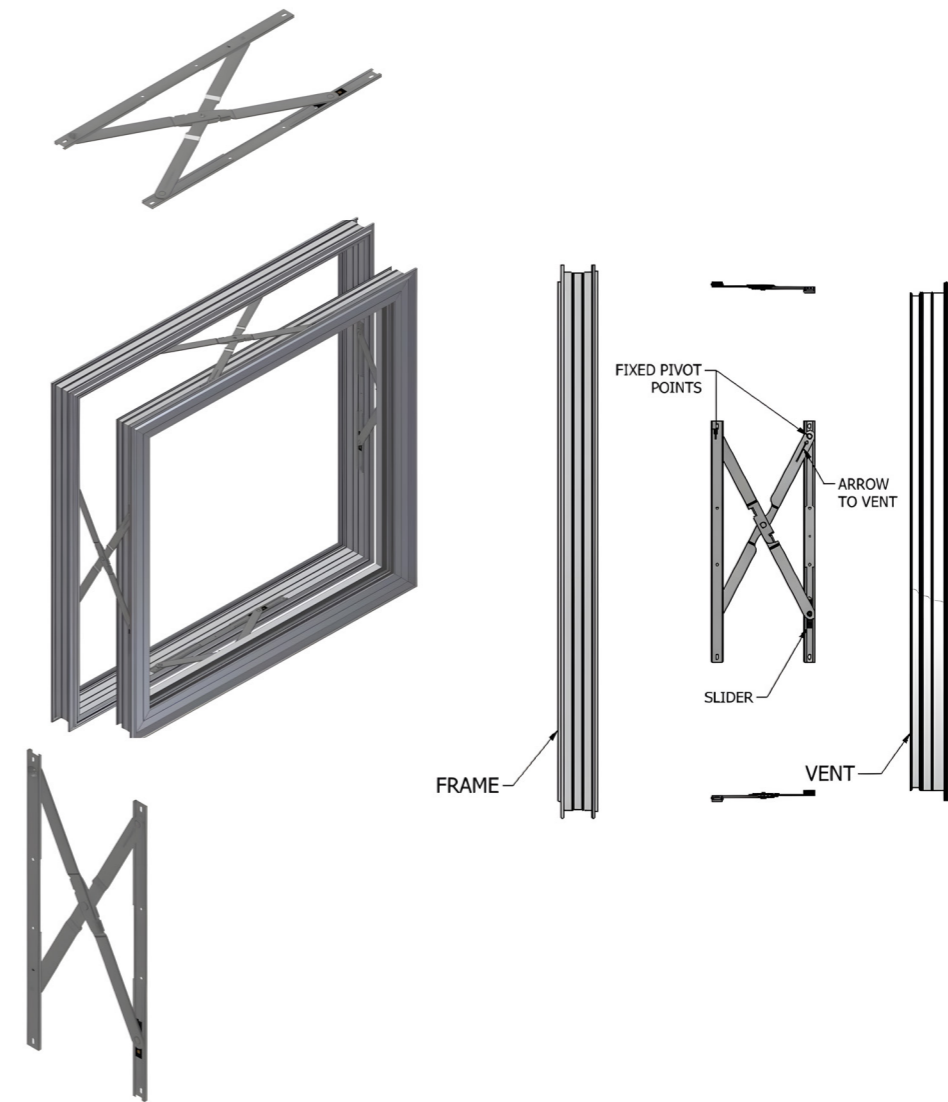
- BBA certified.
- Tested to operate for 25,000 cycles
- Manufactured from high grade Austenitic Stainless Steel for enhanced corrosion resistance. Tested to Grade 5 (480 hours) exposure in accordance with BS EN 1670:2007.

Note: For larger or heavier sashes, all sash fixings should pick up reinforcement to ensure consistent performance.

It is the responsibility of the window manufacturer to ensure that the finished window meets the required safety and performance specifications.

