

PARALLEL STAY

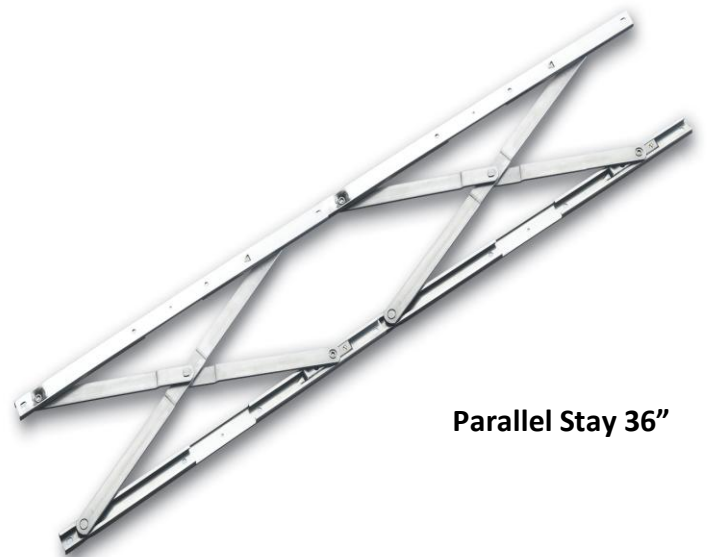
Parallel Opening Hinge for Commercial Applications

Cotswold parallel hinges provide natural ventilation whilst maintaining aesthetically pleasing sightlines for modern façade design.

- Parallel opening windows provide ultimate natural ventilation by allowing a balanced air flow around the entire opening
- Can be used for smoke evacuation vents
- Can be connected to a building management system as part of an automated solution for climate control
- Can be operated manually or using electric actuators
- Hinge mechanism is fully concealed when the sash is closed
- Tested to operate for 10,000 cycles
- Manufactured from high grade Austenitic stainless steel for maximum performance even in the most corrosive environment
- 10 year warranty

Applications

- A high performance parallel opening hinge range for curtain walled and structurally glazed buildings
- Used on commercial buildings and domestic dwellings



Parallel Stay 36"

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VENT SIZE AND WEIGHT CHART

Product Ref	Max Vent Weight (Kg)	Max Vent Height (mm)	Max Vent Width (mm)	Distance Opening (mm)	Cavity (mm)
PAR 18"	100kg	1000	1200	180	16.9-1.0mm or 21.0-1.0mm
PAR 36"	200kg	2000	2000	180	16.9-1.0mm or 21.0-1.0mm

Note: We recommend 4 parallel stays per window

Note: Vent height and width is measured from 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

Note: The above table is for guidance only; please contact Cotswold for advice regarding project specific hardware specifications.

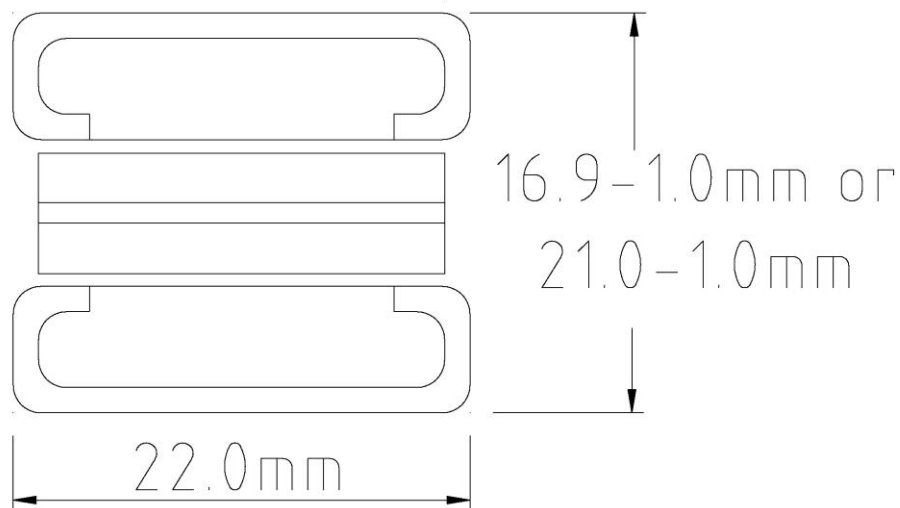
Note: Two operating handles to be positioned centrally, one on each vertical side unless otherwise agreed with and specified by Cotswold.

