ASSEMBLY Manual

Kitset/Flatpack

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SAFTEY WARNING

For your safety and to avoid any injury please ensure you have safety gear on during assembly / installation, such as: Protective glasses, gloves, earmuffs, etc.

Tools required:

Electric drill, electric screwdriver, welder (Bottom runner), waterproof sealant, rivet gun, self- expansion foam, level, tape measure, clamps, ladder, skill saw, grinder and craft knife.

At least a second person (helper) is needed to ensure easier completion of assembly/installation.

Time allocation:

At least two days are required to complete assembly/installation, additional days may be required depending on DIY skill level/experience.

Construction site:

Allow at least 2m width of clearance surround the construction site, ensuring ground is level and no risk of flooding.

If steel base/chassis is placed directly on dirt/grass, ensure there is no risk of subsidence in the soil surface during the rainy season. Concrete paving is recommended to be placed under the steel base/chassis to enable ventilation, increase the ground contact area and extend the life of the steel base/chassis.

Assembly guide contents/disclosure:

The contents of this manual aim to compile all the information necessary to complete the assembly/installation of the kitset/flatpack purchased. It does not cover the basic use of power tools or any ‘how to’ DIY skills/tips.

Instructions and images shown in this manual are generic and may not be a representation of the kitset/flatpack purchased. Due to multiple add-ons/options available to kitset/flatpack users, the user of this manual should skip/ignore any step not relevant to their kit. In some cases, it is not necessary to follow the steps in order, where the user sees more fit due to different circumstances and situations, moving steps around as required may still result in a correctly completed finished pod.

Kitset/Flatpack content:

Different kit sizing and options will mean that not all contents are the same for all kits. In general, a complete standard kit should have the following:

- Steel chassis(One piece welded or combined chassis)
- Plywood
- Steel bars (multi fold) for attached with steel base *(75mm wide)*
- Steel bars (double fold) for attached with multi fold steel bar on the door enter location*(75mm wide)*
- Aluminum corner posts
- Steel angle bars *(bracing between pillars – 60mmwide)*
- Aluminium interior angle trims
- Joinery frames and trims *(U channel attachments)*
- Windows/slide door
- Wall & roof panels
- Roof flashings
- Screws

  115mm & 75mm for roof, 36mm countersunk for ply tosteel base, 18mm high strength for window frames.

  (75mm roof screws are also used on bracing steel bars – if corner steel post option is chosen)
- Rivets

  White on aluminium pillars, silver on steel and wall panels, black on grey colour roof or flashings etc.
- Slide door locks or single door lock

NOTE: Expanding foam or weatherproof sealant/silicone is not part of material supplied with the kitset/flatpack

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Assembly / installation instructions

