



**ADVANCING**  
ALTERNATIVES

# **GOTHIC HIGH TUNNEL**

## Installation Manual

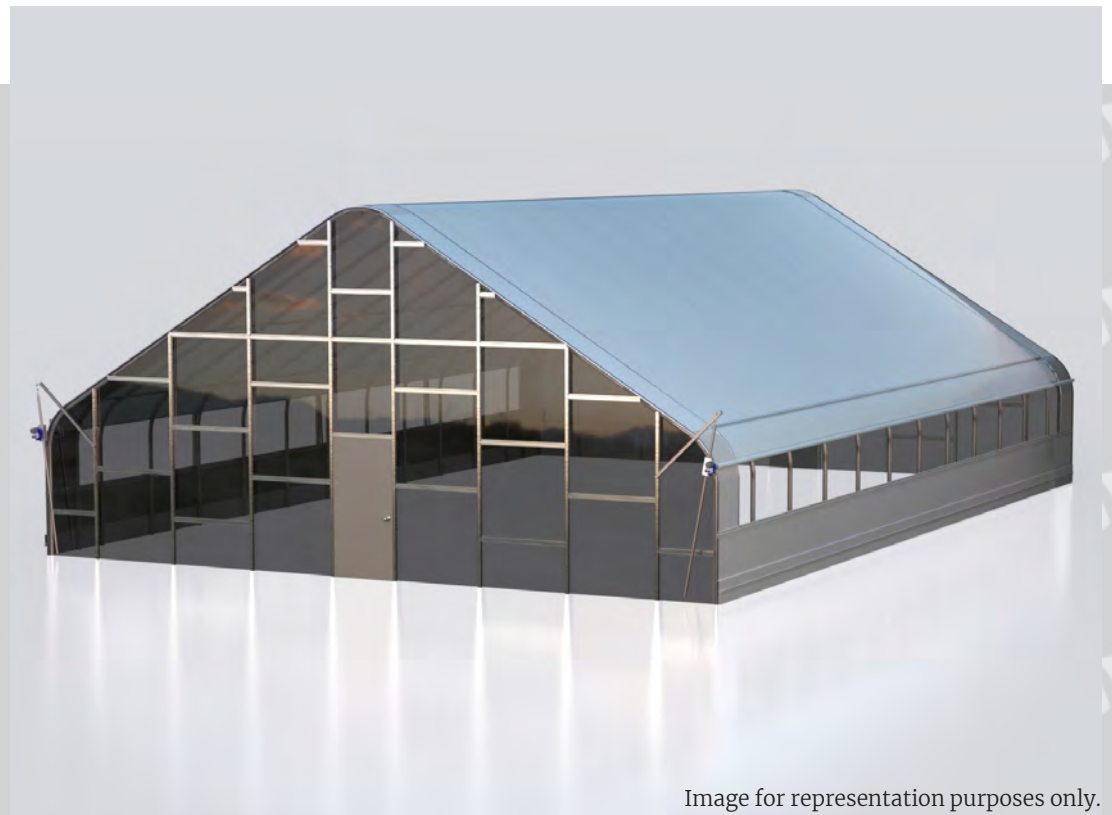


Image for representation purposes only.

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**# 81-GHT-30-2.3**

**30' x 15' 6" x 96'**

**2.3" Bow @ 4' OC**

# IMPORTANT SAFETY INFORMATION

## *For Safety and Warranty Purposes You Must Read This Document Before You Begin Assembly.*

Thank you for purchasing this Advancing Alternatives gothic high tunnel. When properly assembled and maintained, this product will provide years of reliable service. These instructions include helpful tips and valuable information needed to safely assemble and properly maintain the high tunnel. Please read these instructions thoroughly before you begin construction.

If you have any questions during the assembly, contact *Technical Support at 1-877-546-2257* for assistance.

## **Important Safety Precautions**

- Wear eye, hand and head protection at all times during the assembly.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with power tools and cords.
- Do not climb on the high tunnel or framing during or after construction.
- Do not occupy the high tunnel or attempt to install the curtain during high winds, tornadoes, or hurricanes.
- Never attempt to install the poly covering or curtains during windy or stormy conditions.
- Assemble and anchor the high tunnel frame and end walls prior to installing a ridge vent or side wall curtains.
- Provide adequate ventilation if the structure is enclosed.
- Provide proper ingress and egress to prevent entrapment.
- No part of this structure is engineered to function as an anchorage point for a fall arrest system.
- Stability during construction, from winds imposed during erection, is the sole responsibility of the installer. Wind can be sufficient enough to knock workers off scaffolding or a ladder, resulting in a potentially deadly fall.
- Observe safety codes required by your jurisdiction, and relevant safety practices for working at heights.
- Avoid the risk of electrical shock from overhead lines or electrical storms.
- While each structure and site is unique, and may require special considerations, these instructions are for a tilt-up method (*where frames are assembled on the ground and tilted onto ground stakes or anchor rods using ropes or lifts*).
- *Where required, all electrical connections must be in accordance with all state and local codes and preformed by a licensed qualified electrician.*



## **WARNING**

Anchoring this assembly is an integral part of the high tunnel construction. Improper anchoring may cause high tunnel instability and failure of the structure. Failing to anchor the high tunnel properly will void the manufacturer's warranty and may cause serious injury and damage.

# IMPORTANT LOCATION AND SITE INFORMATION

## Location Selection and Site Preparation

When choosing a location, potential hazards should be identified. Proper preparation of the site is essential. The following site characteristics will help ensure the integrity of the structure.

- *Always check local building codes prior to any site work or assembly construction.*
- These instructions include minimum guidance for foundations based on the International Building Code. These minimums are suitable for some areas of the country but not all.
- Never erect the structure under power lines.
- Identify whether underground cables and pipes are present before preparing the site or anchoring the structure.
- A level site is required. The site must be level to properly and safely erect and anchor the structure.
- If the site is not level, footings must be used to secure the base posts prior to assembling the structure.
- Drainage: Water draining off the structure and from areas surrounding the site should drain away from the site to prevent damage to the site, the structure, and contents of the structure.
- Identify whether underground cables and pipes are present before preparing the site or anchoring the structure.
- Do not position the high tunnel where large loads such as snow and ice, large tree branches, or other overhead obstacles could fall.
- Select an area that is not susceptible to direct high winds. If structure will be subject to consistent 15+ mph winds contact *Technical Support at 1-877-546-2257* prior to construction.



### WARNING

The individuals assembling this structure are responsible for designing and furnishing all temporary bracing, shoring and support needed during the assembly process. For safety reasons, those who are not familiar with recognized construction methods and techniques must seek the help of a qualified contractor.

# SCOPE OF WORK

## *Process Overview*

Following the instructions as presented will help ensure the proper assembly of your high tunnel. Failing to follow these steps may result in an improperly assembled and anchored high tunnel and will void all warranty and protection the owner is entitled. The steps outlined are designed to give a basic overview of the construction procedure. Each step is covered in greater detail in the corresponding section within this manual.

## *Process Outline*

- Verify that all parts are included in the shipment.
- Read these instructions and corresponding materials included with your shipment thoroughly before beginning.
- Take all supplies, tools, equipment and personnel needed to the construction site prior to the build.
- Re-evaluate the location and site based on the information and precautions presented in the documentation.
- Do all location and site preparation work. Make any additional changes that may be necessary.
- Layout and set all base posts in accordance with the procedures set within this manual. Allow time for foundation material to cure prior to setting any framing members.
- Assemble all bow sections to include truss supports where required.
- Assemble the frame, purlin supports, wind bracing , end walls and doors.
- Install all systems hardware where applicable, i.e. aluminum extrusions, guide pipes, roll bars, etc...
- Install ridge vent complete with operators, limit switches and electrical wiring.
- Cover structure with roof poly .
- Install side wall ventilation curtain poly, operators, limit switches, wiring and wind control.
- Install inflation systems and limit switches where applicable.
- Locate placement of and build a secure attachment point for environmental control unit.
- Install environmental control unit and all sensors.
- Qualified electrician makes all connections from the power supply to the environmental systems and controls. Electrician wires all sensors and systems to the controls.
- Set the parameters on the environmental control unit.
- Construction clean up .

# COMMONLY USED TERMS

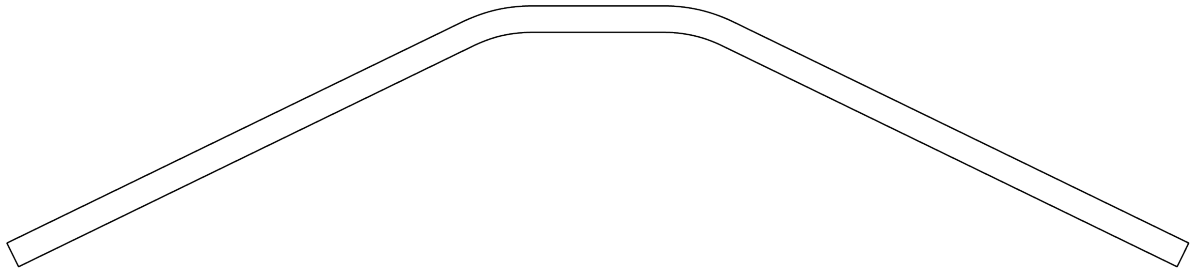
## Words and Phrases

Before you begin, it is important to become familiar with the words and phrases used within this instruction manual. These words and phrases are common throughout the industry and help identify the different parts of the greenhouse structure. To help identify the parts received in your shipment read through the following definitions before beginning assembly.

1. **Tubing:** Typically round, between 1.3" to 2.3" in diameter used to create base posts, arches, peak sections, purlins, guide pipes and in some cases roll bars.
2. **Swaged End:** The term "swaged" refers to the tapered end of a tube. Swaged ends of tubing can be inserted into the straight ends of other tubes, of the same diameter and gauge, to create an overlapping connection.
3. **Stamped End:** A stamped end is used primarily for truss and gable end bracing. These sections of tube have a flattened end that has been cut on each side at approximately a 30° angle and has been punched with a bolt hole.
4. **Straight Tube:** A term used to describe a pipe that has the same diameter or width throughout its entire length.
5. **Bow:** Structural element created by connecting (2) base posts, (2) arches, (1) peak section and truss pieces where applicable. When assembled is used as an end wall support or intermediate (rib) sections of the greenhouse.
6. **Base Post:** Straight tubing typically between 42" - 72" in length that is anchored into the ground using a cement aggregate material to form a concrete footing. Creates foundation and only structural attachment to the ground.
7. **Arch:** Begins as straight tubing then continues to a curve section to create the main structural support of the side wall and roof sections. Typically 202" in length having two swaged ends.
8. **Peak Section:** Section of tubing used to connect the (2) arches to create a complete side and roof section above the base. Has the appearance of a wide spread "V" with a flat base. Length varies by structure width.
9. **Purlin:** Tubing assembly that runs perpendicular to the bow sections used for structural strength and to maintain proper bow spacing above the base posts. Purlins are found on the interior side and roof areas of the assembled frame, evenly spaced, and typically run from end to end of the structure.
10. **Truss Brace:** A length of pipe with two flattened ends used for diagonal and horizontal bracing of the structure. Truss braces are secured to the bow sections using brace bands for added sidewall and roof support.
11. **Gable:** The part of a wall that encloses the end of a pitched roof. i.e. end walls of a greenhouse structure.
12. **Brace Band:** Circular steel band with two flanges used to secured bracing to the structure. Held secure by carriage bolts and nuts. Typically available in 1.3", 1.6", 1.9" and 2.3".
13. **Cross Connector:** Aluminum bracket used to connect (2) tubes of varying diameters. Most commonly used to connect purlins to bow sections.
14. **Tek Screw:** A self-tapping fastener used to secure tubing swaged connections, brackets and other metal to metal connections.
15. **On Center:** Term used to describe a measurement taken from the vertical center of the rafter or frame member to the vertical center of another.
16. **Level:** Horizontal plane or line with respect to the distance that all following elements meet but do not intersect.
17. **Plumb:** Vertical plane or line at an angle of 90° to another given line, plane, or surface. i.e. the ground.