Note: Opening Distance is the movement measured from the closed position to the recommended open position for the type of operation stated

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



Hardware Layout

- The side mounted hinges should be fitted with the fixed pivots to the top.
- 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 – 1mm. If the clearance is 21mm-1.0mm, the 21mm version should be used.
- Establish the position of the vertical axis along which the arm 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 (kg) of the sash, establish the configuration you need for the type you want to make.
- In the event of sash dimensions and weights being at the upper limit, select the superior size. Never fit any stays to sash of dimensions and weights beyond the recommended maximums.
- On manually operated vents use two operating handles mounted centrally on the vertical sides of the vent if the vent does not exceed 1500mm wide. 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 synchronised motor operated separate perimeter lock.

Installation

Parallel Stays

- All frame fixing holes should be pre-drilled, referring to the screw hole position specifications sheets. Where adjustment of the vent is required, only the vent fixings corresponding to the slotted screw holes should be pre-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 loose 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 hole and fit remaining fixing 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 hinges 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 manufacturers/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 fixing 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 AND 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 obstructions at all times.

At time of installation, lubricate all pivot points with general light engineering oil and wipe away 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 operating 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 10,000 cycles under normal conditions of use. This performance is subject to compliance with Cotswold installation and maintenance instructions.



HEAVY DUTY PARALLEL STAY

Heavy-Duty Parallel Opening for enhanced performance with timber, Upvc and large section aluminum.

- Parallel opening windows provide 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 actuators
- Sash adjustment feature for use with heavier vents
- The Cotswold Parallel stay closes inline which allows for greater choice in profile section
- Hinge mechanism is fully concealed when the sash is closed
- Adjustable friction mechanism for controlling manually operated sashes
- Manufactured from high-grade Austenitic stainless steel for maximum longevity. Even in the most corrosive environments.
- Composite steel /plastic slider for strength, durability and smooth operation.
- Full technical and sales support which will cover consultancy per project basis and on-site advice when necessary

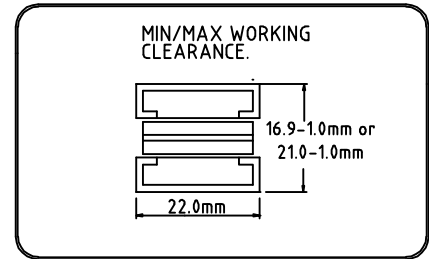
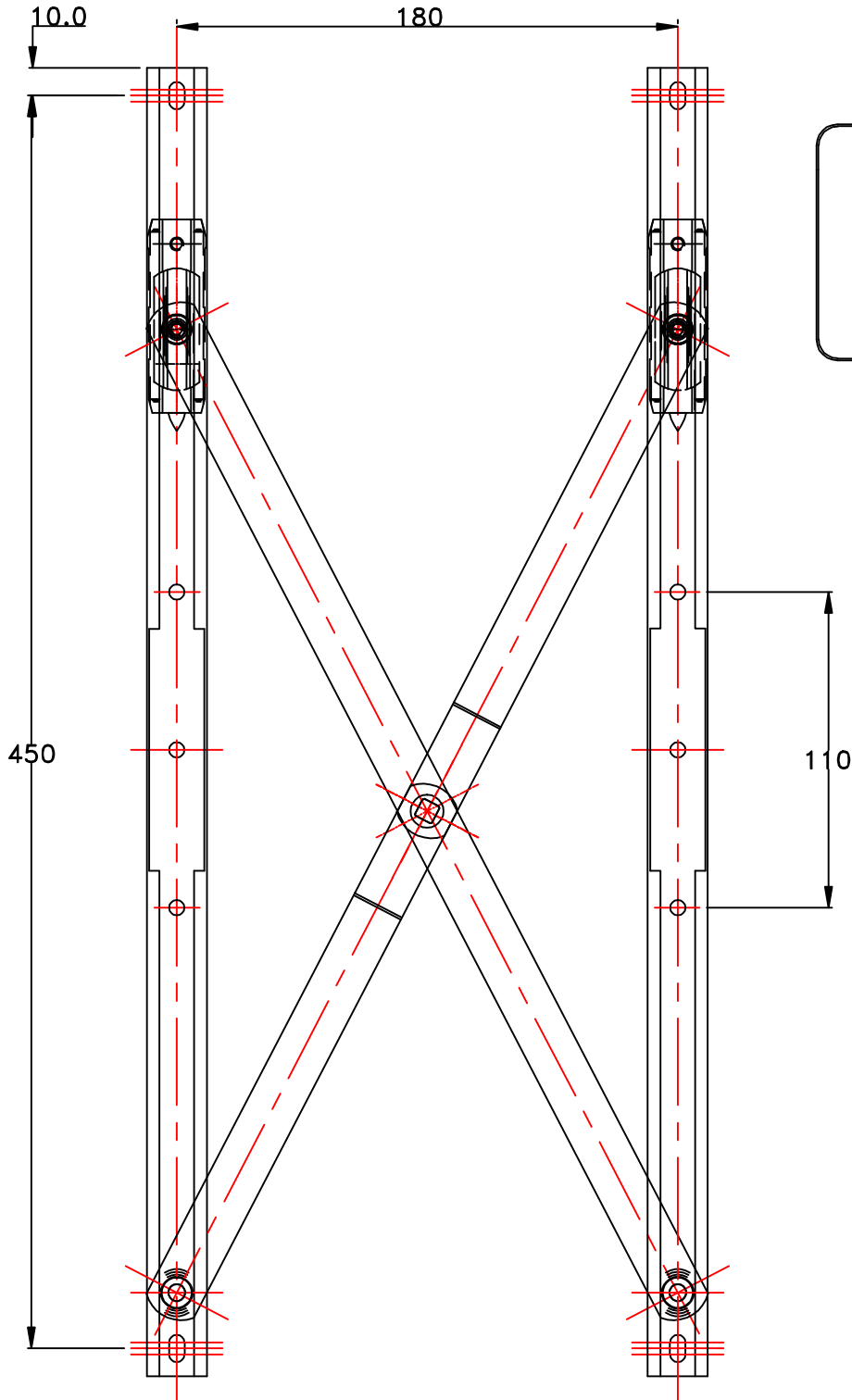
Note:- The Maximum weights and sizes below are based on the fitting of 2 pairs of Parallel stays
Larger sizes and weights are possible by increasing the number of hinges per window

