

INSTALLATION INSTRUCTIONS SKY TUNNEL USED IN COMMERCIAL BUILDING

ALL WORK CARRIED OUT BY THE INSTALLER SHOULD BE IN ACCORDANCE WITH LOCAL LAWS & SAFETY REGULATIONS.

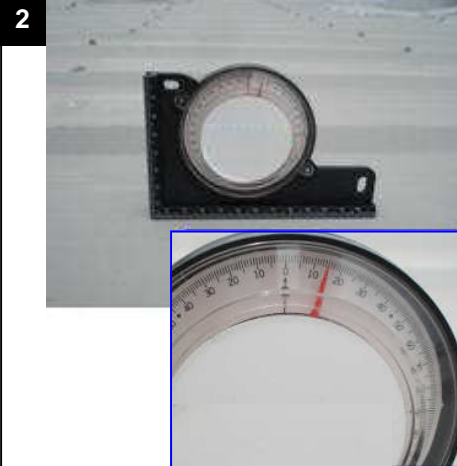
ATTENTION:

- Care must be taken when handling skylight components.
- Protect yourself from the ends and edges of materials since they are sharp.
- When working in roof, ensure that the weather is dry and calm, and use appropriate safety harness.
- Complete the tools and materials needed before going on to the roof installation and do not forget to return the tools/materials used in the roof afterwards.
- **Read Installation Instructions carefully prior execution of work.**

1

First decide approximately where you would like your Sky Tunnel located in the building. You may wish to check the floor plan of the building to be able to have a clearer view on where the exact location would be.

Now, do the survey on the roof and check if any obstructions that may interfere the installation such as ventilators. Do not install the unit into a location that will damage the waterproofing of the roof.



Using a protractor or any similar device, measure the angle of inclination of the roof. This will dictate the angle of your Rigid Tube Adaptor.



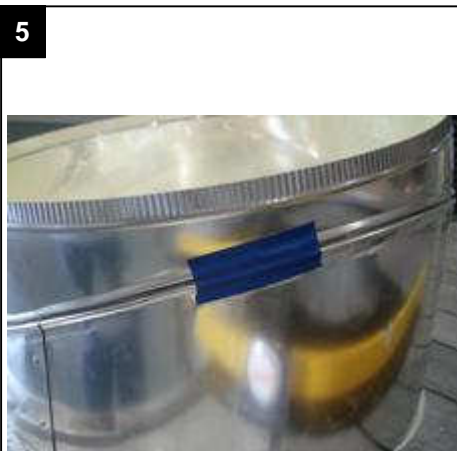
Rigid Tube Adaptor set at 0 degree (the riveted joints of upper and lower part are aligned).

Knowing the angle of the roof, you may now set the angle of your Rigid Tube Adaptor. You need a protractor, level bar, and duct tape to perform this task.

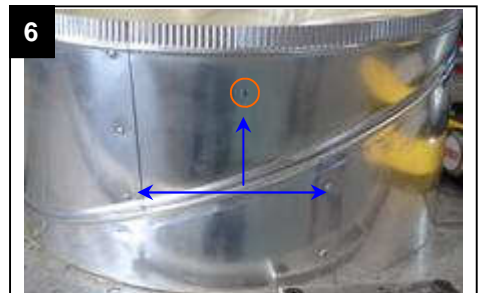


Put the Adaptor on top of a flat levelled surface. Put a level bar and protractor on top of the Adaptor (swaged part) same as shown in the picture.

Twist upper part (with swaged) against the lower part of the Rigid Tube Adaptor until the pre-measured angle of the roof has been reached.



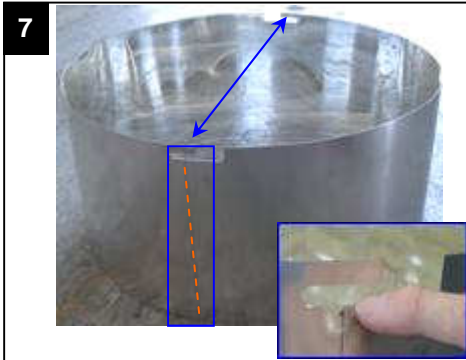
After setting the angle, put a piece of duct tape on the joints of the two part to hold the two temporarily.



Mark the middle of the two riveted joints and take note of the distance of the two joints if you are doing more than one set of Rigid. This distance equivalent to the angle of the roof.

