



Assembly Manual

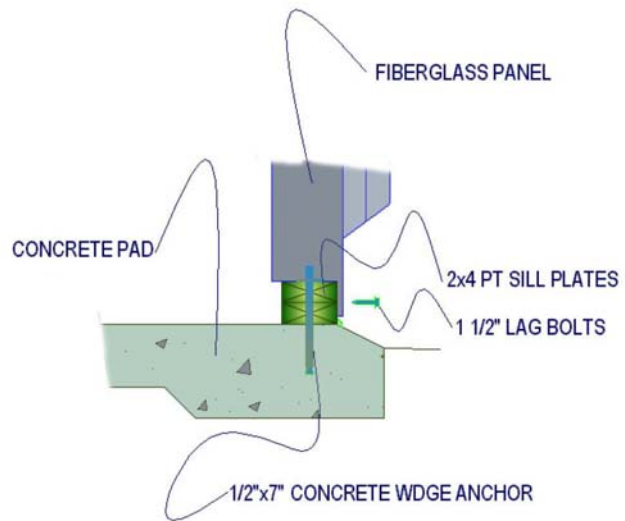


The Basic Options:

All of the fiberglass components have notches cut into the bolt flanges of the panels, allowing them to be easily placed over the edge of any given base. This system allows for fastening to many different materials including wood steel and concrete.

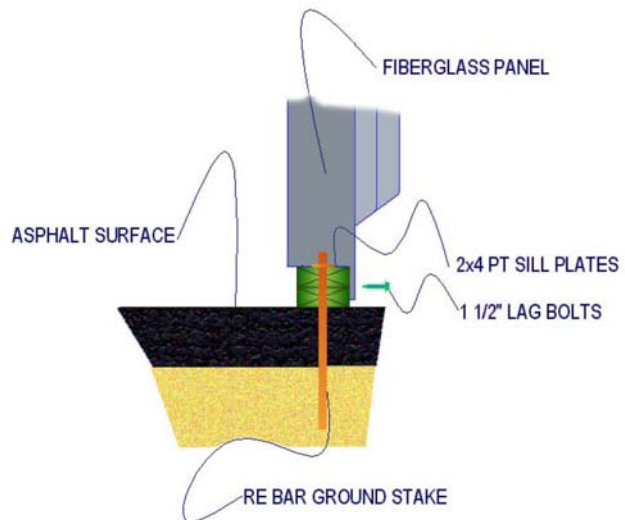
Concrete Pad Mount:

A typical mount to a concrete slab would require a double layer of 2x4 pressure treated sill plates, mounted with concrete wedge anchors @ 48" O.C. around the perimeter of the unit.



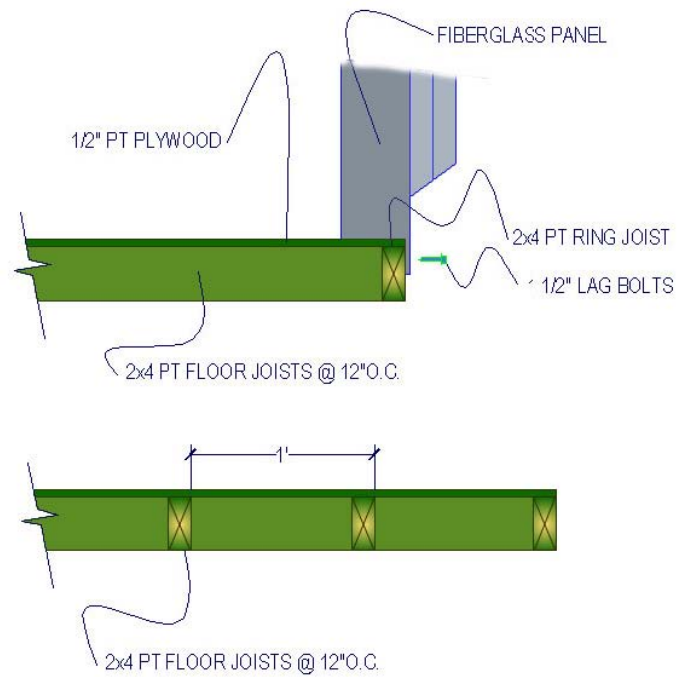
Asphalt Pad Mount:

A typical mount to a asphalt slab would require a double layer of 2x4 pressure treated sill plates, mounted with rebar ground stakes @ 48" O.C. around the perimeter of the unit.



Framed Floor Detail:

A typical wood framed floor would consist of 2"x4" pressure treated floor joists framed @12" O.C. The joists would be sheeted with 1/2" pressure treated plywood. This floor system would be required to be set directly on the ground. If the floor was required to span any distance over the width of the building then local building codes for your area would have to be observed.



Sill Plate or Floor Dimensions:

It is important to make sure that the base or floor of the building be constructed to the correct dimension for the building supplied. Below here is a chart that indicates the base dimensions for commonly sized buildings. If your building is a custom production and shop drawings are provided please refer to the drawings for base sizes. If you are unable to determine the base size for your building from this chart or your shop drawings then please call our products support department. RM Products Ltd. 1-800-363-0867.

FOR 9' TALL STANDARD HEIGHT BUILDINGS:

Length	Width				
	8 ft	10 ft	12 ft	16 ft	20 ft
4 ft	7' -11 1/4" wide 3' -11 7/8" long	9' -11 1/4" wide 3' - 11 7/8" long	11' -4 1/4" wide 3' - 11 7/8" long	15' -11 1/4" wide 3' - -11 3/4" long	19' -11 1/4" wide 3' -11 3/4" long
8 ft	7' -11 1/4" wide 7' -11 3/4" long	9' -11 1/4" wide 7' - 11 3/4" long	11' -4 1/4" wide 7' - 11 3/4" long	15' -11 1/4" wide 7' - -11 1/2" long	19' -11 1/4" wide 7' -11 1/2" long
12 ft	7' -11 1/4" wide 11' -11 5/8" long	9' -11 1/4" wide 11' - -11 5/8" long	11' -4 1/4" wide 11' - -11 5/8" long	15' -11 1/4" wide 11' -11 1/4" long	19' -11 1/4" wide 11' -11 1/4" long
16 ft	7' -11 1/4" wide 15' -11 1/2" long	9' -11 1/4" wide 15' - -11 1/2" long	11' -4 1/4" wide 15' - -11 1/2" long	15' -11 1/4" wide 15' -11" long	19' -11 1/4" wide 15' -11" long
20 ft	7' -11 1/4" wide 19' -11 3/8" long	9' -11 1/4" wide 19' - -11 3/8" long	11' -4 1/4" wide 19' - -11 3/8" long	15' -11 1/4" wide 19' -10 3/4" long	19' -11 1/4" wide 19' -10 3/4" long
24 ft	7' -11 1/4" wide 23' -11 1/4" long	9' -11 1/4" wide 23' - -11 1/4" long	11' -4 1/4" wide 23' - -11 1/4" long	15' -11 1/4" wide 23' -10 1/2" long	19' -11 1/4" wide 23' -10 1/2" long
28 ft	7' -11 1/4" wide 27' -11 1/8" long	9' -11 1/4" wide 27' - -11 1/8" long	11' -4 1/4" wide 27' - -11 1/8" long	15' -11 1/4" wide 27' -10 1/4" long	19' -11 1/4" wide 27' -10 1/4" long
32 ft	7' -11 1/4" wide 31' -11" long	9' -11 1/4" wide 31' - -11" long	11' -4 1/4" wide 31' - -11" long	15' -11 1/4" wide 31' -10" long	19' -11 1/4" wide 31' -10" long
36 ft	7' -11 1/4" wide 35' -10 7/8" long	9' -11 1/4" wide 35' - -10 7/8" long	11' -4 1/4" wide 35' - -10 7/8" long	15' -11 1/4" wide 35' -9 3/4" long	19' -11 1/4" wide 35' -9 3/4" long
40 ft	7' -11 1/4" wide 39' -10 3/4" long	9' -11 1/4" wide 39' - -10 3/4" long	11' -4 1/4" wide 39' - -10 3/4" long	15' -11 1/4" wide 39' -9 1/2" long	19' -11 1/4" wide 39' -9 1/2" long