BASE PREPARATION

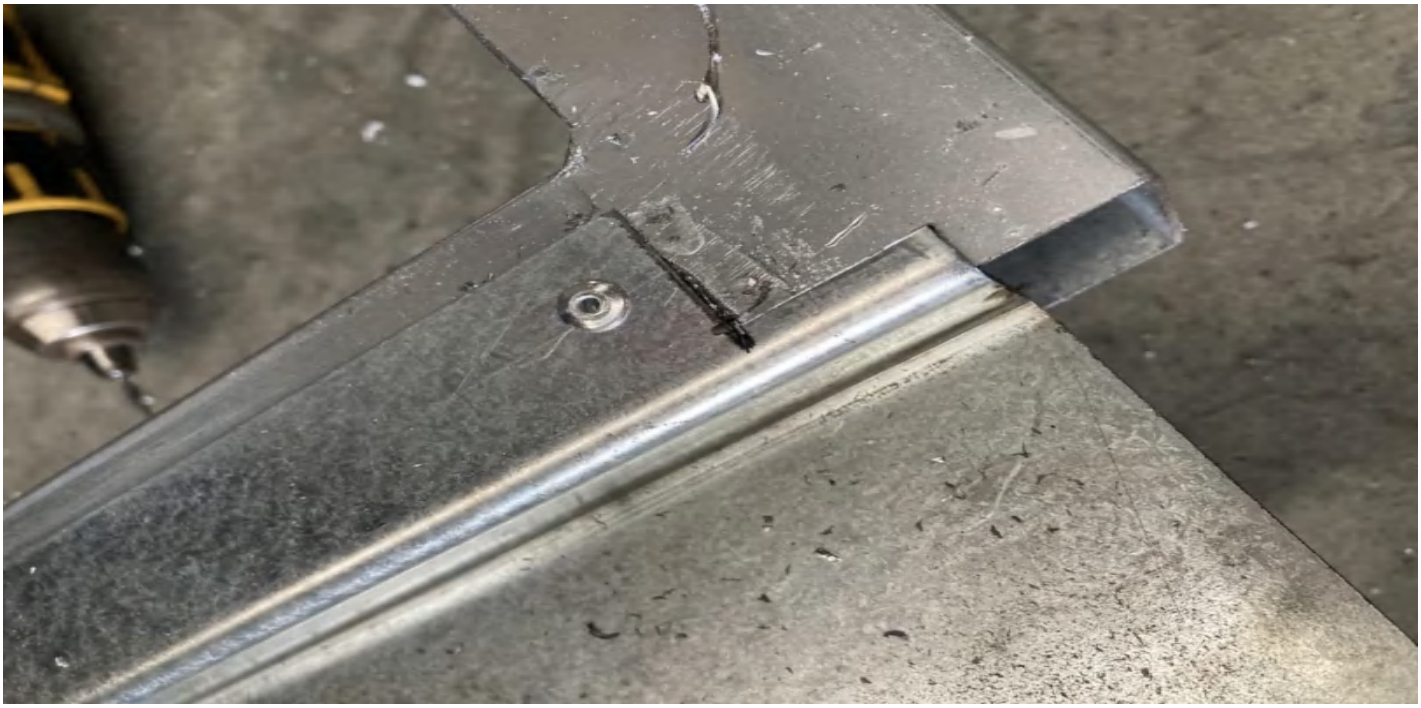
STEP 1 - Combined Chassis Base Preparation

Place all the chassis pieces on top of the long beams (the beams need to welded together if more than 6.25m).

