

C2 RATED CYCLONE SYSTEM

Instruction and Certification Guide

www.cgdoors.com.au

Notes

Complete general assembly and installation of the Centurion Sectional Garage Door, Ensuring that:

1. Each panel is fitted with two wind struts with four tek screws to each connection point as outlined on page 2
2. That the jamb brackets are secured at maximum 600mm centres as outlined on page 3
3. That all structural fixings are as outlined on pages 4, 5, 6 and suitable for the given substrate.
4. Centre Bearing Bracket is installed clear of vertical stiles as outlined on page 7
5. Horizontal tracks are installed with the inclusion of the track reinforcement kit as outlined on page 8
6. Beam Brackets are installed at the required locations for the door width as outlined on page 9, 10, 11
7. Wind Beam components are installed and assembled as outlined on pages 12 - 17

Failure to observe and complete the installation in accordance with these details shall void any claim for warranty, replacement or otherwise and shall render the entire system as inadequate.

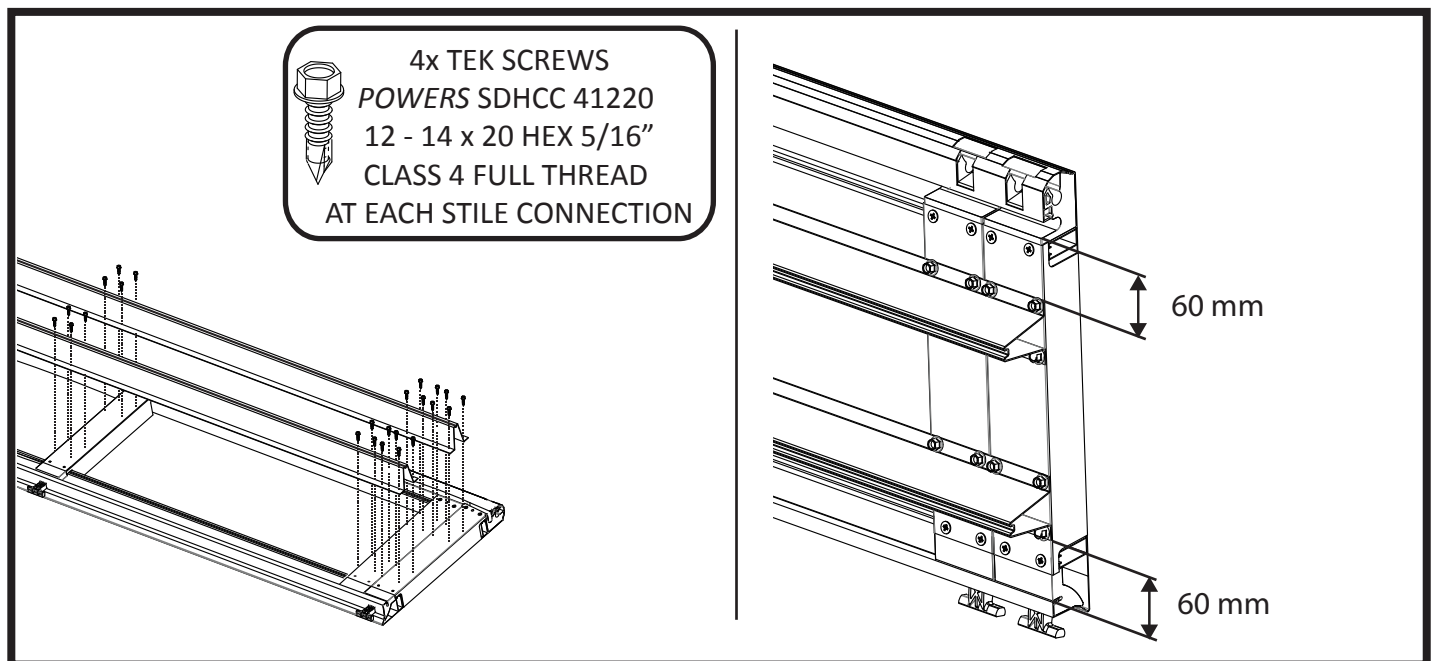
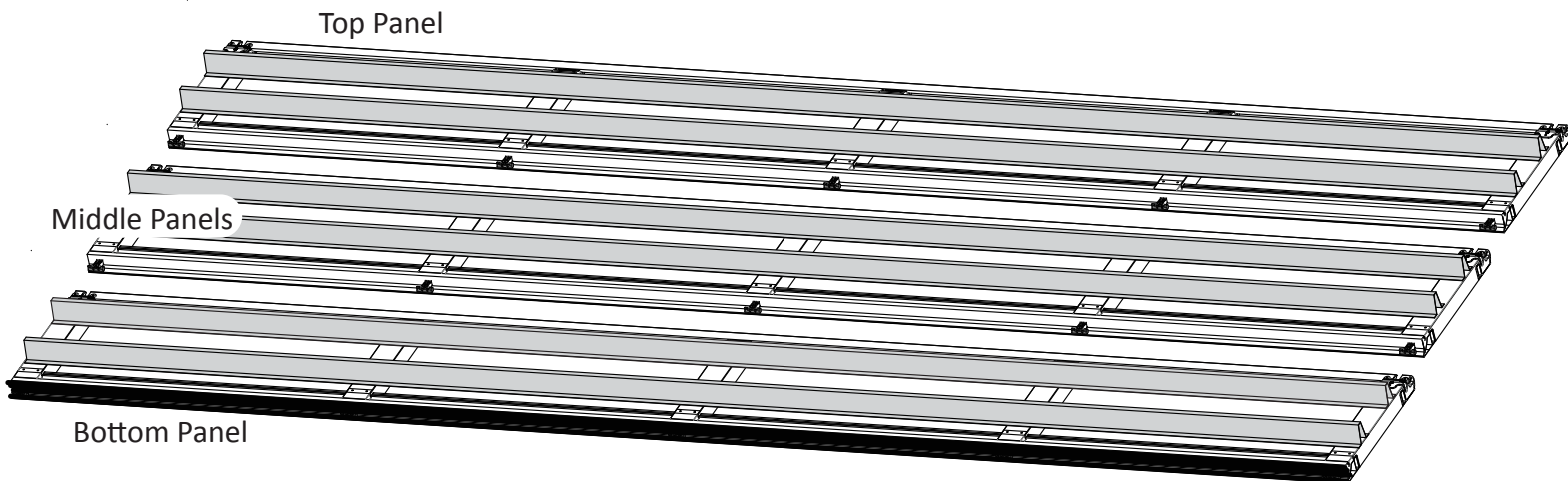
No modifications or alterations to the system are permitted under any circumstances.

If any doubt exists as to any matter referring to the system contact your local Centurion garage door representative or visit www.cgdoors.com.au

For additional information regarding the installation of C2 Safe garage doors, refer to C2 Safe Garage Door Installation Instructions available from Centurion Garage Doors

www.cgdoors.com.au

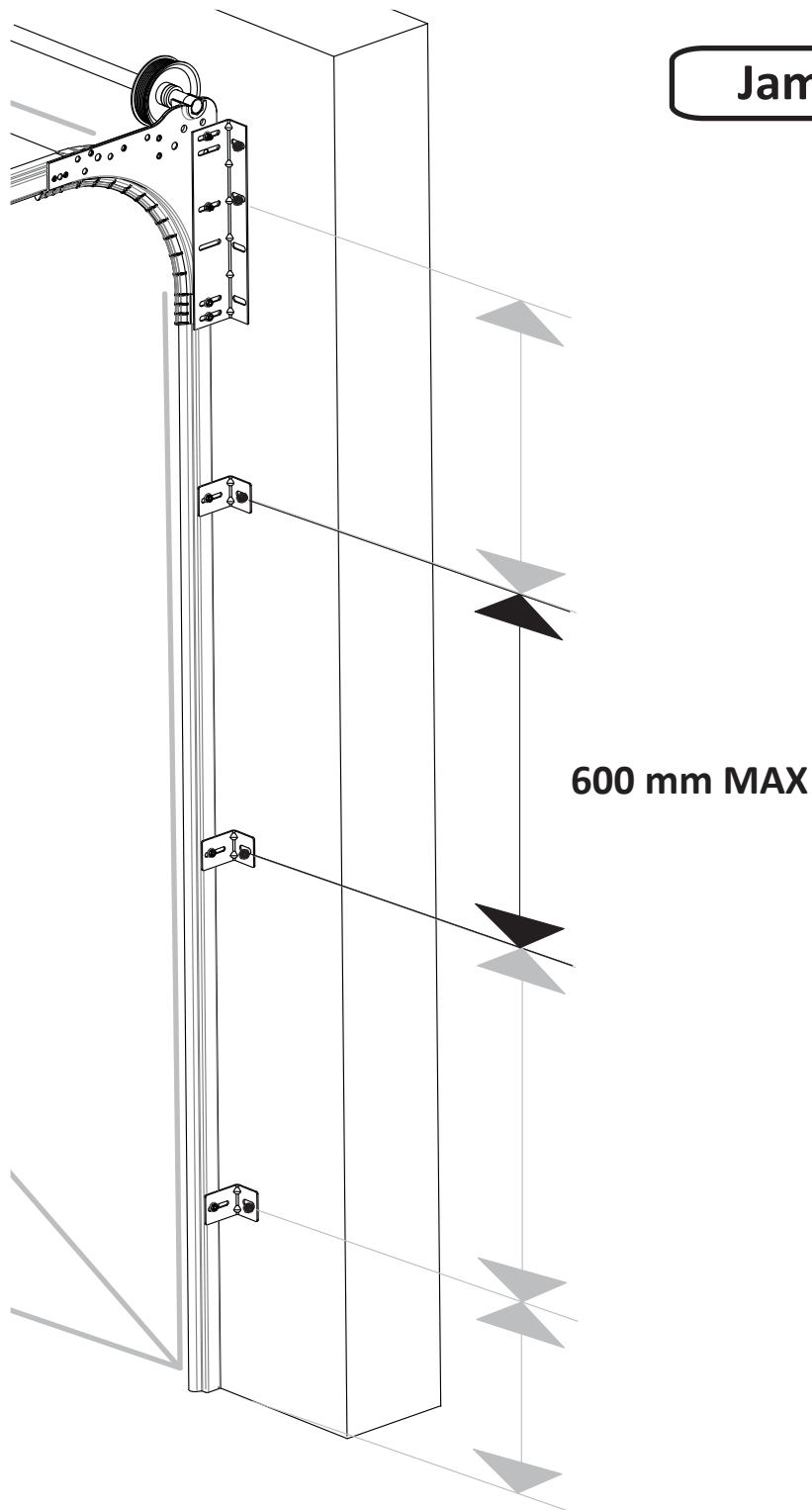
Wind Strut Fitment



**ENSURE TWO WIND STRUTS ARE INSTALLED TO EACH PANEL
WITH 4x TEK SCREWS *POWERS SDHCC 41220* 12 - 40 x 20 HEX 5/16"
CLASS 4 FULL THREAD AT EACH STILE CONNECTION**

This detail must be read and acknowledged in conjunction with the limitations and technical notes as outlined in this documentation.