All dimensions noted in the above chart are for maximum exterior dimension of floor or base of the building. It is important that the base does not exceed this dimension as the fiberglass panels are designed to overlap the outside of the base for the building.



The Basic Tool List:

- . • 1 or more extension cords depending on distance to power supply
- . • 2 variable speed 3/8" drills (one cordless is a good option)
- . • 1 1/2" drill bit with 3/8" shank
- . • 2-3 5/16" drill bits for steel, not speed bore wood bits
- . • 1 adapter for drill to accept sockets or electric impact gun
- . • 1 3/4" deep socket
- . • 1 7/16" deep socket
- . • 1 1/2" deep socket
- . • 1 large 825 mil caulking gun
- . • 1 regular 300 mil caulking gun
- . • 2 7' high step ladders (taller ladders will be required if the unit is higher than 9')
- . • 1 tape measure
- . • 1 48" level (on larger buildings a transit level may be required)
- . • 2 36" pry bars
- . • 6-8 large vise grip "C" clamps
- . • 1 double high set of scaffold



To Speed Things Up:

- . • 1 electric man lift in place of the scaffolding
- . • 1 electric or pneumatic impact wrench for tightening hardware
- . • 1 cordless drills for drilling small holes and installing smaller hardware

General Man Power Requirements:

On buildings 8' and 10' wide a minimum of 2 people would be required to assemble a unit. On buildings 12' and 16' wide a minimum of 3 people would be required. On buildings 20' wide and units taller than the 9' standard a minimum of 4 people would be required.

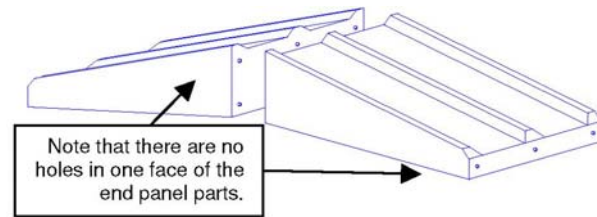
Assembling the Roof Sections:

Step 1:

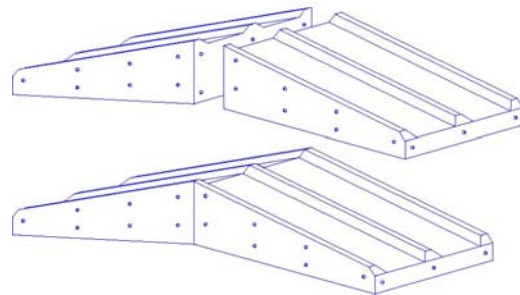
The first step if you are assembling a 20' wide building, is to locate the 4x6 roof panels and begin connecting the individual components into 12' parts.

If you are assembling a building

narrower than 20' skip on to step 2.



- Locate the end panels for the building first. There will be four in total, 2 left and panels and 2 right hand panels. The end panels are unique in that there are no bolt holes drilled on one face of the part for the end of the building.



- Group the parts into pairs, the 2 end sections will consist of a left and right part aligned so that the faces with no holes are on the same face of the assembled part.
- Clamp the two parts together make sure the outside surface of the parts are flush.
- Install a ½" x 2" carriage bolt and large bolt washer assembly through the 6 predrilled holes of the flange.
- Continue this for all the roof sections in the building.



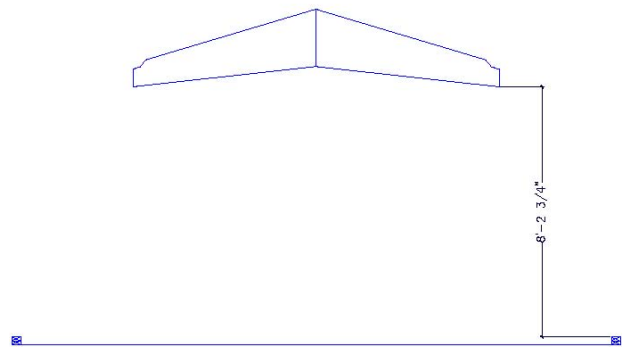
Installing the First Section:

Step 2:

- Locate the end side wall panels and one end roof section. The end panels will be unique in that they will have no predrilled holes on one flange for the end of the building. There will be 4 end side wall panels in total, 2 right hand panels and 2 left hand panels.

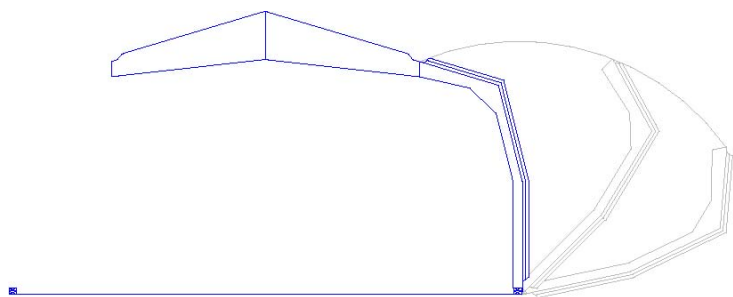


- Raise the first roof section up on scaffolding or a man lift so that the lowest point of the bolt flange is approximately 8'2" (for a 9' high building) from the top of the floor or sill plate of the building. If you were working with a high building the dimension of 8'2" would increase in relation the panel height of your building. For example a 15' building would have the roof panel set at 14'2" from the sill.

