

SteelChief Installation Instructions for pre-assembled panel form sheds

GABLE ROOF

Please read fully before commencing work...any queries will be promptly answered, contact theboss@steelchief.com.au

IMPORTANT INFORMATION BEFORE YOU START!

Do not attempt to erect a shed in windy weather. This may cause personal injury or property damage.

Do not leave your shed unattached to the ground. It is essential to firmly anchor the shed to the ground as soon as it is erected; otherwise there is a risk of serious damage by the wind.

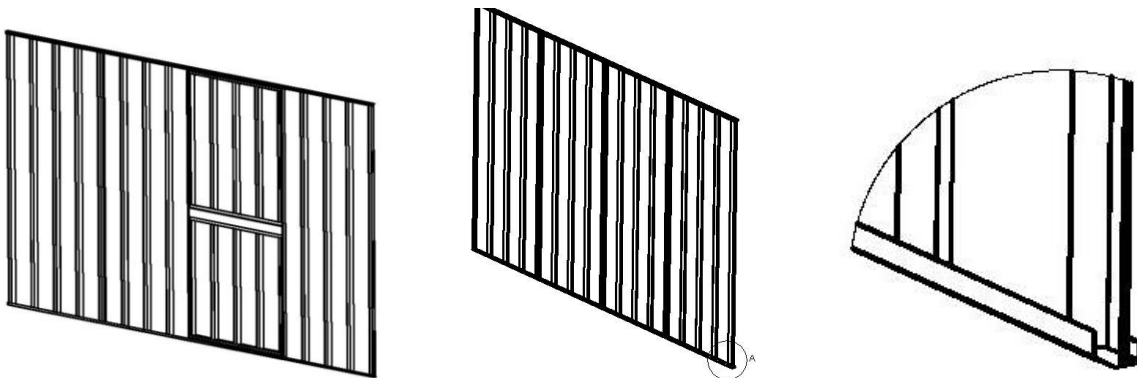
See below for suggestions.

Store panels flat on ground, out of wind if possible with heavy weights on top (lengths of wood) to avoid wind damage.

Tools Required include: safety glasses, tape measure, pliers, Phillips head driving bit, drill with 3.3mm drill bit, gloves, sunscreen.

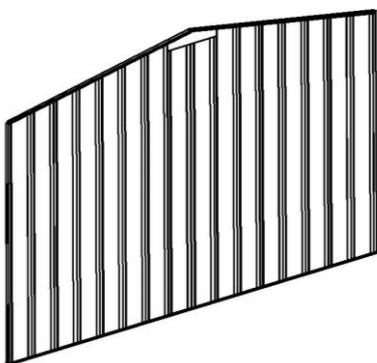
COMPONENTS LIST:

Front / Back wall panels. These have small cut out sections at the ends of the channel at each corner, which are designed to accept the sides

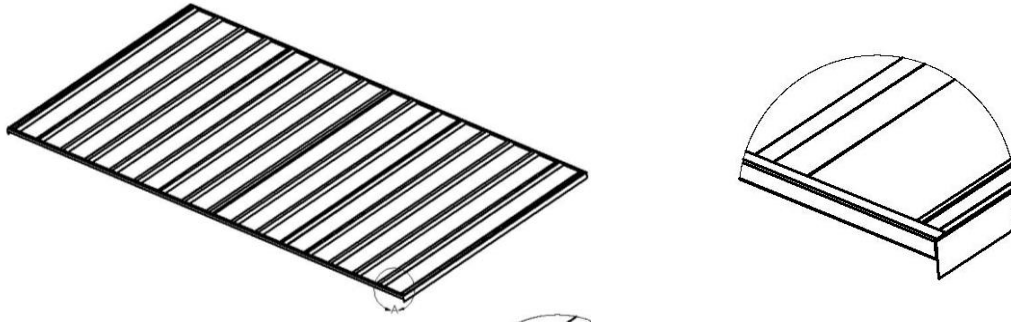


Detail shows cut out in channel on the inside of front and back corners. **The “L” shaped basesmart channelling goes to the ground. The “U” shaped channelling goes to the roof.**

2 x **Gable end panels.** These do not have cut out sections at the end.