Jamb Bracket Locations

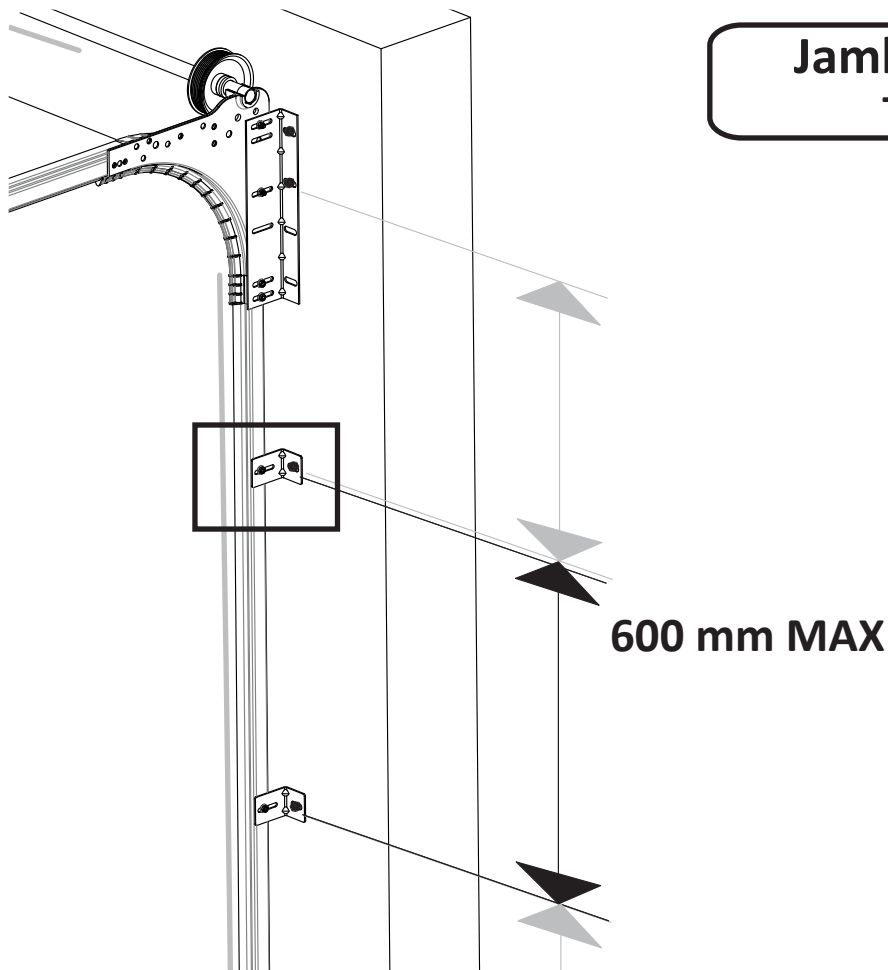


**ENSURE JAMB BRACKET SPACINGS DO NOT EXCEED
MAXIMUM 600 MM CENTRES**

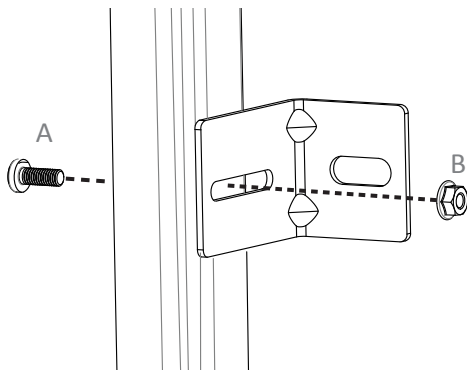
REFER TO FOLLOWING PAGES FOR FIXINGS TO SUBSTRATE DETAILS
IF ANY DOUBT EXISTS CONTACT *POWERS FASTENERS* OR
WWW.POWERS.COM.AU FOR FURTHER ADVICE

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limitations and technical notes as outlined in this documentation.

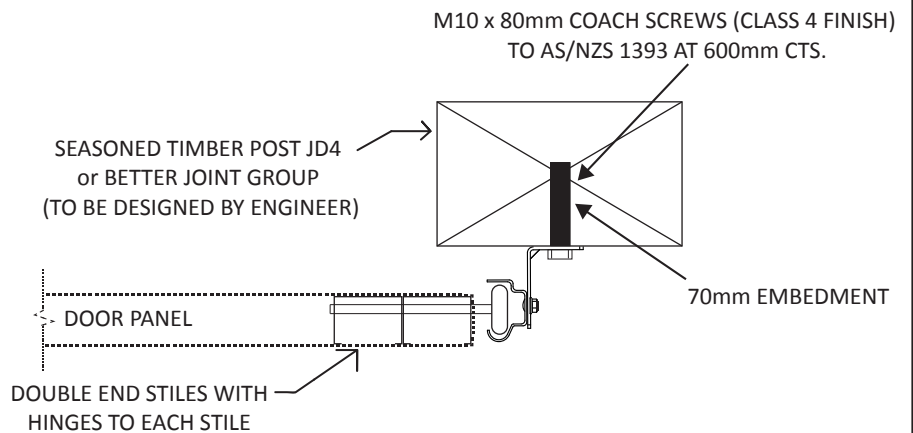
Jamb Bracket Fixings Timber Framing



600 mm MAX



AS PER STANDARD INSTALL



AS PER C2 - 04 TECHNICAL

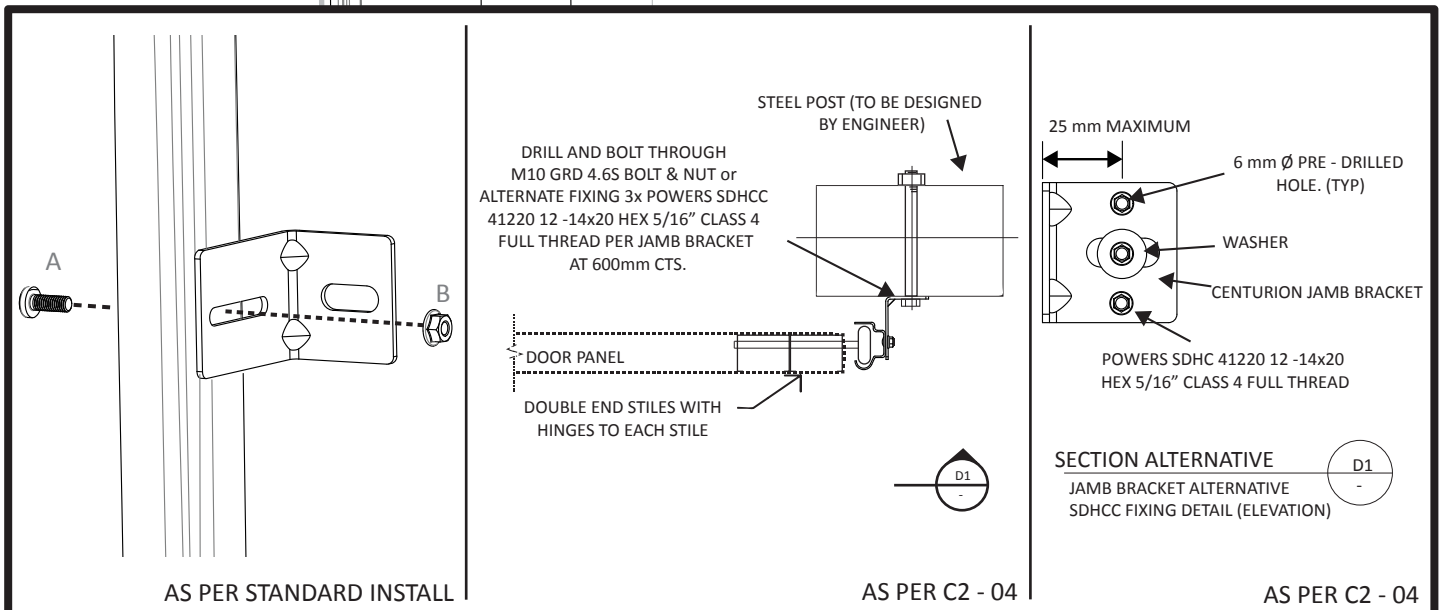
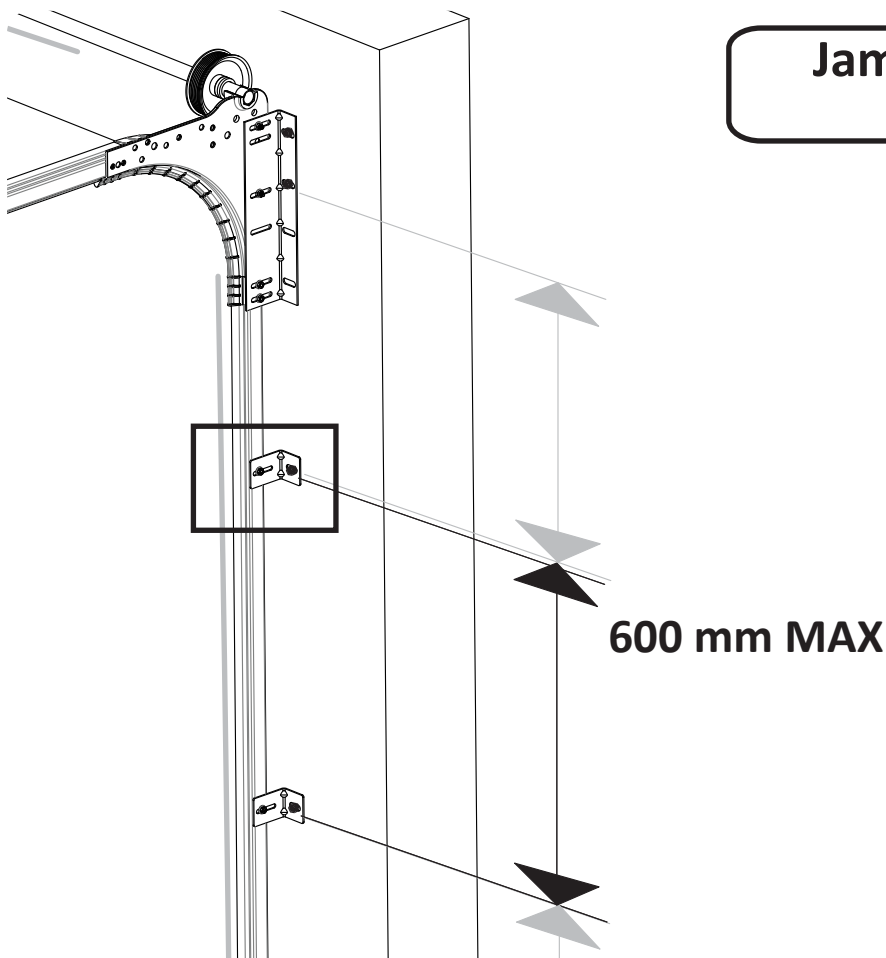


**ENSURE JAMB BRACKET TO WALL SPACINGS DO NOT EXCEED
MAXIMUM 600 MM CENTRES WITH RECOGNISED ANCHOR
TO SUIT SUBSTRATE**

REFER TO C2 SAFE TECHNICAL DRAWINGS FOR MORE INFORMATION REGARDING LOADINGS, DESIGN CRITERIA,
LIMITATIONS AND CERTIFICATION.