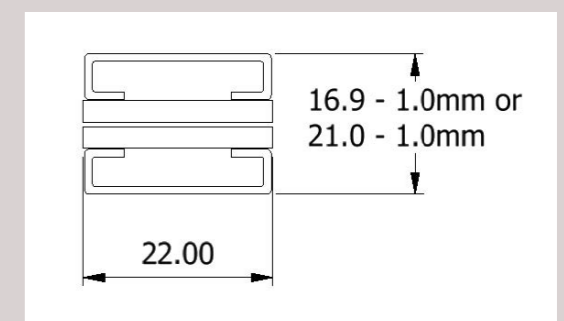
Hardware Layout

- The side mounted hinges should be fitted with the fixed pivots to the top and the Fixed pivot of the split arm should be to the inside, as shown on the next page.
- Check that the sash and frame profiles used are compatible with Cotswold Parallel Stays, and in particular that the sash/frame clearance is between 16.9mm—1.0mm or 21.0mm— 1.0mm
- Establish the position of the vertical axis along which the parallel stay will be positioned, so as to ensure the correct alignment of the sash when closed. This depends on the type of profile used.
- Based on the dimensions (height and width in mm) and weight (kgs) of the sash, establish the configuration you require from the selection guide found in the Specification Sheets section in this manual.
- In the event of sash dimensions and weights being at the upper limit, select the superior size. Never fit any stays to a sash if dimensions and weights are beyond the recommended maximums.
- On manually operated vents use the two operating handles mounted centrally on the vertical sides of the vent, max width should be determined by practicality and ease of use. Otherwise contact Cotswold.
- Parallel hinges do not provide weather sealing, if the window is manually operated this should be provided by a separate perimeter lock. If the window is motor operated this can be provided by either the motors or a synchronized motor operating a separate perimeter lock.



Fitting Instructions Position and Clearances

- The parallel stays are designed to be fitted between two flat and parallel rigid faces that conform to the measurements shown below.
- Each stay should be fitted with the vent track parallel to the vent profile and the frame track parallel to the frame profile.
- Any sash and frame up stands must be within the maximum dimensions shown below.



Installation

Parallel Stays

- All Frame fixing holes should be pre-drilled, referring to the screw hole positions on the specifications sheets. Where adjustment of the vent is required, only the vent fixings corresponding to the slotted screw holes should be re-drilled. Otherwise all vent fixings should be pre-drilled.
- Offer the hinges up to the frame and fit all fixing screws. On the side mounted hinges the fixed pivots must be to the top of the hinge and the sliding pivots to the bottom of the hinge.
- If the vent requires adjustment loosen the fixing screws on the vent and/or frame and reposition the vent as required. When the position of the vent is correct, spot through the final fixing holes and fit the remaining screws, if not previously pre-drilled.

Fixing Screws

- Use 4.8mm diameter pan head screws for fixing vent track and frame track on all Parallel hinges.
- When installing hinges the following points should be adhered to:
- All hinge fixings should go through sufficient profile thickness or into screw channels.
- Screw manufacturer's recommendations must be adhered to at all times and if any instructions are supplied by window system manufacturer's/suppliers, it is important they are followed.
- Extreme care must be taken not to strip the thread as deterioration in performance will result.

Note: It is the responsibility of the window manufacturer to ensure that all the fixings screws have adequate strength to support the weight of the sash and the forces exerted upon it over the full life of the window.

Performance & Maintenance

Maintenance and Lubrication

As with most mechanical devices, hinges require periodic maintenance and lubrication. The hinge in general and particularly the pivots, sliding parts and track must be kept free from dirt, debris and any other obstructions at all times.

At the time of installation, lubricate all pivot points with general light engineering oil and wipe away any excess. One drop per pivot is sufficient.