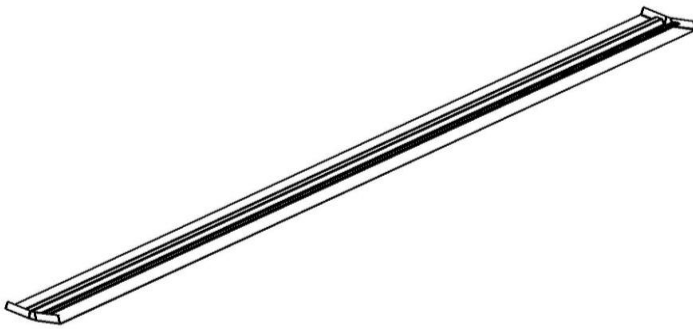


2 x Roof panels. The roof panels have channel along two opposite edges and flashing on the other opposite edges. For the Gable roof sheds there are two roof panels, which fit into a central



ridge

1 x Ridge. Gable sheds are supplied with a ridge which spans the full length of the shed. The ridge consists of a solid beam with a cap riveted on top. The Ridge should be installed with beam **on top** of the gable tips with roof sections slid under the cap, sitting on top of ridge beam.



Self-tapping Screws. Supplied with shed, requires 3.3mm diam (No. 30) drill bit and Phillips head driver (cordless drill ideal). Pop rivets (1/8 inch, 3.2 mm) may be used instead. Various self drilling screws (ie Tek) of similar strength are also suitable.

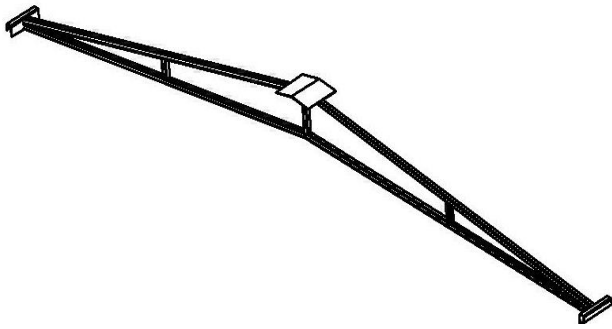
Optional extras: T handle for door (supplied loose, simply screw into pre-drilled holes and attach rear handle with spanner), bike hook and hanging bar (put bar in position before installing roof), windows (lift into position and attach with 6 screws after installing shed, pinch mechanism fingers to suit glass thickness before installing glass), shelves (lift into position before installing roof, attach shelves to brackets with 1 x screw each), shovel rack (put in position before installing roof), sliding door (attach door to top track as soon as wall joined, slide bottom door track in position under wall and door, attach pelmut before installing roof),

All Sheds longer than 3.74m: will have fronts and backs supplied as two or more panels that will join to make the overall shed length. The corner joins with sides have the cut outs as illustrated above. The panels then join to each other by over-lapping one full rib. Hence these panels have one edge with the channels shortened by 50mm to top and bottom where this join is made. The roof panels will be supplied in the same fashion.

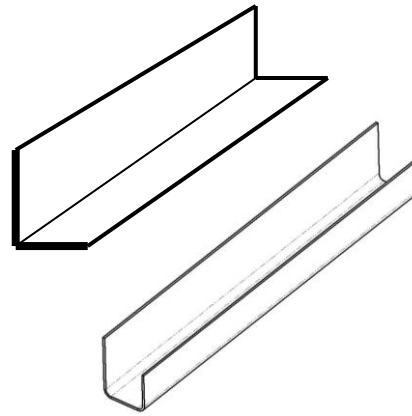
Gable Sheds longer than 3.74m: Ridge will be supplied as **two or more lengths**. The ridges join by butting together. Slide the overhanging cap of one ridge under the capping on the flush end of the other beam.

A truss is supplied to support each join of the ridges. **The gable truss** spans from the top of the front to the back wall so its length is equal to the gable size. Attached to each truss is a pack of **6 Joiners(2 x L and 4 x U)**. Place a joiner over the top and bottom of each wall join and the

bottom of the roof join.



Truss



Joiner brackets

ANCHORING SUGGESTIONS

To achieve the maximum wind loading as specified in the design drawings, the hold down system needs to be the equivalent to the specified anchors x secure placement in concrete x recommended numbers (see design specifications). If in doubt about suitability for windy or exposed sites please consult your local civil engineer. **Some of the options mentioned below may not meet maximum wind loading requirements.**

A The SteelChief wooden floor is a simple, cost effective and excellent floor solution. Simply lay the bearers on flat ground and attach the wooden panels to build the correct size platform. Erect the shed onto the bearers forming a rebated floor. Attach the steel panels to the bearers in at least three places per panel. Attach the floor to the ground by driving star pickets into the ground and screwing them to the bearers. See separate instructions.