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Jamb Bracket Fixings Steel Framing

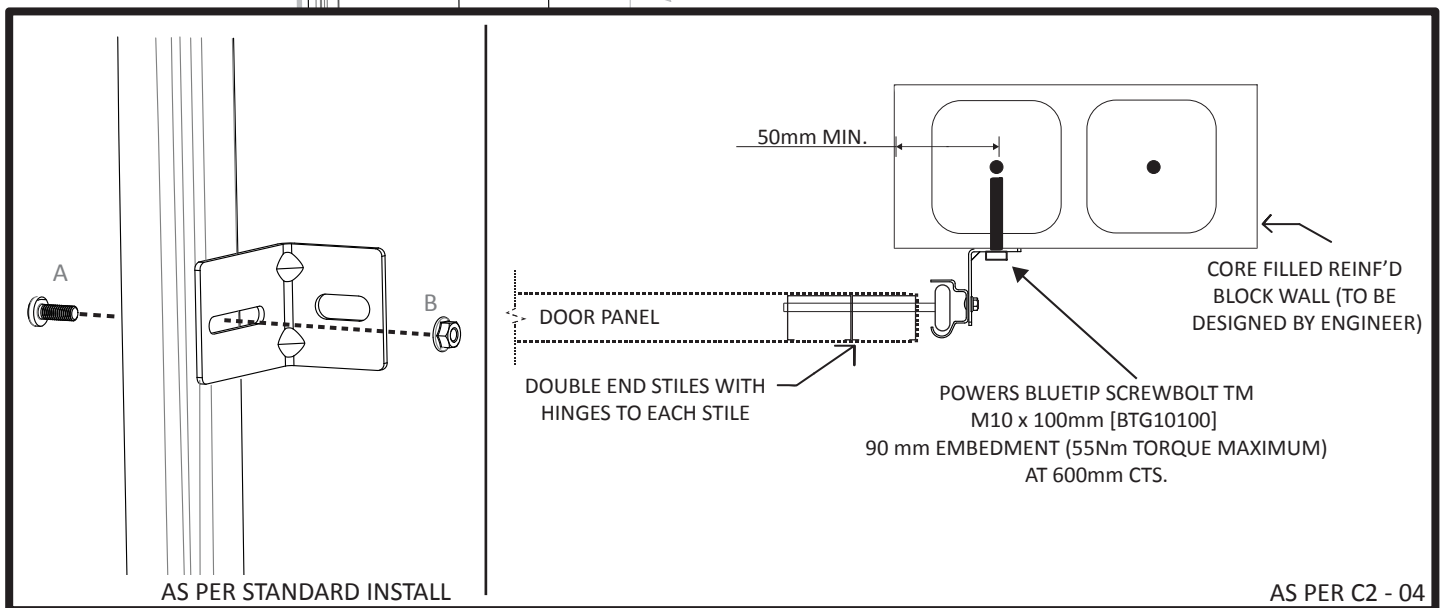
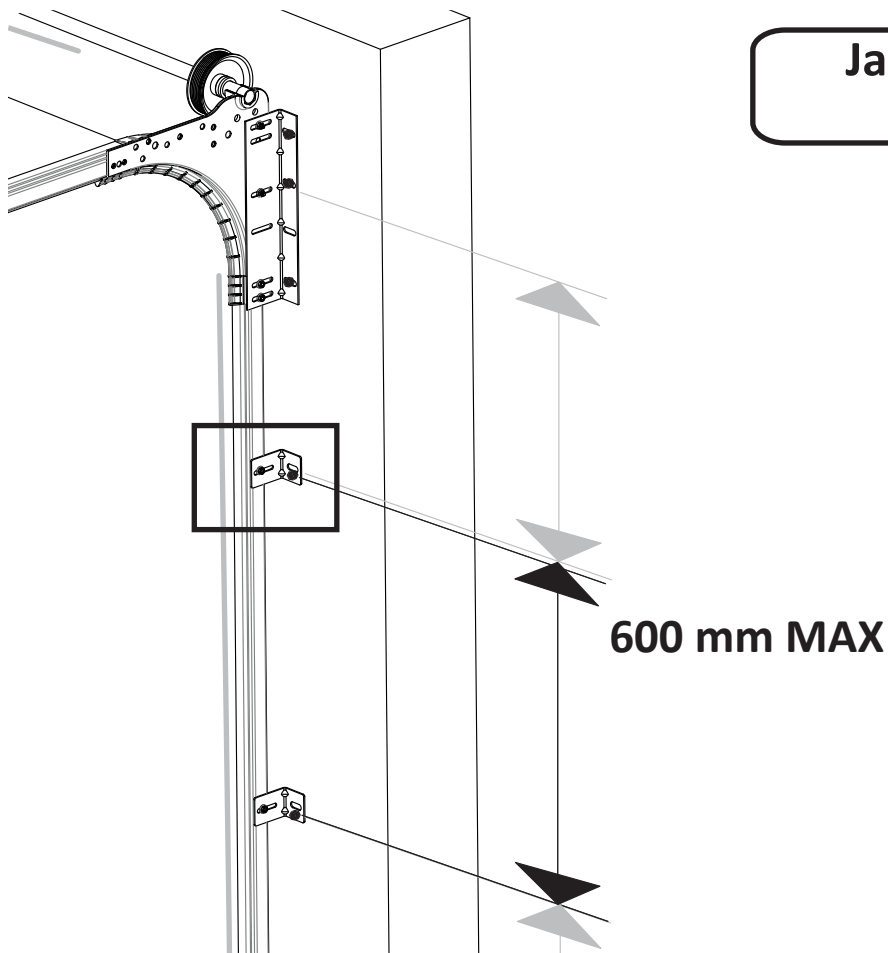


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Jamb Bracket Fixings Blockwork

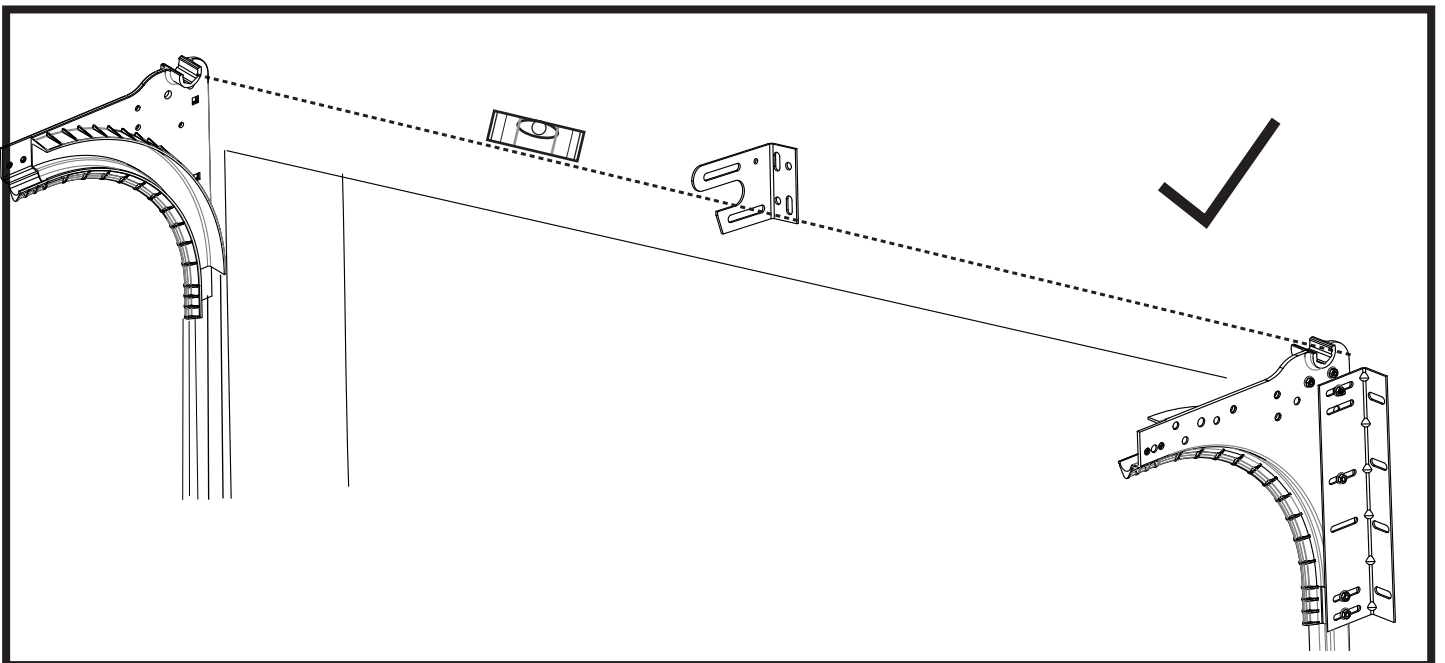
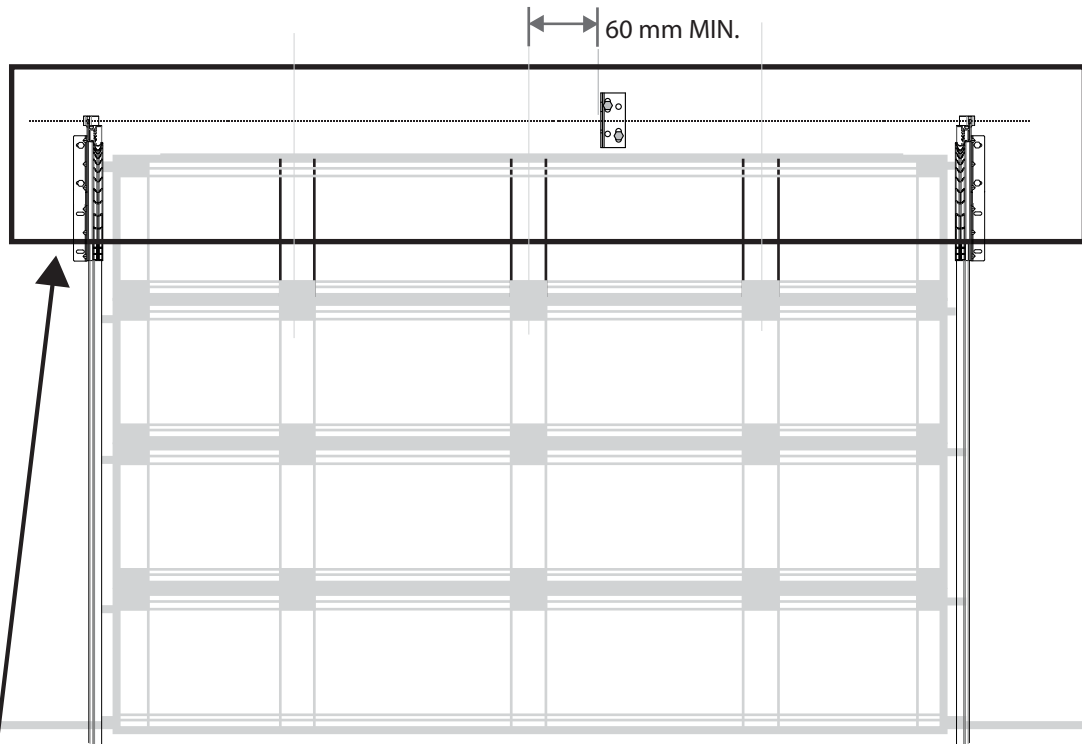