Twice yearly carry out the following checks:

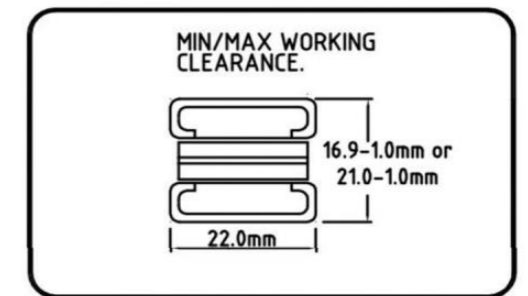
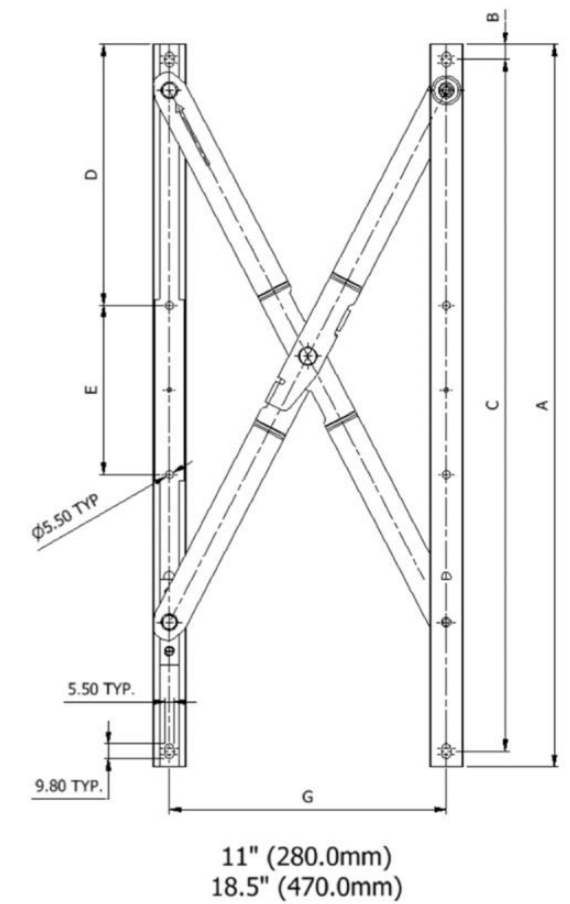
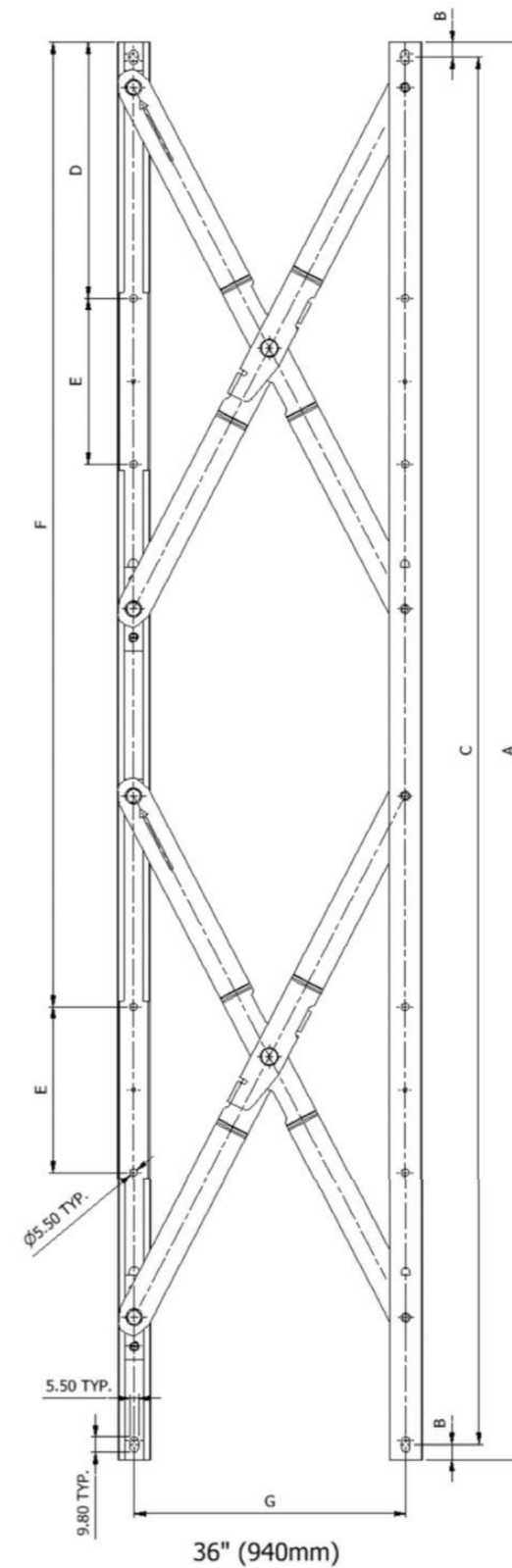
- Clean any dirt or debris from the hinge and clear any obstructions from the pivots, sliding parts and track.
- Apply lubrication as detailed above.
- Check the tightness and security of all fixing screws and rivets.

