

Gardening with Skip



Greenhouse



First lay out the 1X4 boards where the greenhouse will be built to form the perimeter base.



Screw these together with two 2" deck screws in each corner.

Now mark a point 3' from the corner on one perimeter board and 4' from the corner on the adjacent board. Move the perimeter board frame so the distance across between these two points is 5'.



Then measure diagonally across between the opposite corners of the greenhouse. Both distances should be the same. That will square the base.



Next attach the corner posts in each corner.

Use a level to make sure they are vertical and secure them with 3" deck screws. It helps to pre-drill the holes before attaching the posts.

Then set the side posts, once again making sure they are vertical.



Now it's time to assemble the overhead bows.

Assemble the overhead bows on the ground.

First, insert the two sections of pipe into the 90 degree angle section, then insert a 45 degree section into the other end of each pipe.



Set the assembled bows onto the side posts and press in firmly.

Next we'll attach purlins to provide stability.

Cut off sections of pipe equal to the length of the greenhouse from the outsides of the first post to the last post.



Attach one purlin to each side in the middle of the 45 degree angle section using 3" deck screws. It may be easier to attach the purlin to each end bow and then in the other side bows.

Measure to make sure the distance between bows is the same at the top of the posts as it is between the posts at the bottom.



Then attach the third purlin to the top of the bows. Again it may be easier to first attach the purlin to the end bows and then to each interior bow. And as before, measure to make sure the distance between bows is the same as the distance between posts.

Place a small piece of duct tape over the ends of the screws and the cut ends of purlin pipe. This will help protect the plastic that covers the house from being ripped.





Next we will install 2 braces to stabilize the greenhouse structure.

Attach a brace to the perimeter board using two 3" screws. Cut the end off flush with the end of the last bow and attach it with one 3" screw.



Now it's time to install a frame for the door.



Measure and mark a space on the center of the end perimeter board that is large enough to accommodate the door.

Then attach two 1X4 boards to the outside of the perimeter board. Use a level to make sure the boards are perfectly vertical.



It may help to use a clamp or a piece of duct tape to hold the vertical boards in place to the bows while you install the other parts of the door frame.

Measure and mark a spot on the vertical 1X4's to determine where the top of the door will be.

Then hold a horizontal 1X4 to the inside of the vertical door frame boards at a height so that the bottom of the board is about an inch below the top of the door. That way the top of the door will strike against this top board and the bottom of the door will strike against the bottom perimeter board.



Make sure the top board is level and mark the spot where the vertical side boards of the door frame will lie against it. Also mark the ends of the horizontal board so you can cut them off where they will be flush with the purlins.

Make sure the horizontal board is level and the angles with the vertical boards are 90 degrees before attaching it to the vertical boards with 2" deck screws.

Next attach the ends of the horizontal board to the bow using 3" deck screws.

Now cut off the two vertical boards flush with the top of the horizontal board. This completes the door frame.



Now it's time to frame up the fan support for the other end.

Again attach two vertical boards spaced wide enough to accommodate the fan you will be using.

Use 2" deck screws to attach the vertical boards to the base perimeter board and 3" deck screws to attach them to the bows.



Cut the tops off flush with the bow and use a strip of duct tape to smooth the rough edges.

Attach a horizontal board across the 2 vertical uprights. This will support the fan. Then have someone hold the fan in place and attach another board above the fan to complete the fan frame.



The board, if attached tightly against the fan will hold it securely. If you like you can add more stability by attaching a couple of "L" brackets to the fan body and the 1X4's.



Now it's time to cover the greenhouse with the poly film or clear plastic.



There are special products designed for greenhouse use that will withstand the deteriorating effects of the sun and last for several years.

For more economy you can simply use a standard clear plastic product from a local home center or hardware store. Choose one that is 4 or 6 mil in thickness so it will be strong enough to resist tearing and breakdown for a longer period.

These standard clear plastic products will last several months which is really all you need to get you through our brief Texas winters. Then you can remove them for the growing season. It gets way too hot during the growing season to leave a clear cover on the greenhouse and a fan won't be able to keep it cool enough.



Cut a section of clear plastic large enough to go over the greenhouse and to reach down to the ground on both ends. It is best to leave a few feet extra when you cut.



Place it over the greenhouse and check to make sure that it will reach to the ground on all sides.



Attach one side to the perimeter base board. First, lay black batten tape over the plastic. Along the baseboard.

Batten tape is a special product sold by greenhouse supply companies and is usually difficult to find locally, but is available by mail order.

As an alternative, you can take reenforced duct tape and fold it over to make a long, narrow strip to add extra support when you staple the plastic to the baseboard.



Staple through the tape into the base board every 4 to 6 inches. Next, fold the edge of the clear plastic over two or three times at the base and staple it again. All staples should pass through the black batten tape, which provides extra strength and support.

Next repeat the process on the opposite side of the house, making sure to pull the plastic tight as you attach it.

You will need to cut off the extra plastic before folding and stapling the edge.

It helps to have someone pull the plastic tight and hold it as you staple it down.



Now attach the plastic to the door end of the greenhouse.

Fold the sides in and staple the poly film to the door frame using the black batten tape. Staple from just above the height of the side posts down to the base. Then staple the plastic along the base perimeter board.

Now fold the plastic down and in, stretching it from the bows downward and attach tape and plastic to the side boards of the door.



Cut away extra plastic around the base board and inside of the door frame. If you like, you can bend it back over the black tape strip and staple it again to get the cut edge out of the way.

Next fold the plastic down from the top of the purlins over the door and attach another strip of the reinforcing tape as you staple it down to the top of the door frame. Cut away the excess plastic.

Now attach the plastic to the other end of the greenhouse.

Begin by pulling in the two sides and attaching them to the frame boards that hold the fan. After securing the sides, cut out the area for the fan. Then attach plastic to the wood fan frame using batten tape. Finish out the end by attaching a piece of plastic over the opening between the vertical boards.



Depending on the size of the plastic and the size of the greenhouse there may be enough plastic to fold over and overlap on a board. Otherwise you will need to just attach it to each vertical board and then later apply another piece over the opening.

We did not install a door in this video. You can either build a door and cover it with plastic or purchase an inexpensive wood screen door to cover with plastic. You may also want to go all the way and purchase a storm door for the greenhouse.



This greenhouse is so light you can build it in one spot, such as a nice flat driveway, and then carry it with the help of some friends to its final location.

After it is in place anchor it down to prevent it from being overturned in a strong wind.

One alternative to building it as a portable structure is to first set the posts by driving them into the ground, and then attach the perimeter base boards and proceed as we did in this video.