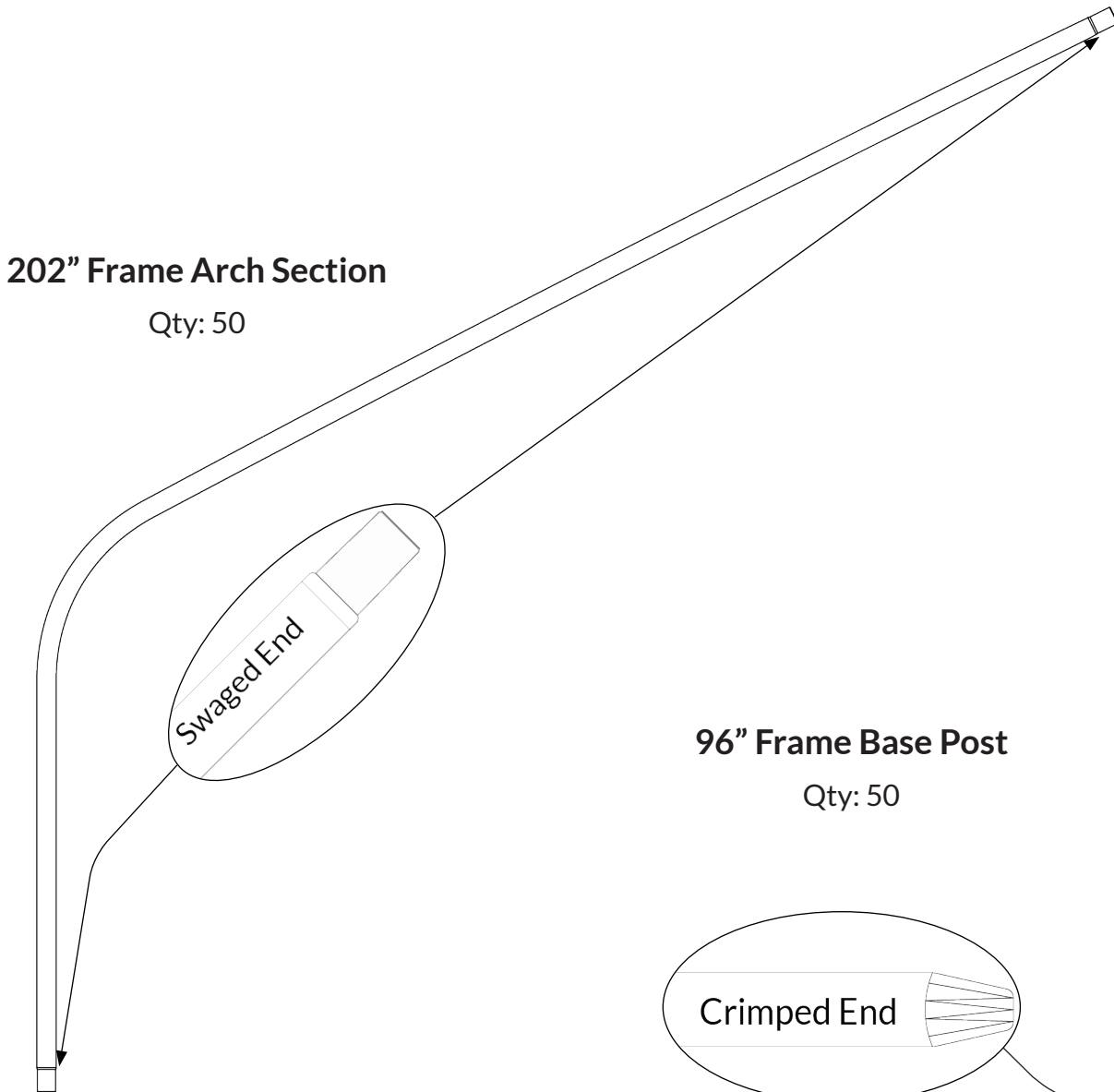
# HARDWARE LIST - STRUCTURE FRAMING

The following graphics will help you identify the different parts. (Some parts may not be shown.)



**132" Frame Peak Section**

Qty: 25



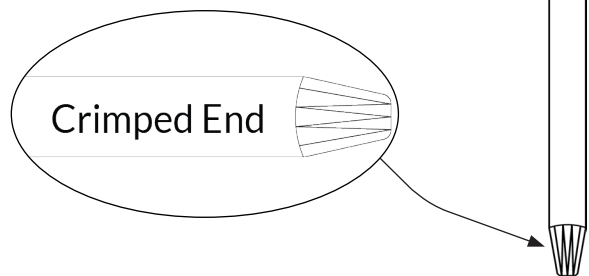
**202" Frame Arch Section**

Qty: 50

Swaged End

**96" Frame Base Post**

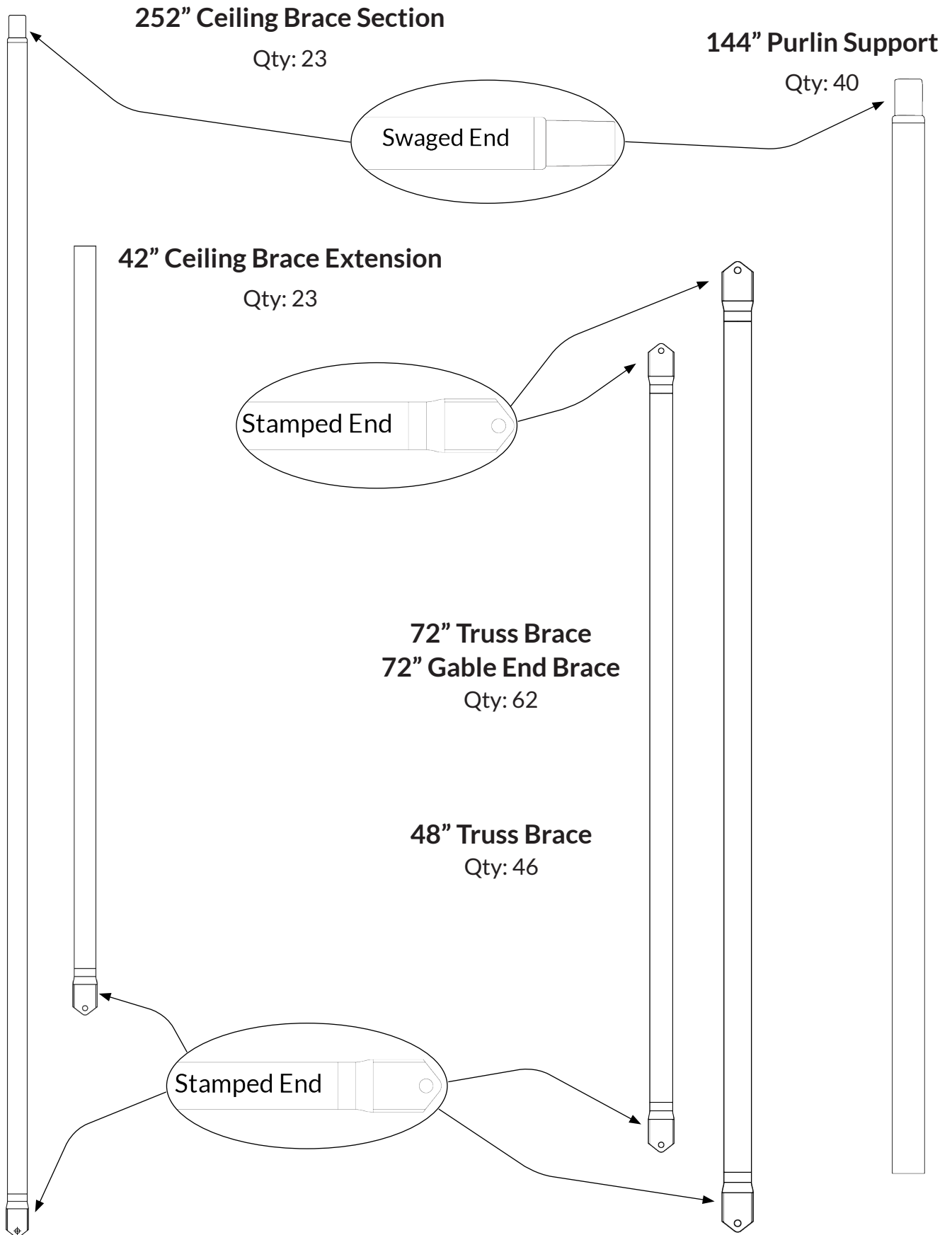
Qty: 50



Crimped End

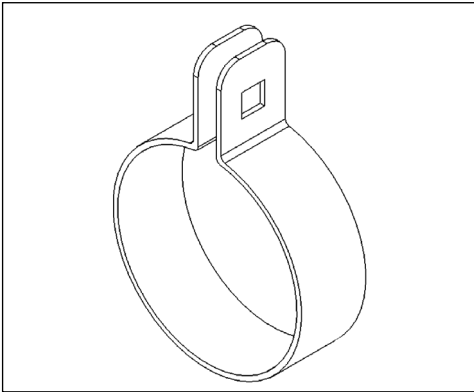
# HARDWARE LIST - STRUCTURE TRUSS BRACING

The following graphics will help you identify the different parts. (Some parts may not be shown.)

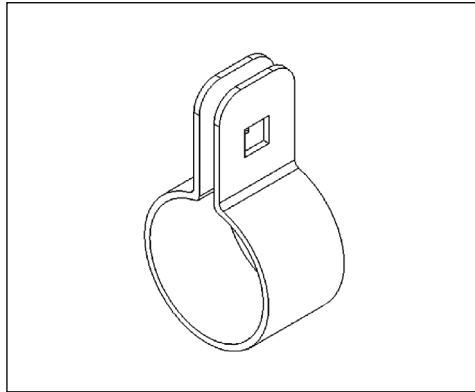


# HARDWARE LIST - STRUCTURE CONNECTORS

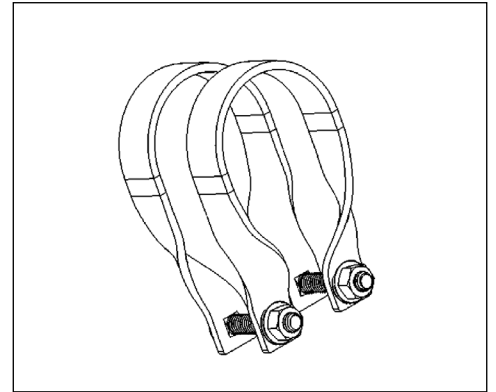
The following graphics will help you identify the different parts. (Some parts may not be shown.)