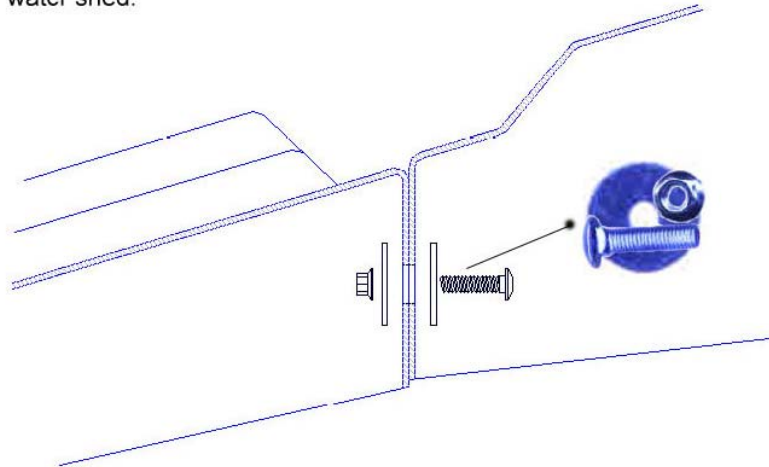


- Once the roof panel is in place locate an end side wall panel. Position the bottom of the side wall panel against the base or sill plate of the building. Then raise the head of the part up into place against the bolt flange of the roof panel. Two people should be able to safely lift a side wall panel into position with this method on a 9' high building. On taller units 3 people should be used to raise the side wall into place.

- Secure the bottom of the panel to the base or sill plate of the building by fastening with a 1 1/2" hex washer head lag bolt. There should be 4 lag bolts installed across the bottom of each part approximately 12" apart.

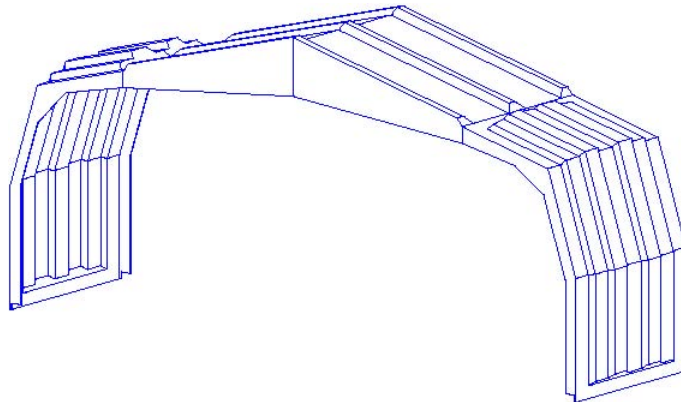


Line up the roof and wall panel. Remember to keep the roof panel elevated a maximum of $\frac{1}{4}$ " over the sidewall panel to allow for water shed.



Once the side is lined up with the roof panel clamp it into place and install a $\frac{1}{2}$ "-13 x 2" carriage bolt and large bolt washer with a flange nut through each of the three pre drilled holes between the two parts.

- Repeat this process for the side wall on the opposite side of the building.
- Once the other side wall is completely installed and fastened to the base then the first section is complete and you are now ready to begin the assembly of the end panels.

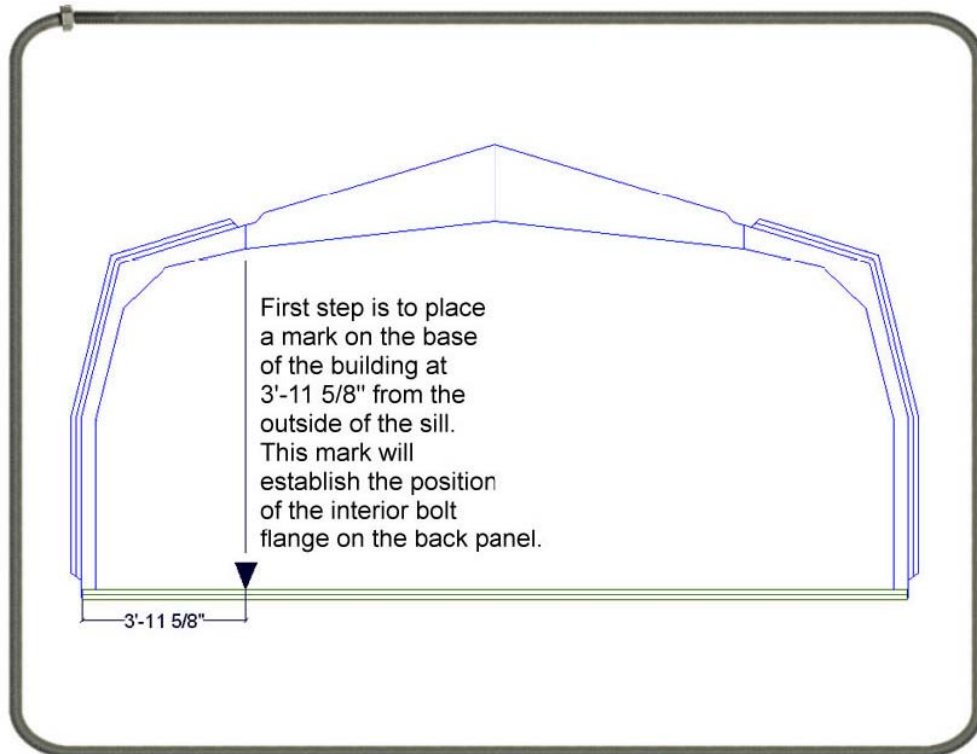


First Panel Section

Installing the Back Panels:

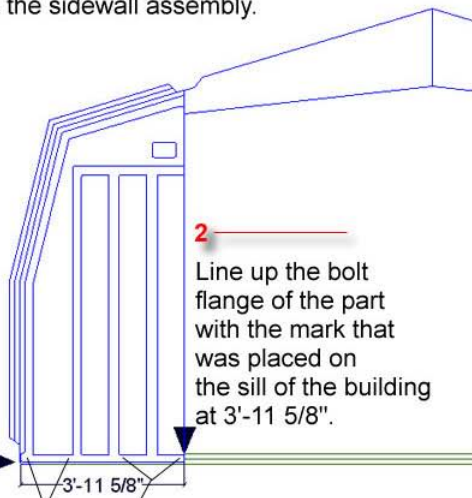
Step 3:

The next step is to assemble the end wall of the building. This is done immediately after the construction of the first section to give the building its correct shape and strength to brace it from movement during the construction of the following side wall sections. Different door or window options can change the configuration of the end panels in a building. For these instructions we are going to assume that the back end wall is a solid wall with no openings and that the front wall has an overhead door. Your building options may be different and the panels for your building may be of a different configuration then what is shown here but the same principle of assembly order should apply.