Max Vent Weight (Kg)	Max Vent Height (mm)	Max Vent Width (mm)	Opening Distance (mm)	Cavity (mm)
100	970	970	180	16.9 -1.0mm or 21.0 -1.0mm

IT IS THE RESPONSIBILITY OF THE WINDOW MANUFACTURER TO ENSURE THAT THE FINISHED WINDOW MEET ANY REQUIRED SAFETY AND PERFORMANCE SPECIFICATIONS

PARALLEL STAY

ISSUE	E.C.N.	DATE	MOD. BY.
3	6604	16.09.10	B.J.B
4	6612	05.01.11	B.J.B



Technical Data for Heavy Duty Hinges

TOP HUNG	NORMAL SIZE	OPENING DISTANCE	MAX WEIGHT in Kg	VENT MAX. HEIGHT(mm)	VENT MAX. WIDTH(mm)	CAVITY(mm)
PARALLEL STAY	18.5" (470mm)	180mm	100kg	970	970	16.9-1.0 or 21-1.0mm

NOTE:- THE MAXIMUM WEIGHTS AND SIZES ARE BASED ON THE FITTING OF 2 PAIRS OF PARALLEL STAYS
LARGER SIZES AND WEIGHTS ARE POSSIBLE BY INCREASING THE NUMBER OF HINGES PER WINDOW

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		Date 29.09.08	DRG No. 80001587



HEAVY DUTY PARALLEL STAY

Heavy-Duty Parallel Opening for enhanced performance with timber, Upvc and large section aluminum.

- 36" Parallel opening windows provide 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 actuators
- Sash adjustment feature for use with heavier vents
- The Cotswold Parallel stay closes inline which allows for greater choice in profile section
- Hinge mechanism is fully concealed when the sash is closed
- Adjustable friction mechanism for controlling manually operated sashes
- Manufactured from high-grade Austenitic stainless steel for maximum longevity. Even in the most corrosive environments.
- Composite steel /plastic slider for strength, durability and smooth operation.
- Full technical and sales support which will cover consultancy per project basis and on-site advice when necessary