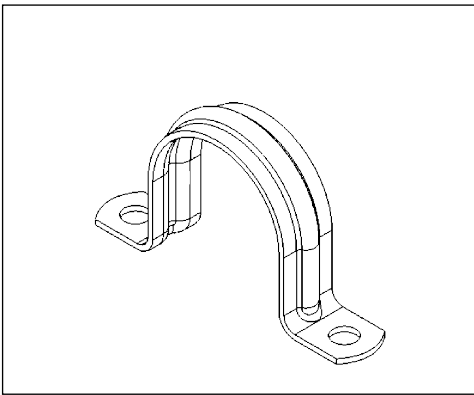
**2.3" Brace Band**  
Qty: 178



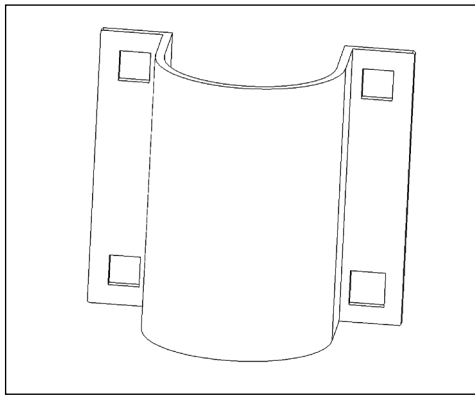
**1.315" Brace Band**  
Qty: 50



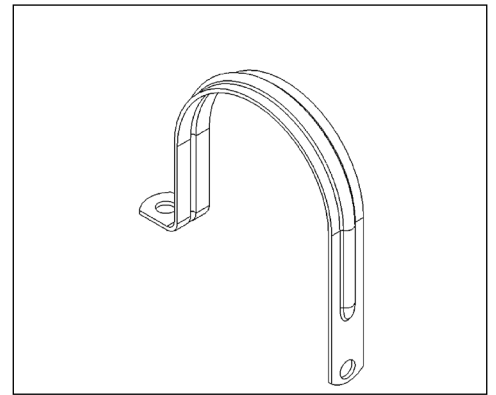
**2.3" Cross Connector**  
Qty: 20



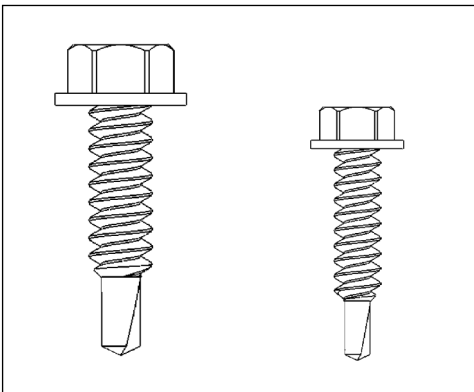
**1.315" Strap Clamp**  
Qty: 12



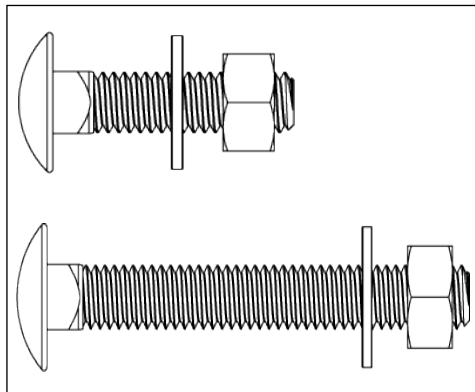
**1.315" x 42" Ceiling Brace**  
Qty: 23



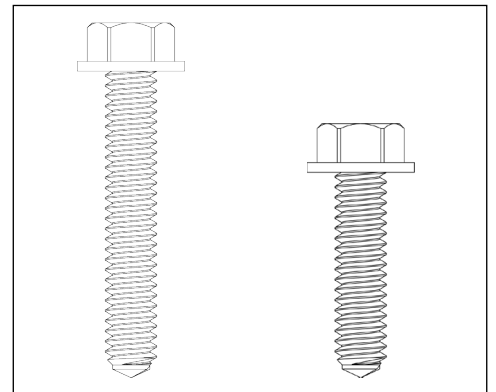
**1.315" x 72" Truss Brace**  
Qty: 46



**#14 x 1.00" Tek Screw**  
Qty: 220  
**#12 x 1.00" Tek Screw**  
Qty: 110



**.3125" X 1.25" Carriage Bolt**  
Qty: 228  
**.3125" X 2.50" Carriage Bolt**  
Qty: 224



**#14 x 1.00" Tek Wood Screw**  
Qty: 12  
**#14 x 1.50" Tek Wood Screw**  
Qty: 12



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# SECTION 1: SITE LAYOUT AND INSTALLING BASE POSTS

## Process Overview

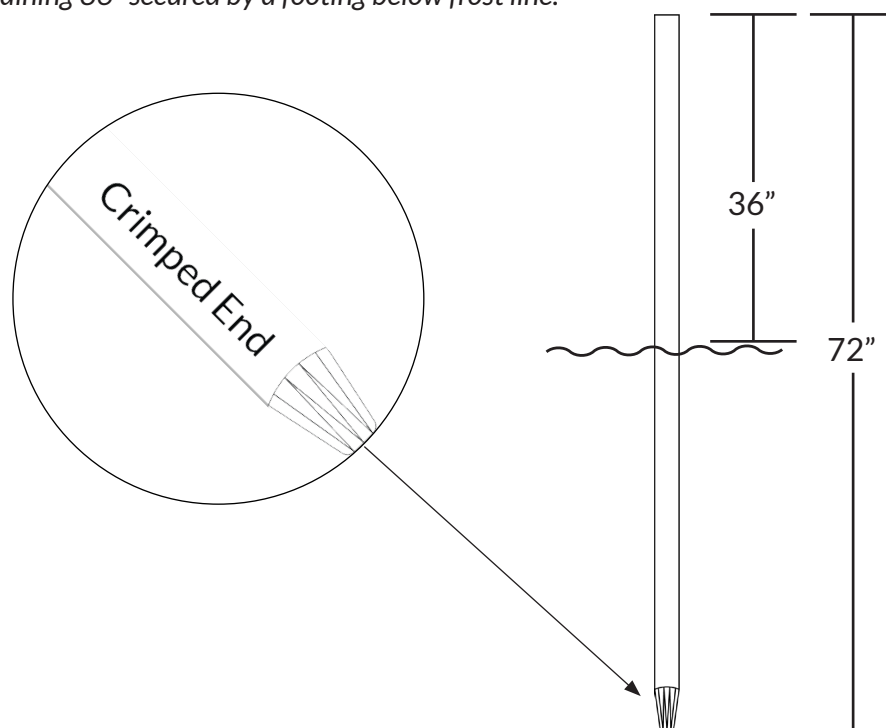
Prior to beginning this phase of construction, ensure you have thoroughly read and understand these instructions. Choose a proper site for your new greenhouse structure and identify all hazards in the work area. It is very important that the structure is installed on a level site, otherwise the strength of the assembly may be compromised. Accuracy at this phase of construction is very important. Please make sure this part of the instructions is thoroughly understood before proceeding. *Following these instructions fully saves time during the entire build. Beginning with a solid square, and level foundation will not only provide a stable structure base but also reduce install times and adjustments to all additional system installations. Always keep in mind Solid, Level, and Plumb during this phase of construction.*

## Tools and Materials Required

1. 6" Post hole auger or manual post hole diggers
2. Cement aggregate
3. Tamper or 2" x 2" post
4. Laser level or surveyors transit level
5. 48" and 72" I-Beam or Box level
6. 100' Tape measure
7. Grade stakes (6)
8. Pencil or Sharpie
9. Shovel and Rake
10. Wheel barrel

## Assembly Parts Required

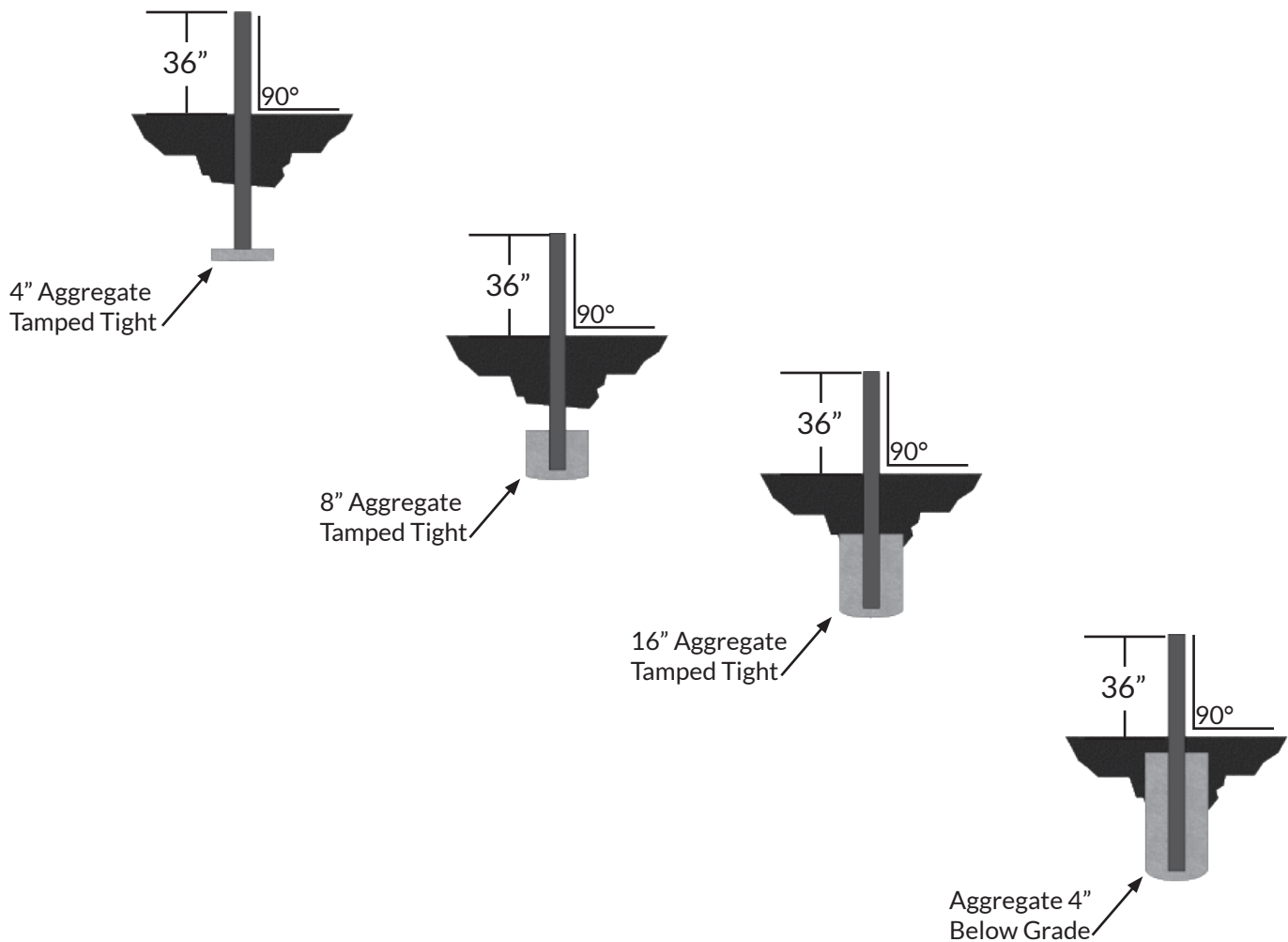
(50) 72" Base Posts are required to complete this portion of the construction. 36" of each base post will be above ground level with the remaining 36" secured by a footing below frost line.