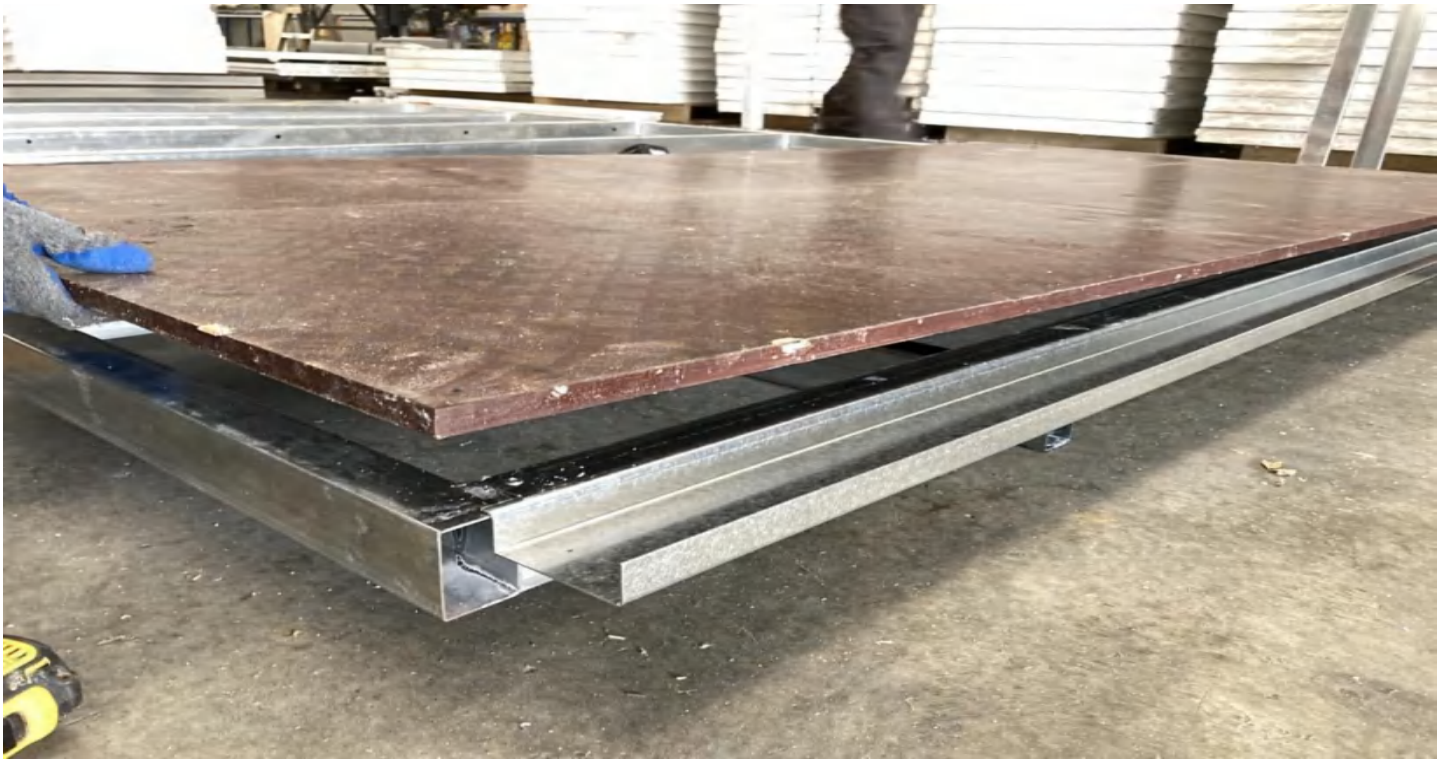
Prepare the tools and parts that you need to join the chassis

Mounting bolt, make sure bolt washers and bolt caps are on the correct place.

Secure the chassis to the long beams



Use couple rivets temporary to fix the triple fold channels onto the steel frame.



Place plywood on the prepared base.

Using self-drilling/countersunk head screws supplied to attach plywood to steel frame.

STEP 2 – SCREW DOWN PLYWOOD

Figure 2 – plywood placement

- Ensure steel base is placed as flat as possible.
- Attach plywood to steel frame using self-drilling/countersunk head screws supplied.