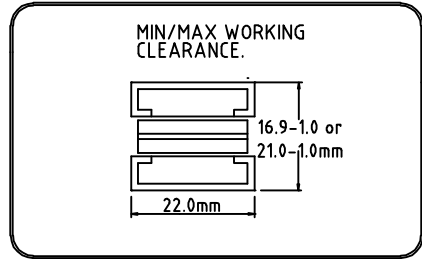
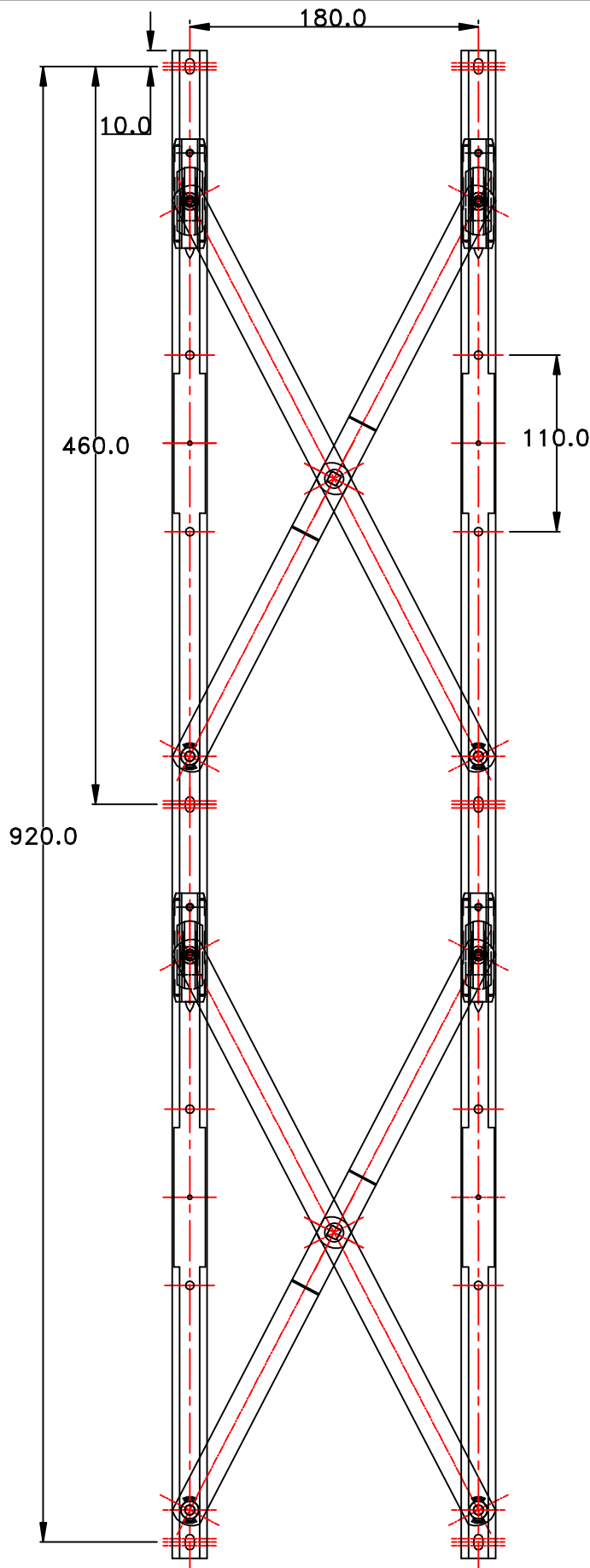
Note:- The Maximum weights and sizes below are based on the fitting of 2 pairs of Parallel stays
Larger sizes and weights are possible by increasing the number of hinges per window

Max Vent Weight (Kg)	Max Vent Height (mm)	Max Vent Width (mm)	Opening Distance (mm)	Cavity (mm)
200	1250	1250	180	16.9-1.0 or 21.0-1.0mm

IT IS THE RESPONSIBILITY OF THE WINDOW MANUFACTURER TO ENSURE THAT THE FINISHED WINDOW MEET ANY REQUIRED SAFETY AND PERFORMANCE SPECIFICATIONS

Cotswold Architectural Products Ltd. Manor Park Industrial Estate, Manor Road, Cheltenham, Gloucestershire, GL51 9SQ.
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DUAL PARALLEL STAY

TOP HUNG	PARALLEL STAY
NORMAL SIZE	37" (940mm)
OPENING DISTANCE	180mm
MAX WEIGHT in Kg	200kg
VENT MAX. HEIGHT(mm)	2000
VENT MAX. WIDTH(mm)	2000
CAVITY(mm)	16.9-1.0mm 21.0-1.0mm

NOTE:- THE MAXIMUM WEIGHTS AND SIZES ARE BASED ON THE FITTING OF 2 PAIRS OF PARALLEL STAYS
LARGER SIZES AND WEIGHTS ARE POSSIBLE BY INCREASING THE NUMBER OF HINGES PER WINDOW