Hinge Operating Life

To attain optimum life all criteria listed above under environmental constraints, vent size weights and maintenance and lubrication must be adhered to.

Parallel hinges will function for at least 25,000 cycles under normal conditions of use. This performance is subject to compliance with Cotswold installation and maintenance instructions.

Specifications



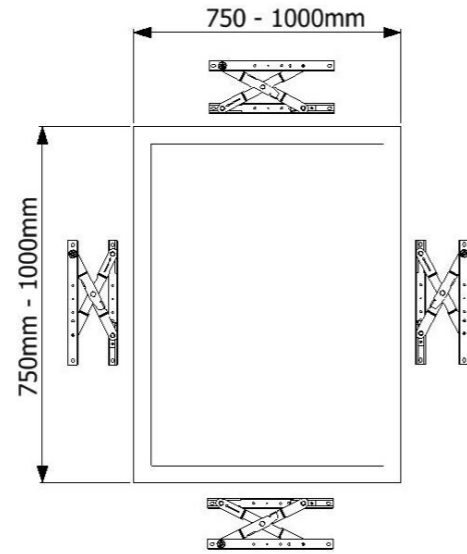
It is the responsibility of the window manufacturer to ensure that the finished window meets the required safety and performance specifications.

Specifications

Single Ultra Stay Parallel

Maximum vent weight manual operations is: 100kg

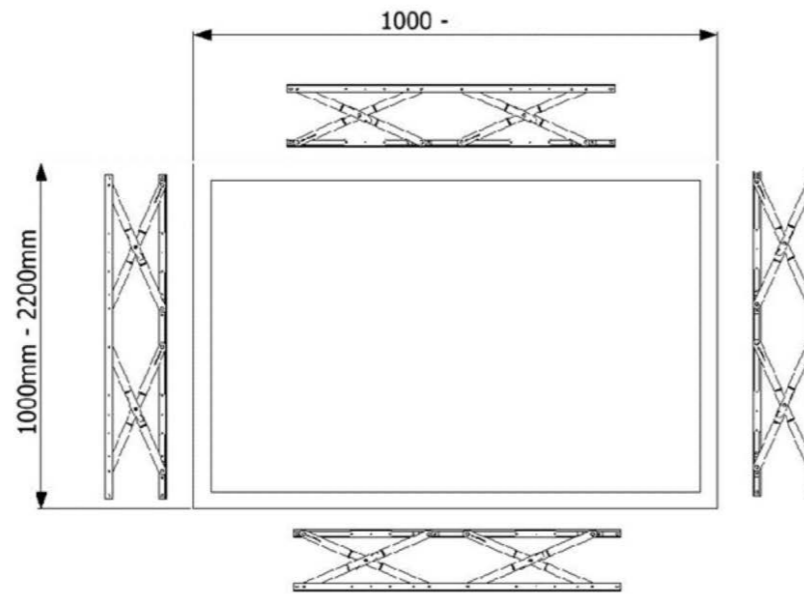
For manual operation 2 handles central at the sides - for optimum performance