1 Stand the first back panel against the sidewall assembly.

3 Then line up the opposite bottom corner of the back panel with the bottom of the side wall and adjust the back until the bottom of the panel is parallel with the base or sill of the building. This should leave an even reveal along the sill plate of the building.



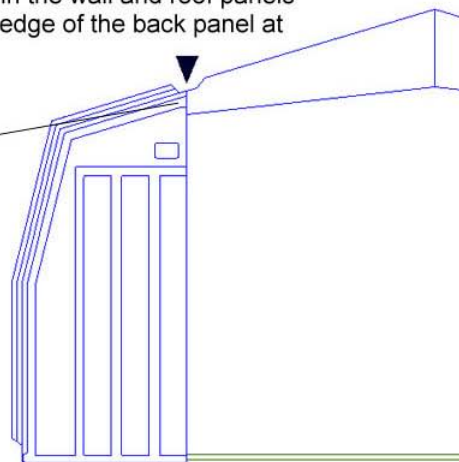
2 Line up the bolt flange of the part with the mark that was placed on the sill of the building at 3'-11 5/8\".

4 Install 4 - 1 1/2" lag bolts through the bottom of the panel into the base of the unit.



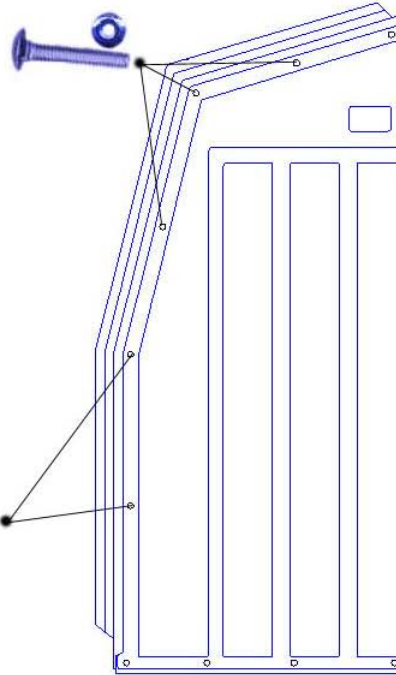
1 Next move the side wall and roof assembly back or forth to line up the joint in the wall and roof panels with the edge of the back panel at the top.

2 Once this is lined up clamp the part in place and drill a 5/16" hole through the outside bolt flange on the face of the back panel and the side wall. Then install a 1/4" x 1 1/2" stainless carriage bolt through the hole and fasten it with a 1/4" flange nut on the inside.



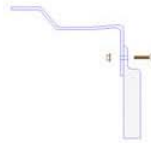
1

Drill a 5/16" hole through the bolt flange on the back panel and flange on the sidewall panel at each bolt location indicated in the picture to the right.

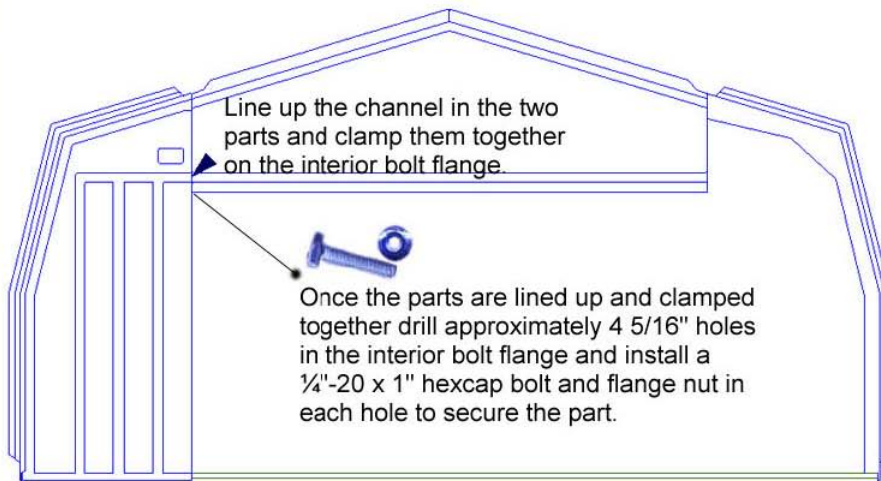


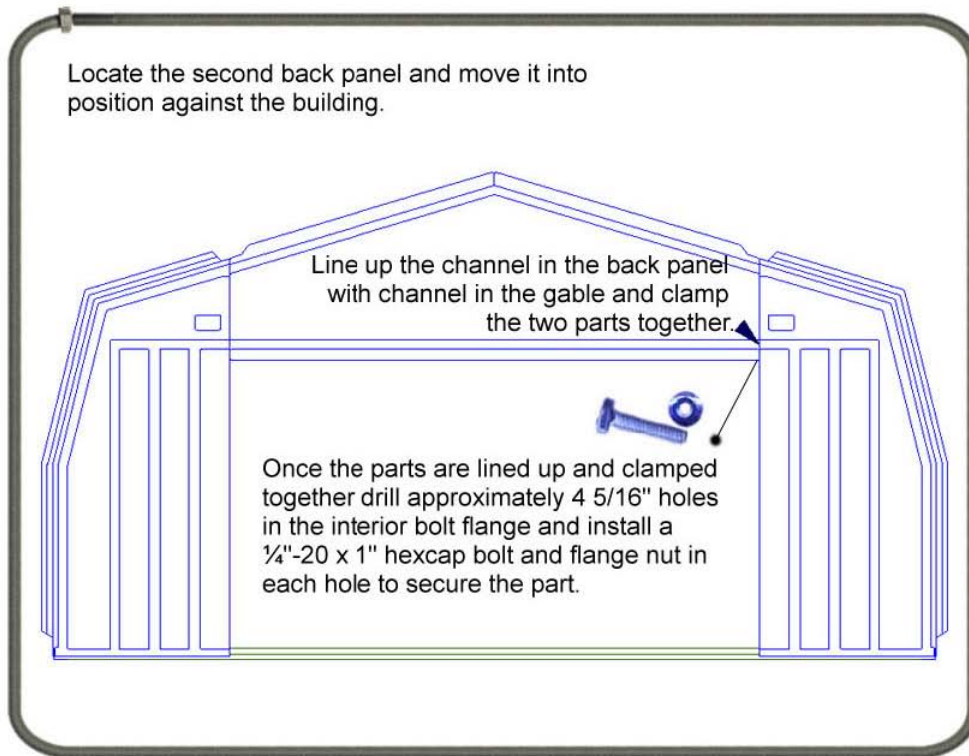
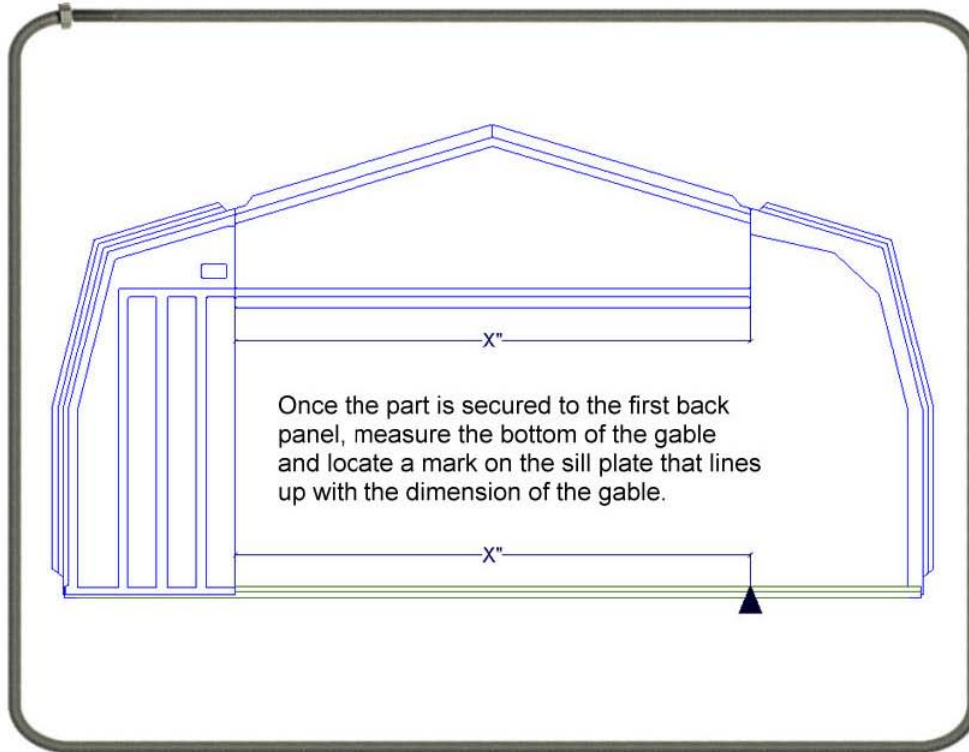
2