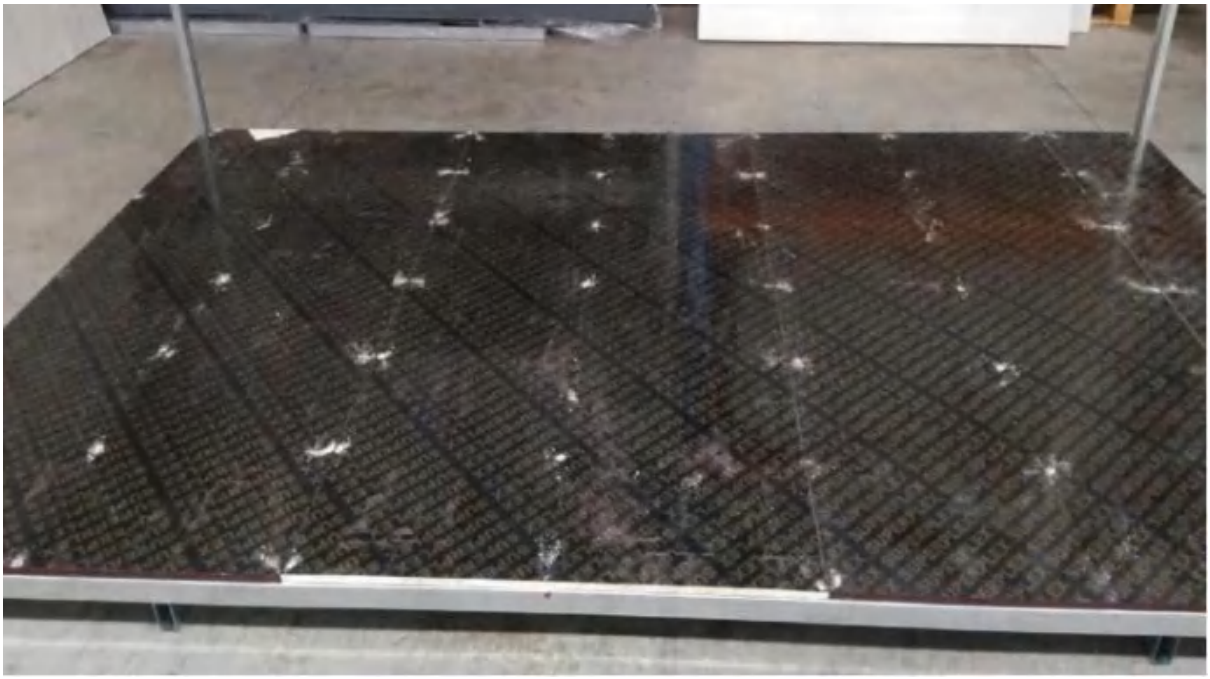


Figure 3 – Plywood secured

- If plywood has already been attached to steel frame please ensure more screws are added throughout (at 400mm intervals) as seen in Fig. 3, as only a minimum number of screws were used to allow for movement during transport.

WALLS & JOINERY INSTALLATION

Begin wall installation from the back corner, working your way to the front. As each side is completed, ensure that it is square (by confirming the bottom length of the wall is the same as the top length). Wall panels overlap at the tongue of one panel and are riveted together at the tongue at approx. 300mm-400mm intervals.

STEP 3 – WALL PANELSSTEP 5 – WALL PANELS

Figure 11 – Riveting aluminium pillar to base

- **If the white aluminium corner pillars option is chosen**, position the pillar in the corner, rivet bottom over steel base and begin inserting wall panels as shown in Fig. 11.
- **If the steel corner posts option is chosen**, begin inserting the wall panels.

Figure 12 – Clamping corners

Figure 13 – Clamping wall panels

- Whether steel or aluminium corner option is used, clamping wall panel edge to corner and between panels, helps in aligning the walls to ensure walls are square before riveting, as shown in Fig. 12 & Fig. 13.

  Note: When reaching a wall panel that joins to a window or slide door, pre-assembly of the window frame/trims and inserting into the wall panel is required before moving to the next wall panel.

STEP 4 – JOINERY INSTALLATION

Slide door and window frames will require assembly before being inserted into the wall panels.

Note: Slide doors & windows have 4 pieces constituting the frame, however the windows have 4 mitre-cut trims (U-channel attachments) to the frame while the slide door has only 3 mitre-cut trims (U-channel attachments).

Figure 14 – Window frames (side and bottom)

- Locate the side and bottom plate of the frames, mark, silicone and screw using screws supplied as shown in Fig. 14.