# STRUCTURE LAYOUT

## Setting the First Base Post

The first base post will be the point of measurement for all proceeding posts. This post must be set secure at the proper elevation and plumb level. Begin by setting the front-left base post. Using an auger or post hole digger create a hole 6" in diameter and 40" below ground surface. Fill hole with 4" of cement. The aggregate can be dry as the ground moisture will set the material up over time. Tamp the material flat in the bottom of the hole using a tamper or 4"x4" post. Set the base post into the hole and fill approximately 8" with aggregate material. Using a transit, or other elevation measuring device make sure the top of the post is 36" above ground level. With a level insure the post is plumb. Hold the post steady as another worker tamps the 8" of aggregate tightly around the post using a tamper or 2"x2" board. The post should stand freely on it's own at this point. Check again to make sure the post is still at a 36" ground elevation and is plumb level. Pour an additional 8" of aggregate and tamp tight. Check again the elevation and plumb level. Continue to fill 8" at a time until the hole is filled with aggregate 3" - 4" below ground level. Make certain the finished post sets 36" above ground level and is plumb level. The post should not move at this point given a reasonable amount of force. "See illustration below"

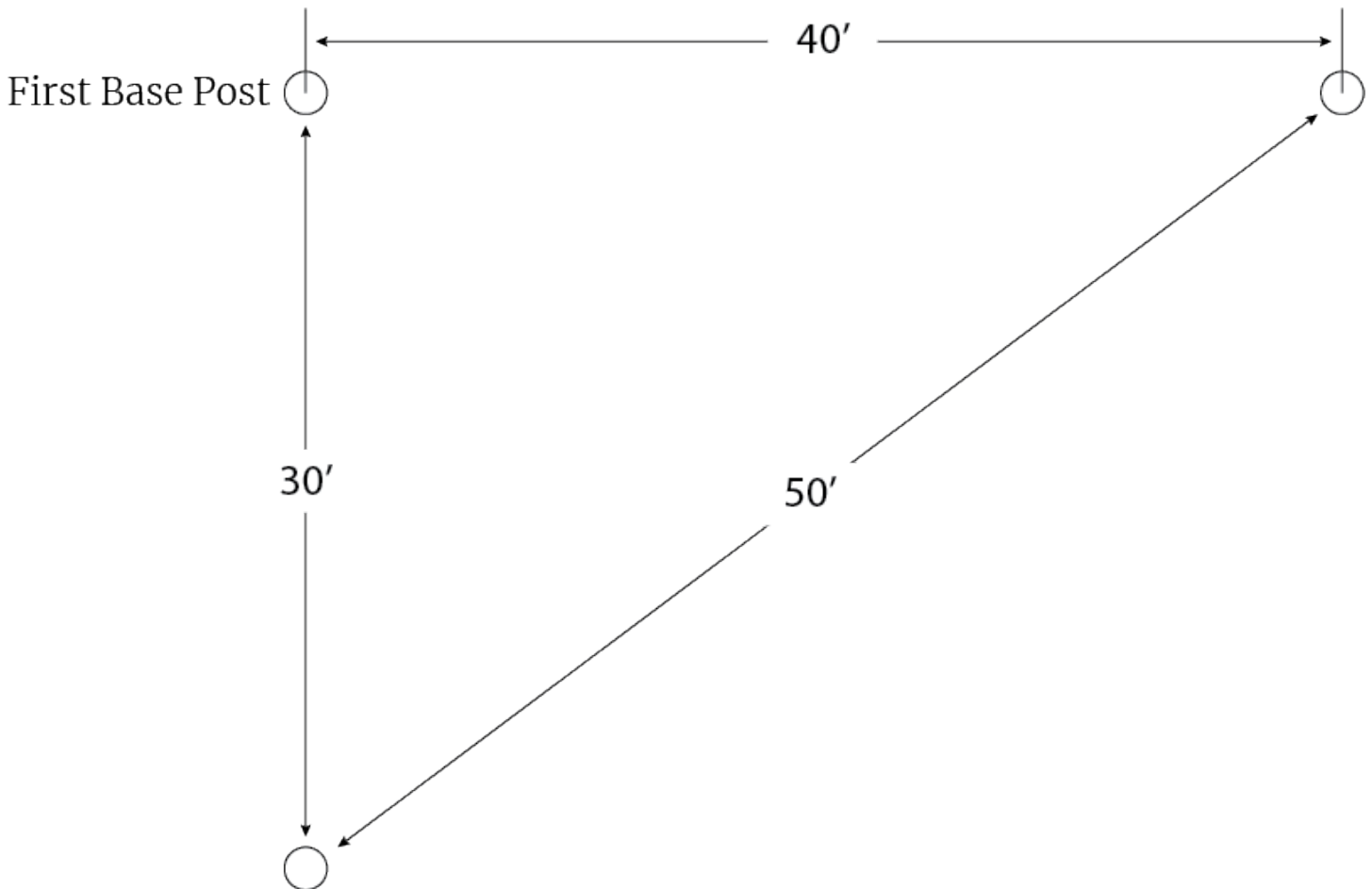


# STRUCTURE LAYOUT

## Using the 3x4x5 and Cross Measurement Methods

The first base post will be the origin in laying out the next (6) base posts. Using a 3 x 4 x 5 triangle will insure the structure is square and all post are evenly spaced. A transit can be used to ensure an accurate 90° angle. Using multiples of 3 x 4 x 5 such as 24 x 36 x 40 or 30 x 40 x 50 helps to maintain an accurate 90° angle.

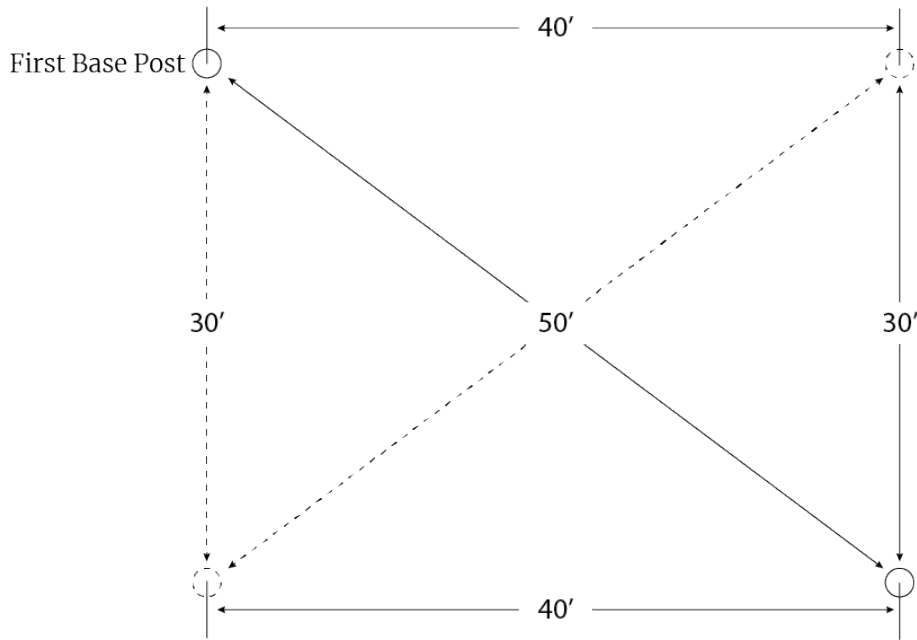
Temporarily set a point using another base post 30' to the right (opposite front corner) of the first base post. Measure from the inside edge of the first base post to the inside edge of the second. Set another temporary post 40' running the linear (length) direction off the first base post measuring center to center. Measure between the inside edges of the second and third posts. If the posts are set square the measurement will be 50'. If the measurement is not 50', adjust the third post so the distance between is 50'. Using these points as a reference dig 40" holes at the two locations and repeat the process used to set the first base post. Be certain the distances between the posts remain and the posts are at the same elevation and plumb level. "See illustration below"



# STRUCTURE LAYOUT

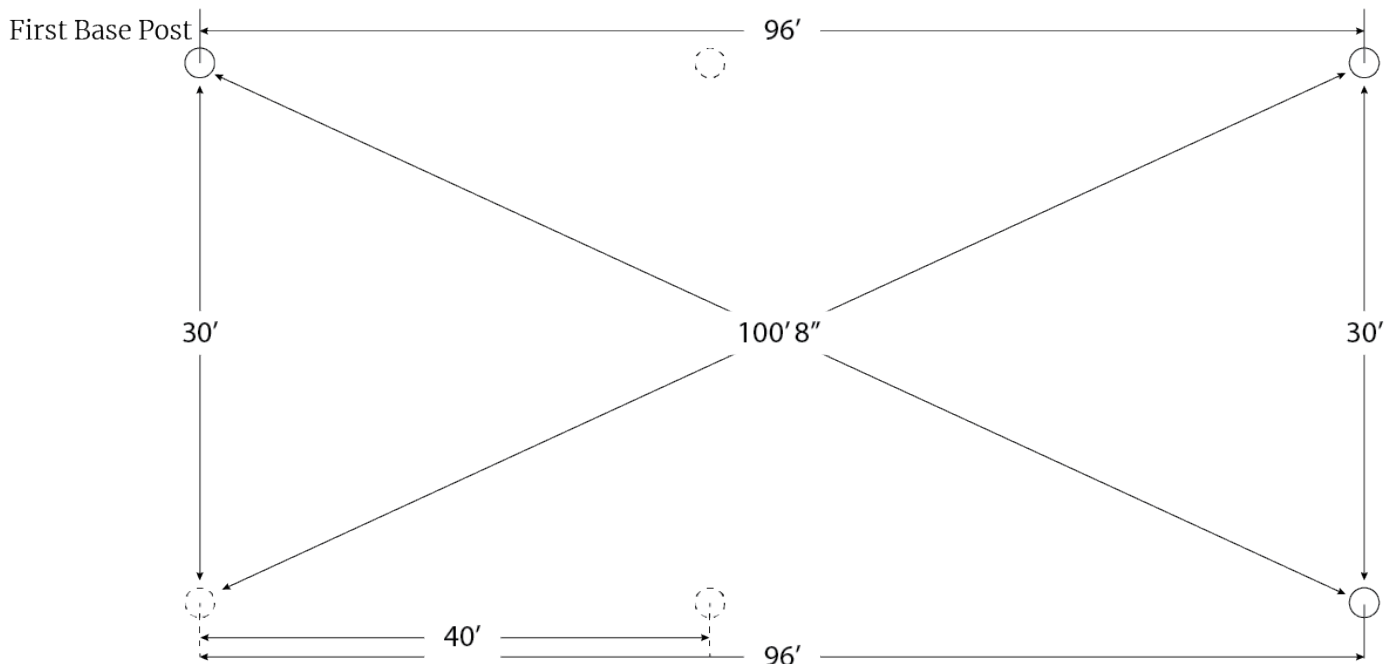
## Setting the opposite linear post

Using the same method described in the previous step set the opposite linear post. "See illustration below"



