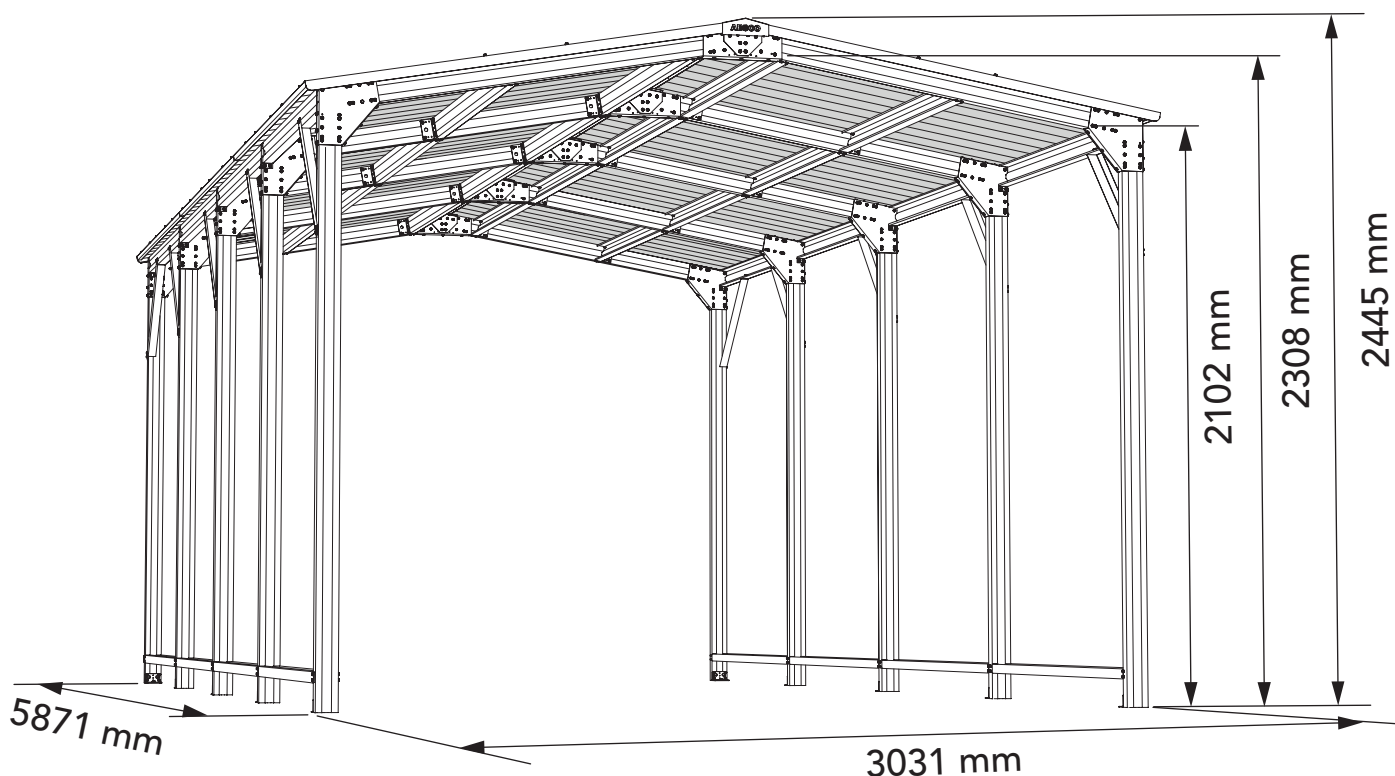


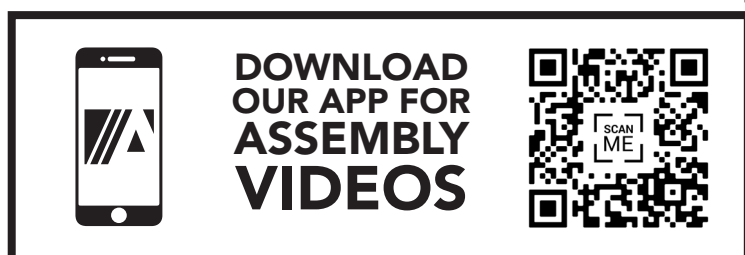


For construction in non-cyclonic areas

Wind rating: N2 as per AS4055-2021

If you require a higher wind rating please contact us:

admin@absco.com.au or 1800 029 701



\*Most models available

## PLEASE LEAVE A REVIEW

Tell us about your experience!  
Visit [www.abscohedes.com.au/review](http://www.abscohedes.com.au/review)

## Tools Required



ELECTRIC  
DRILL



STEP LADDER  
(min 1.8m)



ELECTRIC DRILL WITH  
HAMMER FUNCTION



MALLET



TAPE  
MEASURE



POP RIVET  
TOOL



10 mm MASONRY  
DRILL BIT



SHIFTING SPANNER/  
13 mm SOCKET TOOL

## Tools Recommended



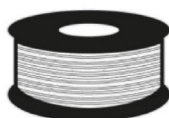
SPIRIT  
LEVEL



PHILIPS HEAD  
SCREW DRIVER



TIN  
SNIPS



BUILDERS'  
STRING



MARKER



ANGLE GRINDER

## Safety Notes

- Some parts and assemblies have sharp edges and/ or sharp corners.
- The use of gloves and safety shoes is highly recommended.
- Pay attention to where these parts can be handled most safely, and plan the handling of these parts and assemblies prior to working with them.
- The assembly of this product requires drilling into sheet metal which produces small metal shavings.
- Clearing of these shavings throughout the assembly process is highly recommended.



The assembly of this product requires some lifting of heavy assemblies

### Steps To Construct Your Carport

|                                |    |
|--------------------------------|----|
| Identification of parts .....  | 04 |
| Portal frame assembly .....    | 07 |
| Frame construction .....       | 13 |
| Roof purlin construction ..... | 17 |
| Frame Fasteners .....          | 19 |
| Ridge beam construction .....  | 21 |
| Roof Sheeting .....            | 25 |
| Final Construction .....       | 28 |

### Helpful Hints

#### 1. Part numbers

Part numbers have been printed on all framing and sheeting, all other parts can be identified by their description, size and sketch in the components pages (4 and 5).

#### 2. All components pre-cut to size

Do not cut any components to a different size, unless it is clearly noted in this instruction to do so. Dimensions in this assembly instruction are exact. Double check that you have the correct component for the correct location.

#### 3. Self drilling screws



10G-16 x 16 Hex head tek screw with neoprene washer for general use and securing roof sheets to frame work.

**NOTE:** Neoprene washer can be removed for general fixing only. **Do not remove when fixing roof sheets.**



10G x 16 Wafer head tek screw - use on top-side of rafter framework to maintain a smooth surface to secure sheeting to.

The structure is assembled using these self drilling tek screws. All roof sheets are pan fixed. ie screw through the flat pan of the sheet into the framework.

#### 4. Missing parts

To prevent damage in transit, some items are packed inside others. eg. some flashings may be inside frame sections, be very thorough when checking and locating all components.

#### 5. Anchor sets are supplied

Anchor sets are supplied with this carport. Anchors required for this carport are as follows;

QTY 10      10 X 50 mm Dynabolts.

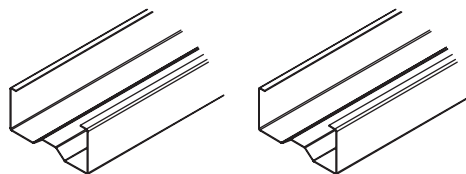
### Frame Section Identification Guide

There are two types of frame section in this kit; one with a straight cut and another with tabs and holes.

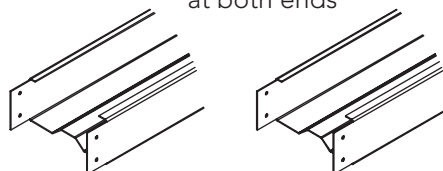
They're coded with a letter representing the frame type followed by the length of the frame section in millimetres.

EG: C2960 = Straight cut both ends with overall length of 2960 mm

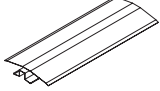
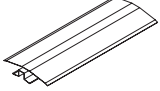
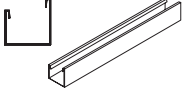
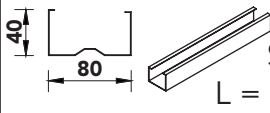
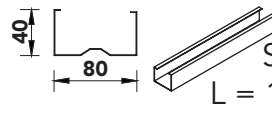
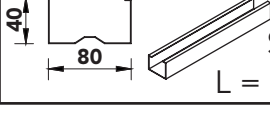
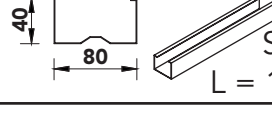
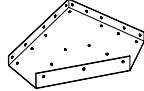
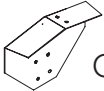
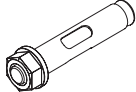
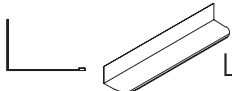
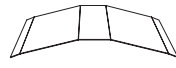
C-TYPE - Straight cut at both ends



K-TYPE - 20 mm tab notch with holes at both ends



### COMPONENT PACKING LIST

| QTY                   | COMPONENT DESCRIPTION                                                                                                                        | PART NO.              | CHK | QTY | COMPONENT DESCRIPTION                                                                                             | PART NO. | CHK |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----|-----|-------------------------------------------------------------------------------------------------------------------|----------|-----|
| SHEETS                |                                                                                                                                              |                       |     |     |                                                                                                                   |          |     |
| 16                    |  STEEL SHEET<br>1580 X 773 mm                               | 158S                  |     |     |                                                                                                                   |          |     |
| RIDGE BEAM & CHANNEL  |                                                                                                                                              |                       |     |     |                                                                                                                   |          |     |
| 2                     |  RIDGE BEAM<br>L = 1479 mm                                  | 97J                   |     | 2   |  RIDGE BEAM<br>L = 1539 mm      | 97K      |     |
| 6                     |  CHANNEL<br>L = 1985 mm                                     | 82A                   |     |     |                                                                                                                   |          |     |
| PORTAL FRAME          |                                                                                                                                              |                       |     |     |                                                                                                                   |          |     |
| 20                    |  FRAME SECTION<br>L = 2070 mm                              | C2070                 |     | 20  |  FRAME SECTION<br>L = 1525 mm  | C1525    |     |
| 24                    |  FRAME SECTION<br>L = 1456 mm                             | K1456                 |     | 8   |  FRAME SECTION<br>L = 1448 mm | K1448    |     |
| PORTAL FRAME KIT      |                                                                                                                                              |                       |     |     |                                                                                                                   |          |     |
| 10                    |  APEX PLATE                                               | ZACO 194              |     | 20  |  KNEE PLATE<br>1.35 mm BMT    | ZACO 303 |     |
| 10                    |  RIDGE CONNECTOR PLATE                                    | ZACO 9A               |     | 26  |  MULTIPURPOSE BRACKET         | BKT 17   |     |
| 10                    |  MASONRY ANCHOR                                           | FAST 015              |     |     |                                                                                                                   |          |     |
| FITTINGS & ACCESORIES |                                                                                                                                              |                       |     |     |                                                                                                                   |          |     |
| 4                     |  LIP TRIM<br>L = 1954 mm                                  | LW3                   |     | 10  |  CORNER BRACES<br>L = 655 mm  | ZACO 300 |     |
| 2                     |  GABLE CAPS                                               | ZACO 14A              |     | 4   |  CHANNEL JOINER<br>L = 200 mm | CSJ      |     |
| 2                     |  10G x 16 mm WAFER HEAD TEK SCREW<br>150 x <b>FAST014</b> | <b>PACK WAFER 150</b> |     | 1   |  CAP SECTION JOINER           | ZACO 98A |     |
| 1000                  |  HEX HD TEK SCREW W/ NEO WASHER 10-16 x16 mm              | <b>FAST 033</b>       |     |     |                                                                                                                   |          |     |

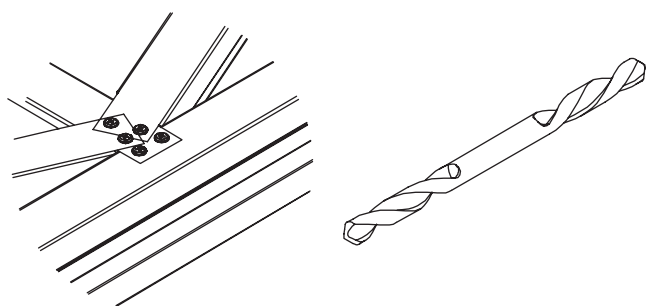
Nominal sheet widths are shown. +/- 2 mm is within tolerance.

## Guide for Connecting Frame Sections

Absco sheds' frame assemblies are supplied with 10G-16 x 16 mm self drilling wafer head phillips drive tek screws

The wafer head minimises distortion to the sheet cladding once it is fitted to the frame

Ensure that driver bits used to fasten these screws are Phillips drive bits, as similar alternatives (e.g. Pozi drive) increase the risk of stripping the head of these screws.

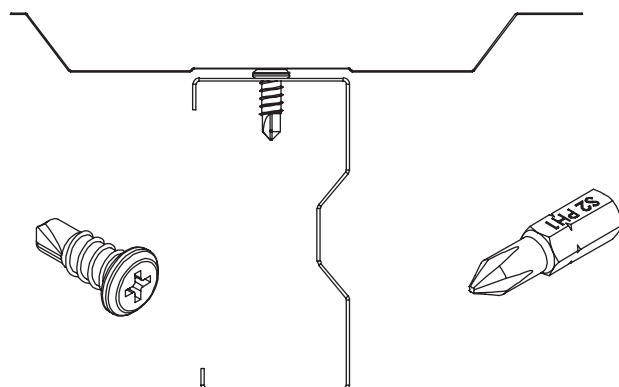


Absco sheds' frame sections are manufactured from light gauge steel, enabling for the notched ends or lengths of one frame section to be spread over the sides of another frame section, boxed frame section or H-section.

Some connections are designed to fasten more than two parts together. Connections may also not feature a defined alignment or physical stop.

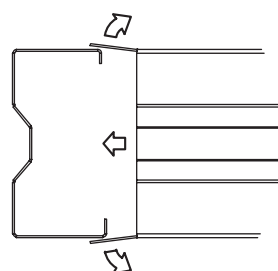
For these reasons, focus on arranging all parts of a frame assembly or subassembly together (to the overall sizes and check measurements nominated) using minimal screws. This allows for easier adjustment to various connections which may be necessary to achieve the overall dimensions and check measurements that are nominated.

Fit the remaining screws once the frame assembly or subassembly is assembled as per the overall dimensions and check measurements that are nominated



Some holes are pre-punched in Absco sheds' frame sections, however the wide range of positions that most fasteners are required for means that the remainder have to be drilled as per the connection being made

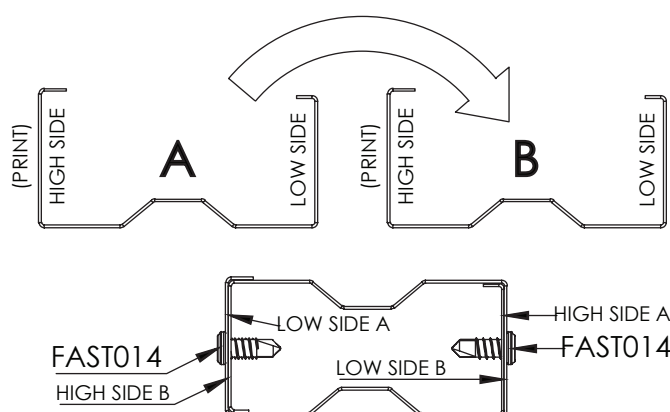
A 3 mm drill bit is supplied for pre-drilling holes where self drilling screws may be more difficult to establish holes with (e.g. Fitment of purlin brackets).



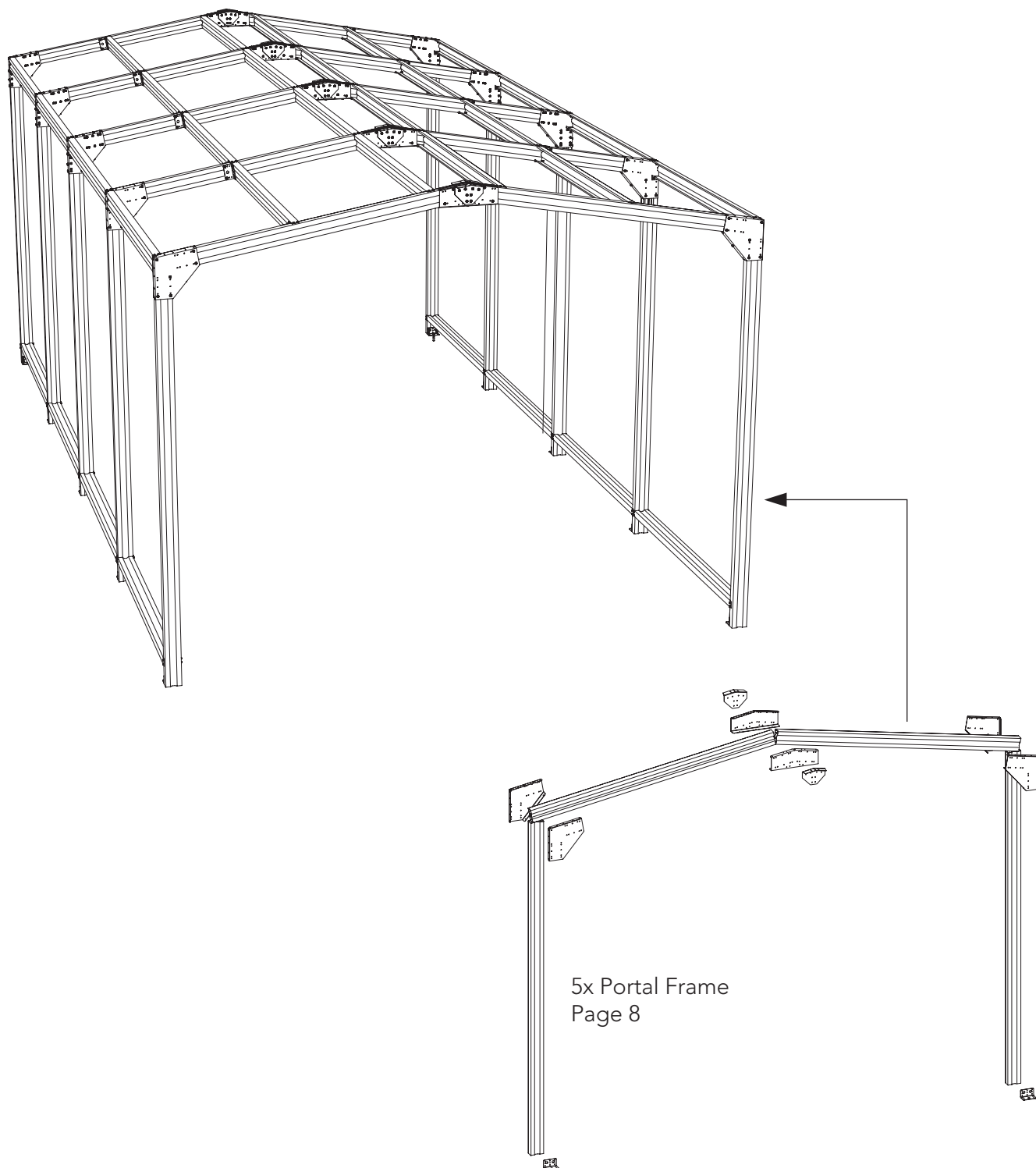
## Boxing Frame Sections

Absco sheds' frame sections are designed to nest into one another to create boxed frame sections. Boxed frame sections are only required in some parts of the entire frame assembly.