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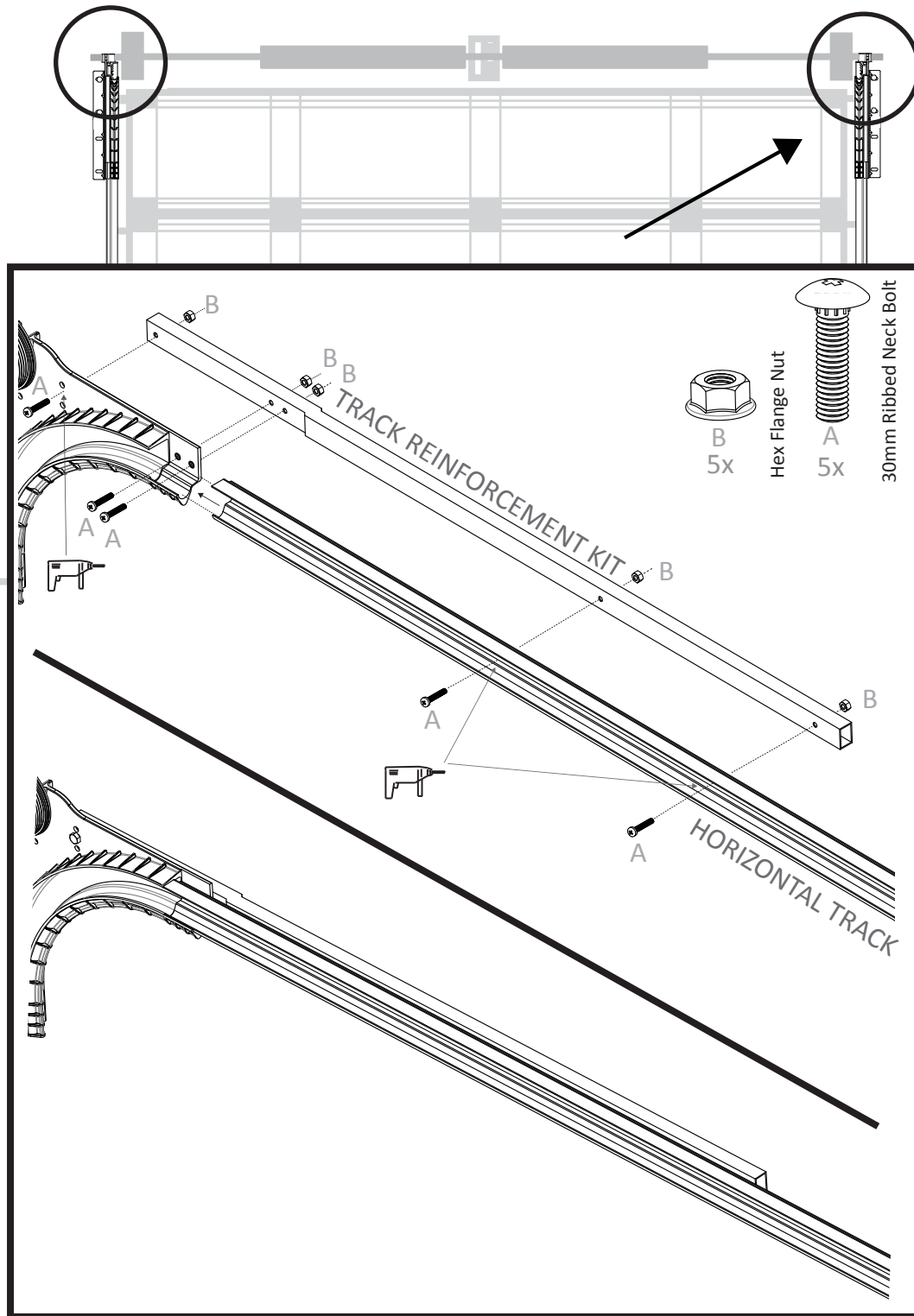
Centre Bearing Bracket Fitment



**CENTRE BEARING BRACKET TO BE INSTALLED CLEAR OF VERTICAL STILES
60 mm MINIMUM.**

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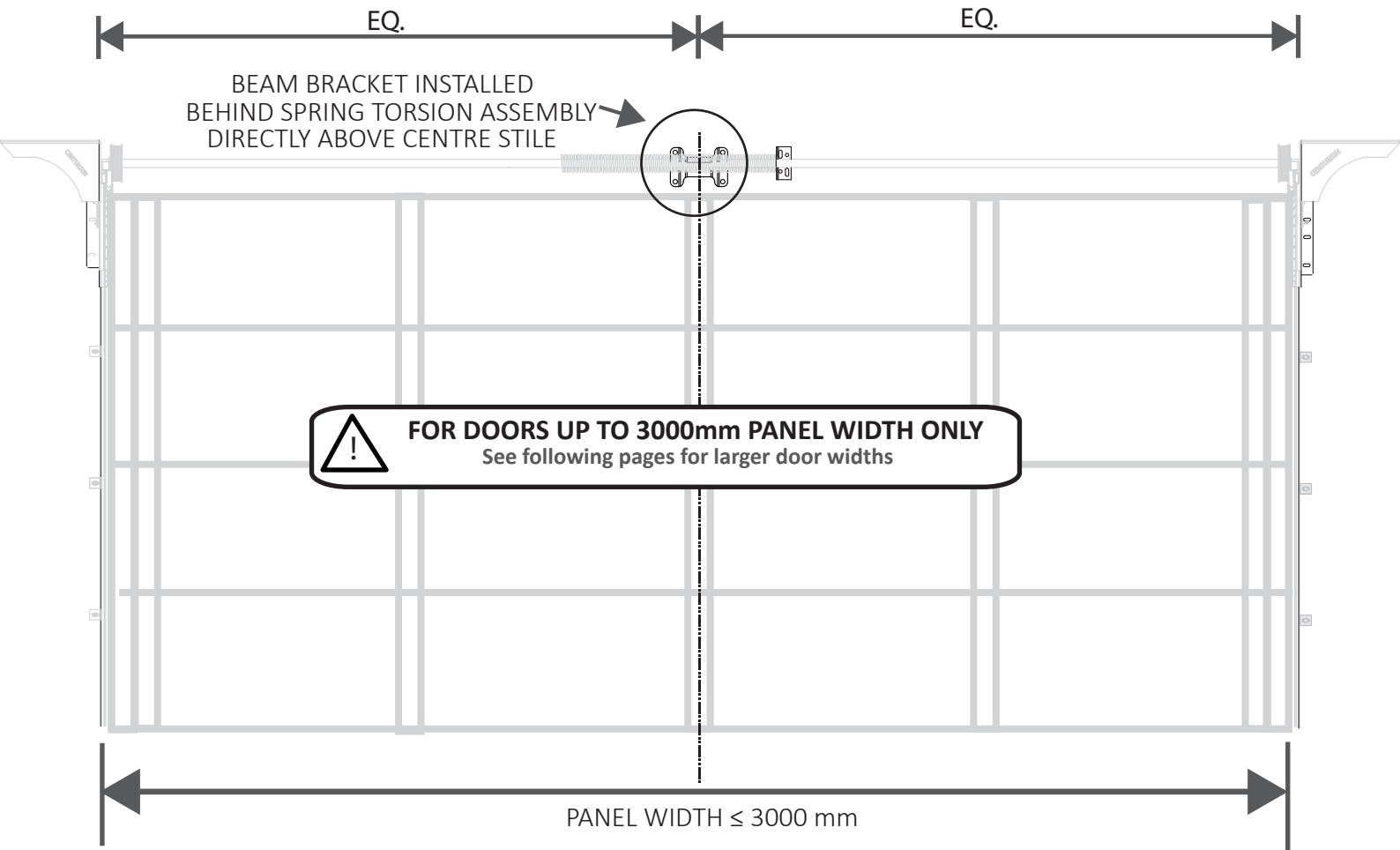
Horizontal Track Install



HORIZONTAL TRACKS TO BE INSTALLED WITH TRACK REINFORCEMENT KIT

This detail must be read and acknowledged in conjunction with the limitations and technical notes as outlined in this documentation.

Beam Bracket Fitment



<p>CENTURION BEAM BRACKET</p>	<p>FIXING TO TIMBER 4x M10 x 80mm COACH SCREWS (CLASS 4 FINISH)</p> <p>FIXING TO STEEL DRILL AND BOLT THROUGH 4x M10 GRD 4.6S BOLT & NUT OR 3mm FILLET WELD E48XX GP TO AS1554</p> <p>FIXING TO BLOCKWORK 4x POWERS BLUETIP SCREWBOLT TM M10 x 100mm [BTG10100]</p>	<p>CENTURION BEAM BRACKET</p> <p>SPRING TORSION ASSEMBLY</p> <p>70 mm MIN.</p> <p>TOP OF OPENING</p> <p>AS PER C2 - 04</p>
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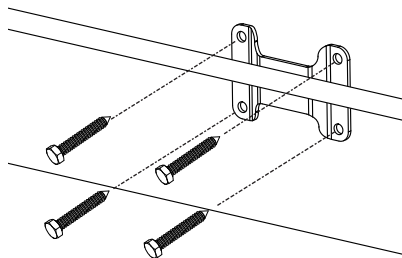
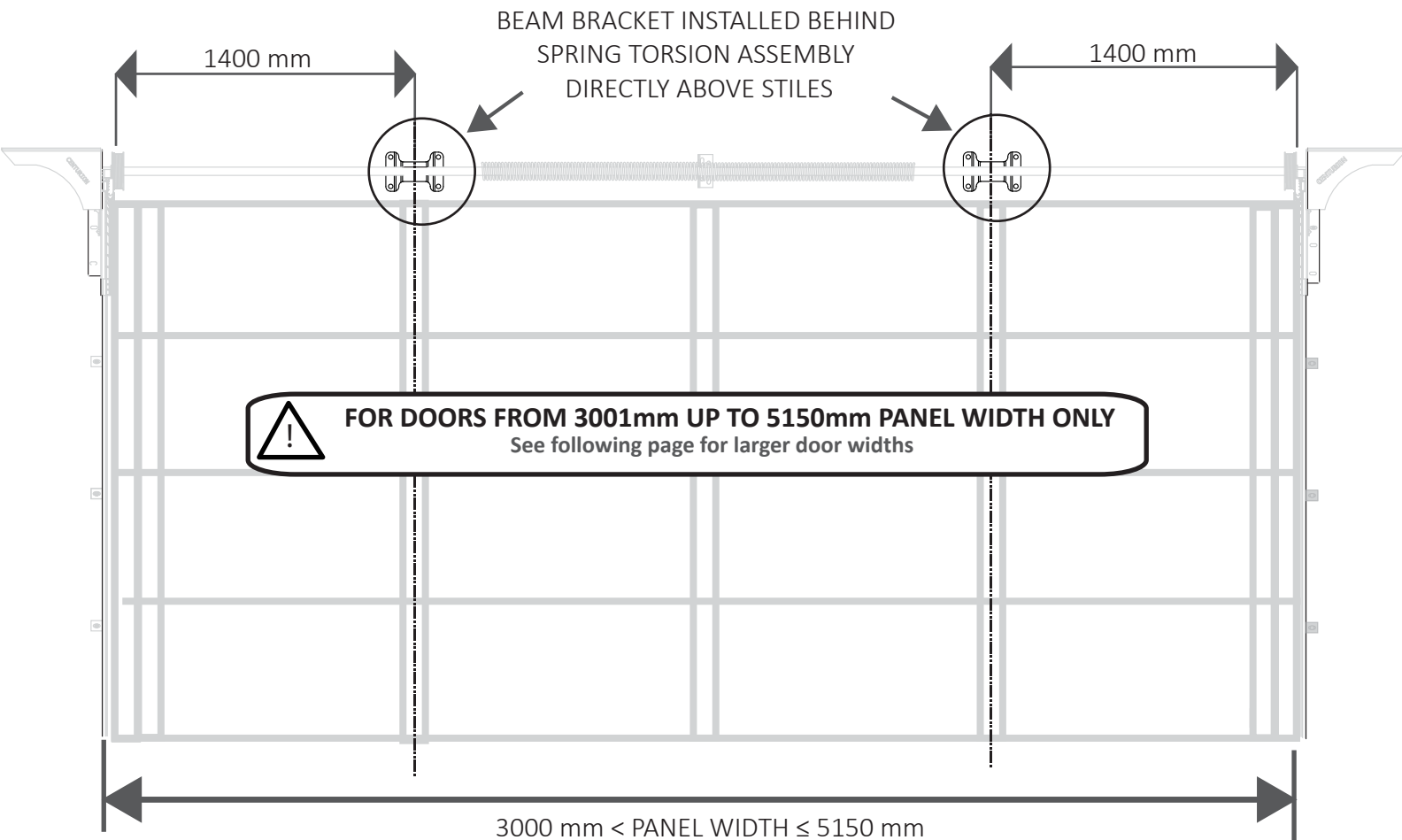