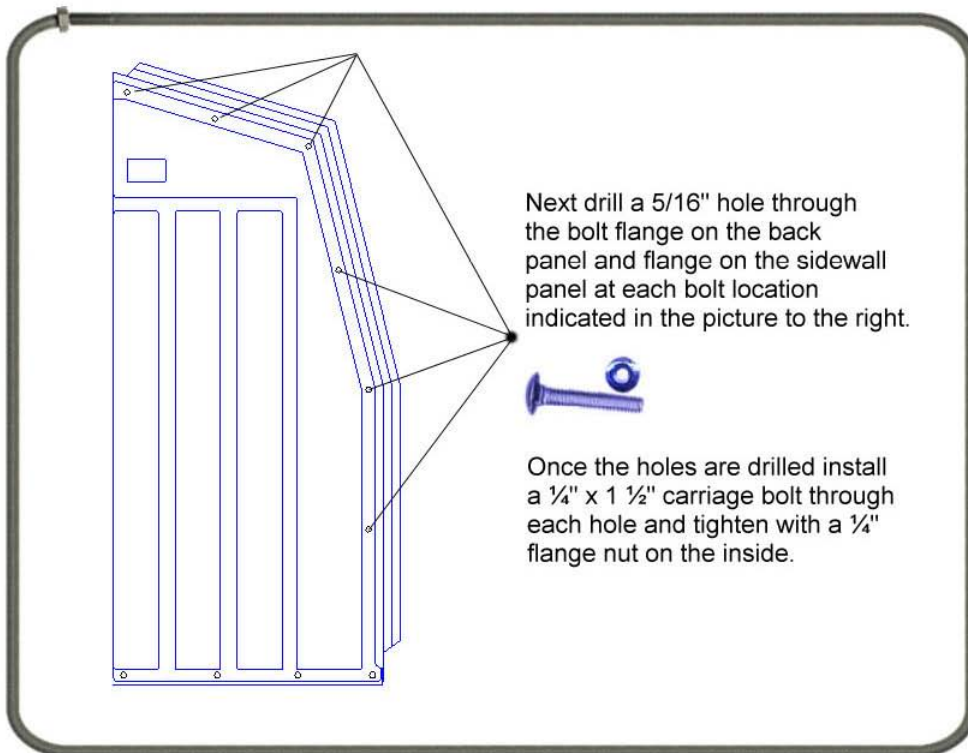
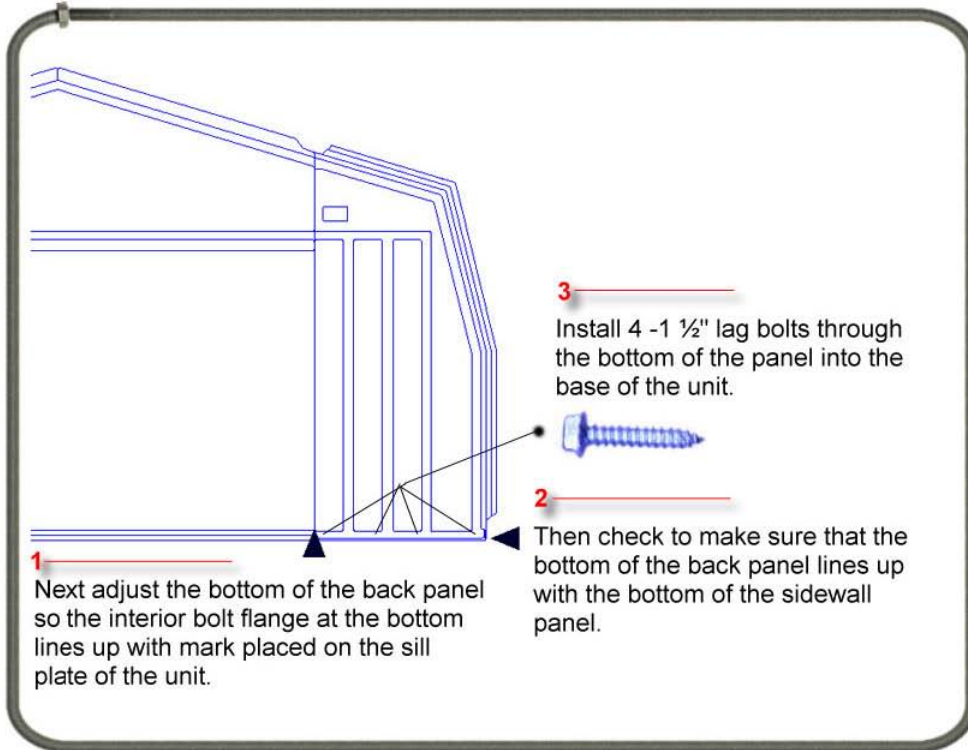
Once the holes are drilled install a 1/4" x 1 1/2" carriage bolt through each hole and tighten with a 1/4" flange nut on the inside.