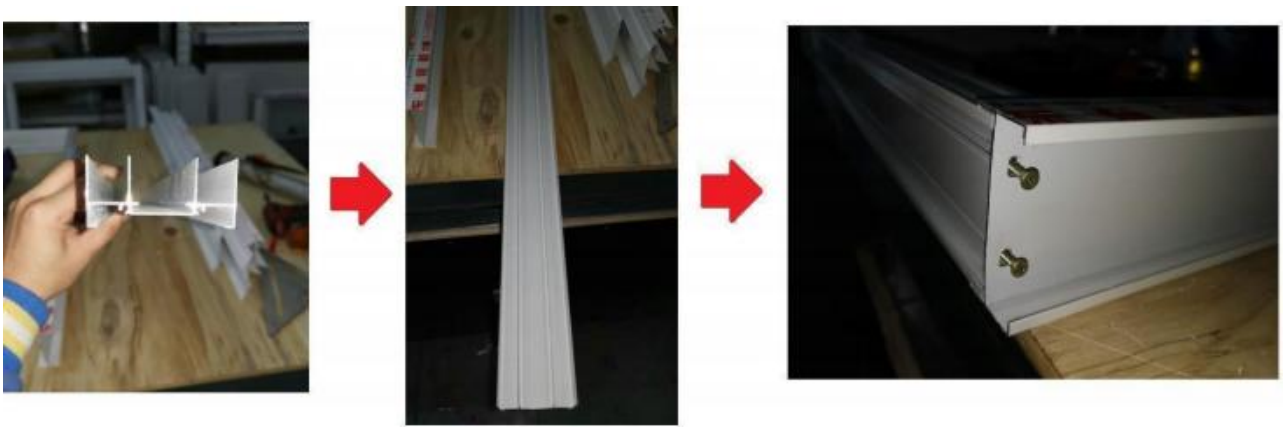


Figure 15 – Window frames (Top plate)

- Locate the top side of the frames (with two middle tracks as seen in Fig. 15.), position andscrew.

Figure 16 – Window trims

- Clip the window frame trims (U-Channel attachments) on to the window frames, with the mitre-cut angle facing away from the frames.
- Drill and rivet on corner as shown in Fig. 16.