Boxed frame sections are fastened together using the FAST014 tek screws supplied at 300 mm centres (unless otherwise stated) along the length of each boxed frame section.



## COMPONENT OVERVIEW

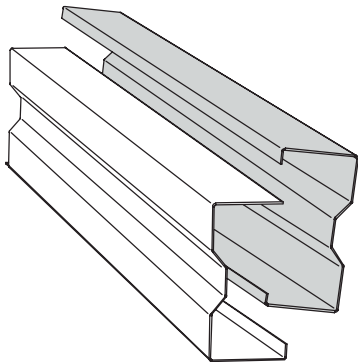


The frame is constructed from 80 mm x 40 mm galvanised steel, similar to that used in domestic steel house framing. All sections are cut to exact lengths, with ends pre-punched where necessary to simplify assembly. Frame sections are secured together using 10G-16 x16 mm self drilling tek screws (supplied). Roof sheets are secured to the frame using 10G-16 x16 mm self drilling tek screws with neoprene washers (supplied).

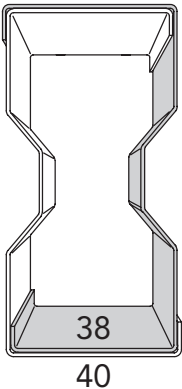
BOXING FRAME SECTIONS

This kit requires two frame sections to be nested within each other and boxed for

greater strength. Often framing is already loosely boxed when packed.

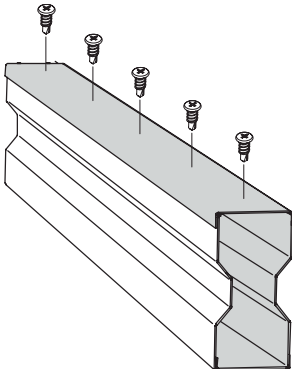


Align both frame pieces.



The shorter, 38 mm side nests inside the larger, 40 mm side.

Frame sections fit inside one another to make a 'boxed' section.



Fasten both side with tek screws every 300 mm.

| QTY          | FRAME # | BOXING DIRECTION | RESULT           | TEK TYPE<br>SIDE 1 / SIDE 2 |
|--------------|---------|------------------|------------------|-----------------------------|
| PORTAL FRAME |         |                  |                  |                             |
| 20           | C1525   | Pair             | 10 boxed members | Wafer / Hex                 |
| 20           | C2070   | Pair             | 10 boxed members | Hex / Hex                   |

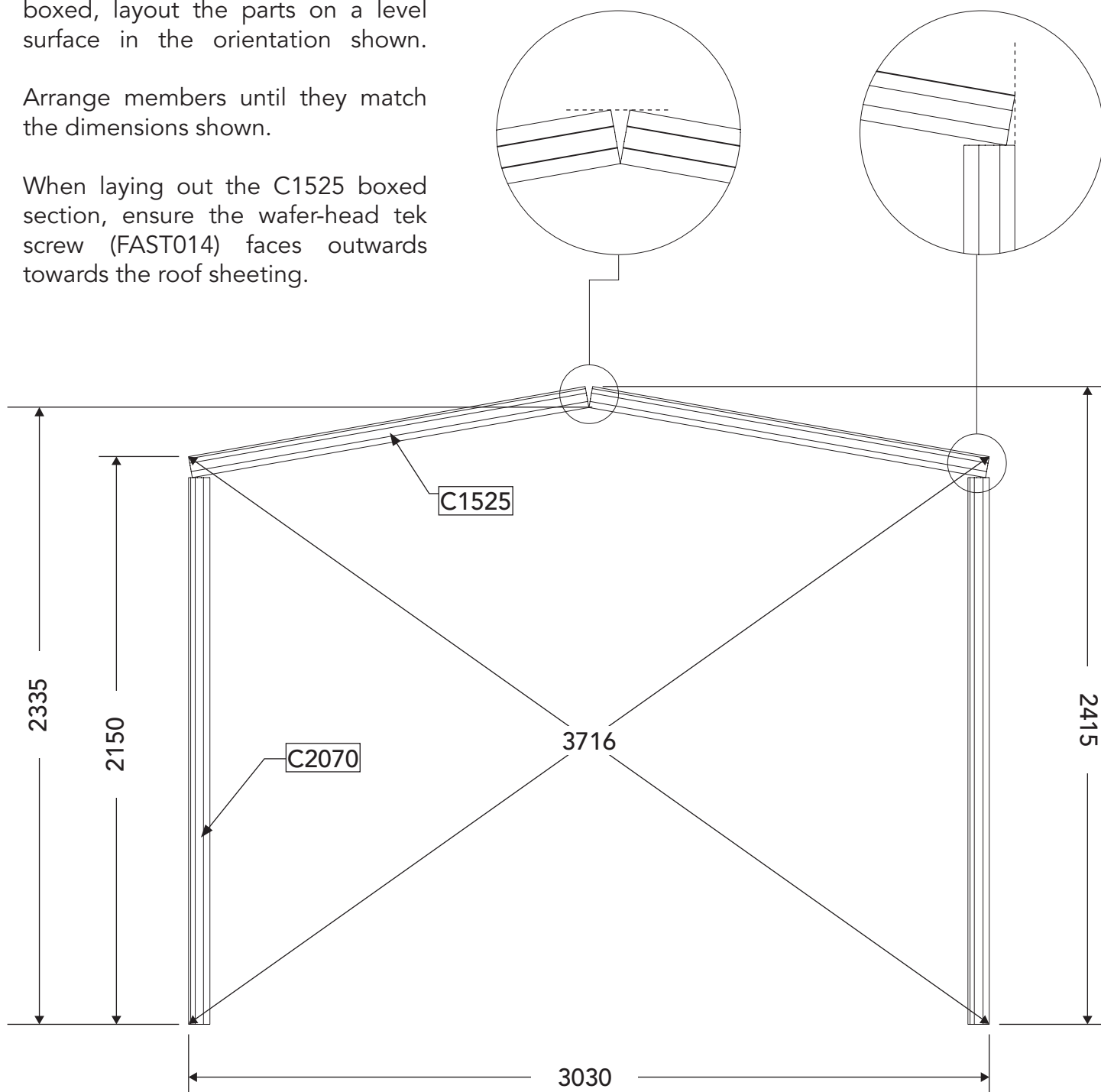
## Portal Frame

### CONTINUED

Once the framing pieces are boxed, layout the parts on a level surface in the orientation shown.

Arrange members until they match the dimensions shown.

When laying out the C1525 boxed section, ensure the wafer-head tek screw (FAST014) faces outwards towards the roof sheeting.

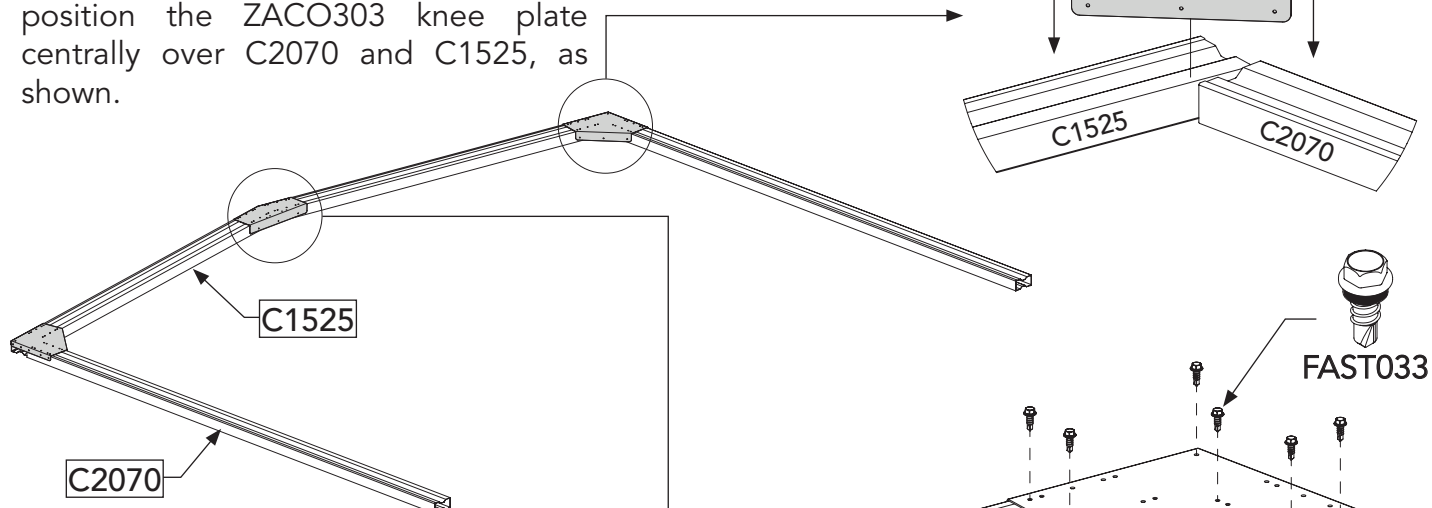


**NOTE:** It is important to mark out a template on the ground or concrete before assembly. All portal frames must be assembled on the ground and kept in line with this template at all times to ensure consistent angles and straightness. During initial assembly, use only the **minimum fasteners** to allow for adjustment if required.

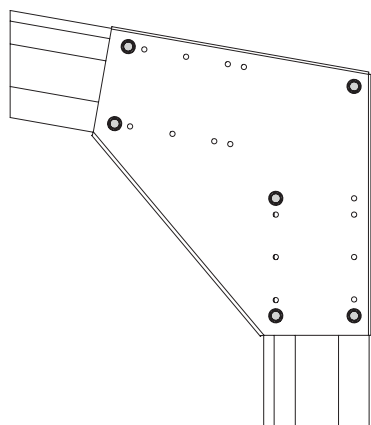
## Portal Frame

### CONTINUED

After laying out each boxed section, position the ZACO303 knee plate centrally over C2070 and C1525, as shown.

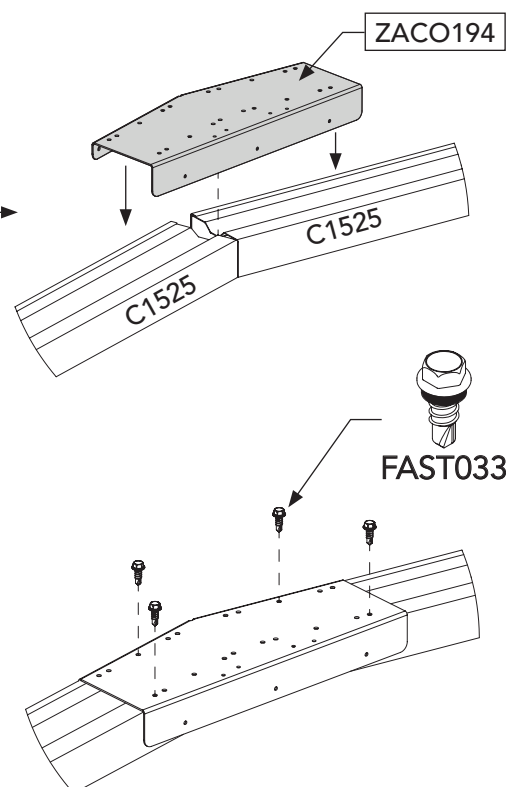
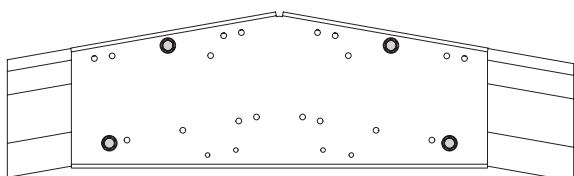


At this stage of assembly, install six hex head tek screws in the positions shown. The remaining fasteners will be installed at a later step.



Repeat this step on the other side of the frame.

Next, position the ZACO194 apex plate centrally over both C1525 sections and secure it using four hex head tek screws with neoprene (FAST033), as shown.

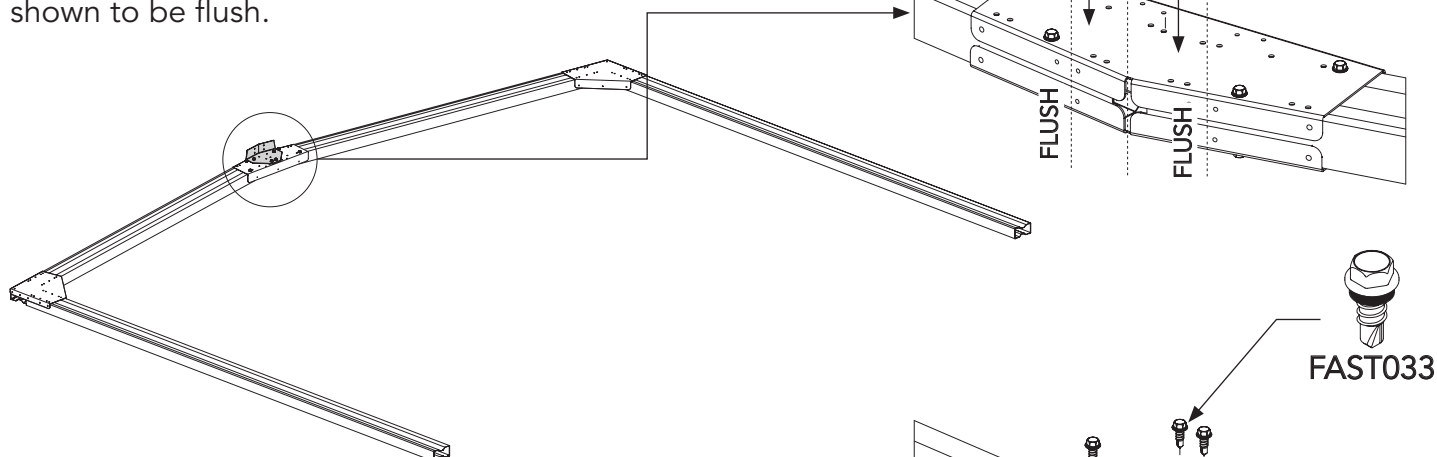


## Portal Frame

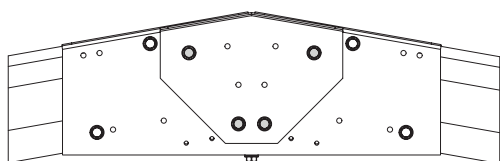
### CONTINUED

Next, fit the Ridge plate ZACO9A to the apex plate.

Place centrally and align the edges shown to be flush.



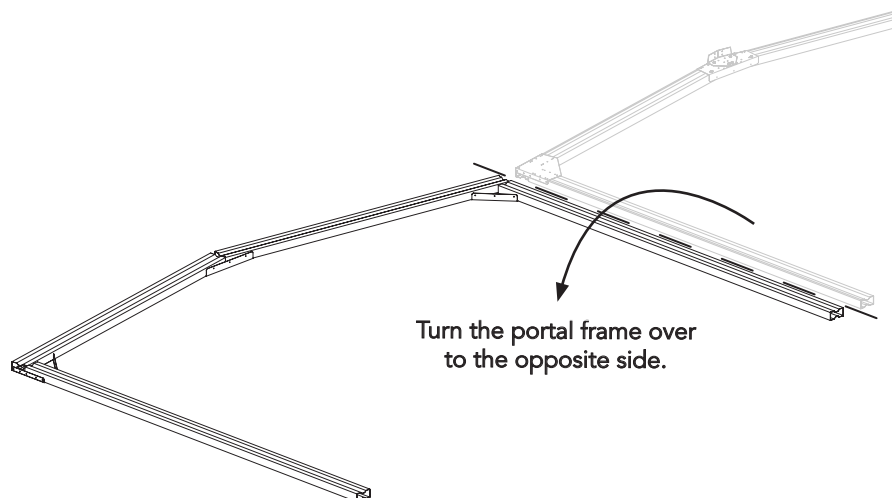
Fasten the apex plate to the framing through the holes in the ridge plates using four hex head tek screws with neoprene (FAST033), as shown below.



After securing all fastener gently turn the portal frame to the opposite side.

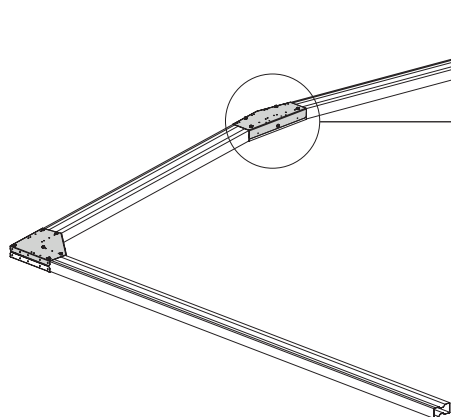
**NOTE:** Check the portal frame is still in line with the template. Adjust the boxed frame if needed before turning it onto the other side.

**NOTE:** Pack under the member with offcut framing to maintain level and prevent sagging.



## Portal Frame CONTINUED

After turning the portal frame over, repeat the steps to secure the knee plates on both sides.