Next locate the gable expander. Raise the panel into position beside the back panel.

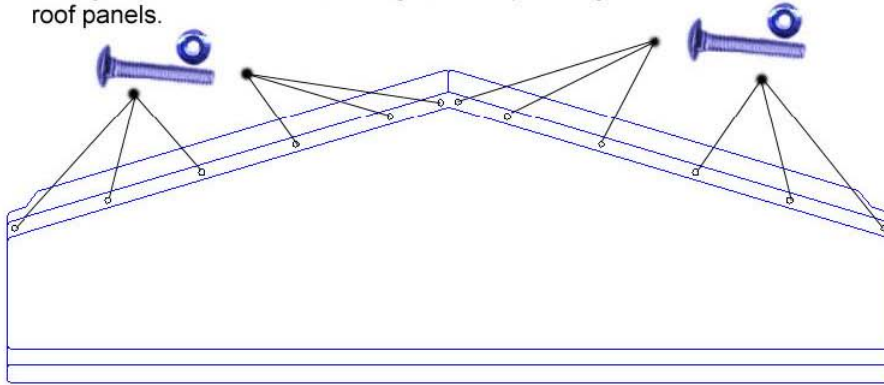






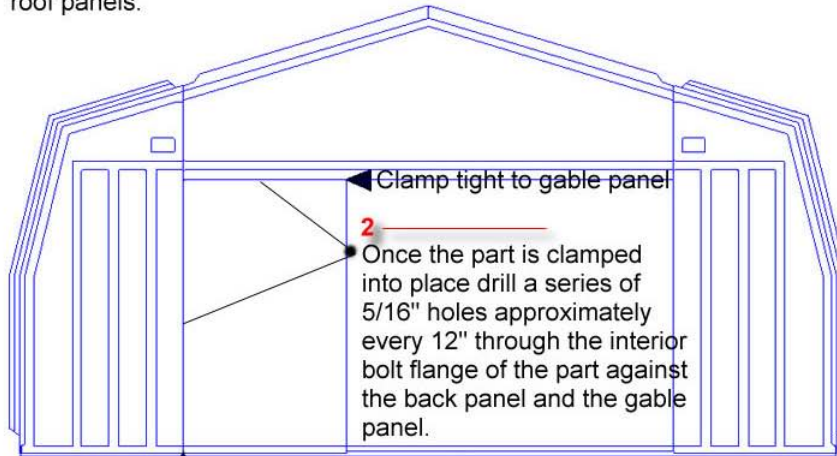
Once the back panel is secured, drill a 5/16" hole approximately every 16" across the top of the gable expander into the roof panel as shown in the diagram to the right.

Install a 1/4"-20 x 1 1/2" stainless carriage bolt and flange nut through each hole to secure the gable into place against the roof panels.



1

Install a 1/4"-20 x 1 1/2" stainless carriage bolt and flange nut through each hole to secure the gable into place against the roof panels.



Clamp tight to gable panel

2

Once the part is clamped into place drill a series of 5/16" holes approximately every 12" through the interior bolt flange of the part against the back panel and the gable panel.

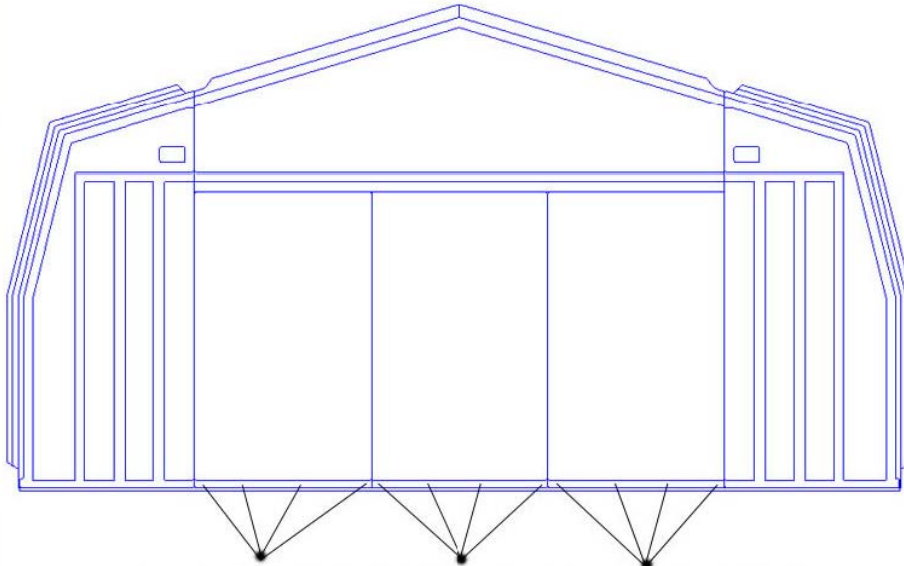
Clamp tight to back panel

3

Install a 1/4"-20 x 1" hex cap bolt and flange nut through each of these holes.



Repeat the previous step for the remaining expander panels.



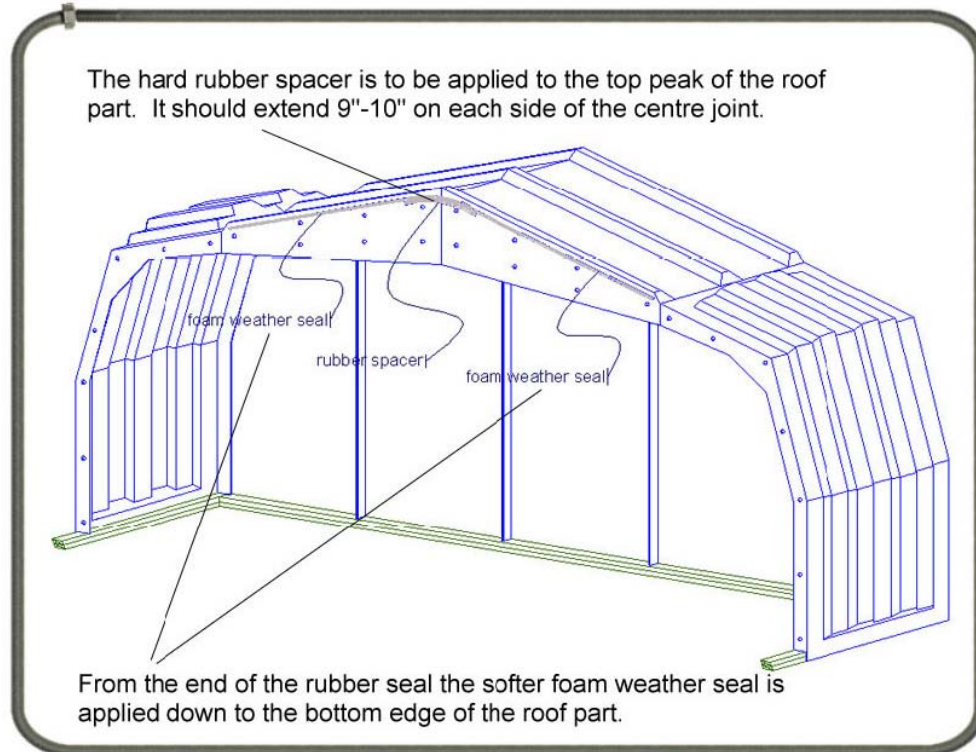
Install 4 - 1 ½" lag bolts through the bottom of each expander panel into the base of the unit.