## Setting Remaining Reference Posts

Set an additional linear post 96' on center from the first base post. Repeat this step on the opposite corner. Measure diagonally between the inside edges from the base post to the new end posts. The measurement between the post will be the same (approx. 100' 8"). Make adjustments accordingly to set distances equal. Using these points as a reference dig 40" holes at the two locations and repeat the process used to set the first base post. Be certain the distances between the posts remain and the posts are at the same elevation and plumb level. "See illustration below"



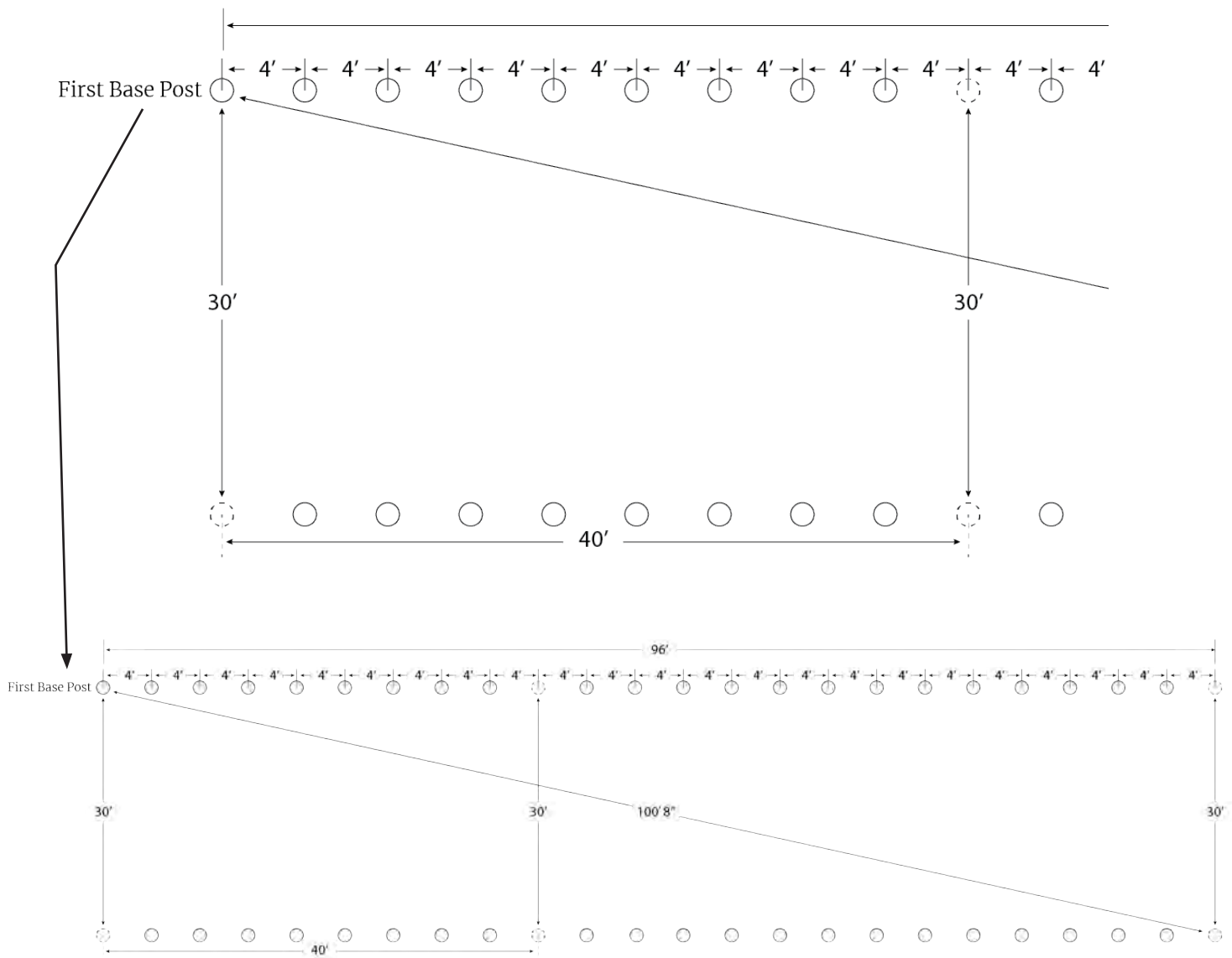
# STRUCTURE LAYOUT

## Setting Intermediate Base Posts

This step will complete the foundation of your new greenhouse structure. If you have followed the steps in detail previously outlined you will have (6) posts securely placed that are all at the same elevation, plumb level and have created a perfect rectangle.

Measuring 4' on center set the intermediate posts running the linear direction using the same method as previously described. Make certain all opposite side base posts are placed directly in line with each other and are exactly 30' apart inside measurement. If the existing base posts are set square every remaining post will be directly in-line and adjacent each other when the spacing is equal on both sides.

Using these points as a reference dig the remaining (42) base post 40" holes at the locations and repeat the process used to set the first base post. Be certain the distances between the posts remain and the posts are at the same elevation and plumb level. "See illustration below"



## SECTION 2: Assembling and Setting Bows

### Process Overview

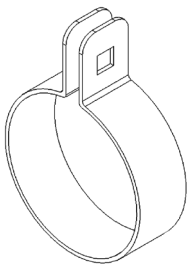
It is assumed you have followed the previous instructions completely and now have a secure square and level structure base. Assembling and setting the bow sections will require more than one person to complete. This phase of assembly is best done with a piece of equipment designed to lift; such as a telehandler. It is important to ensure that each of the assembled bows are securely fastened to the base posts and vertically supported prior to setting the next bow. **Failure to do so could result in damage to the framing members or cause serious bodily injury or death.**

### Tools and Materials Required

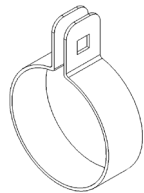
1. Rope and Metal ground stakes
2. 100' Tape measure
3. 25' Tape measure
4. 72" I-Beam or Box level
5. String and Plumb bob
6. Impact driver with 5/16" & 3/8" bits
7. Ratchet with 1/2" socket and a 1/2" wrench
8. Rubber mallet or Hammer
9. Pencil or Sharpie
10. Ratchet strap

### Assembly Parts Required

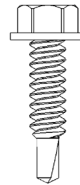
Framing members required for bow assembly are as follows (25) 132" frame peaks, (50) 202" arches, (23) 252" ceiling braces, (23) 42" ceiling brace extensions, (46) 72" truss braces and (46) 48" truss braces. (see pages 6-7 images) Hardware components, with quantities, required to construct the truss bracing are pictured below.



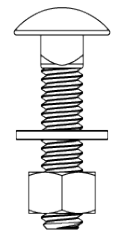
2.3" Brace Bands  
Qty: 138



1.3" Brace Bands  
Qty: 46



#14 x 1.00" Tek Screw  
Qty: 200

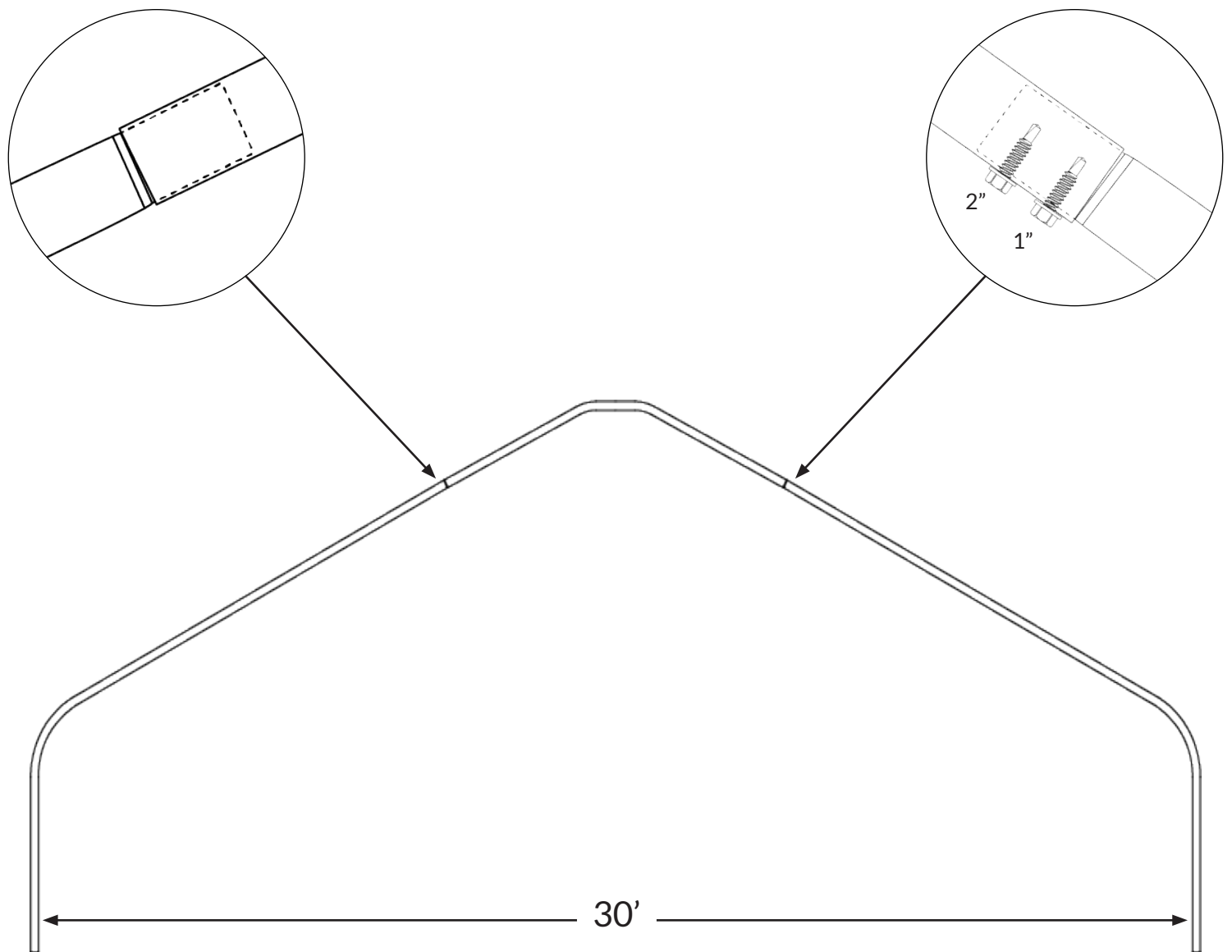


5/16" x 1 1/4" Carriage Bolts  
Nuts and Washers  
Qty: 184

# ASSEMBLING END WALL BOW SECTIONS

## Assembling the End Wall Arch Sections

Each end wall bow will be constructed with (1) 132" peak section and (2) 202" arch sections. Begin by laying the peak section on the ground. Slide the swaged end of each arch section into the peak section. If it does not slide in completely rotate the arch back and forth until it is firmly seated against the end of the peak. Ensure the arch sections are flat on the ground and level with the peak section. Using the ratchet strap, and rope if needed, make a loop at each end to pull the bottom of the arch together. Tighten the strap until you reach an inside measurement of 30'. The arch will be under some tension, this is normal. Using (2) #14 x 1" Tek screws secure the splices of the arch and peak sections. Place the Tek screws to the inside of the arch section at 1" and 2" above the splice. Placing the Tek screws on the inside of the frame will prevent possible damage to the poly covering. "See illustration below"