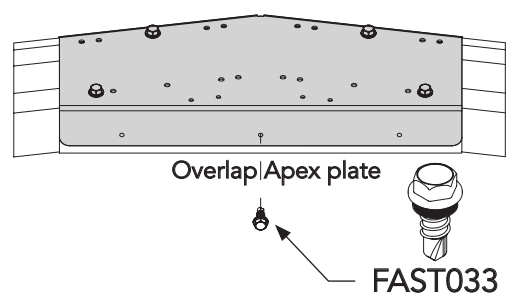
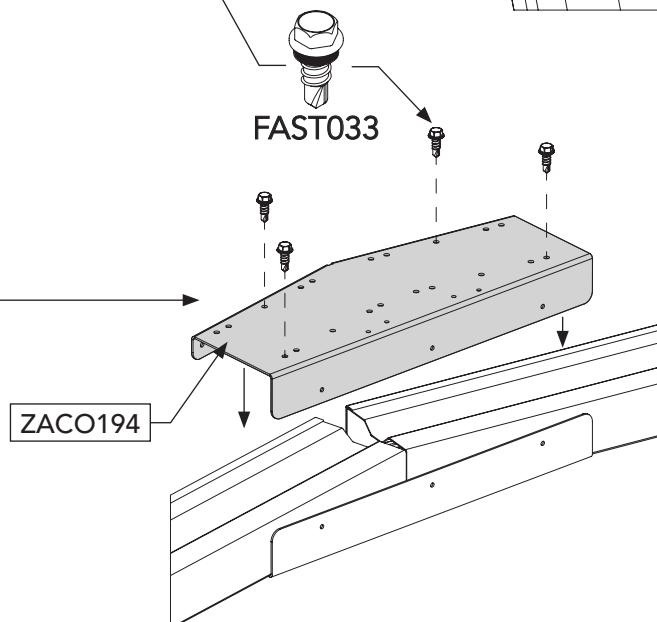
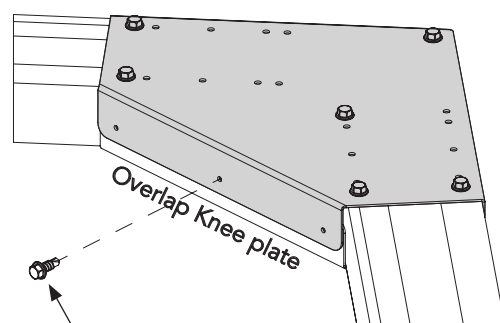
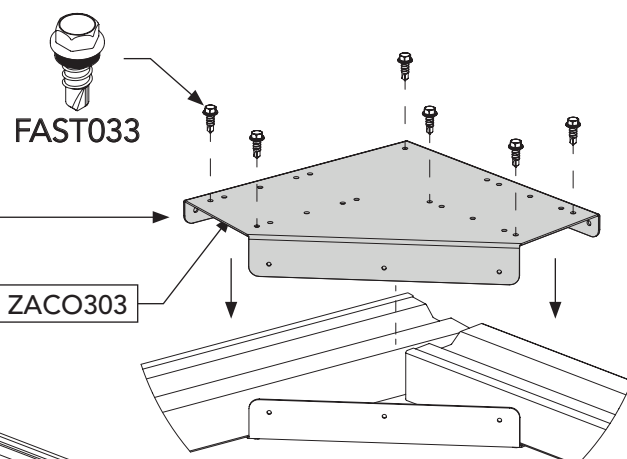
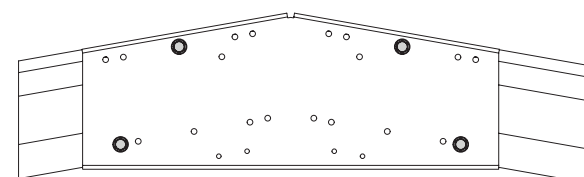


Ensure both knee plates overlap, then fasten using six hex head screws with neoprene (**FAST033**) shown.

Repeat this step on the other side of the frame.

Next, position the **ZACO194** apex plate centrally over both C1525 sections.

Ensure both apex plate overlap, then fasten using four hex head screws with neoprene (**FAST033**) as shown below.

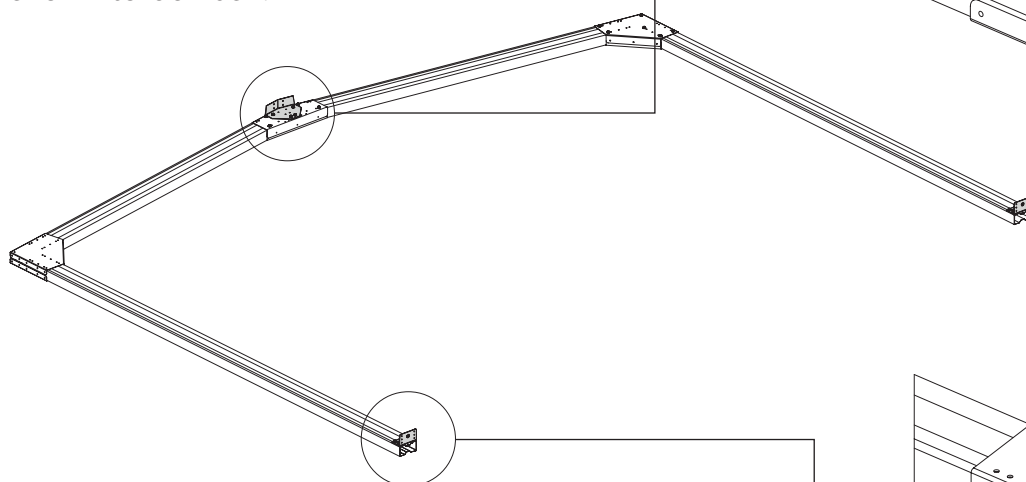
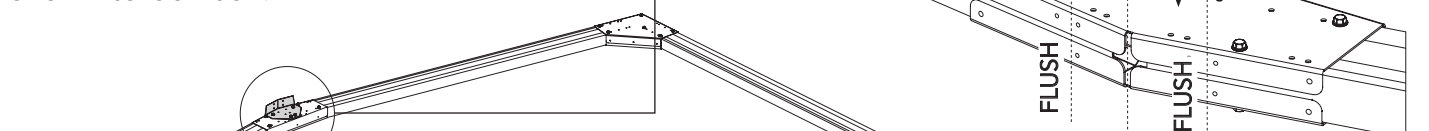


## Portal Frame

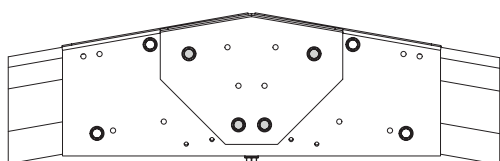
### CONTINUED

Next, fit the Ridge plate ZACO9A to the apex plate.

Place centrally and align the edges shown to be flush.



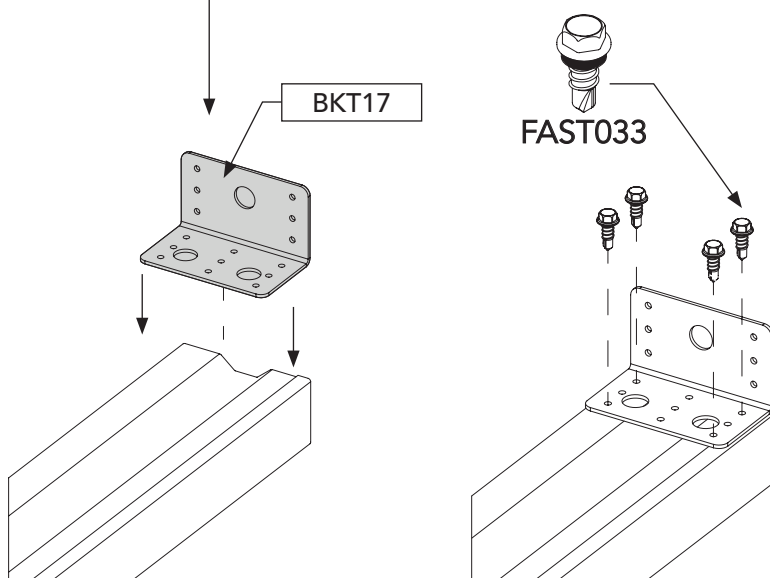
Fasten the apex plate to the framing through the holes in the ridge plates using four hex head tek screws with neoperene (FAST033), as shown below.



Next, fit the BKT17 bracket to the front of the portal frame, ensuring it is correctly orientated as shown.

Before fastening with FAST033 screws, make sure the bracket sits flush with the end of the portal frame.

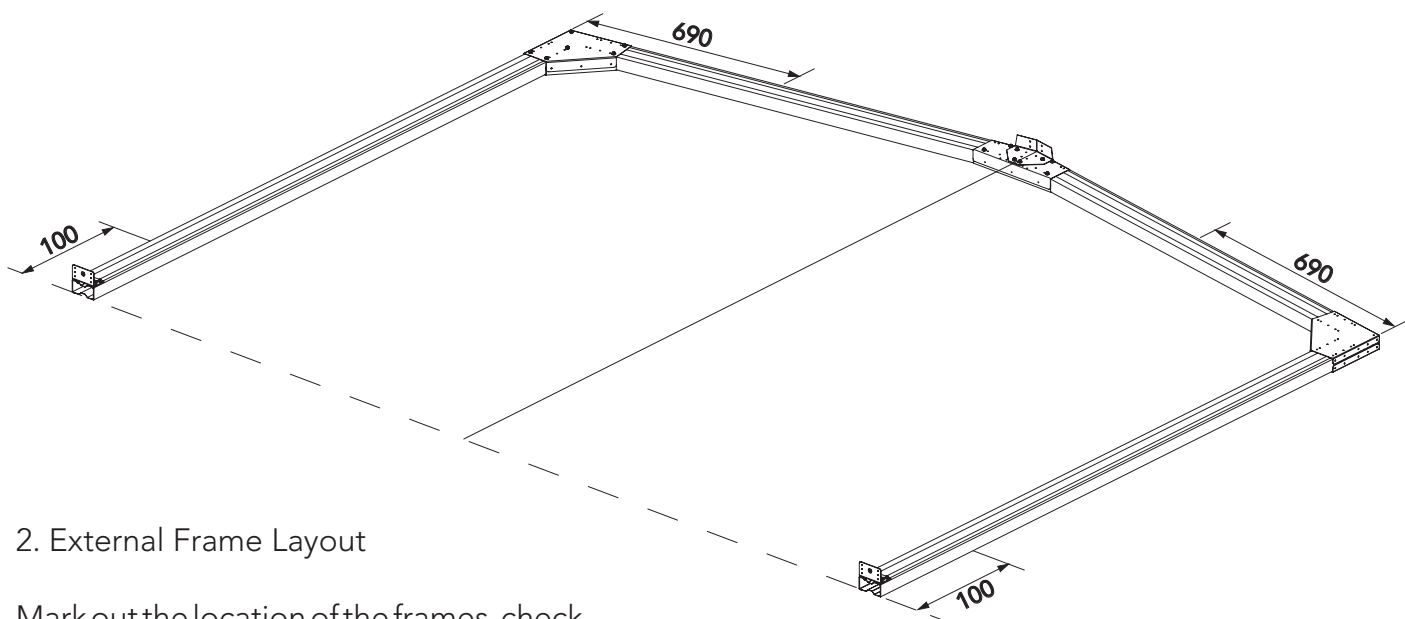
Repeat this step for the other bracket.



## Frame Construction

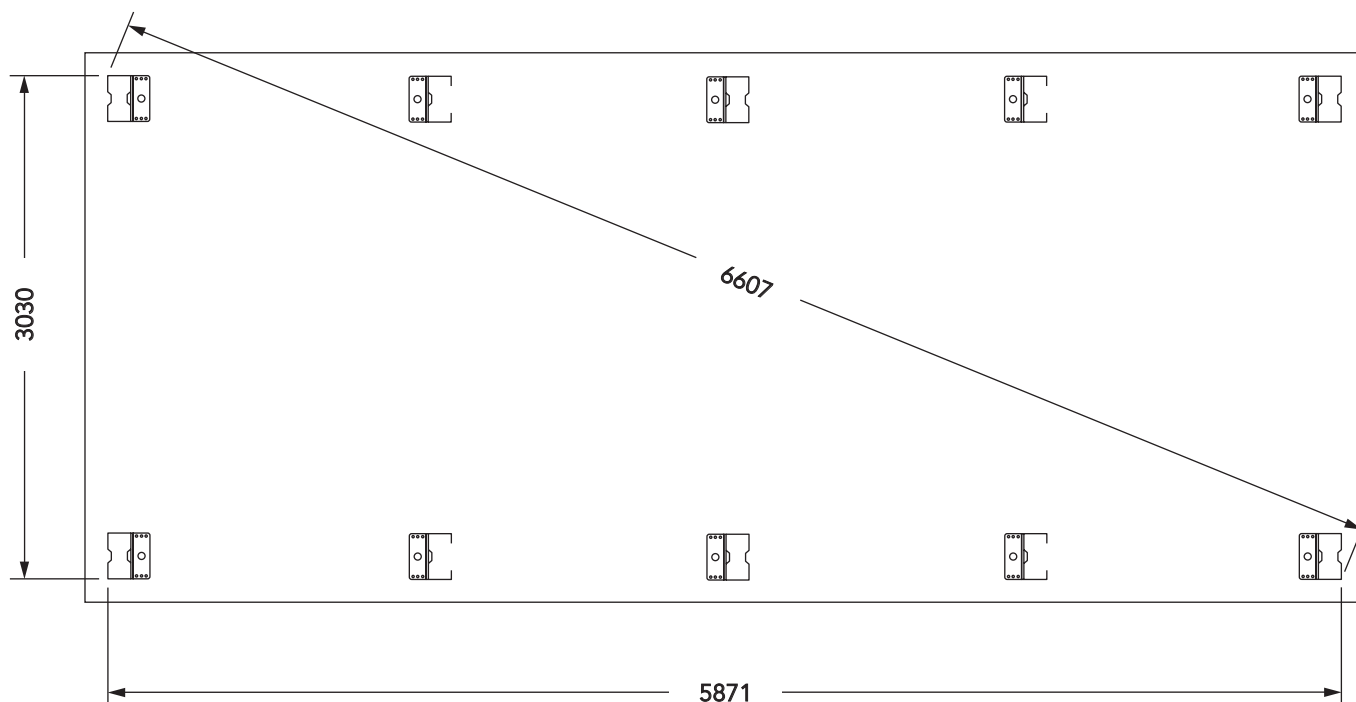
### 1. Frame Portal

Mark the positions of the middle purlins and wall girts on all frames as shown.



### 2. External Frame Layout

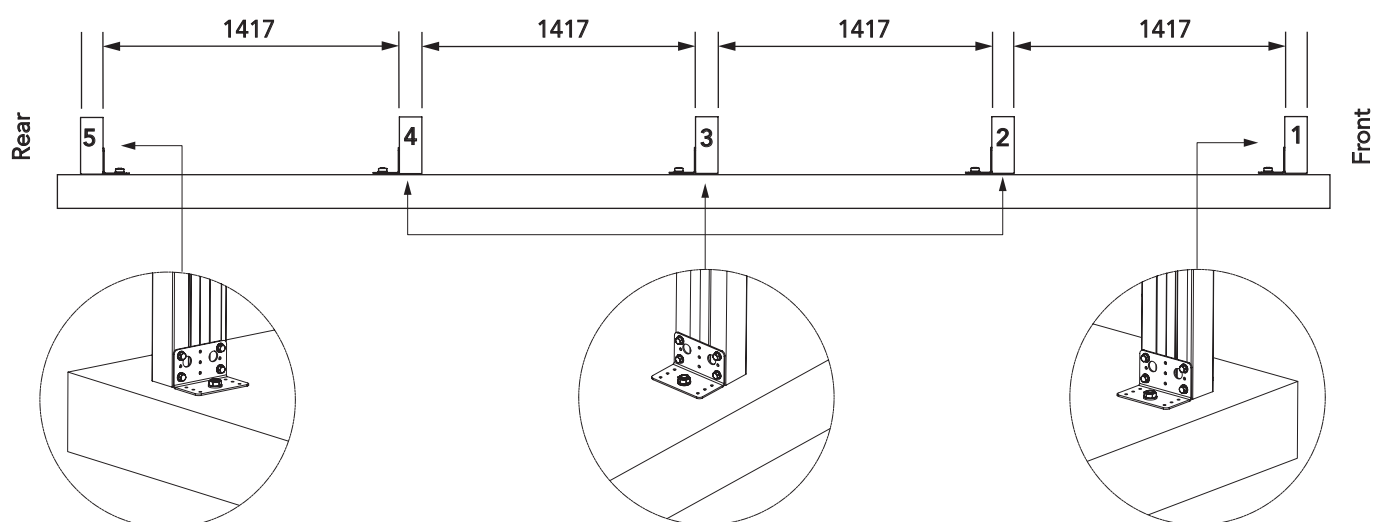
Mark out the location of the frames, check diagonals are equal for squareness.