Installing the Second Section

Step 4:

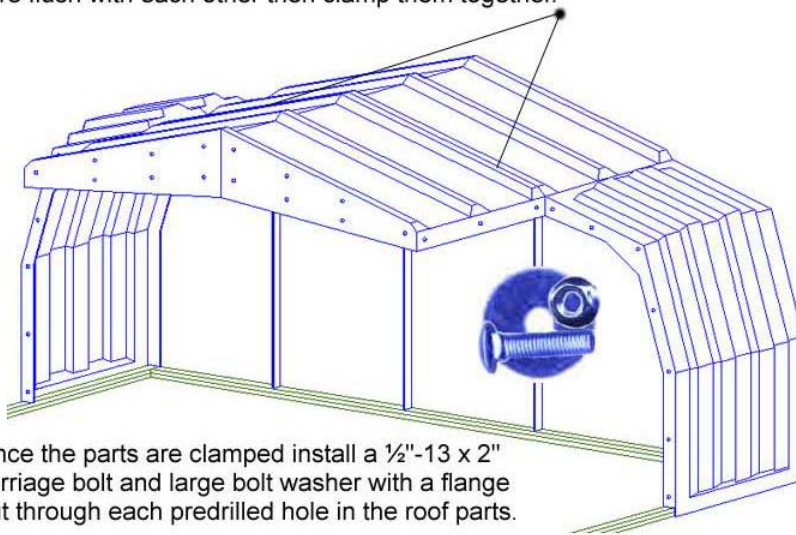
Now that the first panel section and the end wall is completed we can proceed with the assembly of the remaining mid sections. The first step on a 20' wide building is to apply the rubber spacers and foam seals to the roof part on the standing section. For buildings less than 20' wide there is no rubber seal required.



- Note that it is not intended that the rubber and foam seals weather proof the joint. The purpose of installing these items is to account for the draft or taper of the part that allows it to be removed from its mold during the manufacturing process.
- Continue this process for the remaining middle sections of the building.

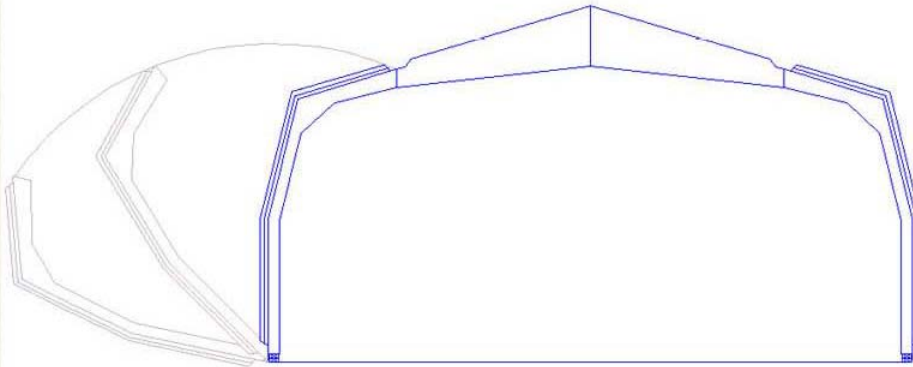
Locate a centre roof section, it will have holes predrilled on all sides. Using the man lift of scaffolding put the roof section into place against the section that is already standing.

Make sure that the top surfaces and both ends of the roof parts are flush with each other then clamp them together.

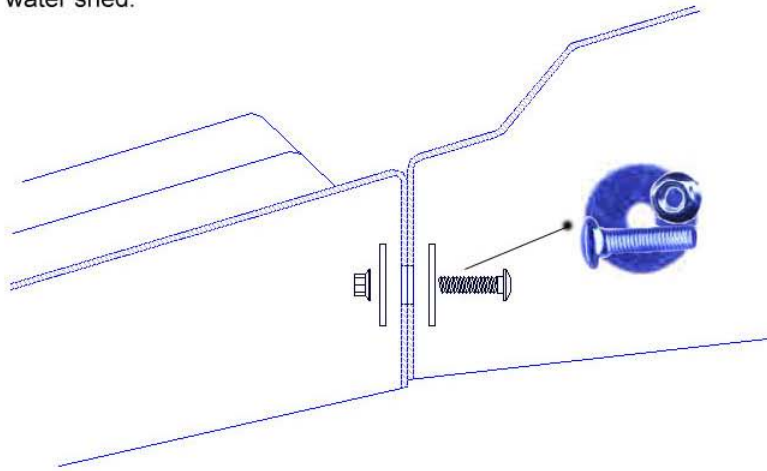


Once the parts are clamped install a $\frac{1}{2}$ "-13 x 2" carriage bolt and large bolt washer with a flange nut through each predrilled hole in the roof parts.

Next locate a centre side wall panel. It will have holes pre drilled on both side bolt flanges. Stand the panel into position along side the standing panel section and the roof section.

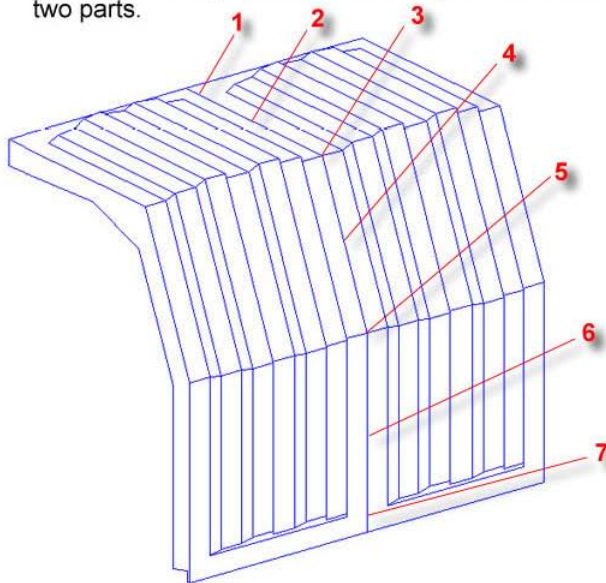


Line up the roof and wall panel. Remember to keep the roof panel elevated a maximum of 1/4" over the sidewall panel to allow for water shed.