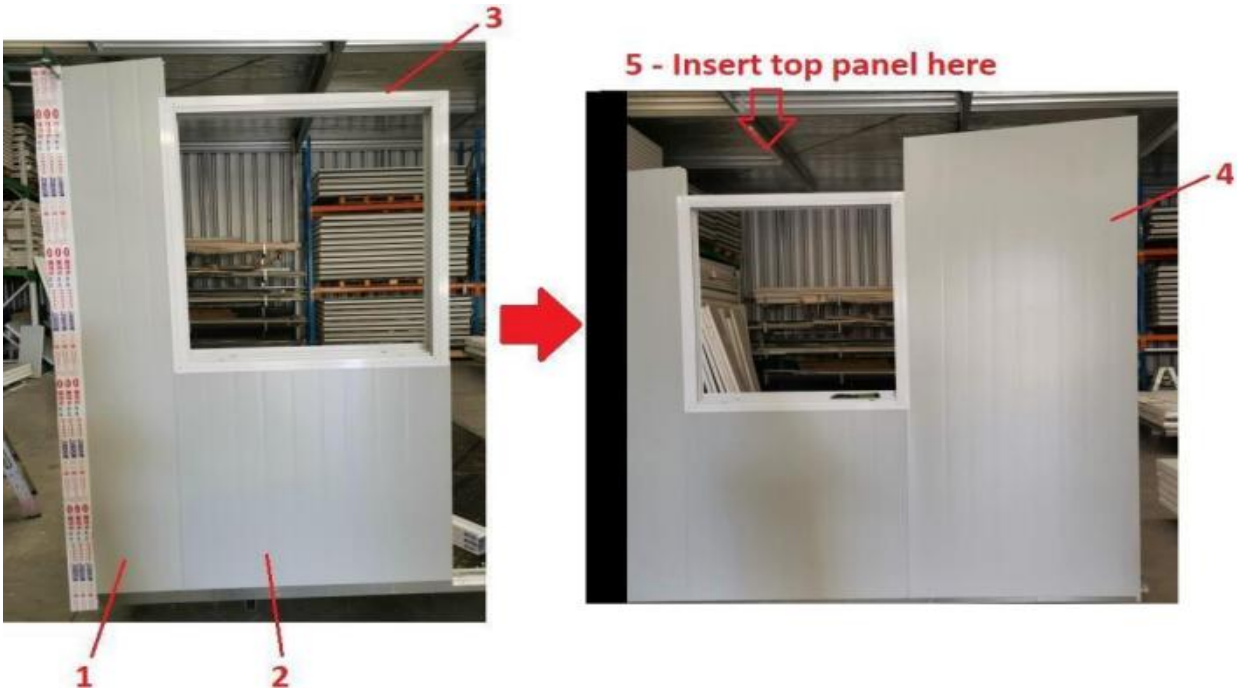


Figure 17 – Wall with frame insert

- Slot window/slide door frame into wall panel, slot the next SIDE joining wall panel and then insert from the TOP the quarter above window panel as shown in Fig. 17.

BRACINGS

STEP 5 – TOP BRACINGS

Figure 19 – Aluminum pillar 'corner to corner' steel angle bar bracing

- Ensure the walls are square before attempting this step.
- **If the white aluminium corner pillars option is chosen**, place the steel angle bar from 'corner to corner' overlapped by the aluminium pillar lip and rivet as shown in Fig. 19.

ROOFING

STEP 6 – ROOF PANELS

Roof panels are placed on the walls in sequence where they overlap at the top (ridges) and underneath at the ceiling point (tongue), refer to Fig. 21.

On standard size kits (2.4m wide pods), a 2.9m roof panel length will have an overhang of 500mm, which is generally positioned 300mm overhanging the front side of the pod and 160mm to the back. This may be adjusted to the user's preference or as available depending on the width of the pod.