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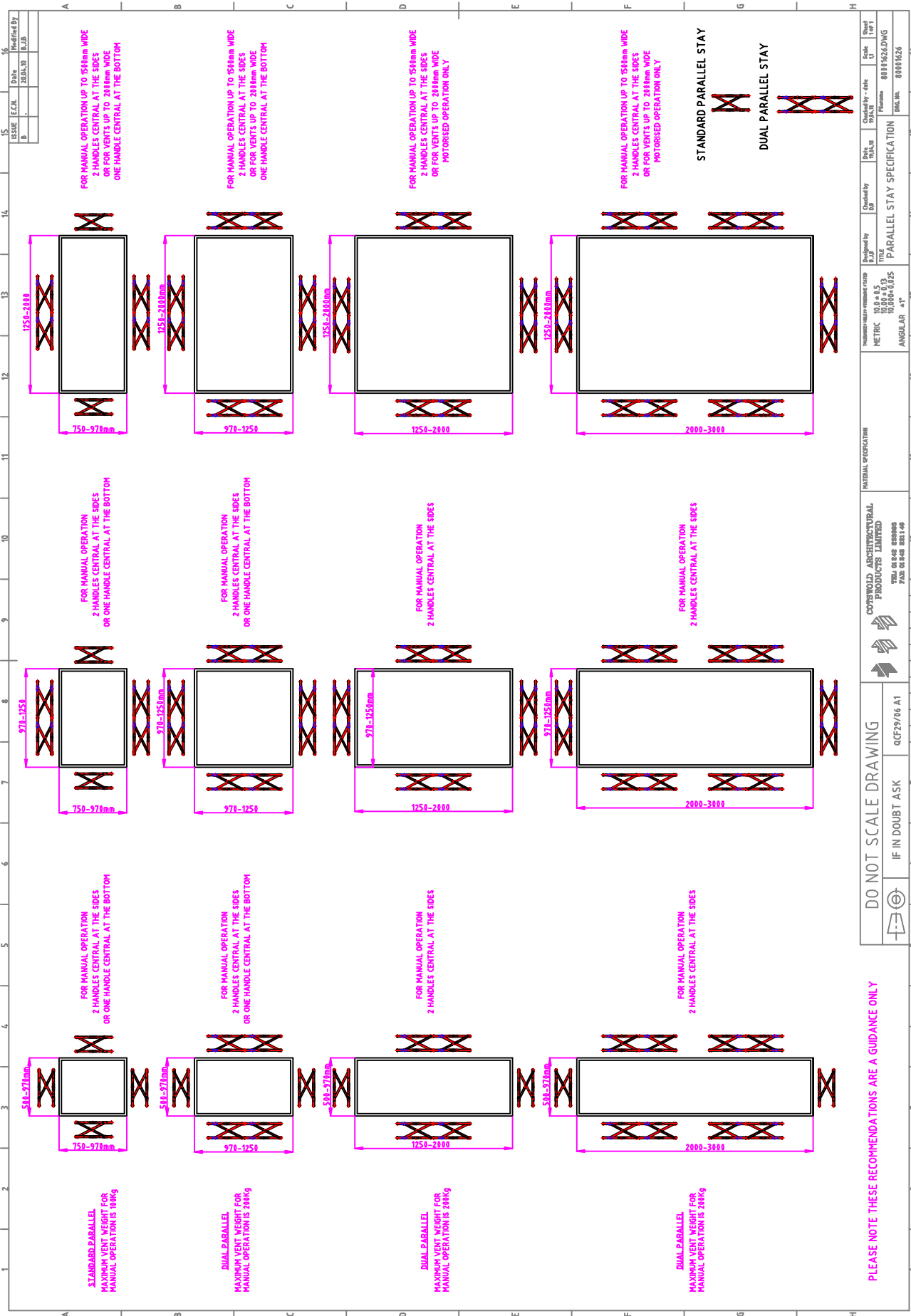
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REQUIRED SAFETY AND PERFORMANCE SPECIFICATIONS.