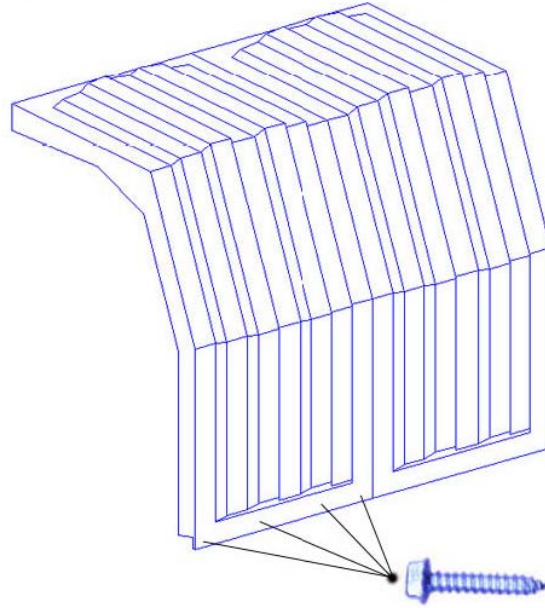
Once the side is lined up with the roof panel clamp it into place and install a 1/2"-13 x 2" carriage bolt and large bolt washer with a flange nut through each of the three pre drilled holes between the two parts.

Once the side is lined up with the roof panel clamp it into place and install a 1/2"-13 x 2" carriage bolt and large bolt washer with a flange nut through each of the three pre drilled holes between the two parts.



Do not worry if the holes do not line up exactly, they are drilled larger than the bolt to allow for adjustment in lining up the panels.

Once the side panels are bolted together install 4 - 1 ½" lag bolts through the bottom of the panel into the sill plate of the building.



Installing the Last Section

Step 5:

When the last roof and wall section is being installed leave the bolts between it and the previous section loose. This will allow the section some freedom of movement when you are installing the end wall panels on the building.

Installing the Front Panels

Step 6:

Follow the same routine as installing the panels on the first end of the unit. Once the end wall panels are completely installed remember to tighten the bolts between the last side wall and roof panel sections.

Finishing the Unit

Step 7:

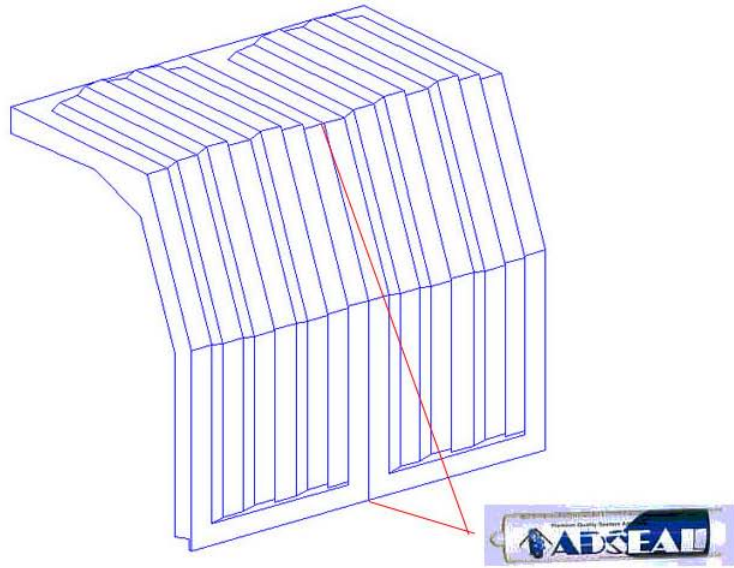
Once all the panels are in place and securely bolted together go back through the building and check for gaps that may appear between flanges in the panels. If a gap occurs in the flange place a clamp in the centre of the gap, drill a couple of 5/16" holes through the flanges and bolt the gap closed with 1/4"-20 x 1" hex cap bolts and flange nuts.



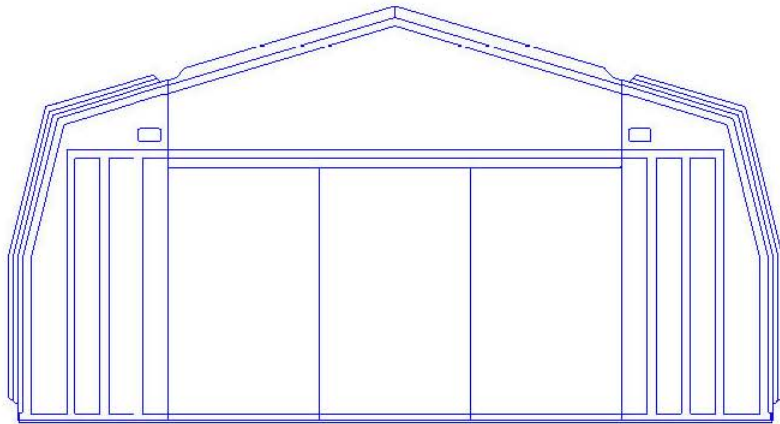
Step 8:

Wipe down all the joints of the building with a clean dry rag to remove any dirt or dust.

Apply a bead of caulking to all the wall joints of the building, from the base upto the top bend of the part.



Apply a bead of caulking to all the wall joints of the building on the end panels.





ROOF SEALING SYSTEM

Water Proof Butyl Adhesive Seam Sealing Tape

A 4" wide sealing tape is applied to all joints on the roof of the building.



U.V. Resistant, Elastomeric Silicone Rubber Coating

The tape is then coated with a second layer of protection. A silicone rubber coating is applied by brush over the sealing tape.



Installing Overhead or Roll Up Doors

Step 1:

Depending upon the overhead door option purchased with the building the assembly of the door itself will vary from option to option. A separate manual related to the particular door purchased will be enclosed.

Step 2:

Essentially all the doors will attach to the building in a similar manner. The rails or guides of the doors will have clips or brackets that will rest against the inside face of the building. Once the door assembly is together and lifted into place, drill a hole through the fibreglass panel in the location of the hole on the bracket. Then install a ¼"-20 x 1 ½" stainless steel carriage bolt through the hole and fasten with a flange nut on the inside of the unit.

Step 3:

Make sure that this is done at all clip and bracket locations on the rails, shaft brackets and any spring brackets that come into contact with the face of the building.