B. Another popular and simple concrete slab installation technique achieves an effective rebate to minimize water and dust infiltration is as follows: After erecting your shed:

1. Place a number of house bricks or pavers underneath the bottom channels to lift the erected shed clear of the ground.
2. Square and level the shed. Use a tape measure to check the diagonals are equal.
3. Pegs with clips should be used as temporary anchors to hold the shed while concrete is poured and sets. They remain in the floor and will also firmly attach the shed to the concrete base. Otherwise be sure to make a firm attachment to the concrete floor using masonry bolts and clips or their equivalent
4. The shed is then ready to have a concrete floor poured and levelled to just below the channel on the inside of the shed. The concrete level outside the shed need only be to the bottom of the channel and sloping gently away to drain water clear. Alternatively use boxing around outside of shed to form the slab flush with shed exterior. The concrete level at the door way can be at the same height as the channels so that there is a smooth entrance which is an advantage for sweeping out the shed or wheeling in barrows, bins etc. Again, once outside the concrete level can slope away from the shed and join into existing pathways etc. The house bricks remain buried in the concrete.

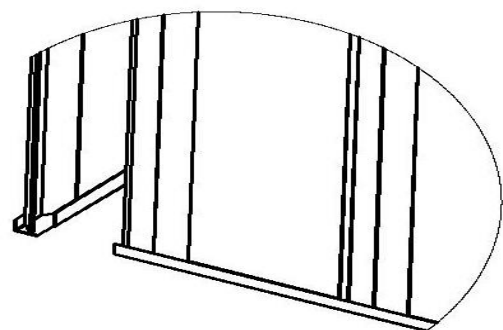
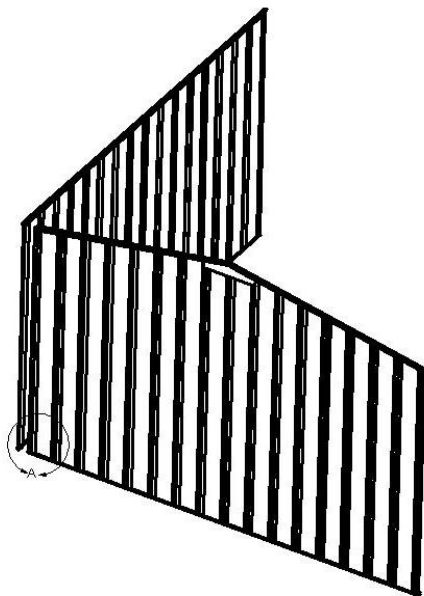
C Other techniques include driving posts (preserved, 450 mm) to the ground level and then attaching the shed with anchor brackets. A number of posts may be required for each wall length depending on site wind conditions. Typically 3 are required for a 3 m wall. Sleepers sunk into the ground are also effective.

D Flat concrete slabs are suitable, provided optional concrete fixing kit(s) are used. Sloping the edges away from the shed is strongly recommended (essential). A silicon type seal can be placed under the channels of the shed to minimize water and dust infiltration. Rebated slabs are superior for minimising water ingress.

E Less windy protected sites may only need pegs and clips for smaller sheds. The clips increase the pegs' holding down effectiveness and position the peg so it is completely buried, clear of any internal paving of the shed that may be done. Pegs should be replaced after a number of years depending on soil conditions. Check them occasionally. Star pickets (450mm or 600mm long are superior to pegs. Use three per wall length minimum. Drive into the ground beside the inside channelling. Use longer Tek type screws to attach to shed.

Once you have decided and prepared for the anchoring of the shed then you are ready to start the INSTALLATION of your shed.

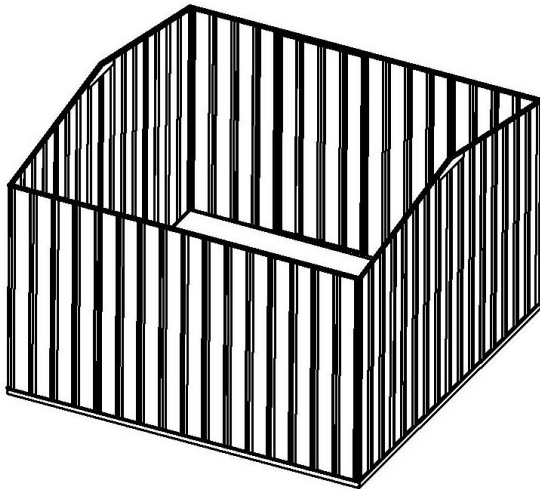
1. Site for the shed must be reasonably level.
2. Place the panels roughly in the right position lying down outwards from where you want your shed with the outside/coloured side down. Be careful not to place panels on sharp scratchy objects.
3. Raise the back panel and put into position. Raise one of the sides and fit into channel cut outs of the back panel. Having a pair of pliers handy will help to bend the channel to ensure it is a snug fit.