ENSURE FITMENT OF BEAM BRACKET TO LINTEL WITH RECOGNISED ANCHOR TO SUIT SUBSTRATE

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Beam Bracket Fitment



FIXING TO TIMBER

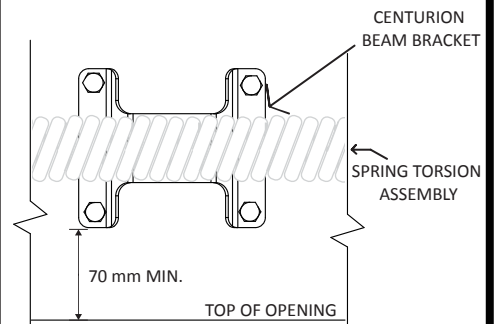
4x M10 x 80mm COACH SCREWS
(CLASS 4 FINISH)

FIXING TO STEEL

DRILL AND BOLT THROUGH 4x M10 GRD
4.6S BOLT & NUT OR 3mm FILLET
WELD E48XX GP TO AS1554

FIXING TO BLOCKWORK

4x POWERS BLUETIP SCREWBOLT TM
M10 x 100mm [BTG10100]



AS PER C2 - 04

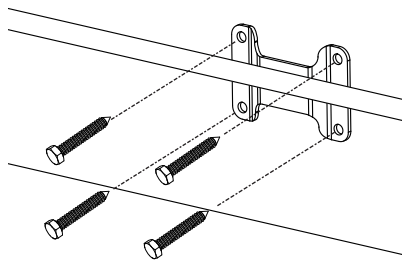
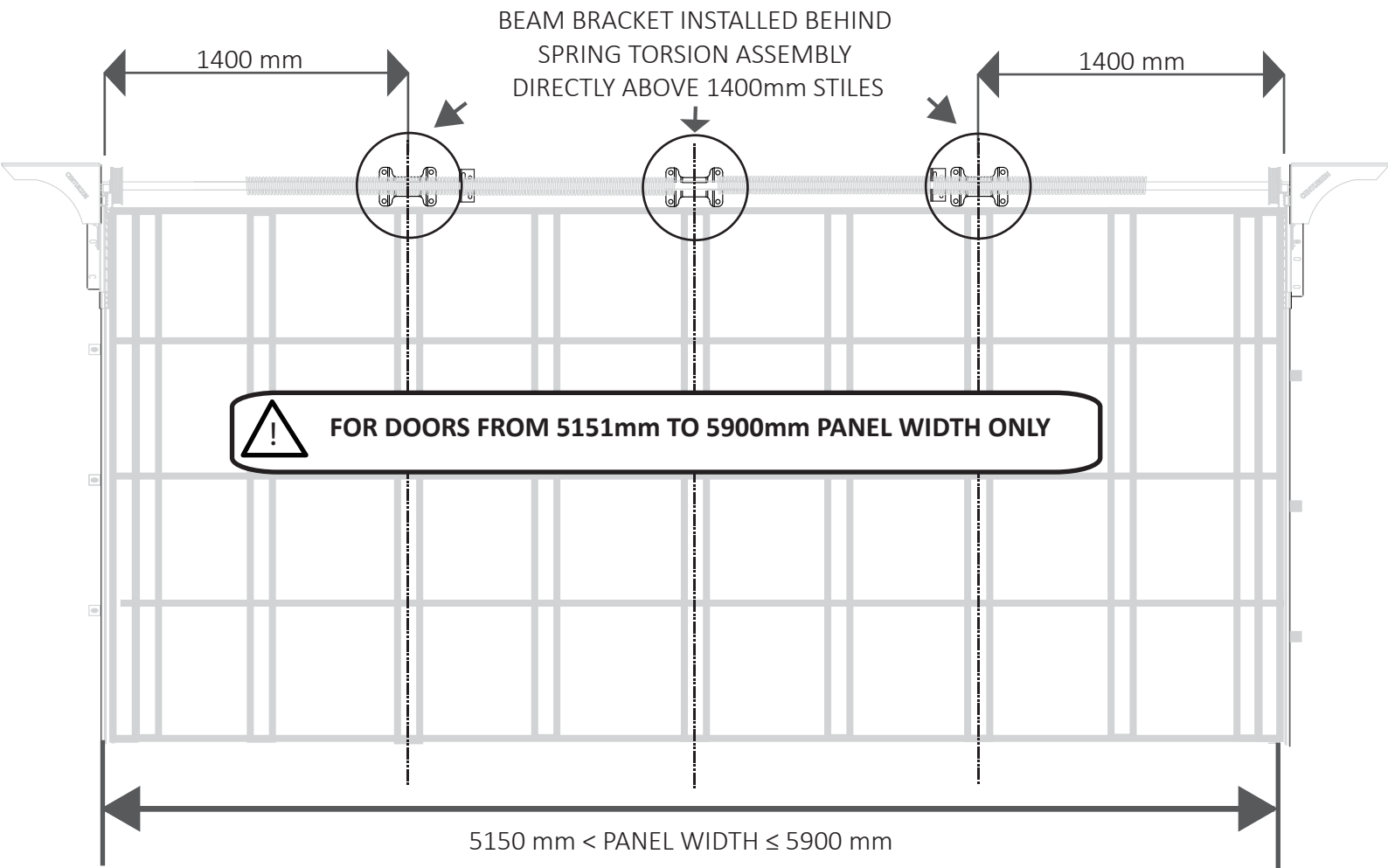


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Beam Bracket Fitment



FIXING TO TIMBER

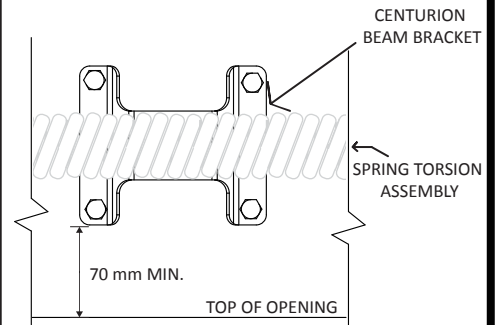
4x M10 x 80mm COACH SCREWS
(CLASS 4 FINISH)

FIXING TO STEEL

DRILL AND BOLT THROUGH 4x M10 GRD
4.6S BOLT & NUT OR 3mm FILLET
WELD E48XX GP TO AS1554

FIXING TO BLOCKWORK

4x POWERS BLUETIP SCREWBOLT TM
M10 x 100mm [BTG10100]