Dual Ultra Stay Parallel

Maximum vent weight manual operations is: 100kg

For manual operation 2 handles central at the sides - for optimum performance



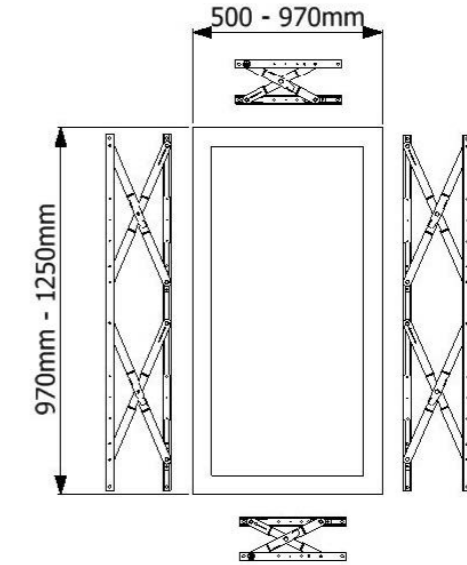
Combination of Ultra Stay Parallel

Maximum vent weight manual operations is: 100kg

200kg is achievable but operated by motors

For manual operation 2 handles central at the sides, **or** one handle central at bottom

***When using a combination of Ultra Stay Parallel the window opening will be limited to the smallest stay.**



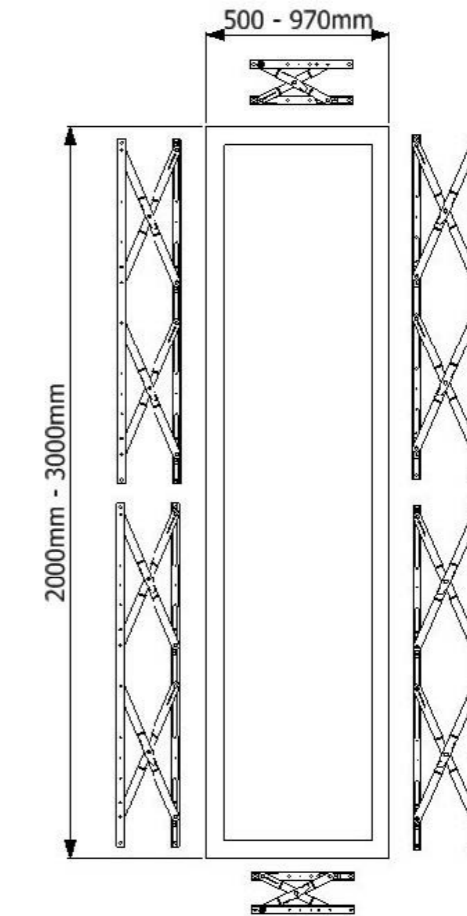
Combination of Ultra Stay Parallel

Maximum vent weight manual operations is: 100kg

200kg is achievable but operated by motors

For manual operation 2 handles central at the sides.

***When using a combination of Ultra Stay Parallel the window opening will be limited to the smallest stay.**



It is the responsibility of the window manufacturer to ensure that the finished window meets the required safety and performance specifications.