# ASSEMBLING INTERMEDIATE BOW SECTIONS

## Assembling the Truss Braces "W Truss" & Ceiling Brace

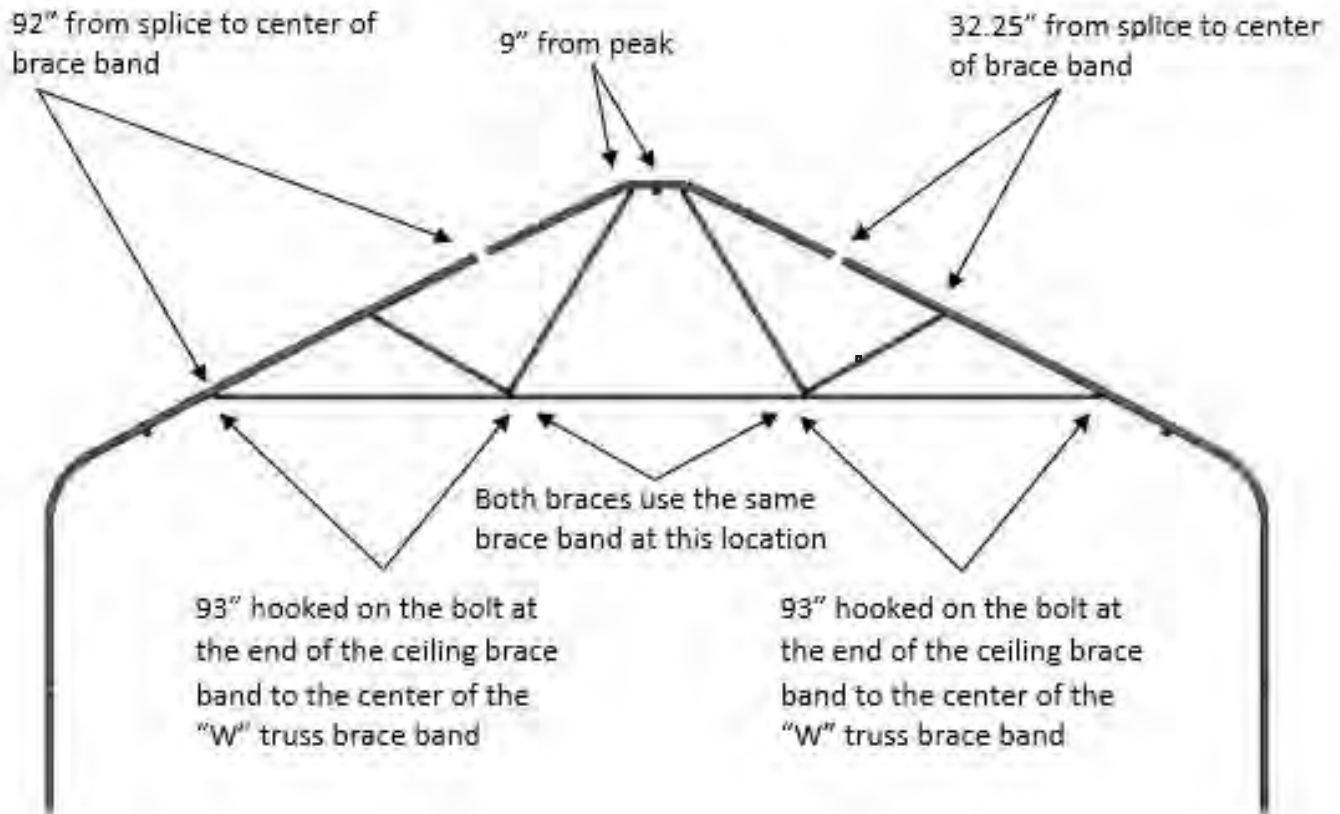
Proper placement of the ceiling brace on both ends is critical to the installation of the (4) truss braces. Measuring down in a straight line from the swaged joint, at the peak and arch sections, place a mark at 92". Repeat on the opposite side. Slide the bottom brace band down and center on the mark. Repeat on the other side. "See illustration below."

Install the first 2.3" brace band 9" down from the peak

Install the second 2.3" brace band down 32.25" from the splice in the bow

Install the third 2.3" brace band 92" down from the splice in the bow

Install the two 1.3" ceiling brace bands 93" in from the outer edge of the ceiling brace



# ASSEMBLING THE 1.3" PURLIN RUNS

## *Assembling the 1.3" Purlin Pipe (5 runs on a 30' wide house)*

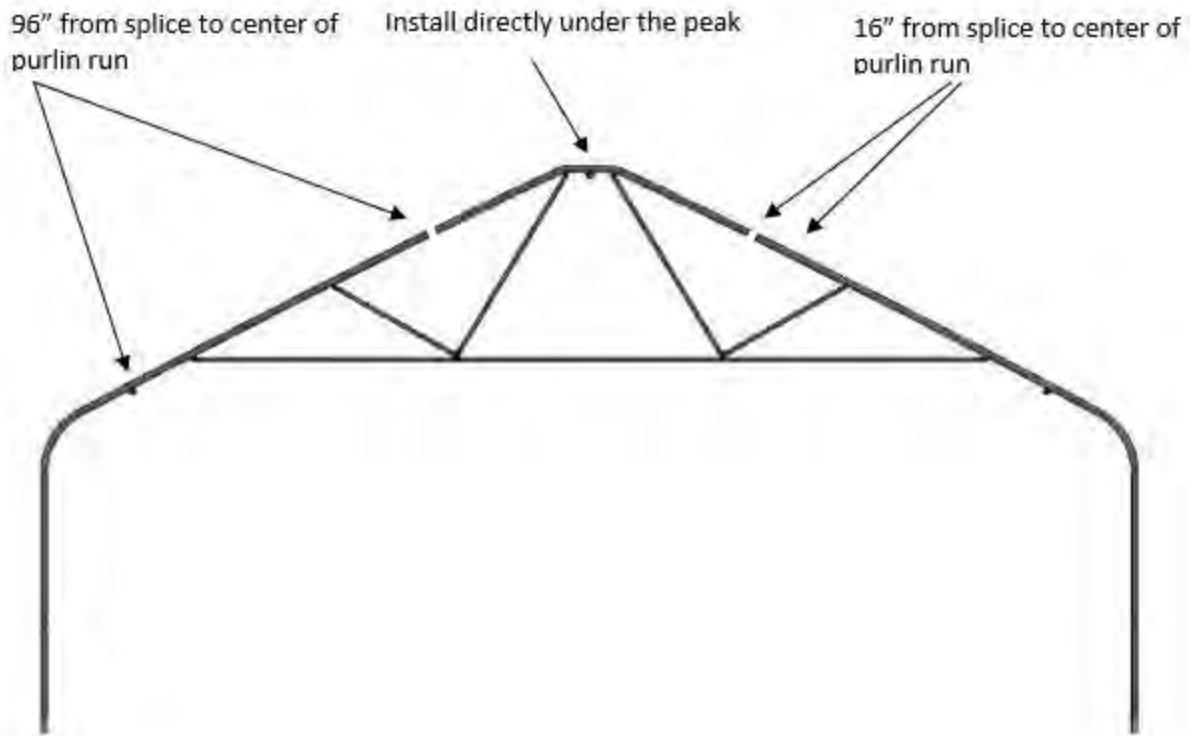
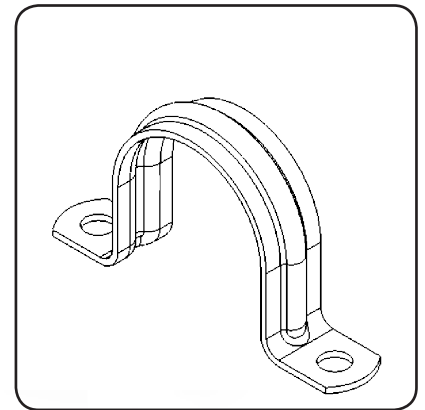
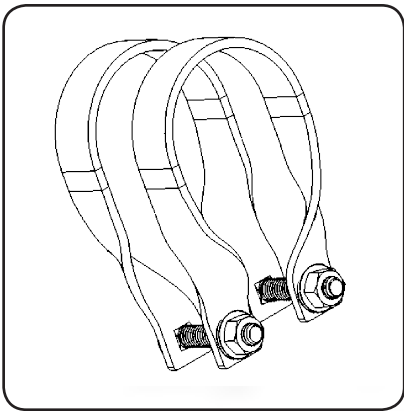
Install the 1.3" purlin pipes at 5 locations on your 30' greenhouse. Location may need to be adjusted slightly depending on where the wind cross braces are attached

Install the first purlin directly under the center of the the peak truss.

Install the second run 80" down from the peak, or as illustrated 16" from the splice of the peak and the arch section

Install the third run 160" down from the peak, or as illustrated 96" from the splice of the peak and arch section

These purlins are fastened with 2.3" x 1.315" aluminum strap clamps and a 1.3" U-clamp on the gable ends, see illustrations below.





# ASSEMBLING THE WIND CROSS BRACES

## *Assembling the Wind Cross Braces*

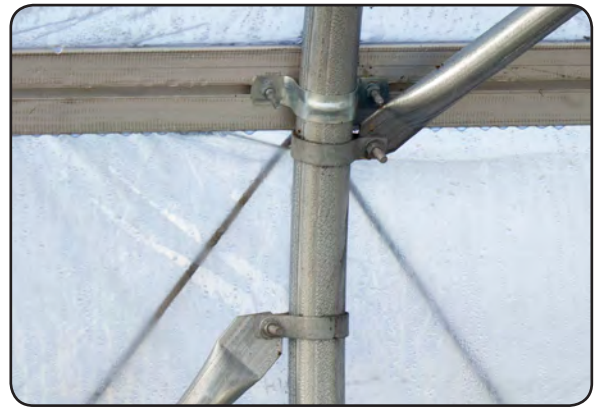
Your 30' wide greenhouse will have 4 wind cross braces in each corner. The four corners of the greenhouse get four 72" braces per corner.

Start at the fifth bow and attach the first brace an inch or two above the baseboard. Then attach the other end where it falls.