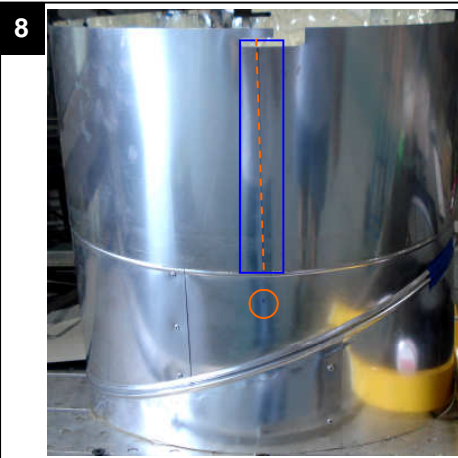
The middle mark will be the lowest point of the Adaptor in the installed position while the exact opposite (12 o'clock from the mark) of it is the highest point.

These Instructions should be used as a guide only to assist with the Installation.



Now, get the Rigid Tube Upper Ring and mark the centre on one of the notch all the way down. Mark also the exact opposite of the notch that has been marked.

This will dictate the position of the soaker tray later on.

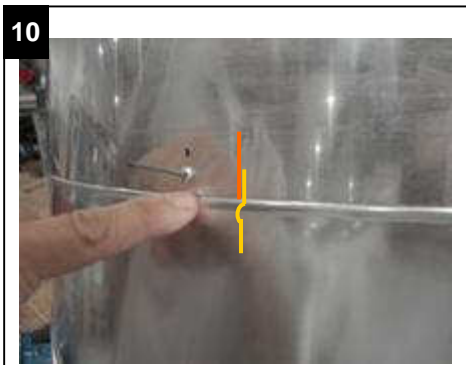


Put the Rigid Tube Upper Ring on top of the Rigid Tube Adaptor. Align the marking of the ring to the marking of the adaptor as shown on the picture.



When you are assured that those marks were properly aligned, drill 6 holes for rivets.

Mark 6 equal locations of the hole around the perimeter of the bottom of the Upper Ring starting at the centre mark.



**** Important Note ****

Make sure that the Upper Ring is installed evenly and that the edge of it is just leaning on the stopper of the Rigid Tube Adaptor prior popping the rivet.



Install the 6 rivets as required. End result should look like in the picture above.



After fixing the upper ring, connect the Rigid Tube into the conjoint Upper Ring and Adaptor as shown in the picture.



Do the same way as the Upper Ring being attached to the Adaptor. Put also 6 rivet at the same location on the upper ring. The Rigid Tube Assembly should look like the on the picture above.



On the roof, mark the hole where Sky Tunnel is to be installed. Hole should be at least the following size:

343mm ^Ø Sky Tunnel	500mm X 500mm
457mm ^Ø Sky Tunnel	550mm X 550mm
535mm ^Ø Sky Tunnel	650mm X 650mm

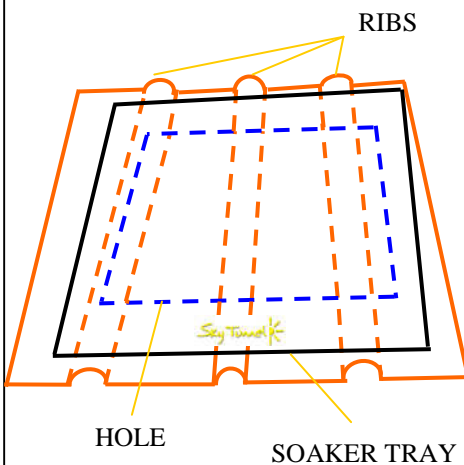


The mark should start or finish on top of a rib, should be on either side of the hole. Remember that the cut should be positioned under the soaker tray when it is installed. See drawing on next step.

ROOF INSTALLATION

These Instructions should be used as a guide only to assist with the Installation.