## Frame Construction

### 3. Frame Bracket Orientation

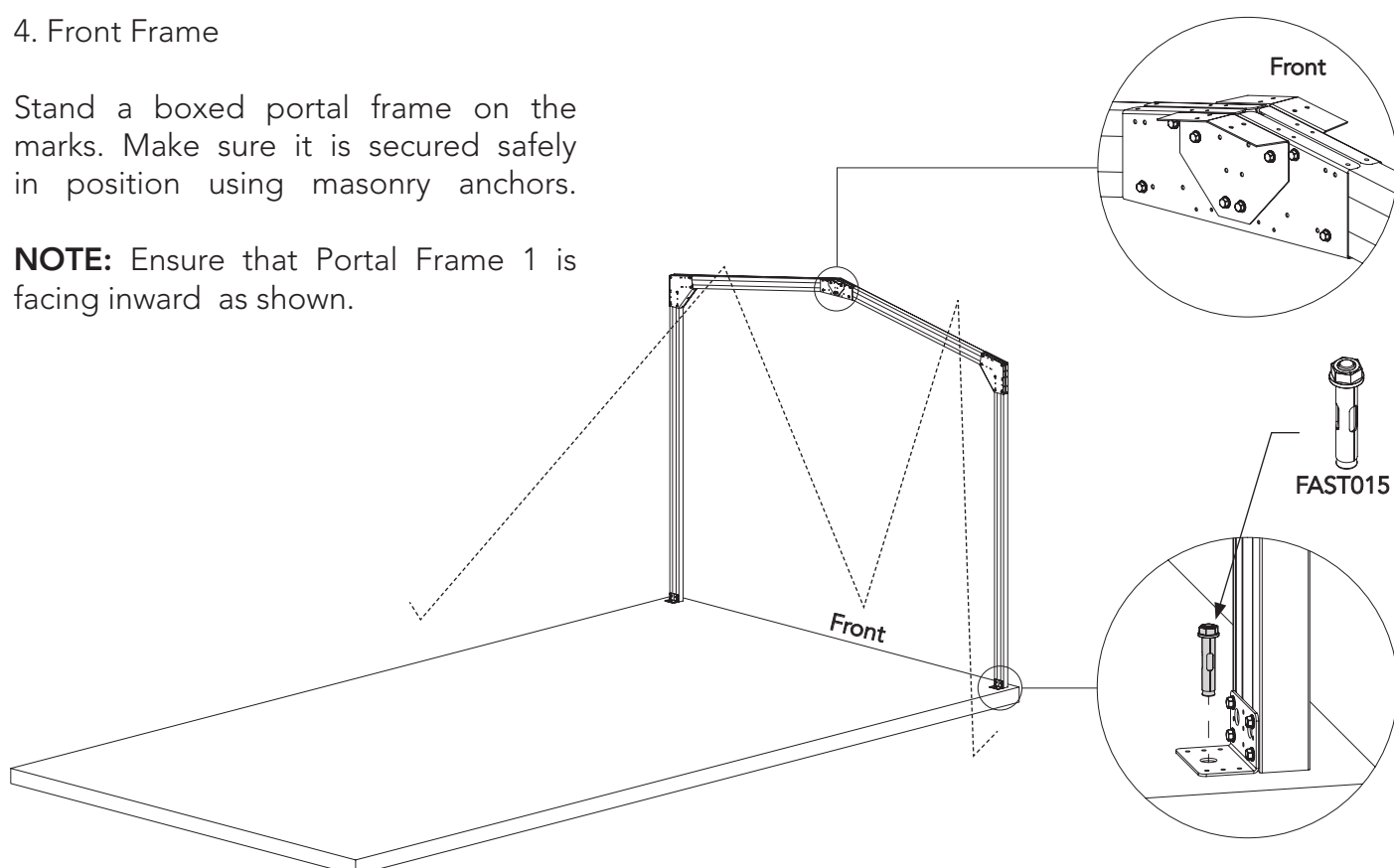
Ensure the end frames are oriented correctly with the brackets facing inward, as shown below.



### 4. Front Frame

Stand a boxed portal frame on the marks. Make sure it is secured safely in position using masonry anchors.

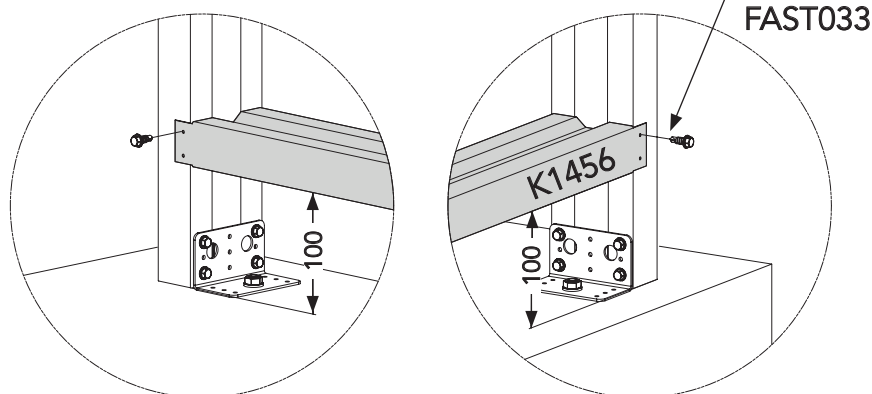
**NOTE:** Ensure that Portal Frame 1 is facing inward as shown.



## Frame Construction

### 5. Lower Wall Frames

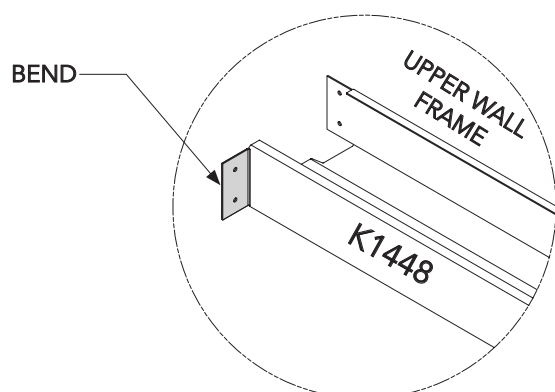
Fit the two side wall girts (K1456) 100 mm above the slab. Use a minimum of two FAST033 on both sides to secure the side wall girts to the portal frame as shown.



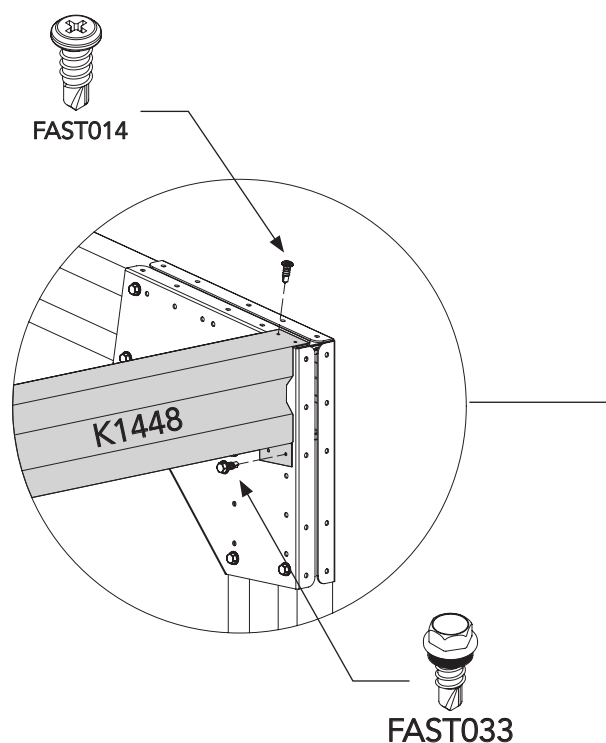
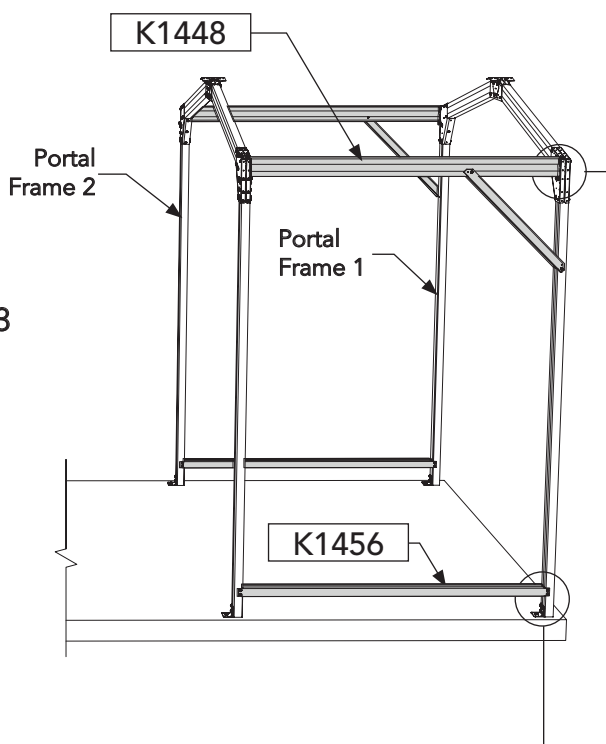
### 6. Upper Wall Frames

Next, stand another boxed portal frame in the marked position and secure it as previously instructed.

Bend the inside tabs of K1448 to a right angle so it can be fastened to the top of the portal frame, as shown.



Align the upper wall girt (K1448) with the outside of the portal frame. Secure it using the minimum number of FAST014 screws on the **top side** and FAST033 screws on the **underside**, as shown.

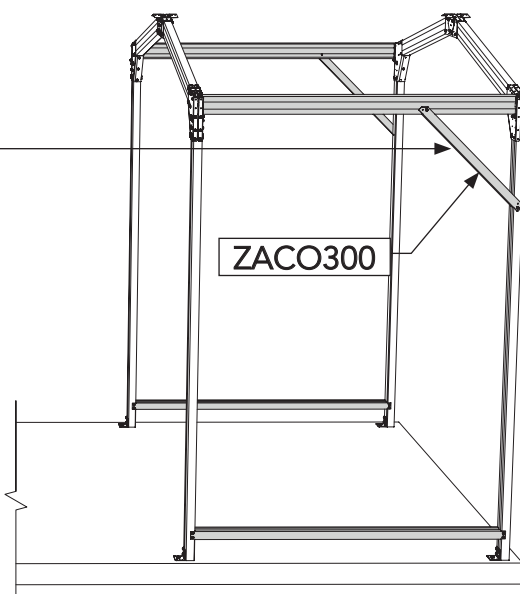
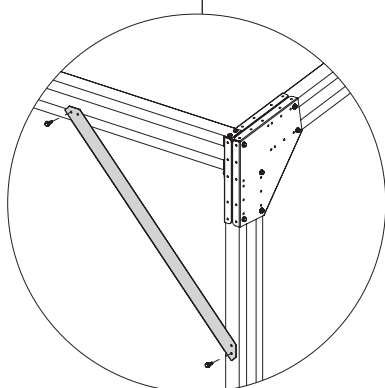
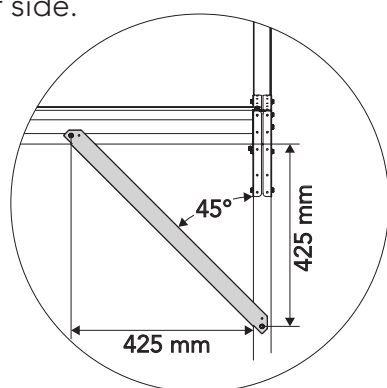


Repeat on the other side.

## Frame Construction

Next, mark the position of both edges of the corner bracket, then fit the ZACO300 corner bracket to the side girt and portal frame, as shown.

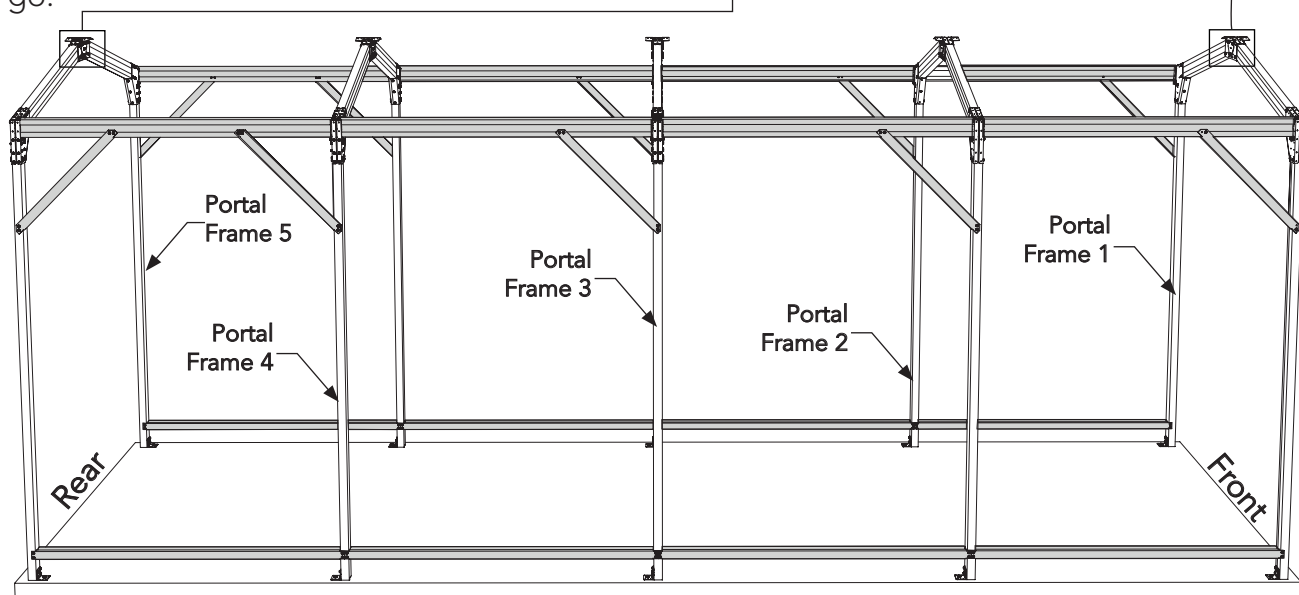
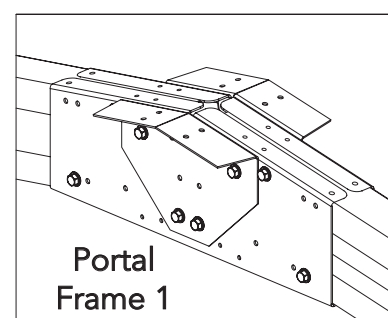
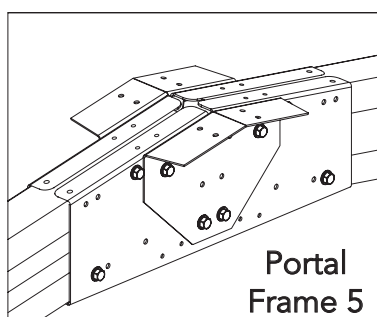
Secure it using the minimum number of FAST033 screws, then repeat on the other side.



### 7. Remaining Portal Frames and Wall Girts

Orientate Portal Frames 2, 3, and 4 to match Portal Frame 1. Ensure Portal Frame 5 faces inward, as shown.

Secure the remaining portal frames in the same manner as before, checking that everything stays straight and square as you go.

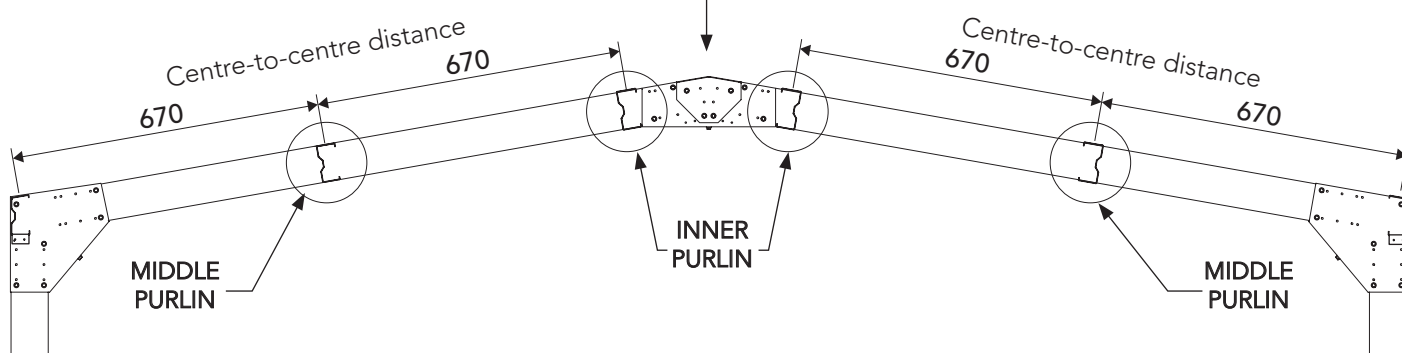
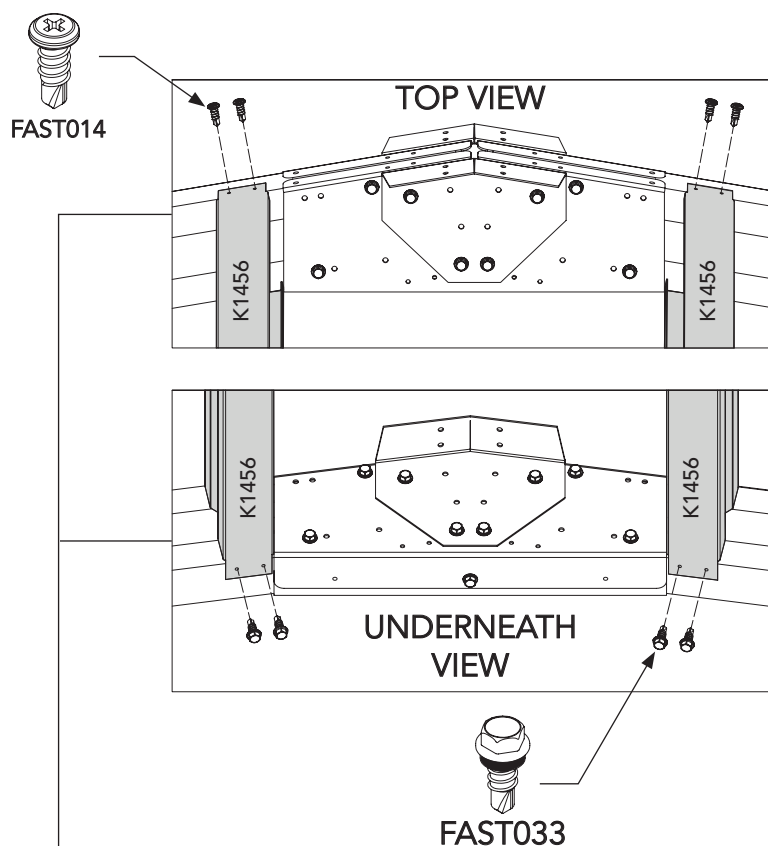


- That completes the frame construction -

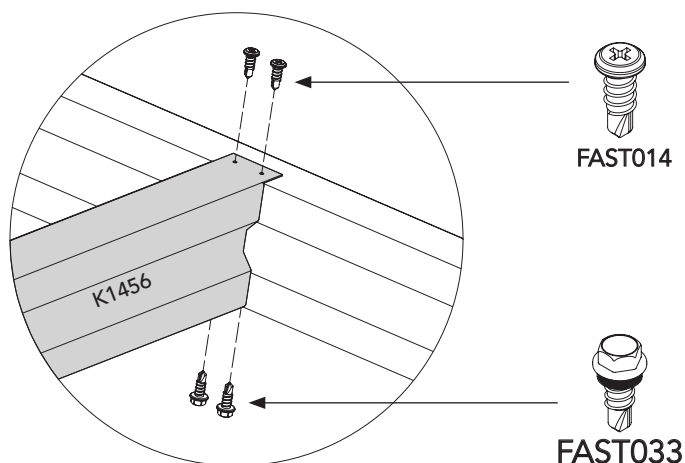
## ROOF PURLIN

1. Fit the two inner roof purlins (K1456) flush against the edge of the apex plate, ensuring the open side faces the apex plate, as shown.