AS PER C2 - 04



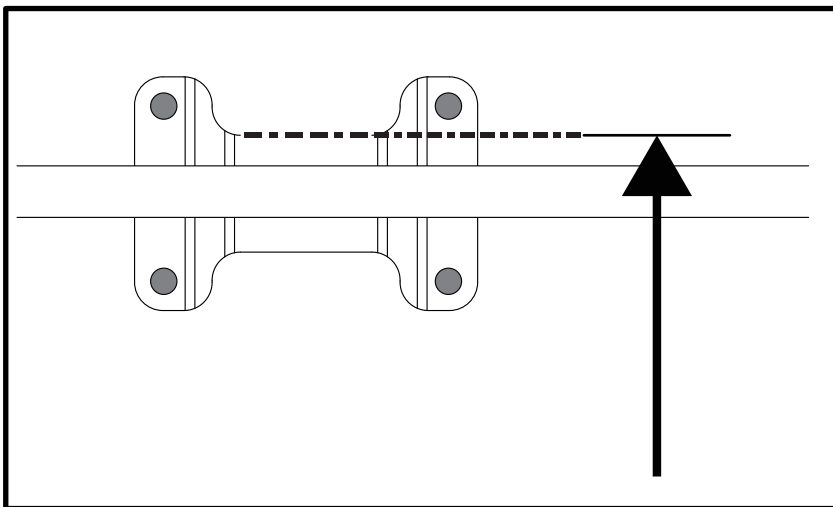
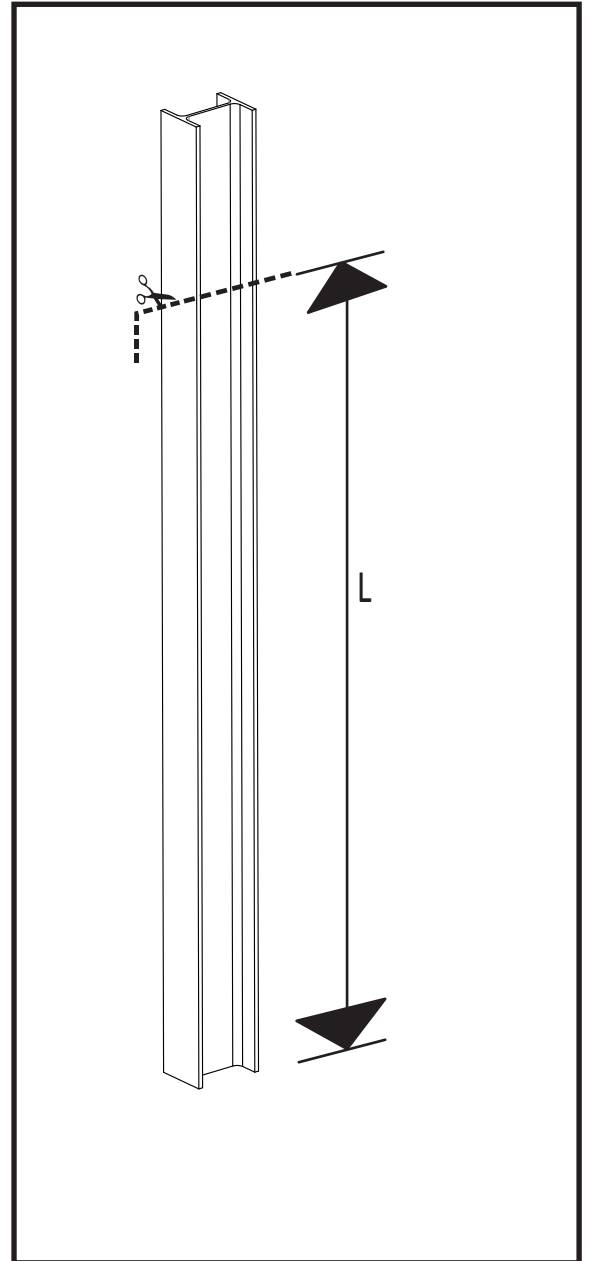
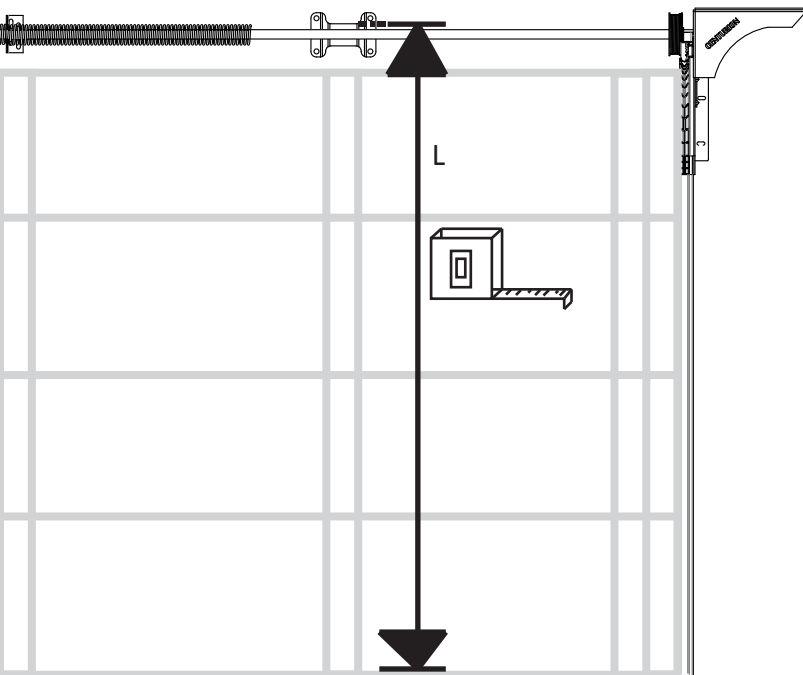
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ANCHOR TO SUIT SUBSTRATE**

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Wind Beam Cut Length

MEASURE FROM BEAM BRACKET TO FLOOR



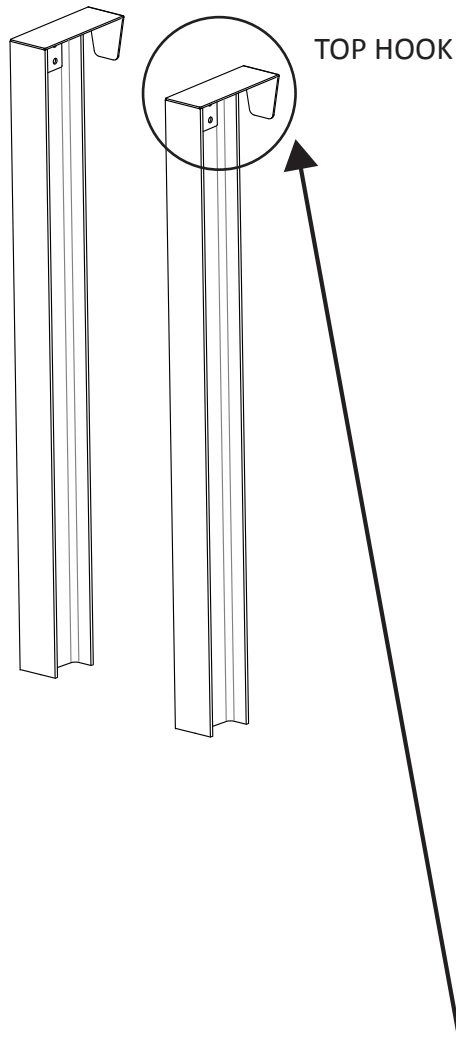
REPEAT FOR EACH BEAM USING APPROPRIATE ALUMINIUM CUTTING SAW BLADE



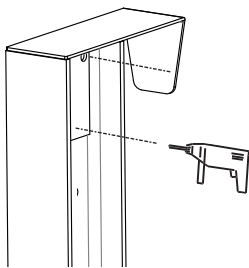
ENSURE CORRECT MEASUREMENT

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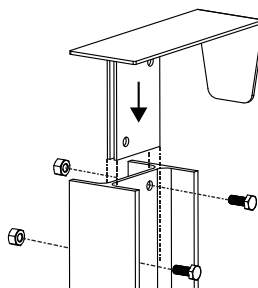
Beam Hook Assembly



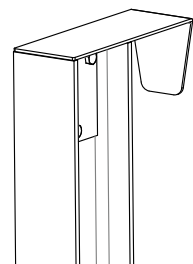
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2



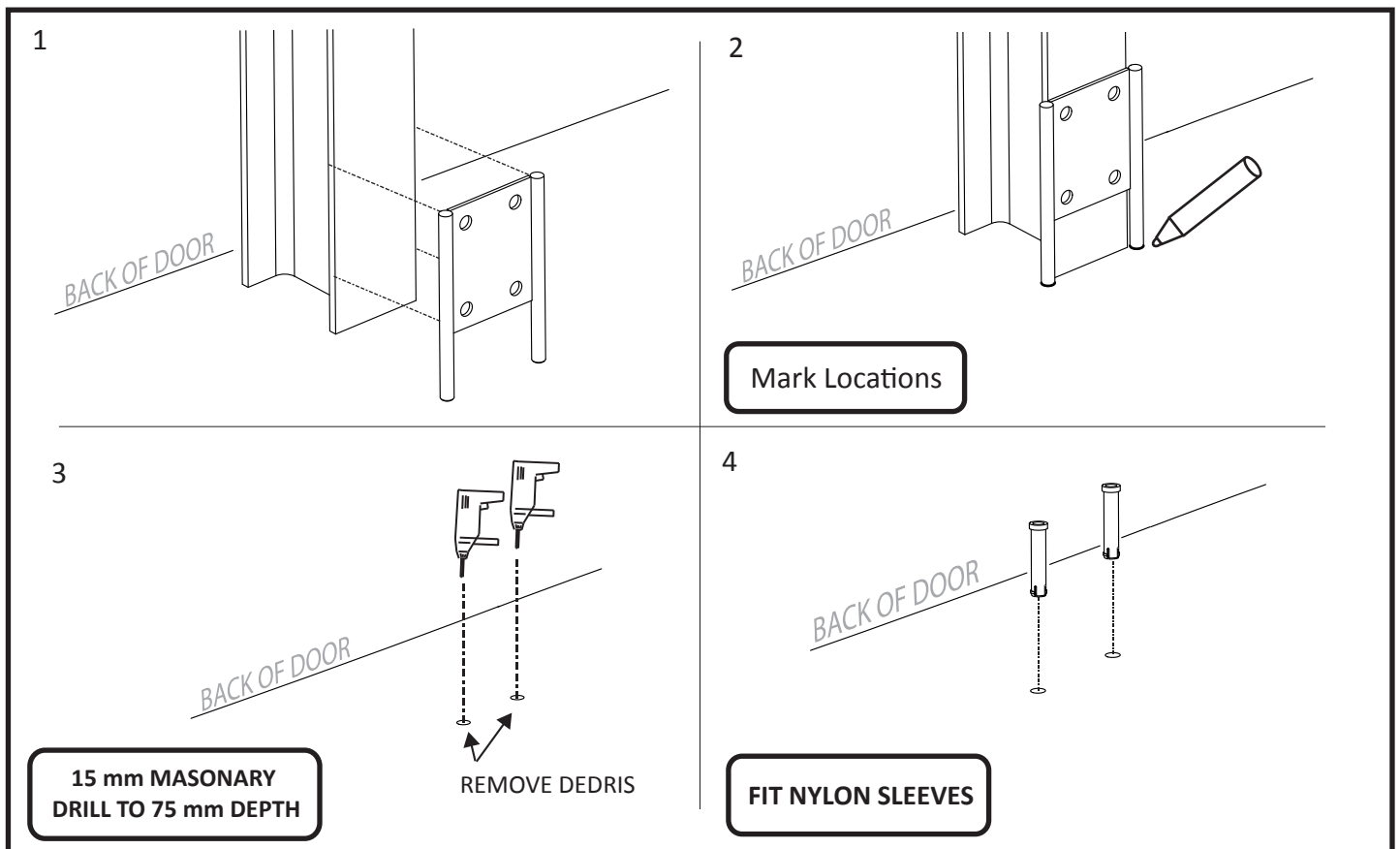
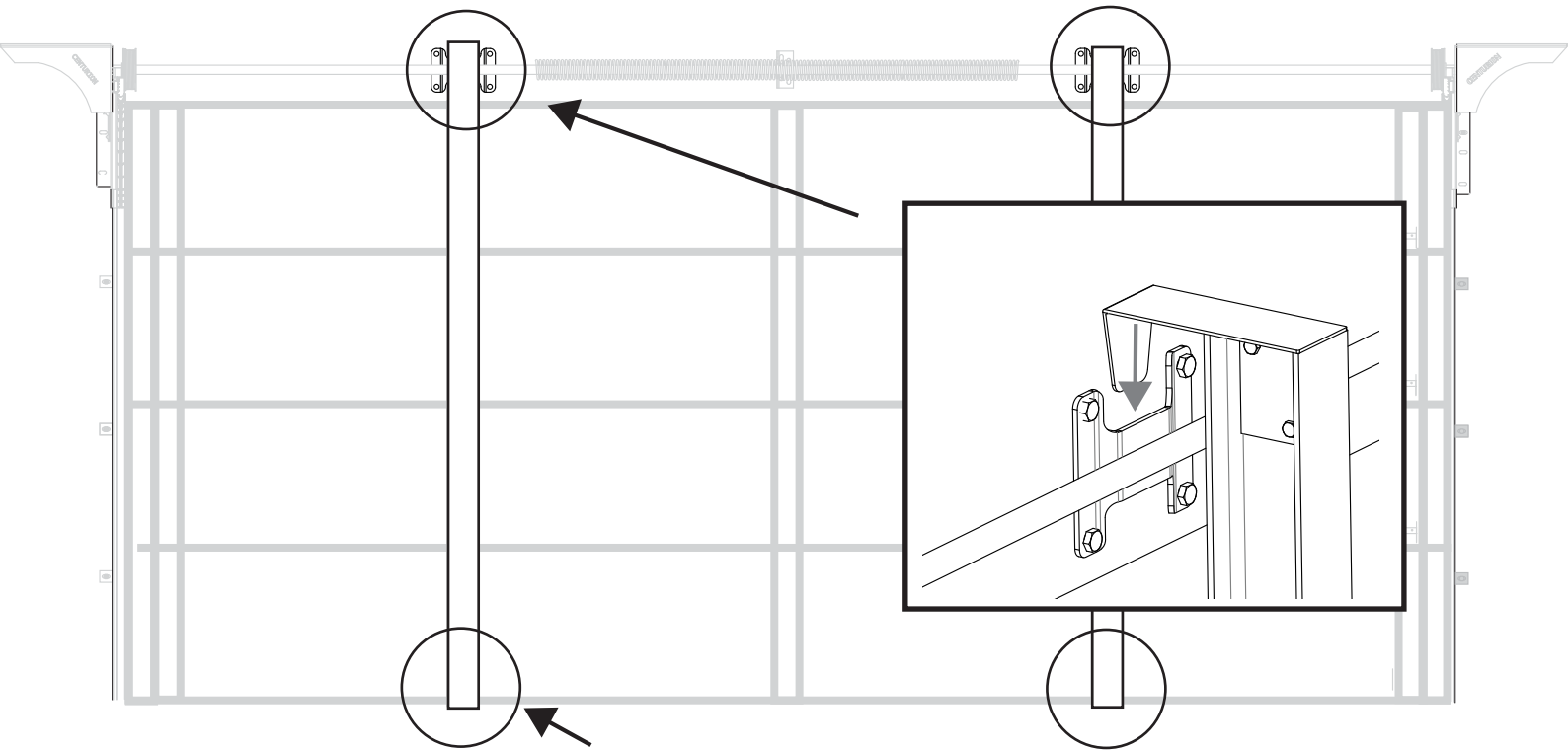
3