16 EXAMPLE



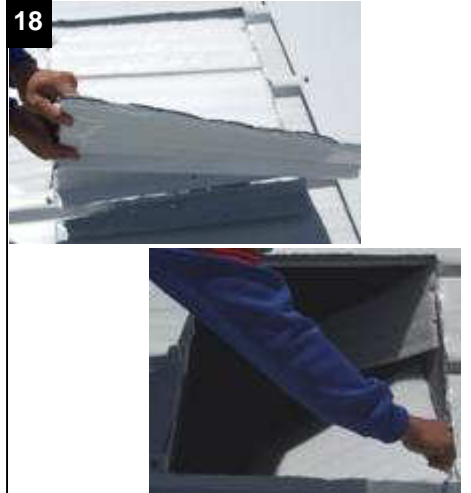
HOLE SOAKER TRAY

17



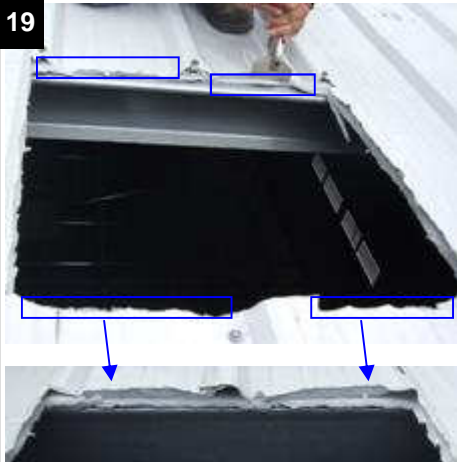
Cut the Roof Sheet by following the mark/line through the use of sharpened steel and hammer or any similar device that can be used better on cutting roof sheet.

18



Remove the cut roof and insulation sheets. Take extra precautions on handling the sheet as the edge of it is sharp.

19



Using a wide-mouth vise grip or fliers, bend up all of the lowest point on the corrugations of the roof (on top and bottom of the hole). This helps improve waterproofing.

20



Remove protective sheet of the Rigid Tube Assembly then install the Soaker Tray Assembly into it. Ensure that the Sky Tunnel logo is along the low side.

Twist the Tray in such way that it will fit the locking pin into the notch of the upper ring and lock it into position.

21



Seal around the space between the tray and the Rigid Tube Upper Ring with any sealant (black colour if available) then smoothen it with your finger (using cardboard or a rag).

Sealing it will prevent insects entering the Sky Tunnel and block light passes through the space.

22



Put the ceiling frame on the other end of the Rigid Tube Assembly.

23



Put 4 stainless steel flat head screws (provided in the kit) on every quarter position along the perimeter of the Rigid Tube and the Ceiling Frame.

24



Put aluminium foil tape on all riveted joints of the Rigid Tube Assembly including the joints of the Adaptor connecting to other Rigid Parts.



Wipe the foil with cloth whilst firming on it just to assure that the foil adheres very well on the tube.



Put duct tape around the joint of the Ceiling Frame and the tube.



Put the Diffuser Holder into the Ceiling Frame.

Ensure that the magnets lock onto the ceiling frame magnets correctly and are properly aligned.



Now that the whole assembly is ready, insert it to the cut roof sheet that was done awhile ago.

29

**** Important Note ****

Clean the Diffuser Holder Assembly with a cloth (and a soap dish) before doing step 28 because may not have scaffolding or ladder inside the building anymore to clean them.

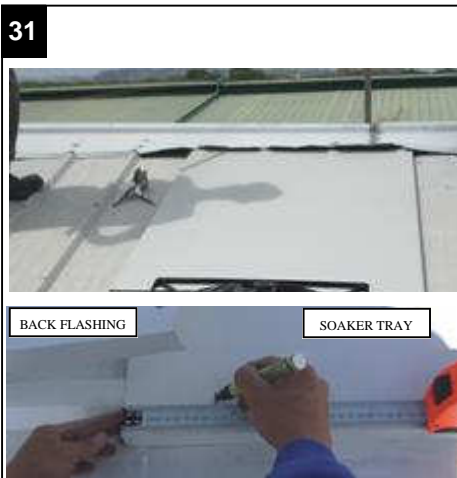
Be sure that the tube and the Diffuser Holder does not catch on the Roof Sheeting, it might damage the unit.

Install the whole assembly in such way that the "SKY TUNNEL" logo of the tray is facing into the lowest level of the Adaptor (see step # 6 & 7) and be fitted in the low end of the cut roof sheet.