2. Secure the inner purlin using FAST014 on the top side and FAST033 on the underside as shown.

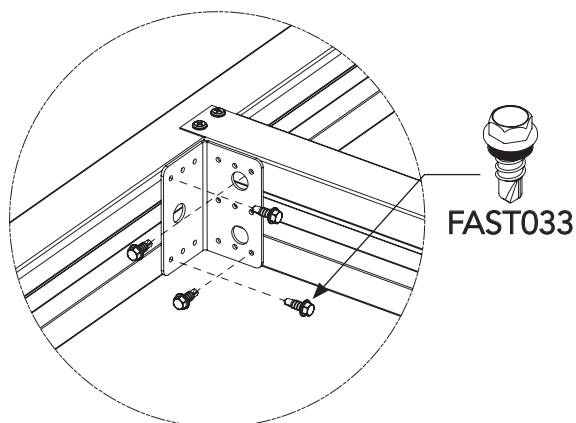
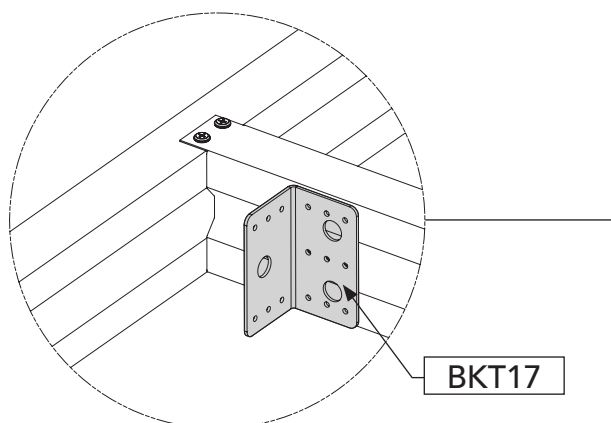


3. Next, position two middle roof purlin (K1456) at the marked location and secure it using FAST014 on the top side and FAST033 on the underside.



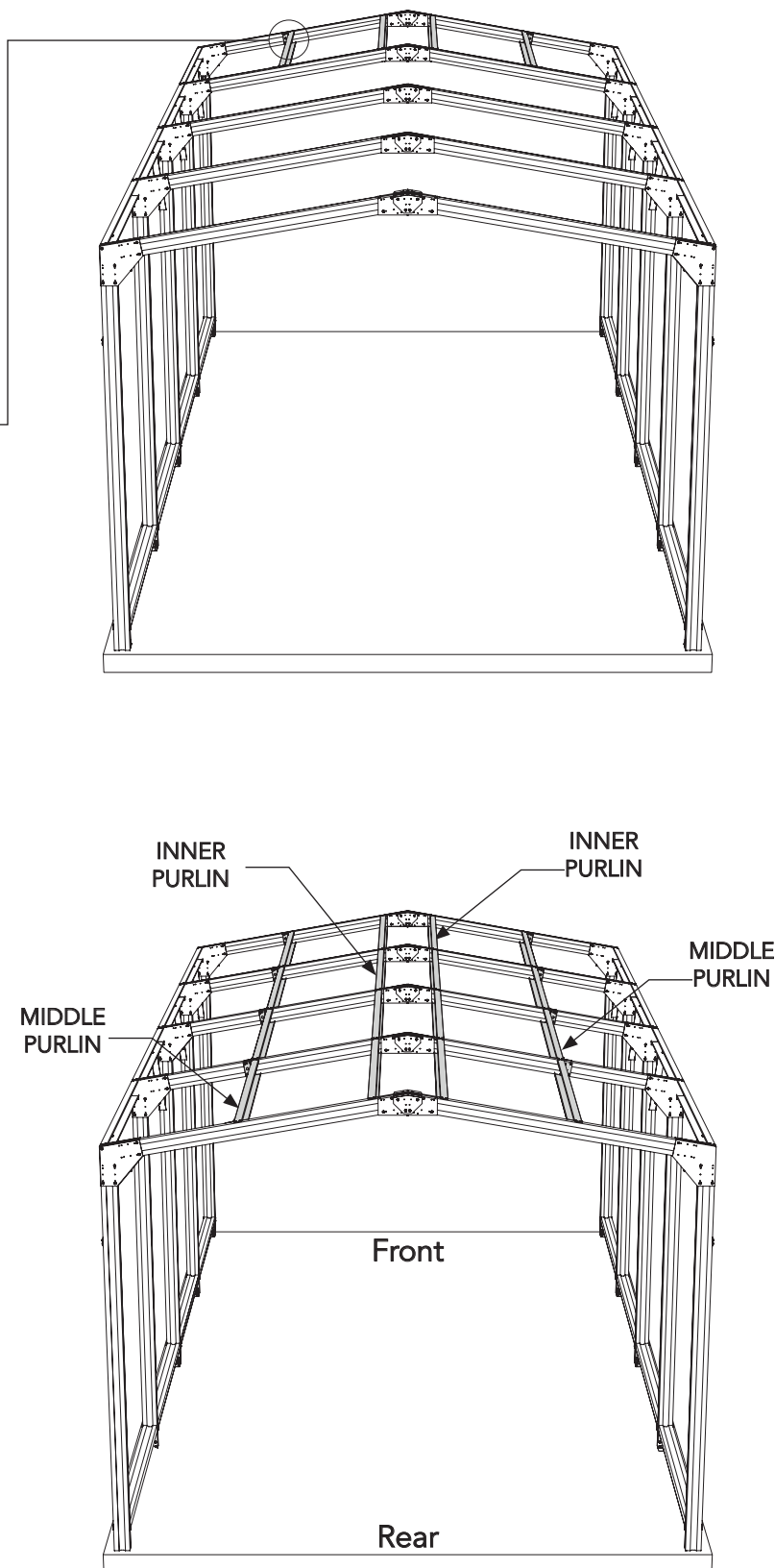
## ROOF PURLIN

4. Then fit a multipurpose bracket (BKT17) to stabilise the roof purlin to the portal frame. Fasten the bracket to both the roof purlin and portal frame using four FAST033 screws, as shown.



5. Secure the remaining internal frames in the same manner as before. Checking that everything is straight and square as you go.

**NOTE:** Install the multipurpose bracket (BKT17) to the middle purlin only. Do not fit BKT17 to the inner purlin, as shown.



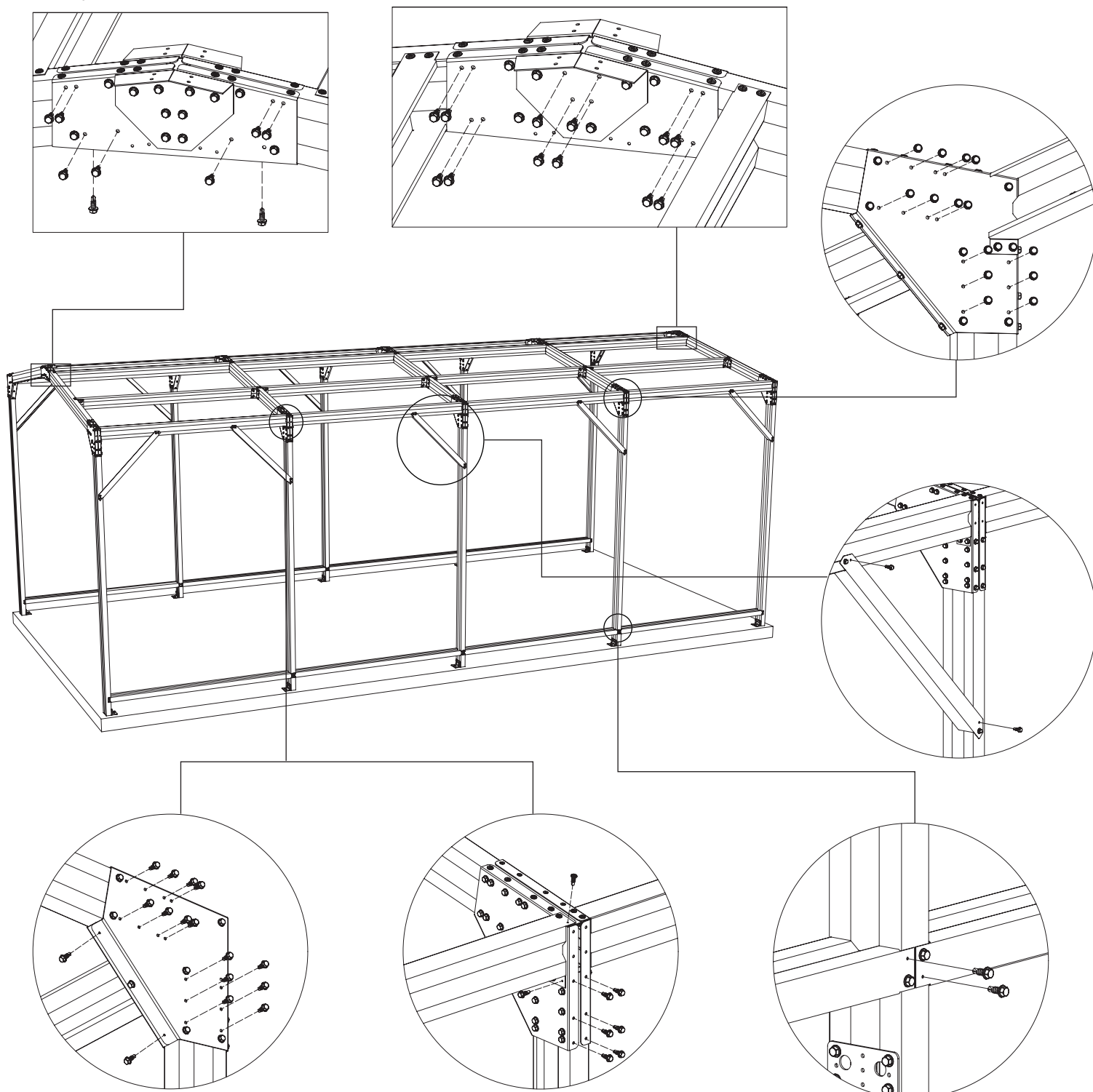
- That completes the roof purlin construction -

## FRAME FASTENERS

Before proceeding to the next step, fasten all remaining fixings on the carport using **FAST033** including the knee plates, apex plate, wall girts, and roof purlins as shown.

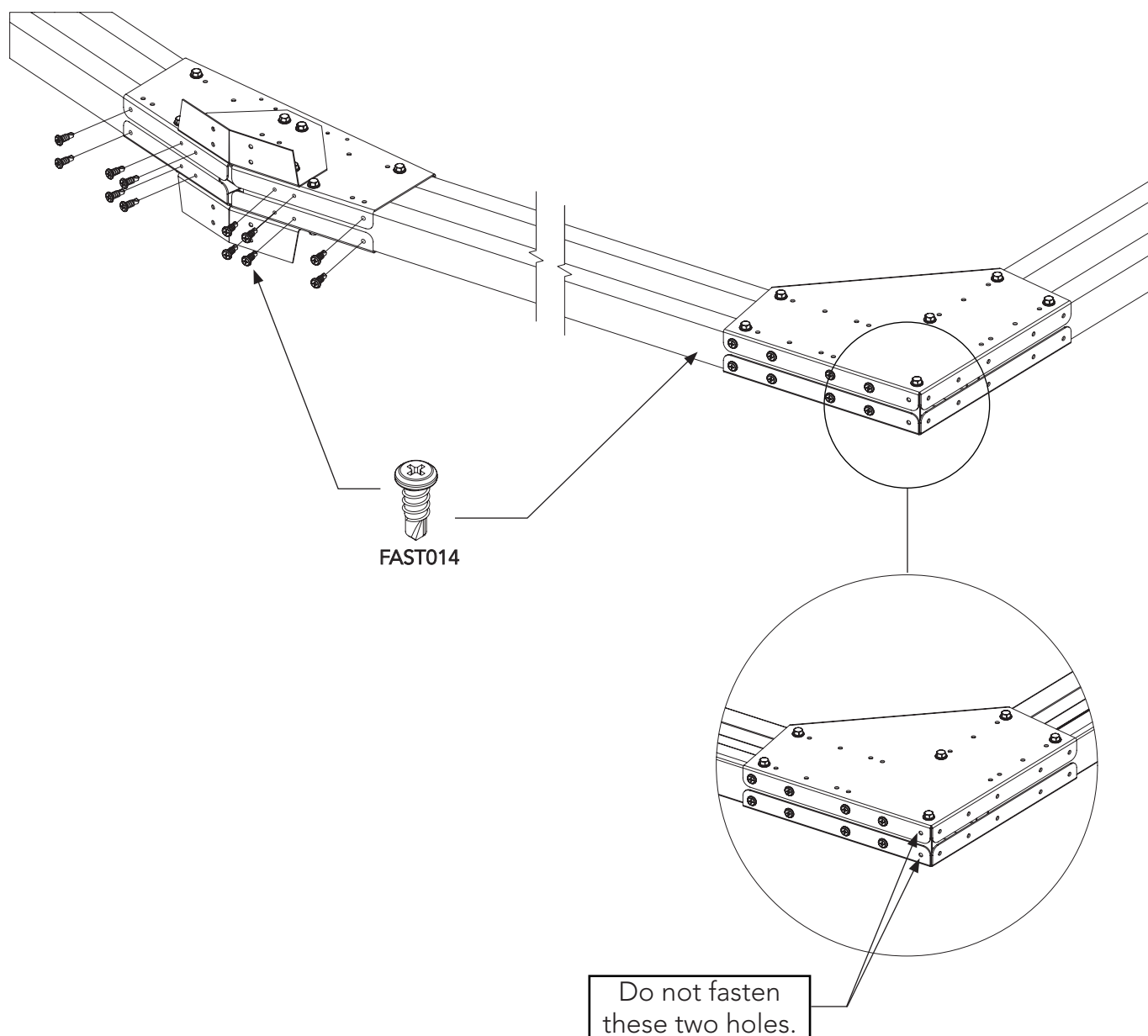


**FAST033**



## FRAME FASTENERS

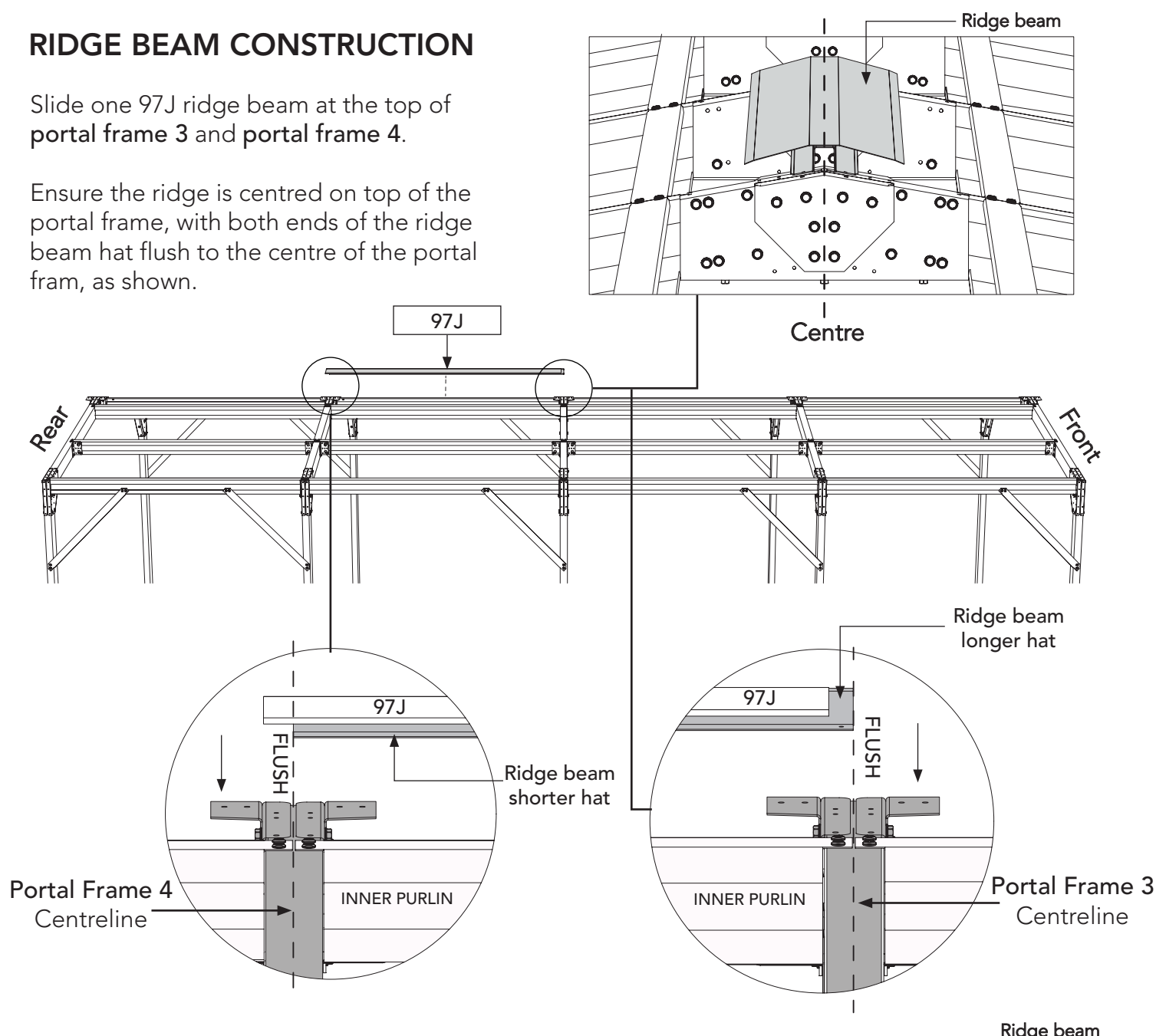
Once all FAST033 fixings are installed, complete the remaining top fixings using wafer-head tek screws (FAST014), as these areas will be covered by the roof sheeting.