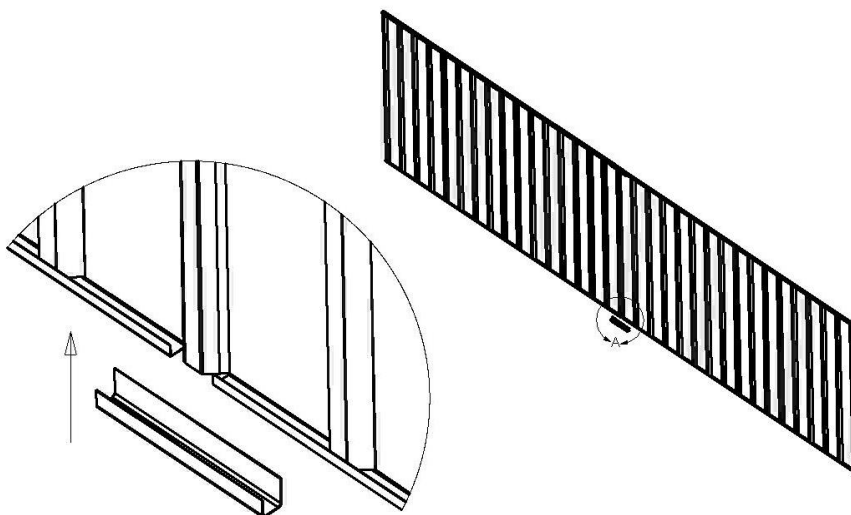
4. From the outside, position the sheet edges so they are comfortably interlocking by just the first flat part of the rib (where the safety edge is formed). Drill through the overlap at the corner and drive home a self-tapping screw. Drill the bottom first keeping the overlap exactly to the first flat part of the rib. Then drill the top of the wall again keeping the overlap line straight. Next the middle of the wall. Your helper may spring the wall outwards towards you to keep the overlap straight (careful to keep hand away from drill).

Then add the last two screws evenly placed. Be careful not to drive too hard, as the screw will strip the hole. Rivets or self drilling screws may also be used.

5. Repeat step 4 for the other wall joins.



6. **For sheds greater than 3.74m**, simply overlap one full rib of the two panels to be joined and insert five screws. The truss can be put into position spanning from wall to wall to help stabilise shed. Place one joiner bracket under the bottom channel and one over the top channel joins. Attach each joiner bracket with four screws.



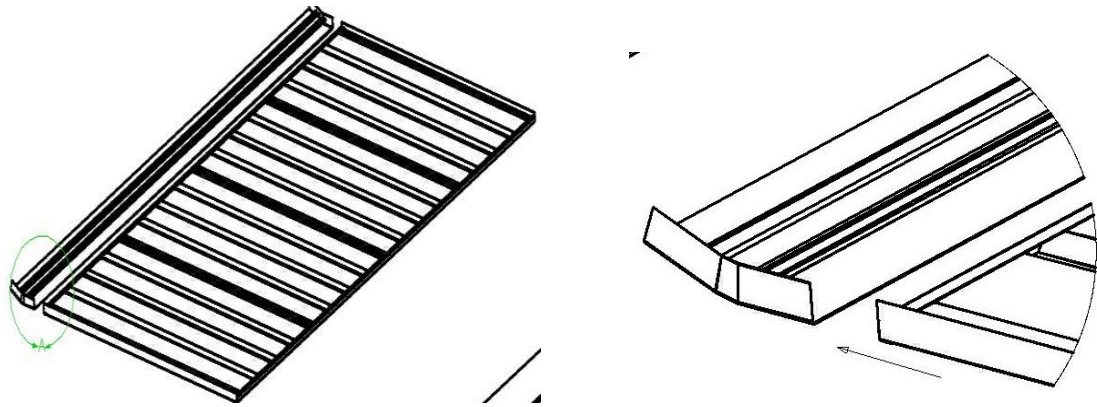
The four walls should now be firmly joined and free standing.