Start the next brace 3 - 5 inches above where the first brace ended and follow the previous step.

It is a good practice to install all of the corner braces loosely and then go along and tighten them once they are all in position.

\*Photos may not depict your greenhouse, side walls and bow spacing are offered in many different heights weights and most greenhouses are sized per the customers specification.





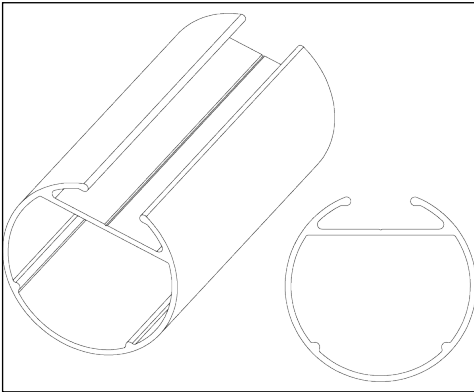
# ASSEMBLING THE WIND CROSS BRACES (CONTINUED)

*Assembling the Wind Cross Braces (additional photos)*



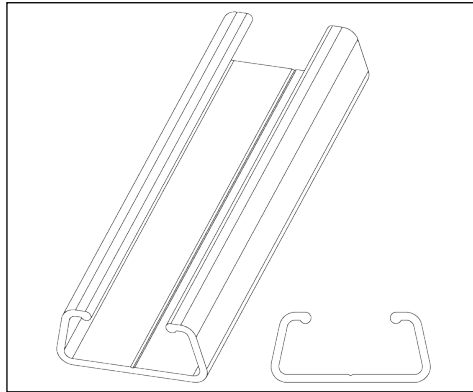
# HARDWARE LIST - ROLL-UP SIDEWALL COMPONENTS

The following graphics will help you identify the different parts. (Some parts may not be shown.)



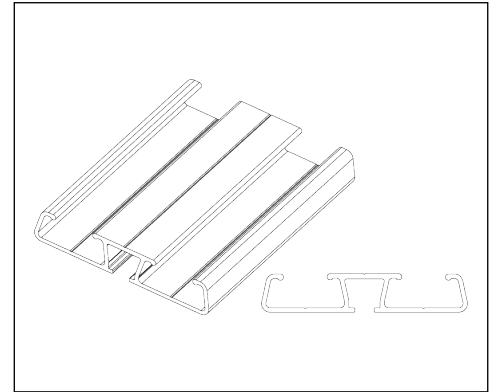
**Side Clasp Roll Bar**

Qty: 16



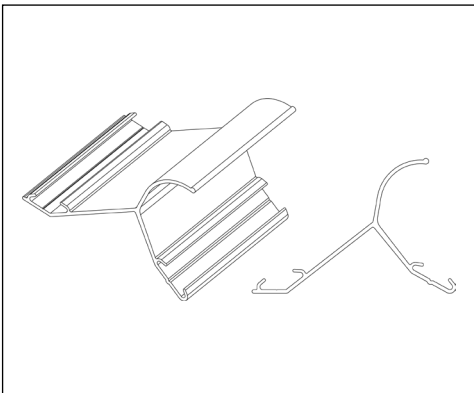
**Wire Lock**

Qty: 8



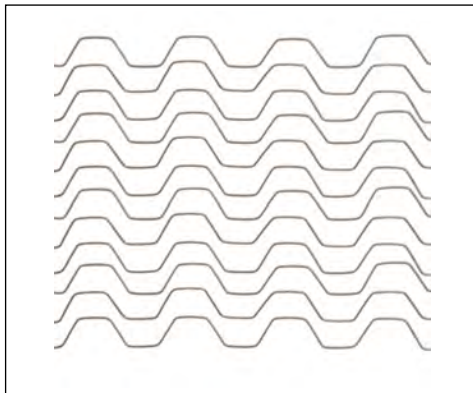
**Double Wire Lock**

Qty: 16



**Roll Lock**

Qty: 16



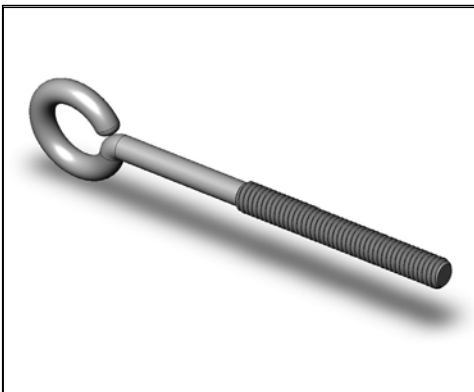
**Zig-Zag Wire**

Qty: 200



**EzSnap**

Qty: 16



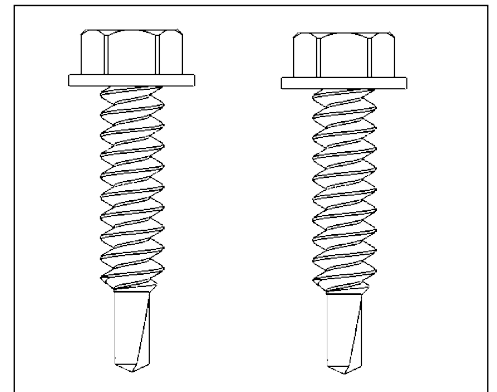
**6" Eye Bolts**

Qty: 32



**Wind Rope**

Qty: 375 feet



**#12 x .75" Tek Screw**

Qty: 440

**#12 x 1.5" Tek Screw**

Qty: 220

# SECTION 3: Assembling and Attaching the Side Walls

## *Process Overview*

It is assumed you have followed the previous instructions completely and now have a secure square and level structure base. Assembling and installing the side walls will require more than one person to complete. It is important to ensure that each of the assembled bows are securely fastened to the base posts and your structure is installed properly. ***Failure to do so could result in damage to the framing members or cause serious bodily injury or death.***

## *Tools and Materials Required*

1. 18-24 volt drill
2. 25' Tape measure
3. 6" quick Grip Clamps (2)
4. String and Plumb bob
5. Impact driver with 5/16" & 3/8" bits
6. Rubber mallet or Hammer

## *Assembly Sequence*

1. Install Roll Lock (RL)
2. Install End Bow Wire Lock (EBWL)
3. Install Double Wire Lock (DWL)
4. Install End Panels
5. Install Fabric or Poly (unless you have a ridge vent or soft roof roll up curtain)\*\*\*
6. Hang the Roll Bar on the Roll Bar hangers (SCRB or ERP)
7. Attach the motor or manual operator to the Roll Bar so the Roll Bar does not turn while attaching the poly to the roll bar
8. Fasten the poly to the Roll Bar with Zig Zag Wire if you purchased Side Clasp Roll Bar or with the Roll Bar Cap if you are using galvanized steel tube for your Roll Bar

\*\*\*Note: If you are installing a roof vent you will want to jump forward to those instructions, complete those instructions then come back and finish your Roll Up Side Walls, starting at step 5



## SECTION 3: INSTALLING THE INFLATED ROLL-UP SIDEWALLS

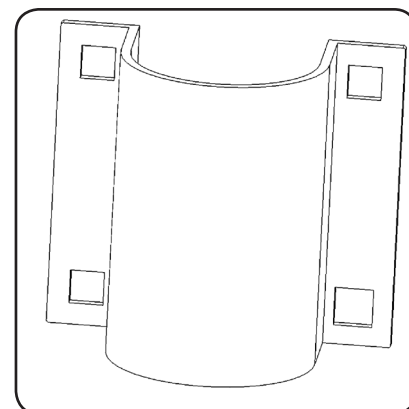
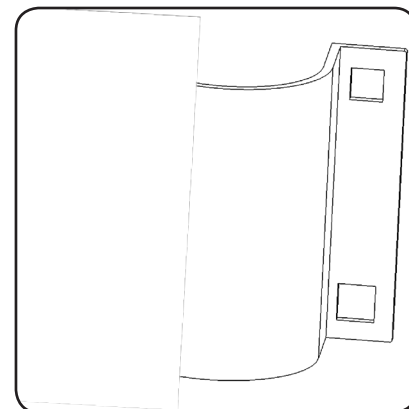
### *Install the baseboard on your greenhouse*

Install a 2x10 to your bows with the 2.3" baseboard clamps.

The end bows will use a baseboard clamp that is prepunched with two holes

You will use eight 3/8 x 2 1/2 Galvanized Carriage Bolts on 23 intermediate bows and eight 3/8 x 2 1/2 Galvanized Carriage Bolts for the gable bows.

Quick clamps and a 3/8" drill bit will be needed for this part of the install.



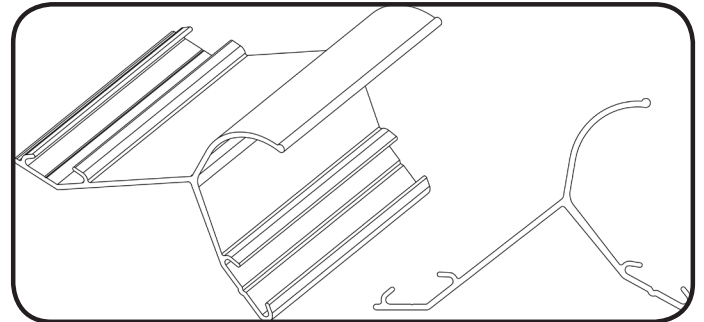
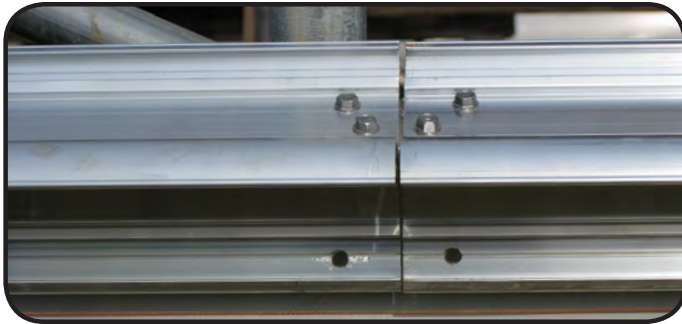
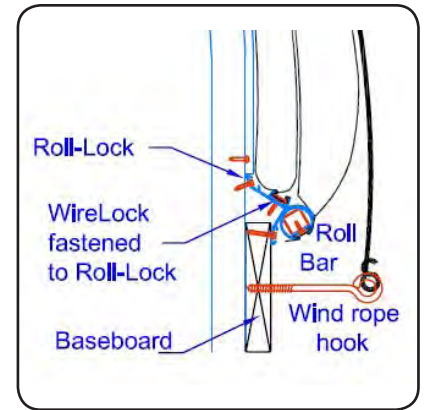


# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

***Install the roll lock on your baseboard and attach to each bow***

Snap a line on your baseboard or kneewall where you think the bottom of the Roll-lock should be aligned. (Most likely 1.5" down from the high points of the wooden baseboard.) Be sure that the stringline does not sag.

NOTE: It is OK if the Roll-Lock (and Roll-Bar) pitches or slopes with the ground or structure as long as the slope is not excessive. A slope of up to 12" in 100 feet is OK.





# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

## *Install the Roll Lock*

Install the Roll-lock starting from the operator/motor end. Begin with the 1st Roll-Lock flush with the outside gable end. This will result in the splice points ending near a post but do not have to be centered on a bow. Attach the bottom of the Roll-Lock to the baseboard with #12x1.5" wood screws every 24" thru the lower fastener groove.

Lay a splice plate on top of the flat area of the Roll-Lock spanning the joint. Allow up to a 1/16" expansion space between the Roll-Locks. Mark thru the top holes. Drill 1/4" holes for the teks to slide thru. Now slide the Splice Plate under that Roll-Lock surface and install #12x3/4" teks thru the holes into the spliceplate.

Add another Tek below them into each Roll-Lock thru the Spliceplate.

Tilt the Roll-Lock back to the bows/posts and fasten with #12x1.5" teks.



# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

## *Install the End Bow Wire Lock*

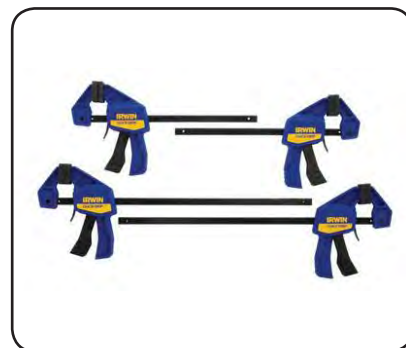
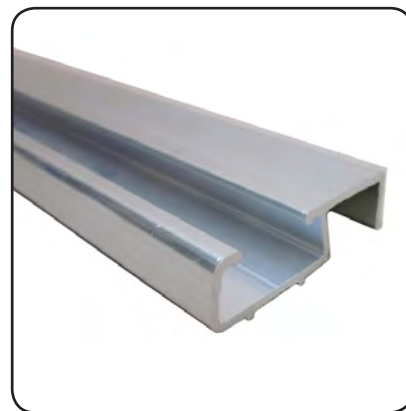
Installing the End Bow Wire Lock is best done with with quick clamps, see photo of clamps in the middle for reference.

Start by attaching the EBWL on one side, above the Roll Lock, using #12x.75 teks

Then bend the EBWL to the contour of your greenhouse while attaching tek screws every two feet.

After installing the first piece, continue with the next piece until you get to the opposite side above the Roll Lock.

Note: If you are using regular Wire Lock for your end bow, follow the same procedures to attach it.





# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

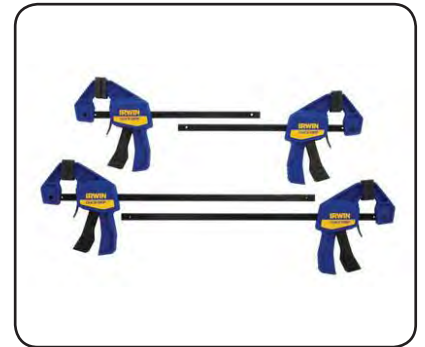
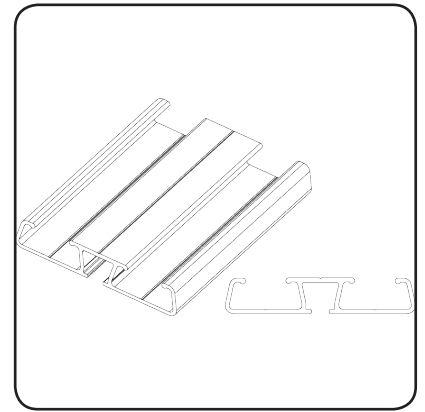
## *Install the Double Wire Lock*

Installing the Double Wire Lock is best done with with quick clamps, see photo in the middle for reference.

Determine the height of the Double Wire Lock, 12" above the straight leg of the bows. In other words, determine where the bows start to transition from the straight side to the hip, make a mark with a sharpie and then measure up 12".

Then hang your tape measure on the Roll Lock, take the measurement and add a sharpie mark on each subsequent bow.

Next temporarily attach 24' of DWL with your quick clamps



# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

## *Continue Installing the Double Wire Lock*

Locate your Double Wire Lock splices, slide it under your End Bow Wire Lock (you may need to loosen the EBWL slightly), then attach the splice using two teks screws through the DWL and one through the EBWL, fastening it to the bow.

Then fasten a splice at every 12' section, using #12x.75" tek screws, subsequently attach the rest of the DWL run. Four #12x.75 tek screws are used to fasten the DWL to the bows, teks are typically run through the recess portion of the DWL. (bottom photo shows splice landing on bow)

\*\*\*Install Note: When building a greenhouse with 4' on center bows, you can cut your first DWL in half, this creates a less like issue with the DWL splice falling on the bow, making it easier to attach your splices and the DWL to the bow.





# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

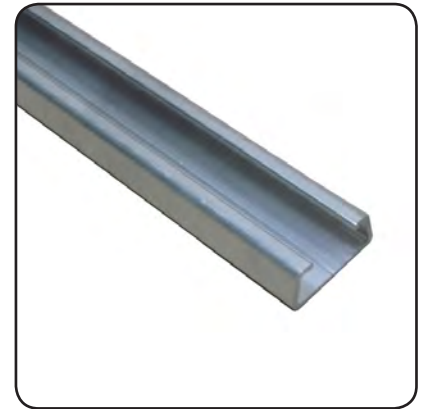
## *Install the End Panels*

Installing the end pockets first requires you to have the Roll Lock, Double Wire Lock and the End Bow Wire Lock installed.

After those extrusions are installed you will want to cut a piece of Wire Lock and fit it between the Roll Lock and the Double Wire Lock on the first inside bow from the gable end bow.

You will use the bottom channel of the Double Wirelock to attach the top of the end panel fabric and Wirelock Base for both sides of the panels and across the slanted surface of the Roll-Lock. Use #12 x 3/4" Tek's approx. every 12" apart, or as needed.

At the top of the end panels, make the 2 layers slightly snug. But as you work your way down the end panels allow more looseness to occur, so that the panels can bulge out slightly at the bottom. Attach the two layers straight across the Double Wirelock with the zigzag wire. Then work downward by alternating the 2 sides, about 6" at a time. Allow increasing "bagginess" to occur as you come down (by pushing in on the layers of poly as you proceed.)





# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

## *Attach the curtain fabric to greenhouse\*\*\**

Start by attaching the fabric to the bottom of the double wire lock. Install a short piece of zig zag wire every 12' to hold the poly in place.

Next start in the middle of your greenhouse and work out to the end of the house, stretching the poly and eliminating wrinkles as you go

At the end, install an extra piece of zig zag wire to hold the poly or fabric in place better.

\*\*\*You may need to wait to complete this section if you are using a big piece of poly or fabric that runs over your entire house or runs from your roof vent to the ground. If using a large piece with a roof vent you will want to attach to your roof vent extrusions, then pull it tight and fasten it at your double wire lock. If running a large piece from ground to ground, attach it to the double wire lock with zig zag wire every 12' and then follow the steps above.

\* Always start it the middle of your house or in the middle of the run of extrusions when using zig zag wire, eliminating wrinkles will be much easier, resulting in a much better functioning roll up curtain.





# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

## *Installing the Side Clasp Roll Bar*

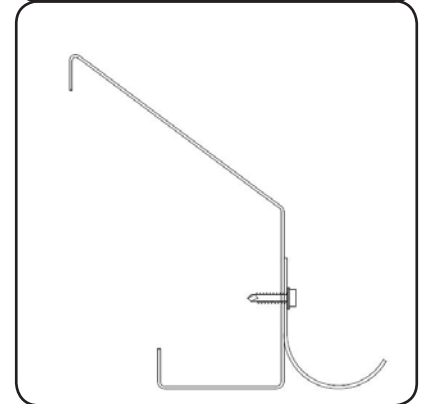
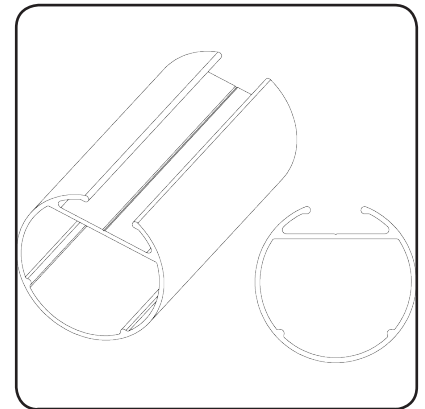
Start by locating your roll bar hangers, then space them out every 6-8 feet by hanging them on the top lip of the Rol Lock.

Next take a SCRB, and attach a 1.25" square splice to one end by using your impact and driving two #14X1 teks through the flat area of the SCRB and into the splice

Set your SCRB on the hangers and repeat the process until you get to the end of the greenhouse.

You will have an extra 8' piece of SCRB that you can use for the end since you will want to start 4-6" past your baseboard on the motor/operator end.

Attach the Roll-Bar to the operator before attaching poly, so Roll-Bar will be less likely to rotate during poly attachment.





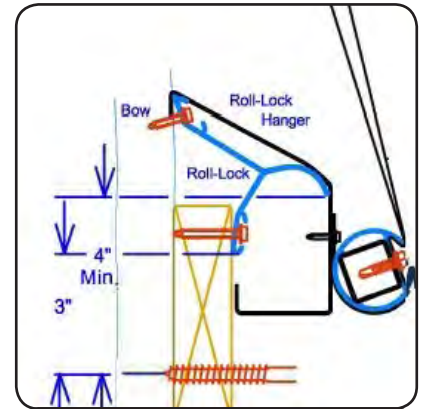
# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

## *Installing the Side Clasp Roll Bar*

Starting at the top right we have an illustration of how the hangers should be used

The center photo shows the motor out approximately 6" from the gable end of the greenhouse.

Large bottom photo shows the Roll Bar hanging on the Roll Lock





# INSTALLING THE INFLATED ROLL-UP SIDEWALLS

## *Installing the Wind Control*

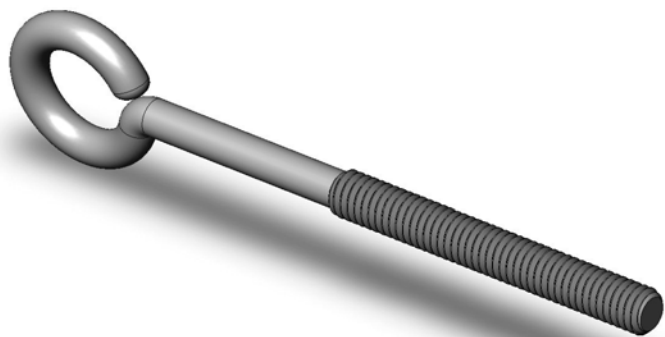
Start by locating your roll bar hangers, then space them out every 6-8 feet by hanging them on the top lip of the Rol Lock.

Next take a SCRB, and attach a 1.25" square splice to one end by using your impact and driving two #14X1 teks through the flat area of the SCRB and into the splice

Set your SCRB on the hangers and repeat the process until you get to the end of the greenhouse.

You will have an extra 8' piece of SCRB that you can use for the end since you will want to start 4-6" past your baseboard on the motor/operator end.

Attach the Roll-Bar to the operator before attaching poly, so Roll-Bar will be less likely to rotate during poly attachment.



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