## RIDGE BEAM CONSTRUCTION

Slide one 97J ridge beam at the top of portal frame 3 and portal frame 4.

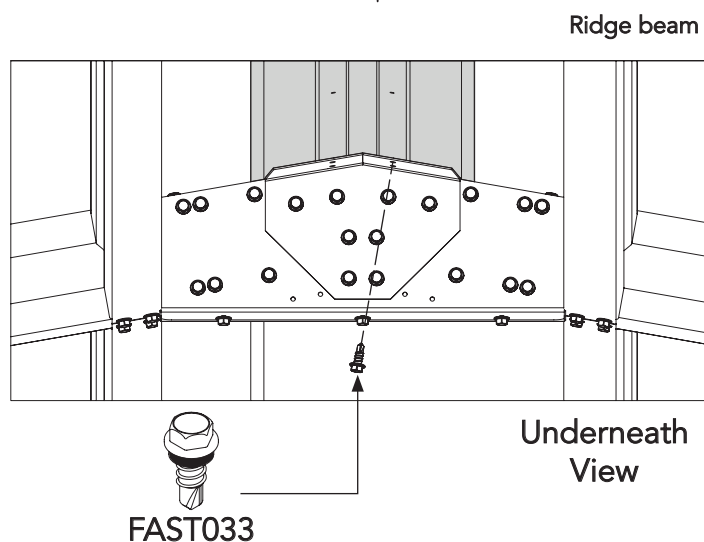
Ensure the ridge is centred on top of the portal frame, with both ends of the ridge beam hat flush to the centre of the portal frame, as shown.



**NOTE:** 97K ridge beam will be used at the front and rear of the carport.

Secure the 97J ridge beam to each portal frame using FAST033.

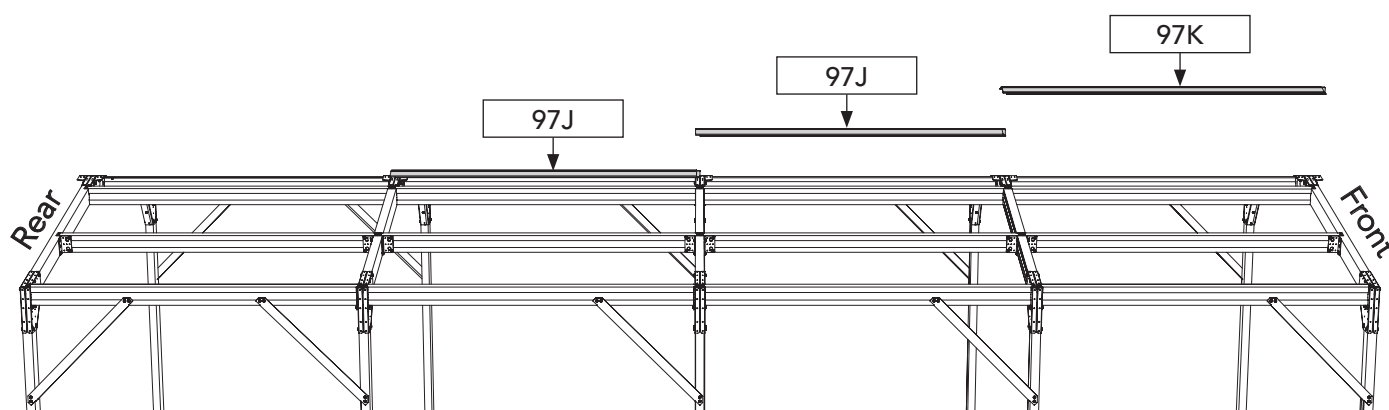
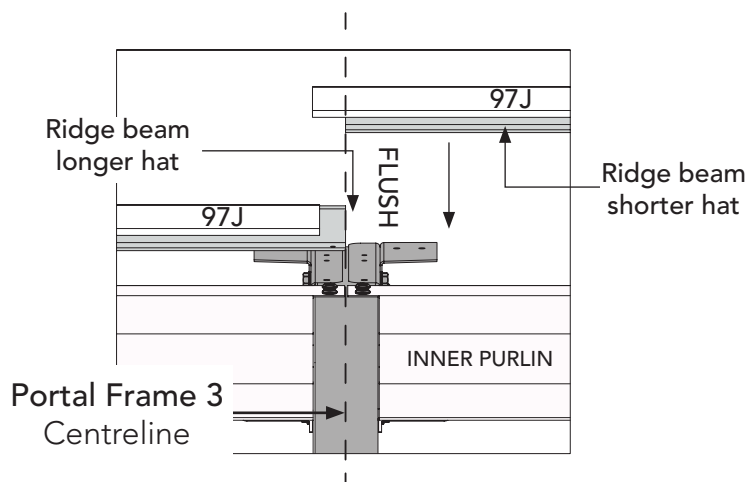
**NOTE:** Do not completely fasten the ridge beam to the portal frame. Only fasten the **left side** of each ridge plate at this stage



## RIDGE BEAM CONSTRUCTION

Next, position another 97J ridge beam on top of portal frames 2 and portal frame 3, aligned the same as the first ridge beam.

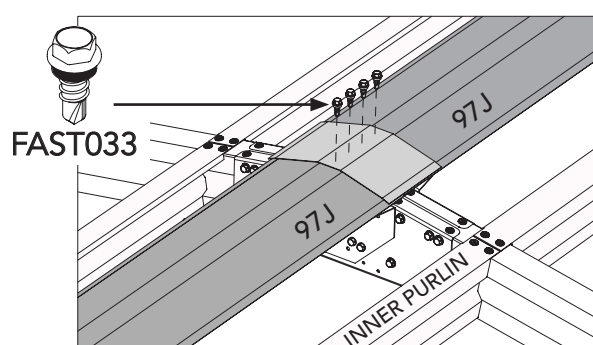
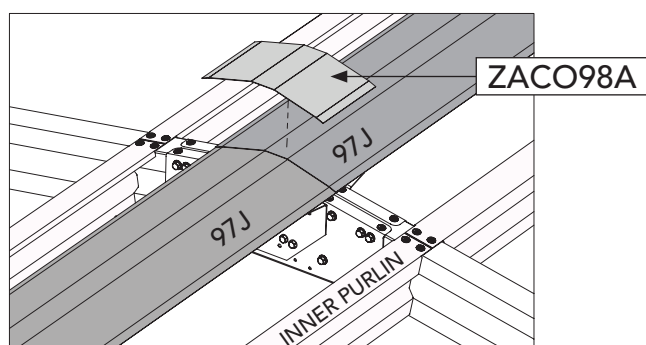
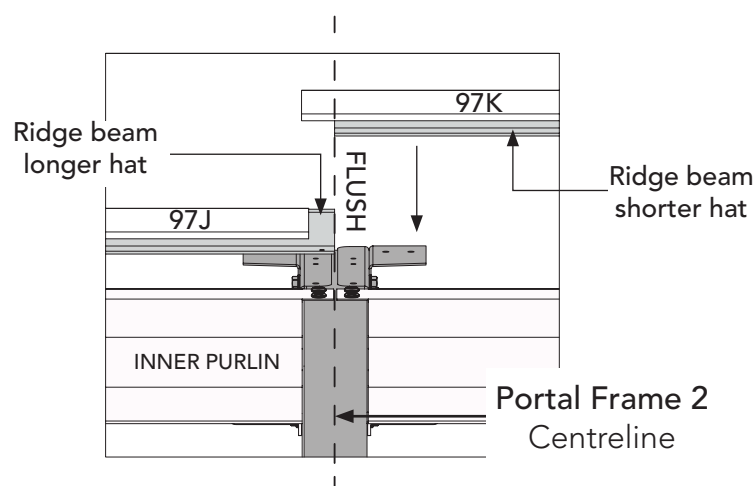
Secure the ridge beam using the same fixing method as the first ridge beam (97J).



**NOTE:** Ensure the shorter ridge beam hat is flush with the longer hat of the existing ridge beam so the new ridge cap overlaps correctly.

Attach the front ridge beam (97K) using the same method as the 97J ridge beam.

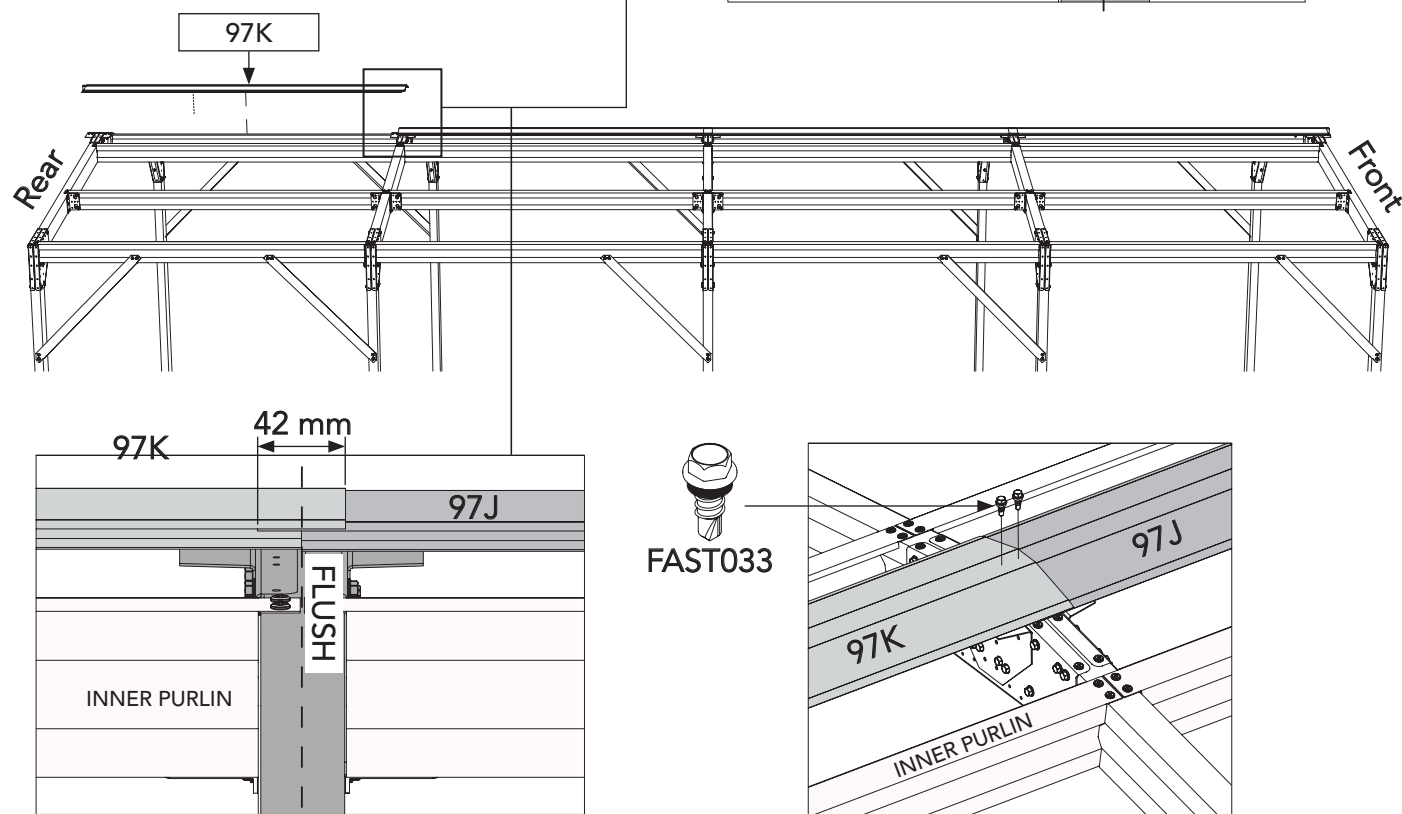
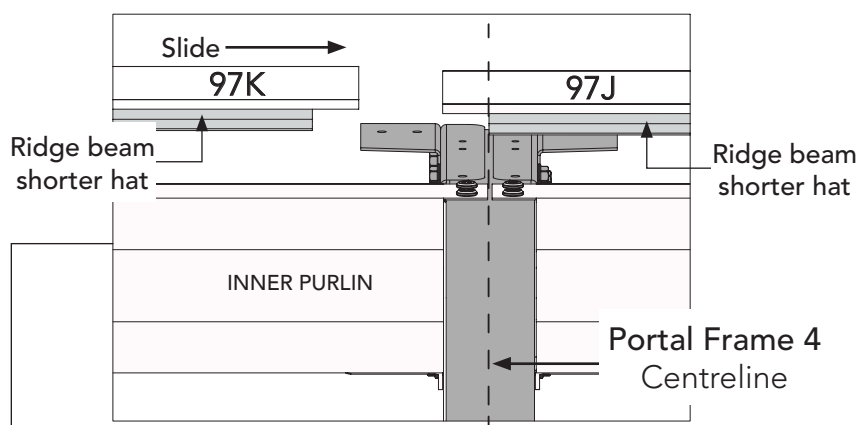
Fit ZACO98A cap joiner over the gap between the three ridge beams and secure using four FAST033.



## RIDGE BEAM CONSTRUCTION

Position the 97K ridge beams as shown and push together, sliding one ridge cap under the other. Secure using the same fixing method as the first ridge beam (97J).

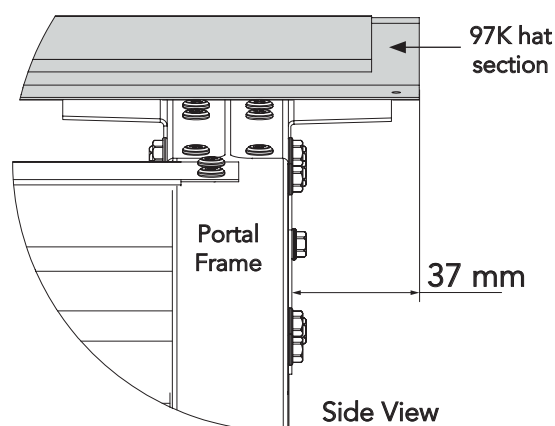
**NOTE:** Ridge caps overlap by 42 mm when correctly positioned.



Secure the overlapping ridge beam cap of the 97K to the 97J using two FAST033, as shown.

Check that the overhang from the frame to the edge of the ridge beam hat section is 37 mm, as shown below.

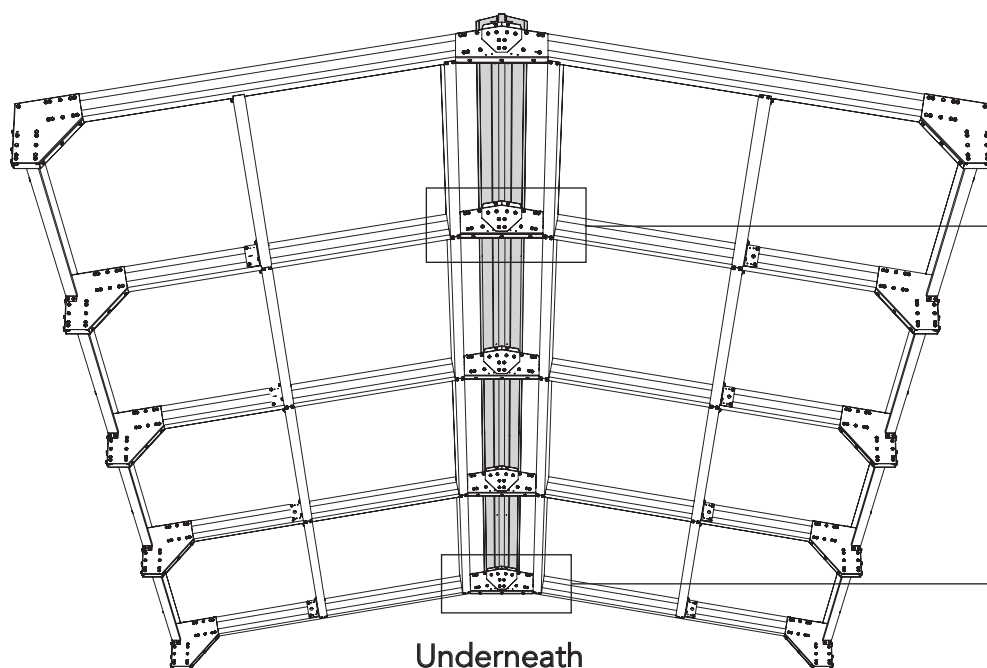
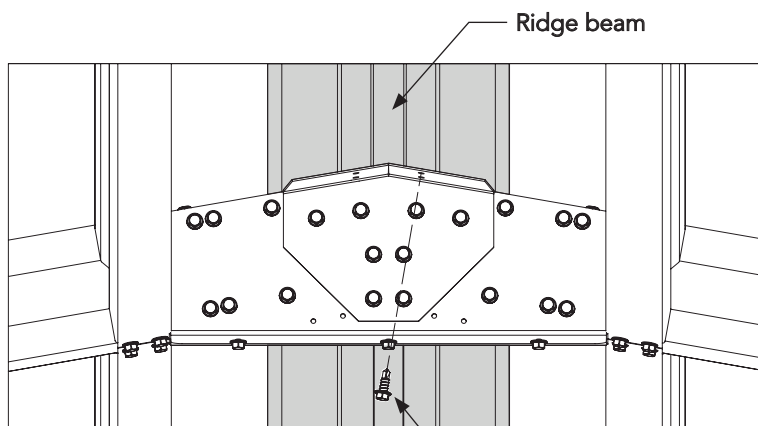
**NOTE:** Ensure the overhang is equal at both the front and rear.



## RIDGE BEAM CONSTRUCTION

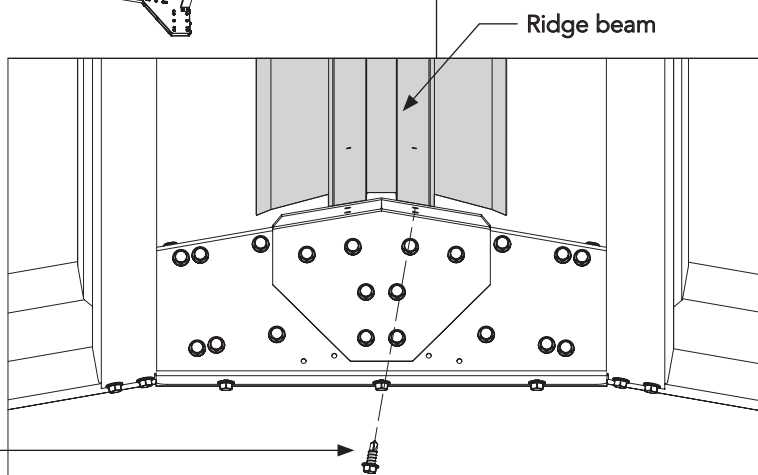
Check that all ridge beams are fastened to the left side of the portal frame before proceeding.