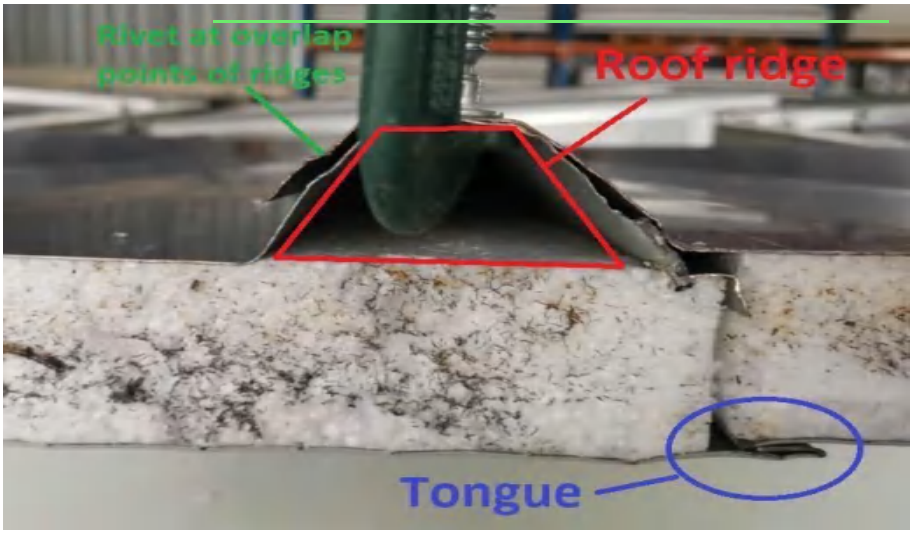


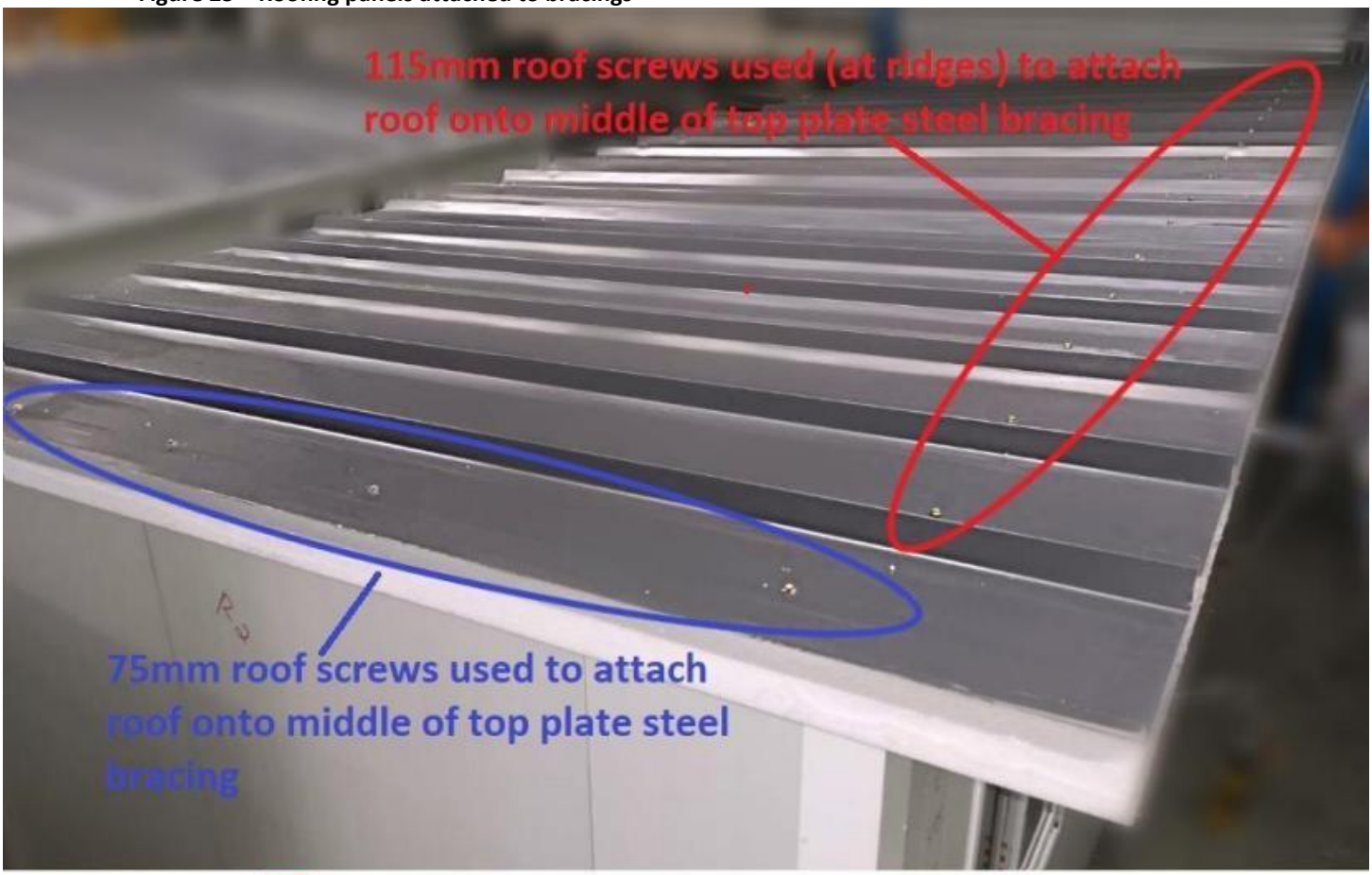
Figure 21 – Roof panels

- Begin by check the total width of the roof panels when joined, to determine the overall overhang available for the short sides of the pod. *(**Note**: Most kits will have a 'half roof panel' that will require a trim of the width on the edge to enable the attachment of roof flashing, be sure to take this into account when taking the measurement – refer to roof flashing step if required)*
- Use the measurement to determine where to position the first panel over the edge of the pod. Join the remainder roof panels, ensuring they are positioned as straight as possible (refer to Fig. 22) to enable easier installation of roof flashing.

Figure 22 – Roof panels positioned as straight as possible

- Rivet the roof panels together at the angled overlapping point of the ridges as shown in Fig. 21, at 300mm-400mm intervals. Apply weatherproof sealant / silicone over all roof rivets.