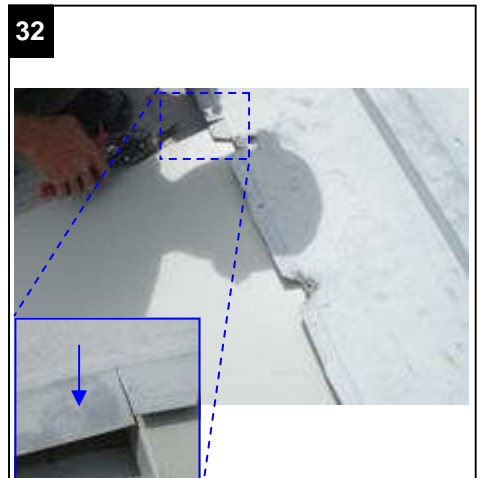
RECOMMENDED INSTALLATION PROCESS



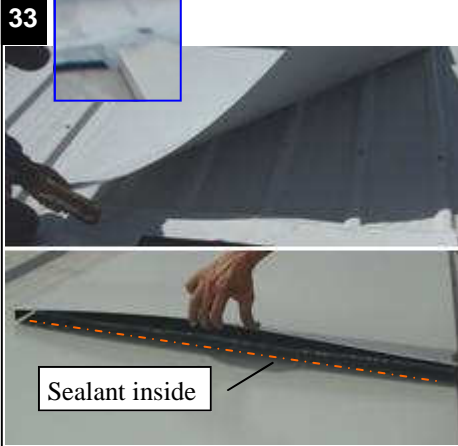
You may use a back flashing (a flat roof sheet folded on both sides with the same height as the Soaker Tray) to seal in the Roof Parts Assembly out of the water flow during rainfall.



Insert the flashing end for about 100mm underneath the Ridge Capping (peak of the roof) and on top of the Soaker Tray (100mm) for the other end.



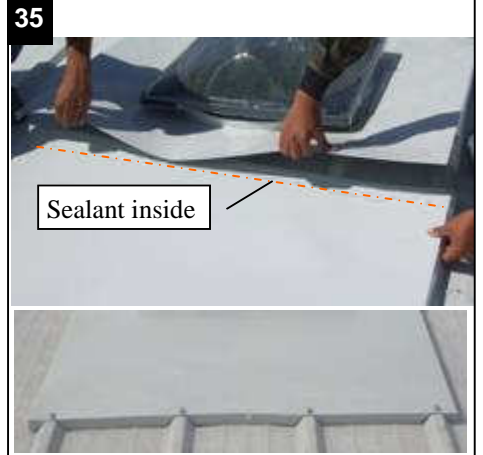
Cut the corner on where the Ridge Capping and the back flashing draw, then bend it down. Do this on both side of the Ridge Capping.



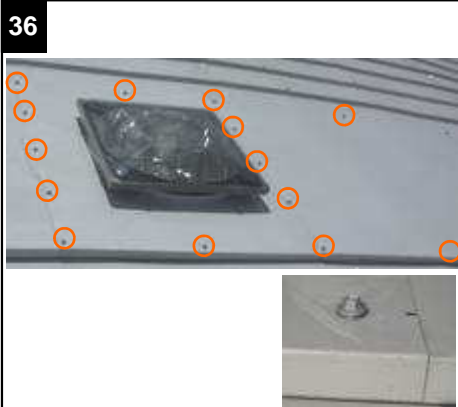
Apply a bead of Roofing Sealant underneath the Ridge Capping then on its cut corners. Apply Roofing Sealant as well on every overlap of the back flashing to the Soaker Tray in between.



Bolt the back flashing and the Ridge Capping together using Hex screw. It is recommended to use Self Drill Hex Metal Screw with Seal (14x20).



Put another back flashing (close on one end) underneath the low end of the Soaker Tray. On the close end of the flashing, cut it on according to the corrugation of the roof to make it fit.



Bolt the Soaker Tray to the roof with Hex screw (used in step 33) on every highest point of the roof sheet. Put an extra screw also at the both middle edge of the tray. Do the same thing on the back flashing.



Clean any filings created by drilling holes on the roof sheets. This will tend to corrode the roof in time.



Remove the protective film after all activities had been carried out.

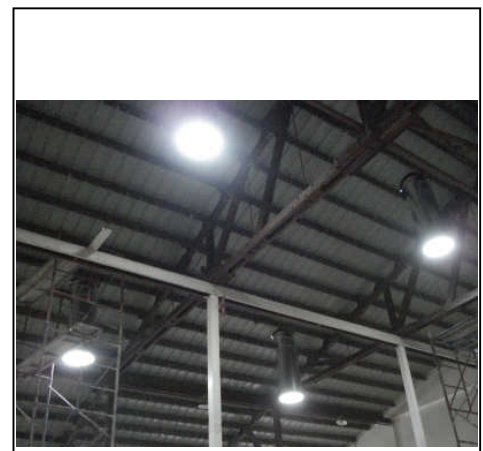
FINISHED



Sample picture of complete installation of Sky Tunnel .



Sample picture of Dek Roof having 4 Sky Tunnels.



This is how they look like inside the room.