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Specifications

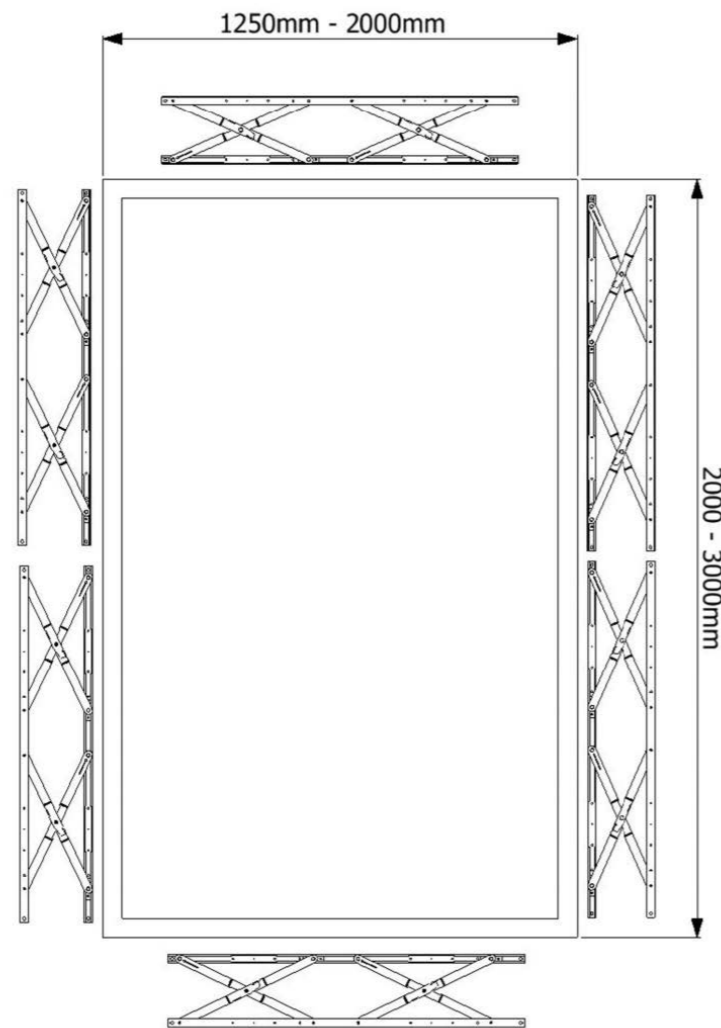
Heavy Duty

Maximum vent weight manual operations is: 100kg

200kg is achievable but operated by motors

For manual operation 2 handles central at the sides **or** for vents up to 200mm wide motorised operation only.