Figure 23 – Roofing panels attached to bracings



- Determine the correct position and screw down the roof to the top plate bracings, using the appropriate length screws as shown on Fig. 23.
- Ensure that the 115mm screws are used on the ridges (front and back – long sides) and 75mm roofscrews are used on the short sides.

- It is good practice to pre-drill the steel on the top side ONLY of the roof panel, apply silicone, and then screw down the roof to ensure weather tightness at screw point penetration.
- Rivet the underside of the roof panels (ceiling) in the interior of the pod at the tongue overlap points.

STEP 7 – ROOF FLASHINGS

There are 3 types of roof flashing, these are: -

1- 80mm U-channel flashing *(For front long side and in some instances the short side)* – Refer to Fig. 25

2- L shaped flashing *(For short side)* – Refer to Fig. 26

3- 45mm double folded U channel flashing *(For back long side)* – Refer to Fig. 27

Note: Depending on the pod size, the roof panels on the short side of the pod may end at either the ridge (80mm high) or low end (50mm high).

- Begin by placing the 80mm U-channel flashing on the roof panels at the front long side of thepod.

Figure 24 – End roof panels adjustment

- Adjust the roof ending panels, depending on the panel end type and flashing in your kit, by either: -
    - Using a skill saw to cut at the beginning of the ridge as shown in Fig.24, and cover with 80mm U-channel flashing as seen in Fig. 25, or
    - Using a skill saw to cut off the tongue (if any) and cover with L shaped flashing as shown in Fig.26

Figure 25 – U Channel flashing

Figure 26 – L shaped flashing

Figure 27 – 45mm double folded U-channel flashing

- Tuck the 45mm double folded U-channel flashing into roof panel at the back long side of the pod as shown in Fig. 27.

Figure 28 – Roof flashing riveting

- Using the black rivets supplied, drill and rivet at all the required points of the roof flashing at minimum intervals of 300-400mm as shown on Fig. 28.

FINISHING

STEP 8 – EXPANDING FOAM

Figure 29 – Expanding foam application

- Apply expanding foam on any gaps and specifically around the interior of the ceiling and at roof ridge ends at the back of the pod as shown in Fig. 29.
- Once dry, cut off excess using a craft knife.

STEP 9 – INTERIOR ALUMINUM ANGLE BARS

Figure 30 – Interior aluminium angle trims

- Place and rivet the interior aluminium angle trims to the ceiling perimeter of the pod.
- If the steel post option is chosen, vertical aluminium trims require placement and riveting in each corner.

STEP 10 – WEATHERPROOF SEALANT / SILICONE

Figure 31 – Weatherproof sealant / silicone application

- Apply weatherproof sealant/silicone to all exterior/interior gaps seen on the pod and specifically to the areas shown by a red line on Fig. 31, to ensure weather tightness isachieved.
- Apply weatherproof sealant/silicone over any roof rivet points to ensure no rustingoccurs.

STEP 11 – INSERTING WINDOWS & SLIDEDOORS

Figure 32– Slide door adjustment points

- The slide door and window panels can be inserted into the frames by tilting forward at a 15 to 30-degree angle, pushing upwards into frame track and then resting on bottom track.
- Adjust the height of the doors and windows as required by tightening/loosening the screws on the bottom sides of the panels as shown on Fig. 32.

STEP 12 – Windows and Door adjustment & Lock Installation

1. Put the the short window into the Frame

2. Put the another piece into the Frame

3.The piece with hook must be outside

4. Check there is any gap between the Window with the Frame

5.Use this screw to adjust the heightfor window lock Until the gap has been minimized

6.Make the position for the internal

7. Use the 4.2mm drill bit to drill a hole

8. Use the white rivets to fix the lock to the window

The Sliding door installation is same as window. Please contact us if you have any further question.

Email: HQNZPC@GMAIL.COM