To make sure that the shed is square, measure each inside diagonal, and nudge the walls into position to ensure that the lengths of each diagonal are equal.

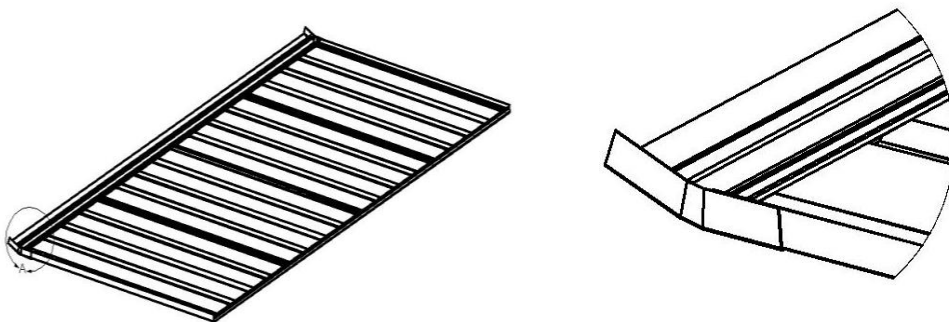
7. Installing the Gable Roof

**** Make sure you hang bike hooks, shelf brackets, roof truss/bars or sliding door pelmet BEFORE putting the roof on.****

1. Place the ridge upside down on the ground (capping on the ground, beam on top). Check channels of the roof panel. If one edge has drag marks slide this edge into the ridge beam with the roof also upside down. Make sure the roof is fully pushed into the slot between the cap and beam and is fully into this slot so that it snaps into place.

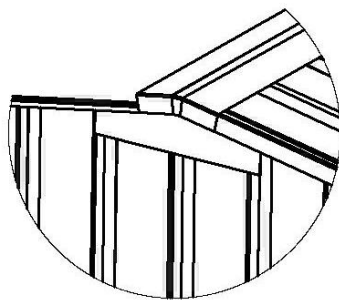


Push firmly into place



Use a screwdriver to clear any rivet heads that may be catching. The flashing on the roof should be equal distance from the strong ridge beam at both ends.

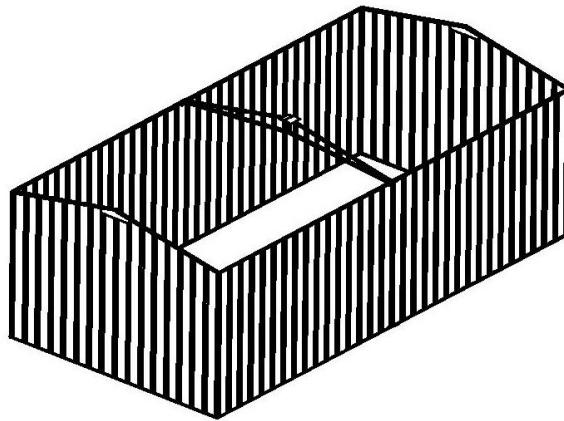
2. Drill and fix through the ridge beam into the roof channel at least two points per sheet width. It is worthwhile drilling the holes for the second roof panel in exactly the same position on the opposite side of the beam whilst it is still on the ground.
3. Lift the roof panel and ridge into position so that the ridge sits directly and centred on the tips of gable walls. Insert one screw through the flashing into channel near gable tip while ridge is centred on gable tip. Repeat at other end of shed.



4. Now lift the other roof panel and slide into its slot ensuring it is fully snapped in position. More accurately square the shed, checking the roof overhang is even along the front or back, and the diagonals of the shed are equal. Then drill and attach all the roof flashings. Attach the roof to the gable walls by drilling through the roof flashing from one side into the top wall channel and drive screws firmly home. Use at least two screws per sheet width.
5. From inside the shed, drill through the underside of the ridge beam to attach the second roof panel, then screw firmly into the roof channel.
6. Fastening down of the roof is completed by drilling up through the channel on the outside of the wall and out through the roof. Ensure the overhangs are equal before commencing this part. Look down the front and back of your shed.

Measuring the overhang with a tape is useful. Drill carefully so as not to rub the coloured steel with the chuck.