2x M10 HEX HEAD GRD 4.6S BOLT & NUT TO BE USED

This drawing must be read and acknowledged in conjunction with the limitations and technical notes as outlined in this documentation.

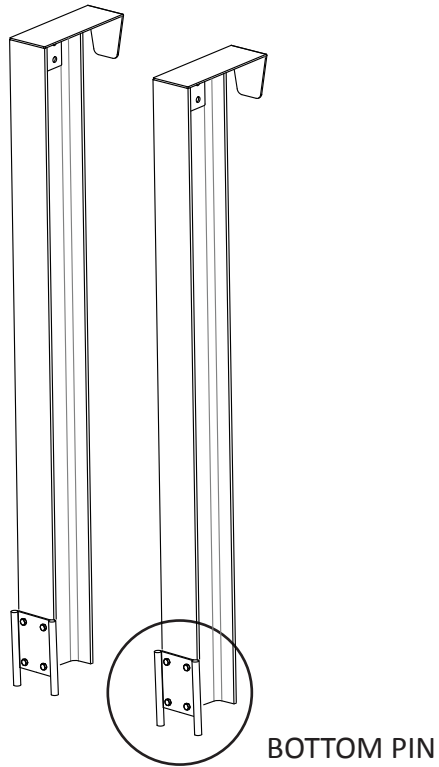
Floor Connections



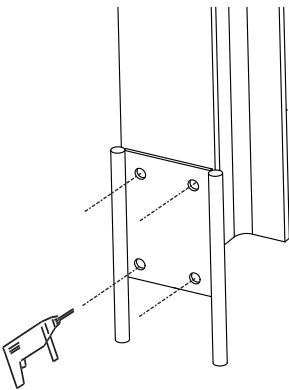
GARAGE FLOOR MUST BE REINFORCED CONCRETE SLAB (MIN. 100mm THICK)

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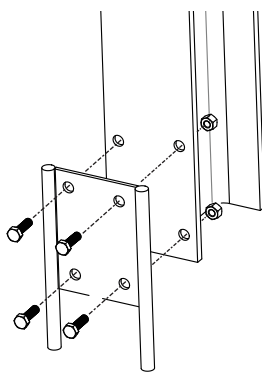
Beam Pin Assembly



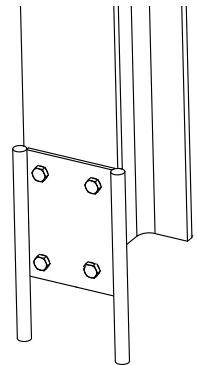
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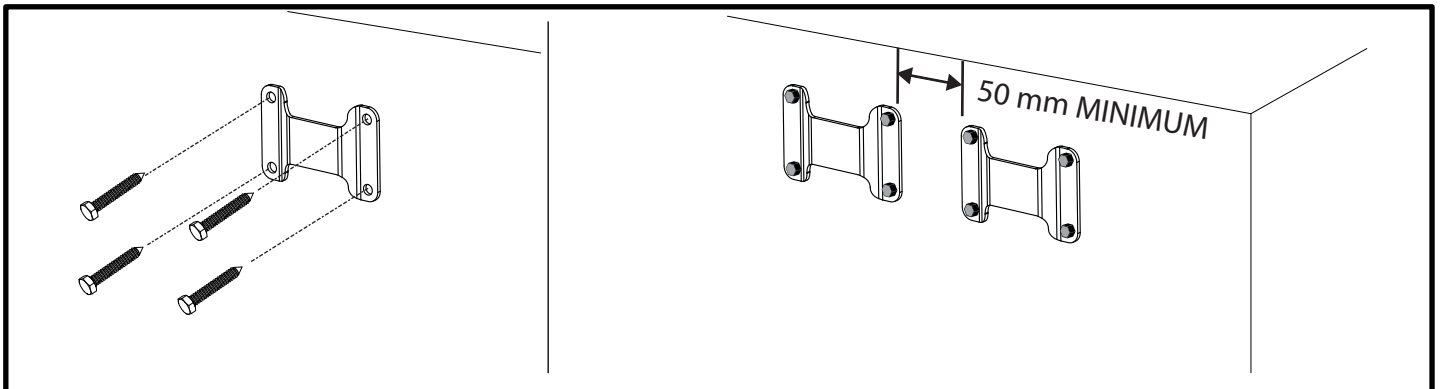
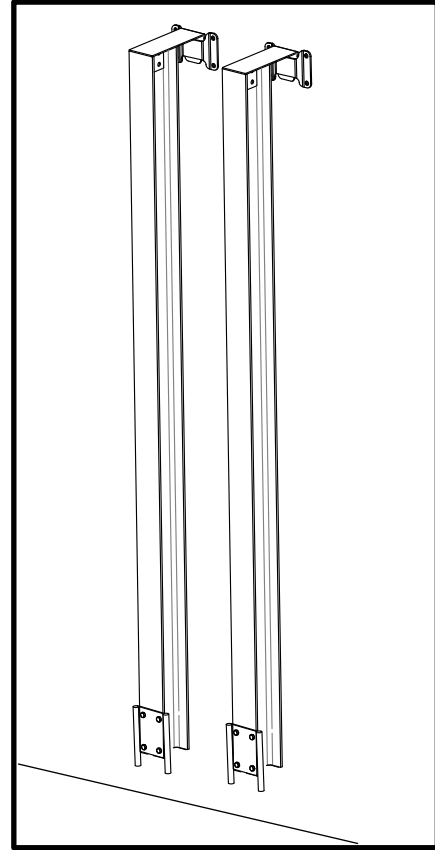
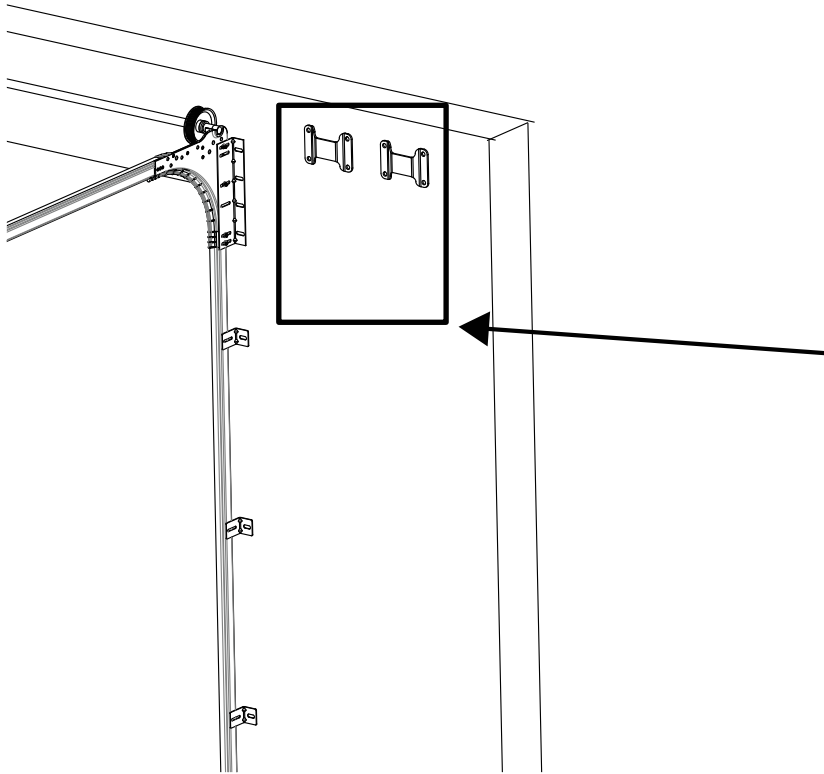
3