**NOTE:** Begin the roof sheeting on the **right side** of the portal frame and then secure the ridge beam to the frame along with the roof sheet.



Underneath  
View

For Illustrative  
purposes



FAST033

- That completes the ridge beam construction -

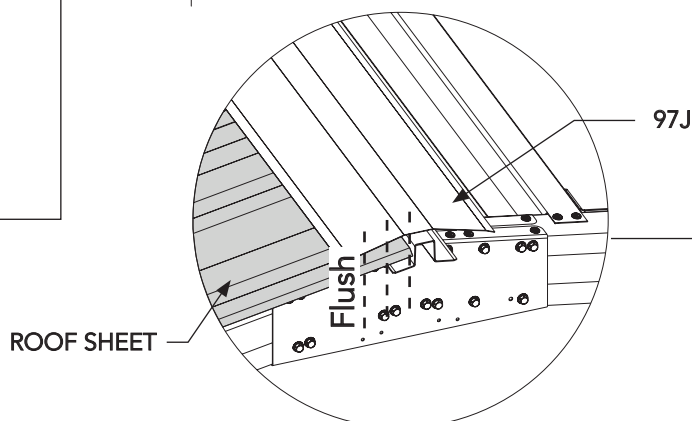
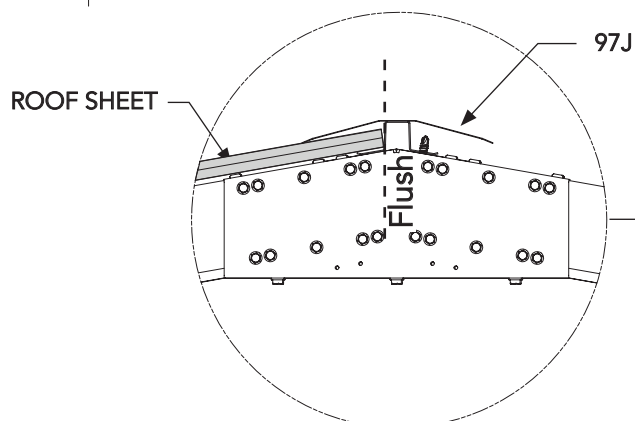
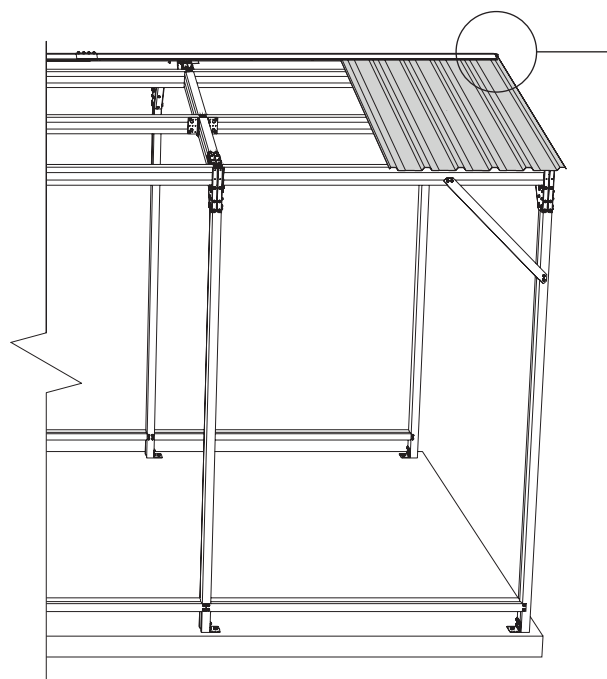
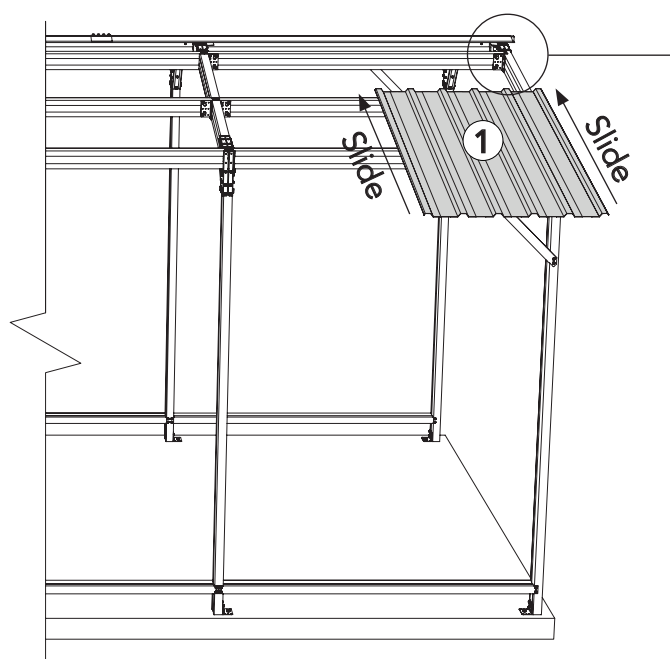
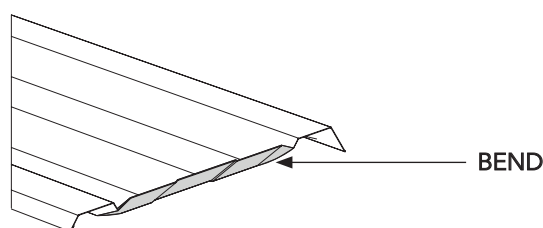
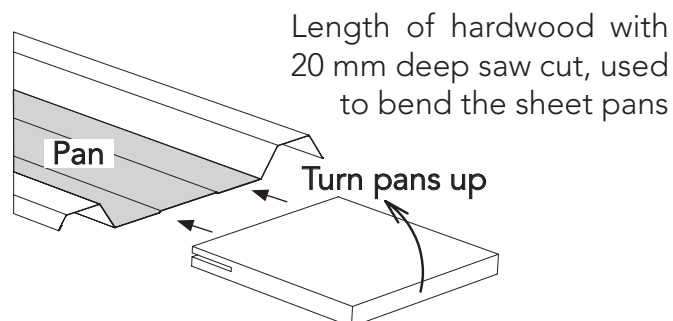
## ROOF SHEET FITTINGS

Weather the top edge of the sheets by bending the pans up. Use pliers or a turn-up tool. Keep the turn-up no higher than the ribs and no more than 20 mm in from the edge.

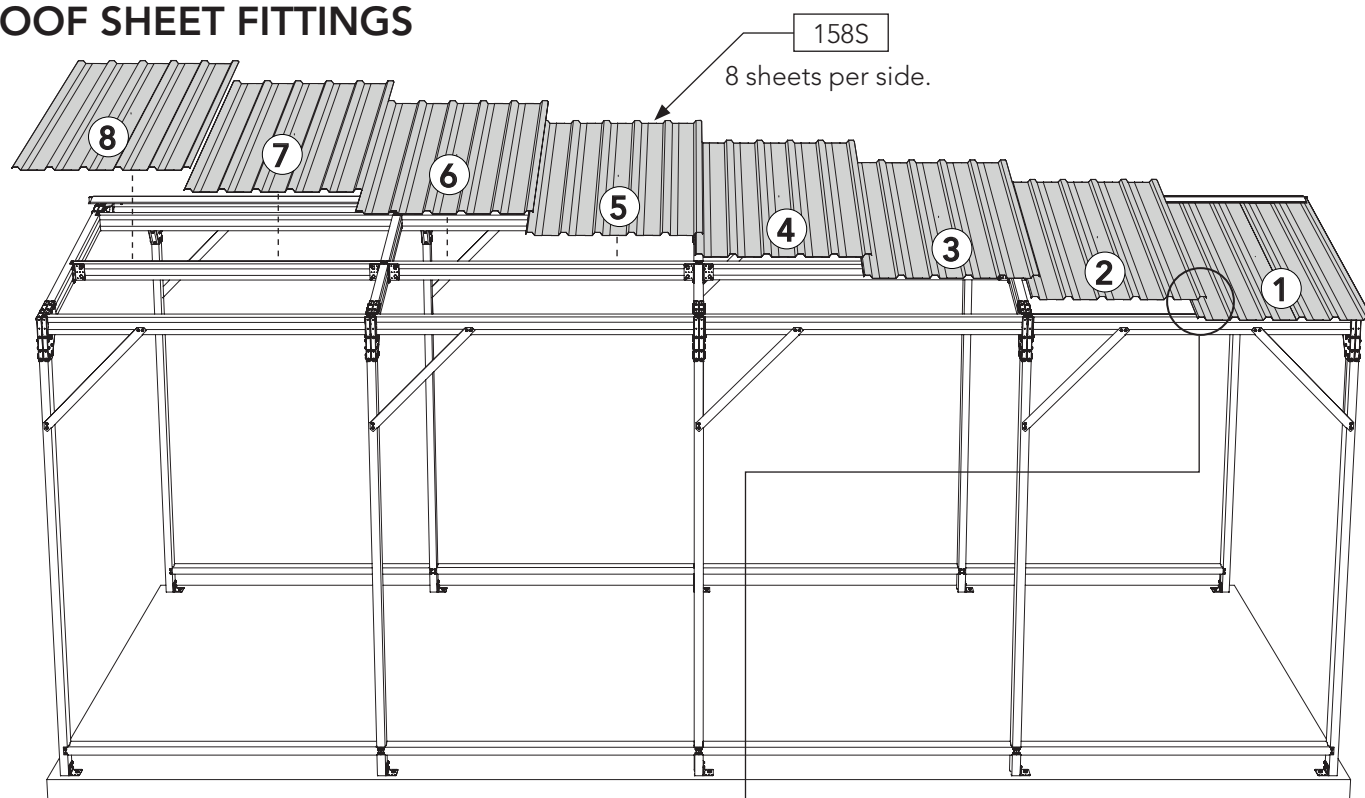
Place the roof sheets 158S into position and slide the sheeting up into the ridge beam.

Next, make sure the edge of the sheet is in line with the end of the ridge beam and overhang 50 mm to allow rainwater to flow outside the carport.

**NOTE:** Insert the weathered edge of the roof sheet into the ridge beam.

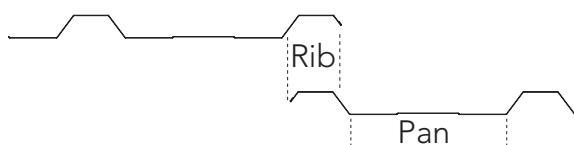


## ROOF SHEET FITTINGS



Fit the next roof sheet by overlapping the previous by 1 rib.

Overlap Roof Sheet



Use Hex head tek screw with neoprene washer **FAST033** at **every pan** to top purlin and edge purlin.

Use one Hex head tek screw with neoprene washer at **every 2nd pan** to the middle purlin.



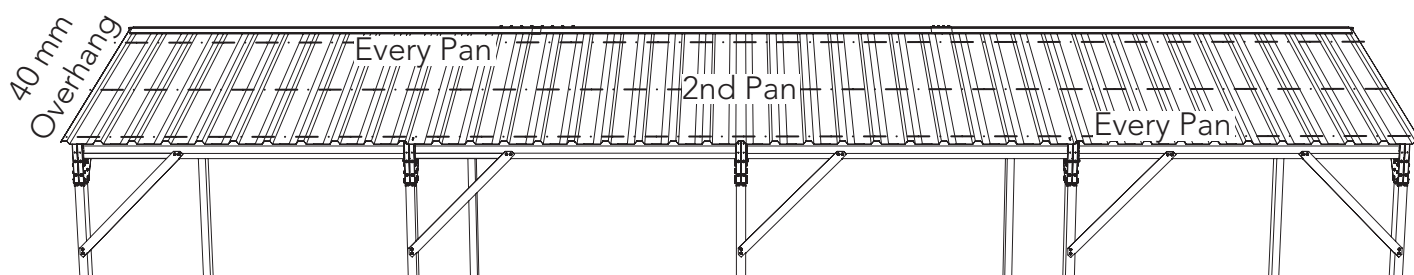
**FAST033**

Lift and fasten off a single sheet at a time, this will mean you can reach all screw positions easily from a 1.8 m high ladder.

Repeat the same for the following roof sheet.

The final sheet (8) will overhang the frame by 40 mm.

**NOTE:** Avoid walking on the roof so sheeting is not damaged. If it is necessary, walk only on the pans at purlin locations after sheets have been secured.

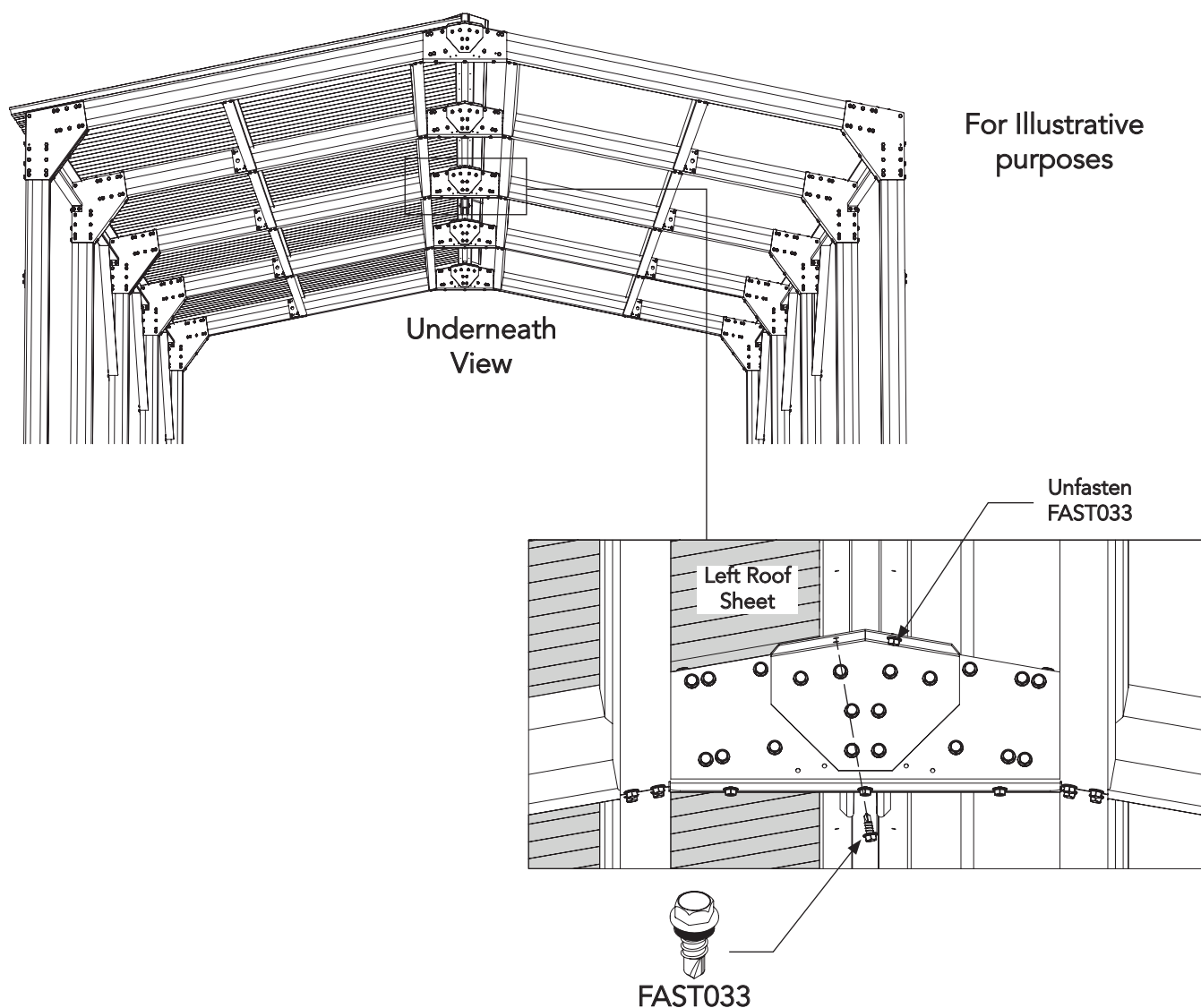


## ROOF SHEET FITTINGS

Inside the carport, fasten the portal frame to the ridge beam along with the roof sheeting using FAST033 as shown.

Also unfasten FAST033 on the right side of the ridge beam before proceeding with the roof sheeting on the left side.

Repeat the same process when installing the right-side roof sheeting.



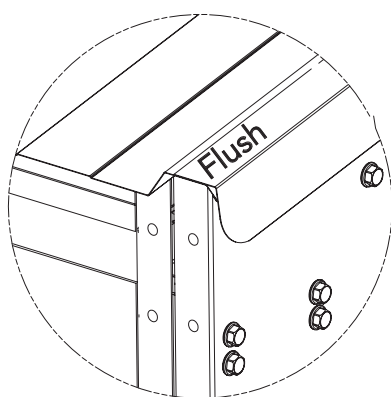
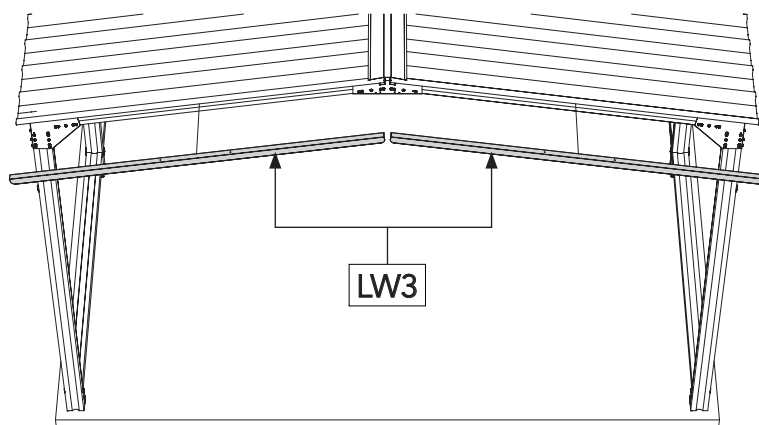
- That completes the roof sheeting -

## FINAL CONSTRUCTION

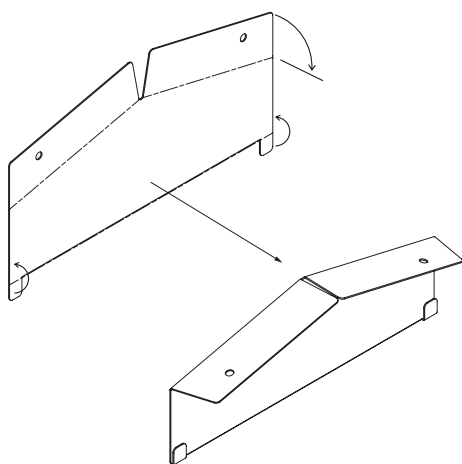
Overlap the lip into overhang sheet as shown.