***When using a combination of Ultra Stay Parallel the window opening will be limited to the smallest stay.**

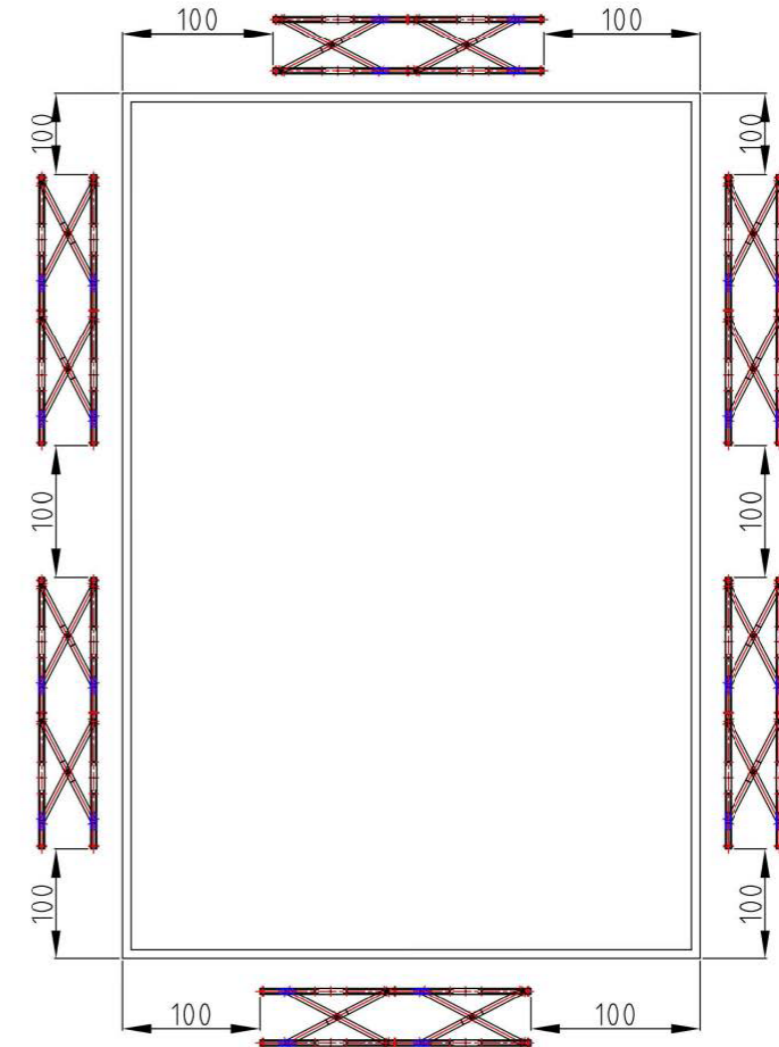


It is the responsibility of the window manufacturer to ensure that the finished window meets the required safety and performance specifications.

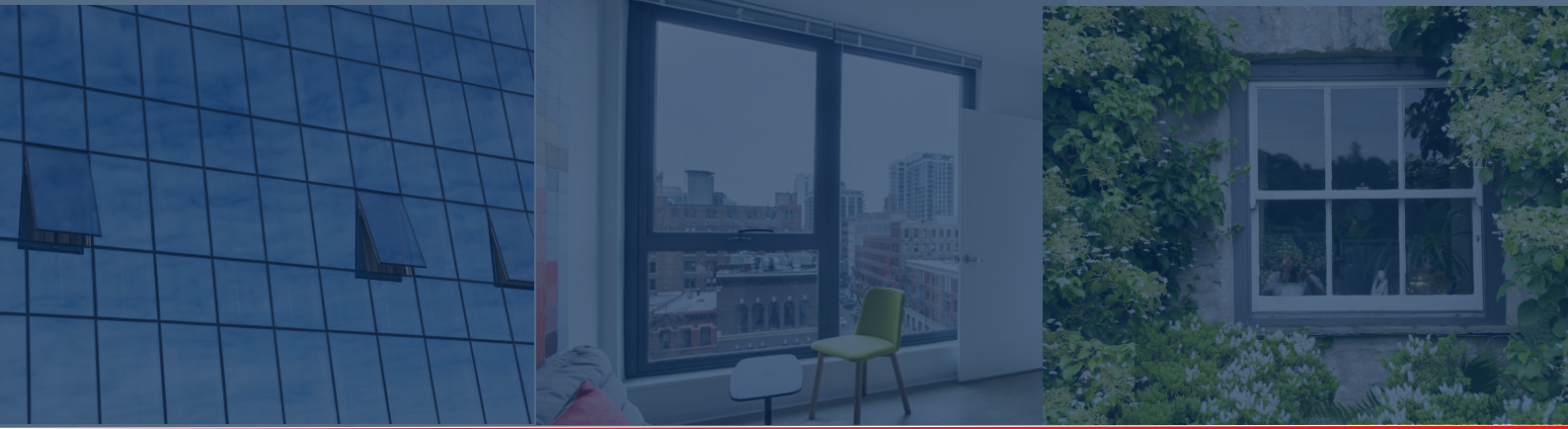
To achieve a multi-point locking Espag/Shoot bolt solution you will need to fit the parallel stays in the alternative position i.e. leaving the euro groove free for the lock mechanism to operate.

This will allow free movement of cams into keeps and provide excellent compression and security around the window.

Note: You may need to refer to your lock provider with regard to minimum spacing's required and also maximum sizes of locks available which will determine the maximum size of window possible.



It is the responsibility of the window manufacturer to ensure that the finished window meets the required safety and performance specifications.



www.cotswoldap.com

At Cotswold Architectural Products, every component is engineered for precision, durability, and strength. Trusted by professionals worldwide, we deliver performance you can rely on.

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