7. Screw the self-tappers down from the top of the roof into the wall channel. Drilling can be done from the top by using a tape measure to locate the channel position before drilling each hole. Use at least two screws per sheet width, more for windy areas. Trim or bend the ends of the roof flashings at each corner to eliminate sharp edge.
8. **Sheds with fronts greater than 3.74m**
 - A. Two ridges are supplied, one with a flap and one without. Place the ridges upside down on the ground and position along side the wall panel. The bent end of the ridge goes to the outside of the shed. Place the ridge away from the shed so the roof panel can be slid into the slot nearest the shed wall.
 - B. Select a roof panel that will slide into the slot with the flashing at the bent end of the ridge. The roof should be slid (also upside down) into the ridge between the cap and beam. Make sure the roof is fully pushed into the slot. Use screwdriver to clear any rivet heads that may be catching. The end of the channel of the roof should be made just level with the strong ridge beam at the bent end. Drill and fix through ridge beam into the roof channel at least two points per sheet width. (Drill opposite side of beam for other roof panel whilst on ground.)
 - C. A truss will be supplied which has six joiner brackets taped to it. You will already have used four joiner brackets in the joins of the front and back walls.
Lift the truss so that it spans the front and back walls. It is to be placed so it is exactly under the middle of the join in the two ridges. You will need to slide it into the correct position when the first roof panel is in place



- D. Square the shed by checking diagonals and ensuring walls are straight. Lift roof panel and ridge into position so that the ridge beam sits directly and centred on tip of gable wall and on the middle of the truss. Adjust truss if necessary. Drill through the roof flashing and top gable channel on one side and drive screws firmly home. Use at least two screws per sheet width. Drill from inside the shed and attach the truss to the ridge beam keeping it in the centre. One screw initially will suffice.
- E. Slide opposite roof panel into the ridge and ensure it is fully into beam cavity. Insert one fixing screw through roof flashing into gable end channel near tip.
- F. Repeat for the other ridge section, attaching the roof panel on the ground and then lifting into position. Carefully slide the flap of one ridge under the flush ridge top of the other ridge. This ensures a good water seal. Insert one screw through roof flashing into gable end channel near tip.

- G. Slide the roof panels into position so the ridges meet over the truss and the roofs overlap one rib. Join the roof panels, keeping them square. Do not overlap too much as this will rob the other side of it's overlap. Two screws drilled from the top through the overlapping ribs should be sufficient. Just reach into roof to attach the second screw at arms length. Now attach the joiner piece over the roof join as per the walls.
- H. Lift the final roof panel into position and repeat the above process.
- I. Now check the roof overhang is even along the front or back and the walls are straight. Drill and attach all the roof flashings with the full compliment of screws.
- J. From inside the shed, drill through the underside of the ridge beam to attach the roof panels, then screw firmly into the roof channel.
- K. Also add three more screws to hold the ridges onto the truss. The truss ends should be attached to the tops of the walls by drilling and screwing from inside the shed through the channel and joiners. Two screws per end should suffice.
- L. Fastening down of the roof is completed by drilling up through the channel on the outside of the wall and out through the roof. Screw the self-tappers down from the top of the roof into the wall channel. Drilling can be done from the top by using a tape measure to locate the channel position before drilling each hole. Use at least two screws per sheet width, more for windy areas.

Variations for other shed types:

Steel Framed Sheds. Corner of walls joined with self drilling screws inserted from inside the shed through tags. Joiner walls of bigger sheds joined with two bolts (supplied). Simply align and thread bolts into position. Sheds with 3.0m gable and above supplied with 2 x roof bars. Put in position before joining last gable. Roof bar supplied for 2.26m deep skillion shed. Portal supplied to support ridge joins which screws to walls with self drilling screws. Concrete tags supplied to base of wall panels. Advise if floor rebated so they can be deleted at production time.

Skillion and Flat Sheds. Have only one roof panel and no ridge. 2.26m skillion sheds have a skillion bar to half the span of the roof. Put in place before installing roof.

Hex Aviary. Supplied as six wall panels and a two part roof. Join wall panels by aligning them so the inside channel edge is touching each other. Drill and screw through outside flashing, 5 per join. Bring the two parts of the roof together so that there is a neat join on both sides and the centre. Drill and secure with 4 screws each side evenly placed. After ensuring the diagonal measurements are equal, lift the roof into place (need two people) and position so that is firmly seated and evenly overhanging the walls. Drill through the roof into the top of the wall channels and insert two evenly spaced screws per wall panel. Do not over tighten these screws to avoid deforming the roof. Anchor aviary as per earlier advice.

Double Hex. See separate instructions.