Check that the edge of the lip and the roof sheeting sit flush together.

Use the pre-punch hole to secure the lip and sheet using FAST033 as shown.



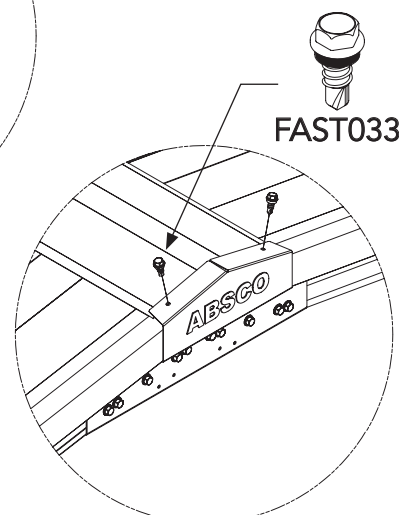
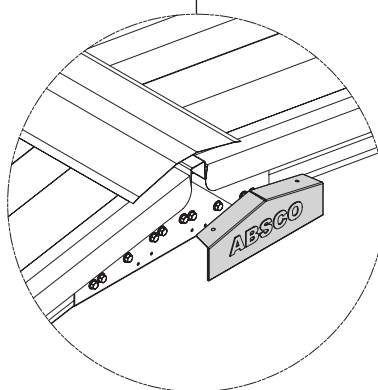
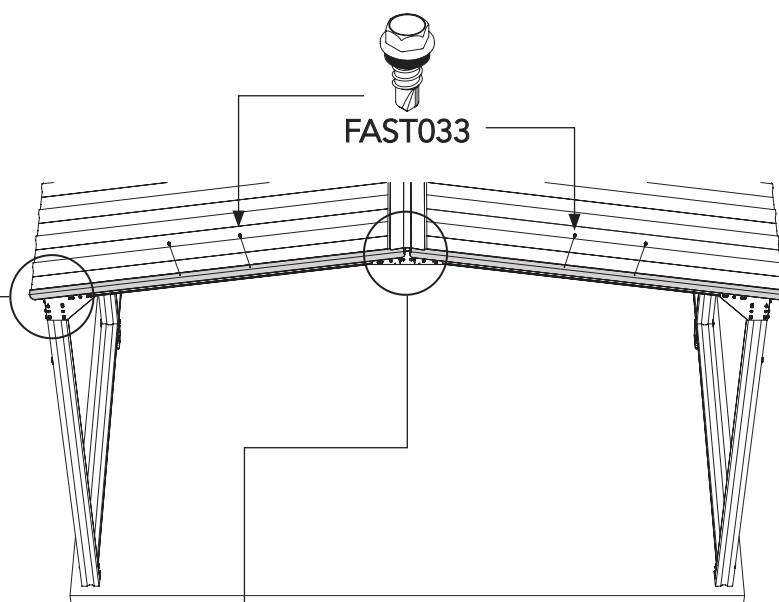
Next, bend the top and bottom gable caps ZACO14A as shown.



Then hook the bottom gable cap ZACO14A under the top of both lips.

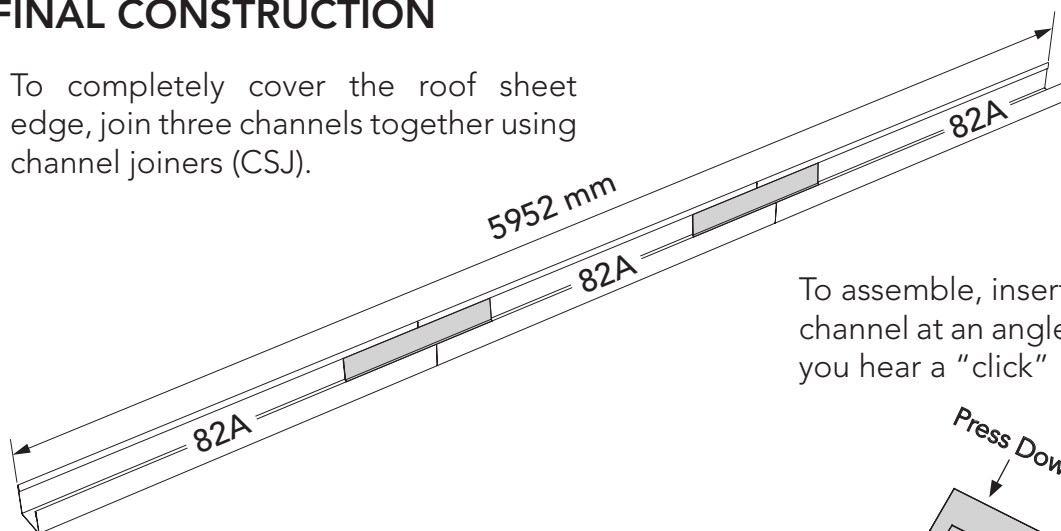
Secure the gable caps using FAST033 as shown.

Repeat the same process for the other side of the Carport.

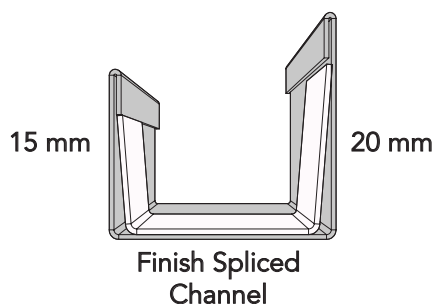
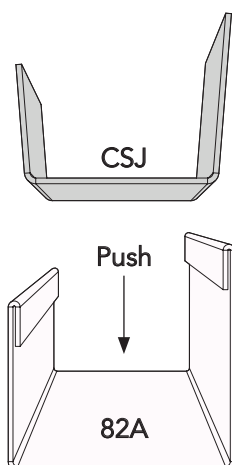


## FINAL CONSTRUCTION

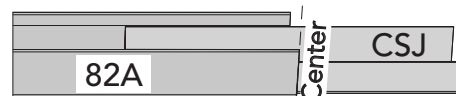
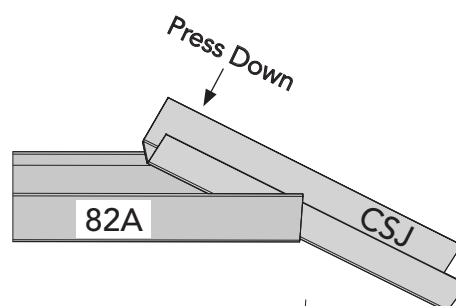
To completely cover the roof sheet edge, join three channels together using channel joiners (CSJ).



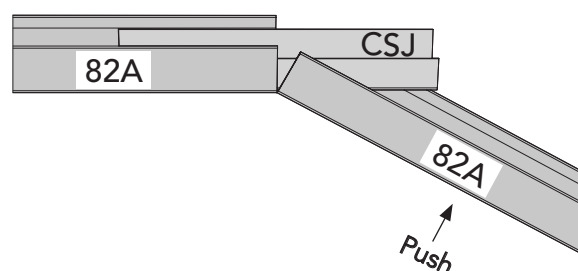
**NOTE:** Ensure the long side of the CSJ aligns with the long side of the channel as shown below.



To assemble, insert the CSJ into the first channel at an angle and press down until you hear a "click"



Position the second channel onto the opposite side of the CSJ at an angle and push firmly until you hear a "click"



Ensure the CSJ is centred between the joined channel



Repeat this step until all three channels are assembled together to achieve a total length of 5952 mm.

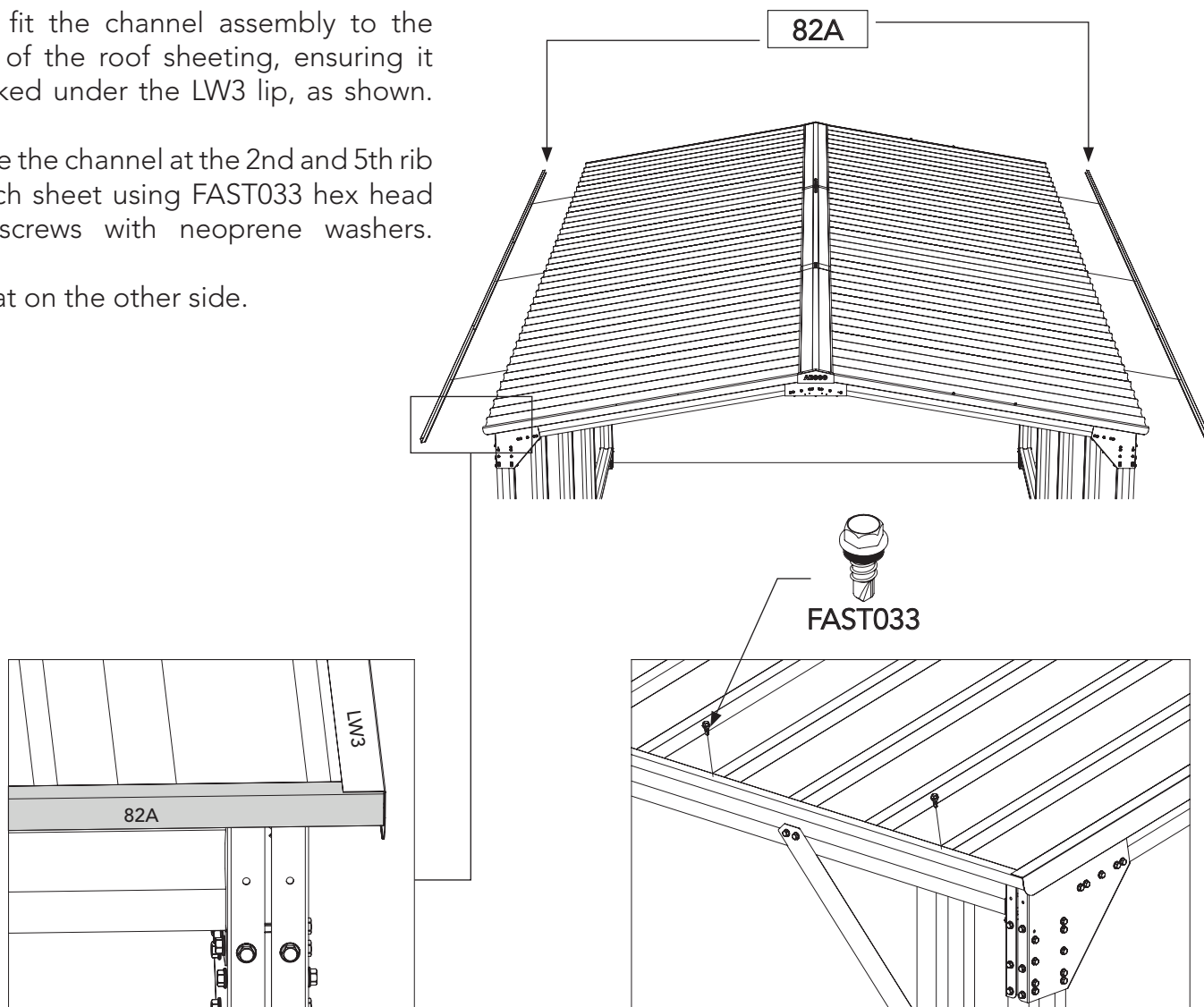
**NOTE:** If needed trim the channel to fit the edge of the roof sheet.

## FINAL CONSTRUCTION

Next, fit the channel assembly to the edge of the roof sheeting, ensuring it is tucked under the LW3 lip, as shown.

Secure the channel at the 2nd and 5th rib of each sheet using FAST033 hex head TEK screws with neoprene washers.

Repeat on the other side.



### Post-Installation Care

Clear final product of steel filings (swarf) caused by drilling holes and tek screws.

Failure to do so may cause discolouration of surfaces and promote corrosion.

Refer to warranty for more details

Some parts are used across multiple models, so certain holes may not be required for your assembly.

After completing the build, you may insert additional fasteners into any unused holes if desired.

- That completes the final construction -

## Absco Portal Carport Notes

### General

- 1.G This instruction manual shall be read in conjunction with other consultants' drawings, specifications and written instructions provided by Absco and/or their representatives.
- 2.G The drawings provided herein are for installation and structural engineering purposes only. If discrepancies are discovered within the documentation provided, these shall be brought to the attention of Absco and written approvals obtained prior to commencing the affected section of work.
- 3.G If in doubt ask.
- 4.G Until approvals from the local authorities are obtained, commencement of construction from these drawings shall not commence.
- 5.G Unless varied by the project specification, all materials and workmanship shall be undertaken in accordance with the relevant Australian standards and the by-laws and ordinances of the relevant building authorities.
- 6.G All dimensions indicated in these drawings shall be verified on site by the installation contractor. Scaling of drawings shall not be undertaken.
- 7.G Prior to commencing works on site, the contractor shall verify the position of all services in the area to ensure that the construction does not interfere with any of those services.
- 8.G During installation on site the carport structures shall be maintained in a stable condition with no part becoming overstressed or permanently deformed.
- 9.G In circumstances where the carport has been installed in a manner which is inconsistent with the installation manual, structural certification shall be void.
- 10.G The structural components detailed within this installation manual have been designed for the following loads in accordance with AS/NZS1170 based on a Class 10a, Type 2 structure:
  - Wind Load: Classification N2, Non-Cyclonic to AS4055 where  $V_u = 40 \text{ m/s}$ ,  $V_s = 26 \text{ m/s}$ 
    - Windward wall  $C_{pe} = 0.7$
    - Leeward Wall  $C_{p,e} = -0.3$  to  $-0.5$  as applicable based on carport geometry
    - Side Wall  $C_{p,e} = -0.2$  to  $-0.65$  as applicable based on carport geometry
    - Roof  $C_{p,e} = -0.3$  to  $-1.04$  depending on wind direction
- It is noted that this structure has not been designed for any roof live load. Accordingly it will need to be clearly identified with either a secured plate or indelible mark that human access on the roof is not permitted.

## Absco Portal Carport Notes

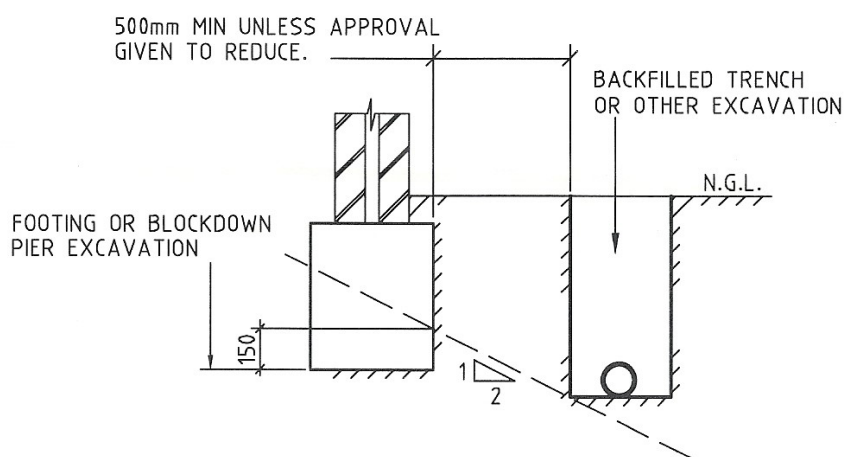
### Steelwork

- 1.S All structural steelwork shall have a corrosion protection system applied consistent with AS/NZS 2312-2002.
- 2.S All structural steelwork detailed within this installation manual shall be minimum Grade 550 for roll formed sections (including roof sheetings, columns, rafters, purlins & top hats).
- 3.S All multipurpose brackets (47x47x1.9EA x 80 long) shall be minimum Grade 450.
- 4.S All portal frame knee and apex plates shall be minimum Grade 450
- 5.S All roof sheeting shall be minimum base metal thickness of 0.3 mm
- 6.S All lipped C-framing (columns, rafters and purlins) members shall be minimum base metal thickness of 0.75 mm.
- 7.S All knee braces (40x40x1.0 EA) shall be minimum Grade 550.
- 8.S All top hats shall be minimum base metal thickness of 1.0 mm
- 9.S All portal frame knee and apex plates shall be minimum base metal thickness 1.15 mm
- 10.S All portal frame knee plates shall be minimum base metal thickness 1.35 mm
- 11.S All bolt fasteners for anchoring shall be M10 minimum grade 4.6/S hot dip galvanised.
- 12.S Installation of screw fasteners shall generally be undertaken in accordance with the relevant provisions of AS1562.

## Absco Portal Carport Notes

### Supporting Slab and Foundations

- 1.F The supporting slab foundation for the carport shall be of a minimum size indicated on the installation manual. The top surface of the formed slab shall be level and free of any irregularities which would inhibit the installation of the carport.
- 2.F The structural engineering design for the supporting slab foundation shall be undertaken by a suitably qualified structural engineer. The design shall consider all relevant provisions of AS3600 and AS2870.
- 3.F Between adjacent footings or excavations, the contractor installing the slab foundation shall not exceed a rise of 1 in a run of 2 in line of slope.
- 4.F Unless approved in writing by the slab foundation engineer, the limits of excavations near existing footings shall be in accordance with that indicated below.



The contractor shall undertake investigatory localised excavations near existing footings to ascertain their depth prior to excavating adjacent to them. It is noted that excavating to a depth below that indicated above shall not be undertaken without the written approval from the engineer.

- 5.F The developer of the supporting slab foundation shall design the slab for the following ultimate limit state loads at each column base connection.

|                              | Force (kN) |
|------------------------------|------------|
| Column Uplift                | 2.0        |
| Column Base Compression Load | -1.2       |
| Longitudinal Shear           | 0.8        |
| Transverse Shear             | 0.4        |