4x M10 HEX HEAD GRD 4.6S BOLT & NUT TO BE USED

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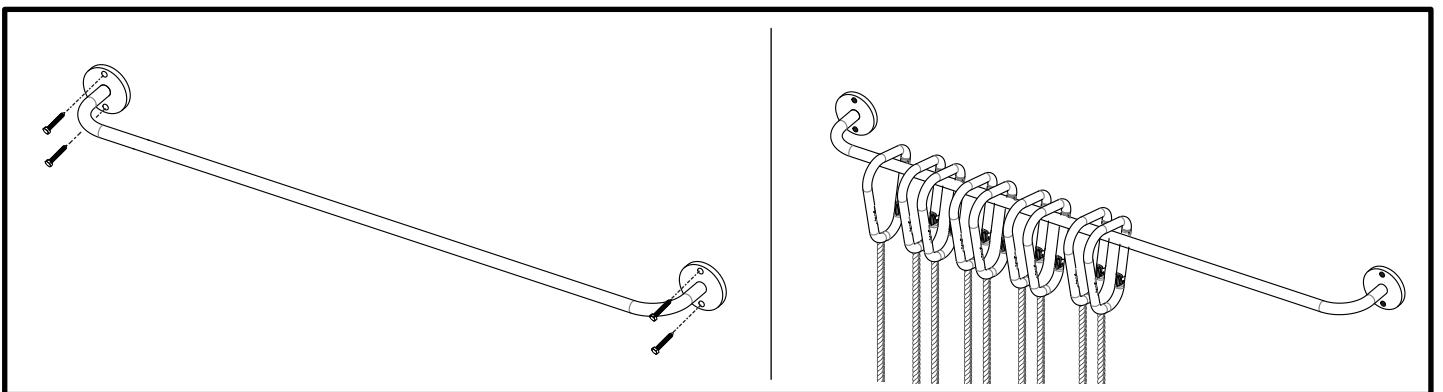
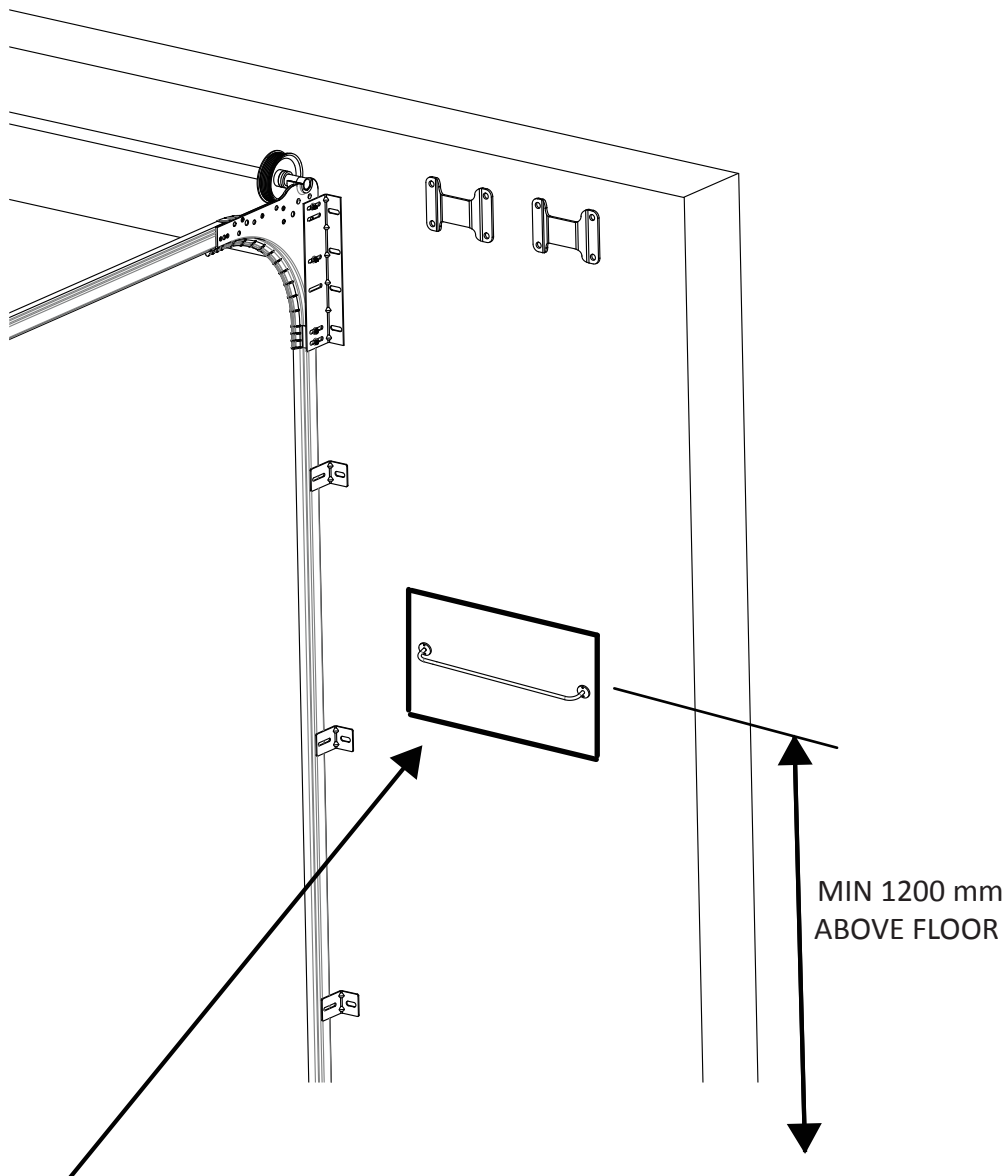
Wind Beam Storage



**LOCATE SUFFICIENT ROOM, MOUNT WALL PLATES TO FACILITATE
SAFE STORAGE OF WIND BEAMS WHEN NOT IN USE.
USE RECOGNISED ANCHORS TO SUIT SUBSTRATE
REFER TO EARLIER DRAWINGS**

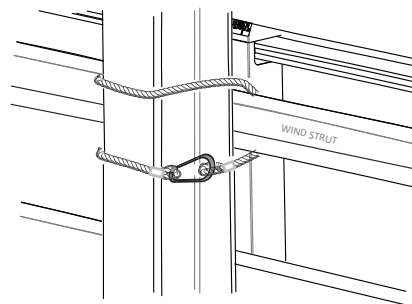
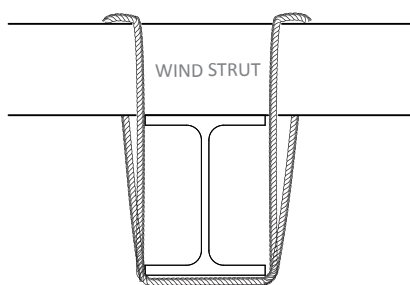
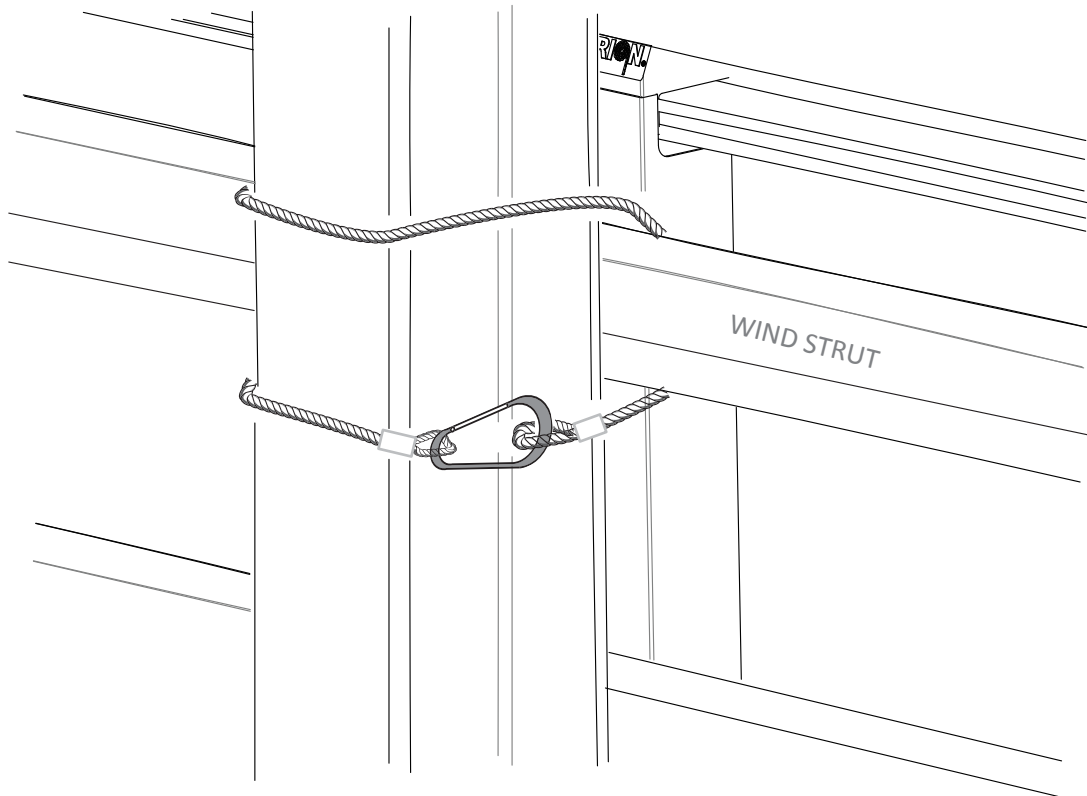
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Cable Storage



**MOUNT CABLE RACK BELOW STORAGE BEAM BRACKETS
CLIP ON ALL WIRE CABLES FOR STORAGE**

This detail must be read and acknowledged in conjunction with the limitations and technical notes as outlined in this documentation.



IN THE EVENT OF A CYCLONE, WIRE CABLE MUST BE ATTACHED AT EACH INTERSECTION OF WIND BEAM AND WIND STRUT

This detail must be read and acknowledged in conjunction with the limitations and technical notes as outlined in this documentation.

Limitations and Technical Notes

Design Criteria

AS4055:2012

CLASSIFICATION C2

DOMESTIC DOORS

MAX DOOR HEIGHT 3000mm

MAX DOOR WIDTH 5900mm

Reaction Loading

	Rb, REACTION AT BASE OF BRACE (MAX PER BRACE)	Rt, REACTION AT TOP OF BRACE (MAX PER BRACE)
IN	9.9 kN	8.8 kN
OUT	10.3 kN	9.1 kN

	ABUTMENT LOAD TABLE Rs, ULTIMATE DESIGN WIND LOADS
IN	2.0 kN/m RUN
OUT	2.3 kN/m RUN

Limitations

- All steel posts to have 2.4mm (min) wall thickness and all steel lintels to have 3.0mm (min) wall thickness, with a minimum steel grade of 250 MPa.
- Characteristic unconfined compressive strength of block wall unit $F'c = 15$ MPa.
- Core filling of block wall $F'c = 20$ MPa.
- Concrete strength of slab for base pin engagement $F'c = 25$ MPa.
- All door components to be in accordance with standard Centurion C2 Safe manufacturing.
- Door installation to be in accordance with standard Centurion C2 Safe installation guidelines.
- C2 Safe beam/s to be installed in accordance with Centurion C2 Safe beam install guidelines when cyclone warning is issued.
- Class 4 finish required to all fixings.
- This design document applies to all doors installed and located at ground level.
- This drawing relates to the structural adequacy of Centurion C2 Safe reinforced sectional door with extruded aluminium wind beams. The structure to which the door is attached, including lintel heads and abutments and other part of the structure itself shall be assessed and certified independently by a suitably qualified engineer.
- C2 Safe doors are rated to a maximum wind classification of C2 in accordance with AS/NZS 4505:2012 (excluding any debris impact resistance). The onus is on the building certifier or local authority to ensure that the wind classification relevant to the actual location of the door does not exceed C2 wind classification. Should the certifying authority require site specific wind data they should refer the applicant to a suitably qualified local building practitioner.
- Doors installed at ground level.
- Any components that are bent, damaged or missing must be replaced immediately in order to maintain C2 wind rating.

For additional information regarding certification and technical data of Centurion C2 Safe garage doors, refer to *C2 Safe Garage Door Technical Drawings* available from
Centurion Garage Doors

www.cgdoors.com.au