Designed by.
B.J.B

Date
3.02.10

Filename.
80001628.DWG

DRG No.
80001628



DO NOT SCALE DRAWING
IF IN DOUBT ASK

PLEASE NOTE THESE RECOMMENDATIONS ARE A GUIDANCE ONLY

<p>FOR MANUAL OPERATION 2 HANDLES CENTRAL AT THE SIDES OR ONE HANDLE CENTRAL AT THE BOTTOM</p>	<p>FOR MANUAL OPERATION 2 HANDLES CENTRAL AT THE SIDES OR ONE HANDLE CENTRAL AT THE BOTTOM</p>	<p>FOR MANUAL OPERATION 2 HANDLES CENTRAL AT THE SIDES</p>	<p>FOR MANUAL OPERATION 2 HANDLES CENTRAL AT THE SIDES</p>	<p>FOR MANUAL OPERATION UP TO 550mm WIDE 2 HANDLES CENTRAL AT THE SIDES OR FOR VENTS UP TO 200mm WIDE MOTORISED OPERATION ONLY</p>	<p>FOR MANUAL OPERATION UP TO 550mm WIDE 2 HANDLES CENTRAL AT THE SIDES OR FOR VENTS UP TO 200mm WIDE MOTORISED OPERATION ONLY</p>	<p>FOR MANUAL OPERATION UP TO 550mm WIDE 2 HANDLES CENTRAL AT THE SIDES OR FOR VENTS UP TO 200mm WIDE MOTORISED OPERATION ONLY</p>	<p>FOR MANUAL OPERATION UP TO 550mm WIDE 2 HANDLES CENTRAL AT THE SIDES OR FOR VENTS UP TO 200mm WIDE MOTORISED OPERATION ONLY</p>
<p>STANDARD PARALLEL MAXIMUM VENT WEIGHT FOR MANUAL OPERATION IS 200kg</p>	<p>DUAL PARALLEL MAXIMUM VENT WEIGHT FOR MANUAL OPERATION IS 200kg</p>	<p>DUAL PARALLEL MAXIMUM VENT WEIGHT FOR MANUAL OPERATION IS 200kg</p>	<p>DUAL PARALLEL MAXIMUM VENT WEIGHT FOR MANUAL OPERATION IS 200kg</p>	<p>STANDARD PARALLEL STAY DUAL PARALLEL STAY</p>	<p>STANDARD PARALLEL STAY DUAL PARALLEL STAY</p>	<p>STANDARD PARALLEL STAY DUAL PARALLEL STAY</p>	<p>STANDARD PARALLEL STAY DUAL PARALLEL STAY</p>

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<p>B</p>	<p></p>	<p>28.04.10</p>	<p>B.J.B</p>

<p>Checked by</p>	<p>Scale</p>	<p>Sheet</p>
<p>D.P.</p>	<p>A4</p>	<p>11</p>
<p>Checked by</p>	<p>Drawn</p>	<p>Scale</p>
<p>D.P.</p>	<p>B.J.B</p>	<p>A4</p>
<p>Checked by</p>	<p>Drawn</p>	<p>Scale</p>
<p>D.P.</p>	<p>B.J.B</p>	<p>A4</p>

<p>Material specification</p>	<p>Material specification</p>
<p>10.0 x 4.5</p>	<p>10.00 x 0.13</p>
<p>10.000 x 0.025</p>	<p>10.000 x 0.025</p>
<p>ANGULAR 45°</p>	<p>ANGULAR 45°</p>

<p>Manufacturer or supplier name</p>	<p>Manufacturer or supplier name</p>
<p>METRIC</p>	<p>METRIC</p>
<p>10.000 x 0.025</p>	<p>10.000 x 0.025</p>
<p>ANGULAR 45°</p>	<p>ANGULAR 45°</p>

<p>CONSWOLD ARCHITECTURAL PRODUCTS LIMITED</p>	<p>CONSWOLD ARCHITECTURAL PRODUCTS LIMITED</p>
<p>700-80-008 80000</p>	<p>700-80-008 80000</p>
<p>700-80-008 80000</p>	<p>700-80-008 80000</p>

<p>DO NOT SCALE DRAWING</p>	<p>IF IN DOUBT ASK</p>
<p>qCF79/06 A1</p>	<p>qCF79/06 A1</p>

<p>Checked by</p>	<p>Scale</p>	<p>Sheet</p>
<p>D.P.</p>	<p>A4</p>	<p>11</p>
<p>Checked by</p>	<p>Drawn</p>	<p>Scale</p>
<p>D.P.</p>	<p>B.J.B</p>	<p>A4</p>
<p>Checked by</p>	<p>Drawn</p>	<p>Scale</p>
<p>D.P.</p>	<p>B.J.B</p>	<p>A4</p>

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