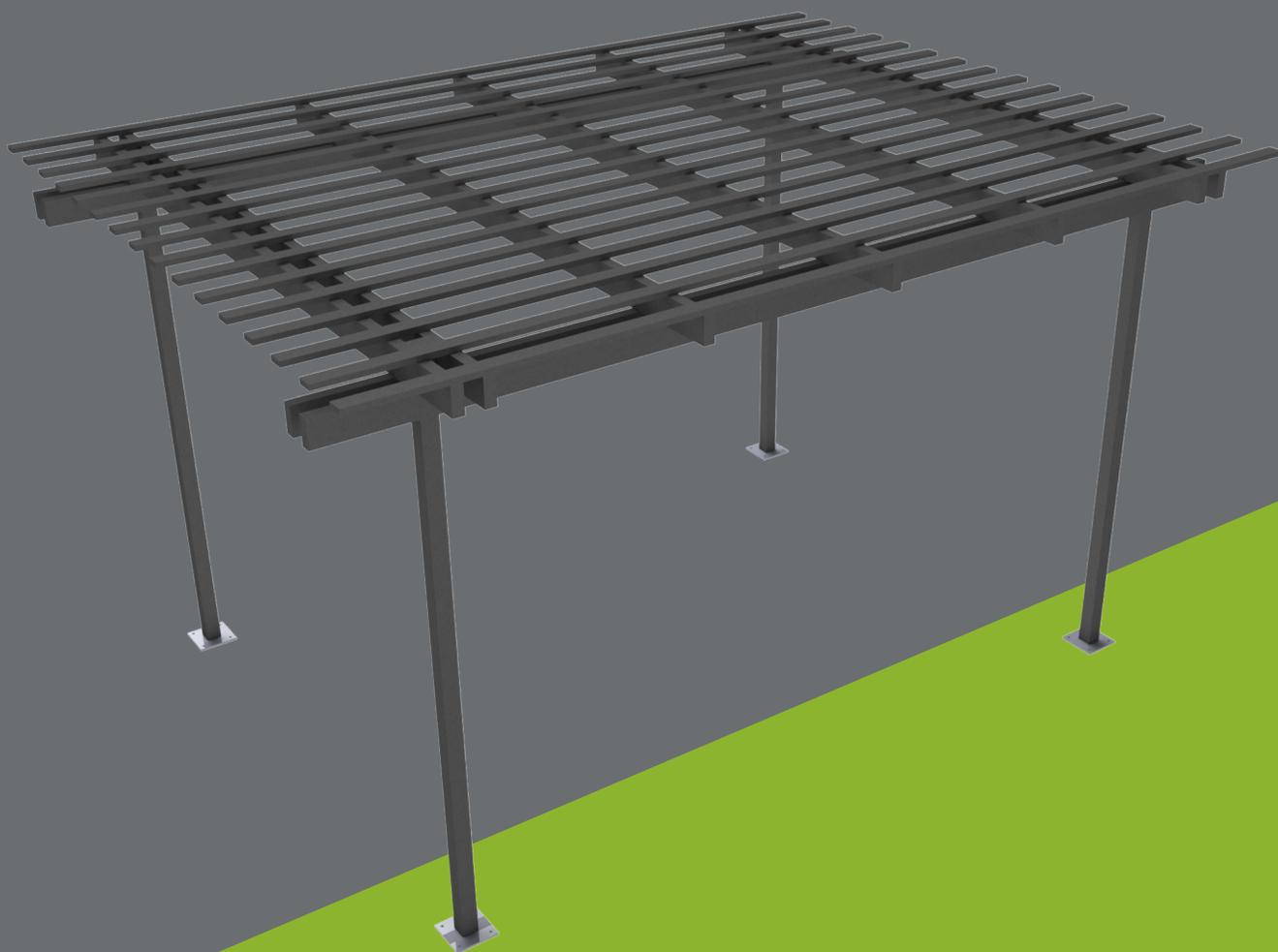


INSTALLATION GUIDE

FREE STANDING PERGOLA



Dear Customer,

Thank you for purchasing a free-standing pergola from Four Seasons Outdoor Living Solutions. This installation guide will break down the assembly method into a step-by-step process.

Before beginning installation, make sure you read each step carefully. Have all the necessary tools and equipment. A list can be found on page 2. Also, make sure that you have the correct quantities of components and hardware. A list can be found on pages 3, 4 & 5.

TOOLS LIST:



Hammer Drill



Skill Saw or Chop Saw



Level



Caulking Gun



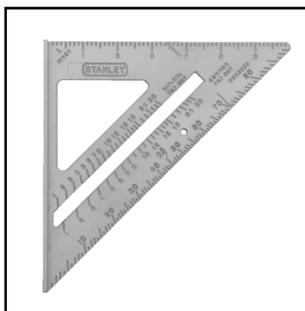
Tape Measure



Crescent Wrench



Hammer



Speed Square



Marker Pen

12 x 12 COMPONENT CHECKLIST:

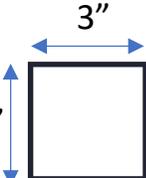
541***

**4 X F.S
STEEL BASE
8" X 8"**



EC100***0900

**4 X EX
POST 3"
SQ**



EC200***1200-4H

**4 X 12ft EX
Tube 2x5
Beam 4 hole 5"**



w/ two pre-drilled holes both ends

EC200***1200-2H

**4 X 12ft
EX Tube
2X5 Rafter
2 hole**



w/ one pre-drilled hole both ends

EC200***1200

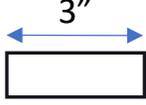
**2 X 12ft EX
Tube 2X5
Rafter**



w/ out pre-drilled holes

EC203***1200

**16 X 12ft EX Tube
1x3 (Shade
Slats)**



051165***0675

**16 x
Angle
1-1/2 x 1-1/2
H**



EC202***0000

**8 X End
Caps 2x5
Tube (Beam
End Caps)**



EC202***0000

**12 X End
Caps 2x5
Tube (Rafter
End Caps)**



EC203***0000

**32 X Shade End
Caps 1x3 Rect Tube
(Shade
Slat End
Caps)**



EC190***0003

**4 x
BeamCap
(Post End
Caps)**



80151061000

**16 X Ancr
Wedge 1/2 x
3-3/4 (Wedge
Anchors)**



81953245***

**500 X scw
T2 #10 x 3/4
HWHTEK
Fastner**



81953370***

**50 X scw
T2 #14 x 1-
0/0 HWH
TEK Fastner**



80310675000

**12 x
Blt/Nut/Wsh
3/8"x3-1/2-16
H/H**



16 x 12 COMPONENT CHECKLIST:

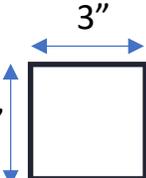
541***

**4 X F.S
STEEL BASE
8" X 8"**



EC100***0900

**4 X EX
POST 3"
SQ**



EC200***1200-4H

**8 X 8ft EX
Tube 2x5
Beam 4 hole 5"**



w/ two pre-drilled holes both ends

EC200***1200-2H

**4 X 12ft
EX Tube
2X5 Rafter
2 hole**



w/ one pre-drilled hole both ends

EC200***1200

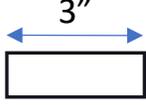
**3 X 12ft EX
Tube 2X5
Rafter**



w/ out pre-drilled holes

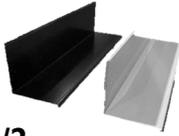
EC203***1200

**32 X 8ft EX Tube
1x3 (Shade
Slats)**



051165***0675

**20 x
Angle
1-1/2 x 1-1/2
H**



EC202***0000

**8 X End
Caps 2x5
Tube (Beam
End Caps)**



EC202***0000

**14 X End
Caps 2x5
Tube (Rafter
End Caps)**



EC203***0000

**32 X Shade End
Caps 1x3 Rect Tube
(Shade
Slat End
Caps)**



EC190***0003

**4 x
BeamCap
(Post End
Caps)**



80151061000

**16 X Ancr
Wedge 1/2 x
3-3/4 (Wedge
Anchors)**



81953245***

**600 X scw
T2 #10 x 3/4
HWHTEK
Fastner**



81953370***

**75 X scw
T2 #14 x 1-
0/0 HWH
TEK Fastner**



80310675000

**12 x
Blt/Nut/Wsh
3/8"x3-1/2-16
H/H**



EC2004581506

**4 X EX Rect
Tube 2x5
Splice MF 15'-
6" (Beam
Splice)**



EC2034580003

**16 X EX
Tube 1x3
Splice 00'03"
(Slat splice)**



4

20 x 10 COMPONENT CHECKLIST:

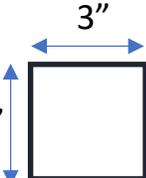
541***

**6 X F.S
STEEL BASE
8" X 8"**



EC100***0900

**6 X EX
POST 3"
SQ**



EC200***1200-4H

**8 X 10ft EX
Tube 2x5
Beam 4 hole 5"**



w/ two pre-drilled holes both ends

EC200***1200-2H

**6 X 10ft
EX Tube
2X5 Rafter
2 hole**



w/ one pre-drilled hole both ends

EC200***1200

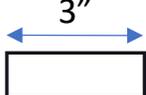
**4 X 10ft EX
Tube 2X5
Rafter**



w/ out pre-drilled holes

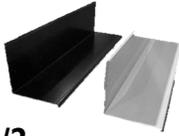
EC203***1200

**26 X 10ft EX Tube
1x3 (Shade
Slats)**



051165***0675

**28 x
Angle
1-1/2 x 1-1/2
H**



EC202***0000

**8 X End
Caps 2x5
Tube (Beam
End Caps)**



EC202***0000

**20 X End
Caps 2x5
Tube (Rafter
End Caps)**



EC203***0000

**26 X Shade End
Caps 1x3 Rect Tube
(Shade
Slat End
Caps)**



EC190***0003

**6 X
BeamCap
(Post End
Caps)**



80151061000

**24 X Anchr
Wedge 1/2 x
3-3/4 (Wedge
Anchors)**



81953245***

**700 X scw
T2 #10 x 3/4
HWHTEK
Fastner**



81953370***

**100 X scw
T2 #14 x 1-
0/0 HWH
TEK Fastner**



80310675000

**18 X
Blt/Nut/Wsh
3/8"x3-1/2-16
H/H**



EC2004581506

**4 X EX Rect
Tube 2x5
Splice MF 01'-
4" (Beam
Splice)**



EC2034580003

**13 X EX
Tube 1x3
Splice 00'03"
(Slat splice)**



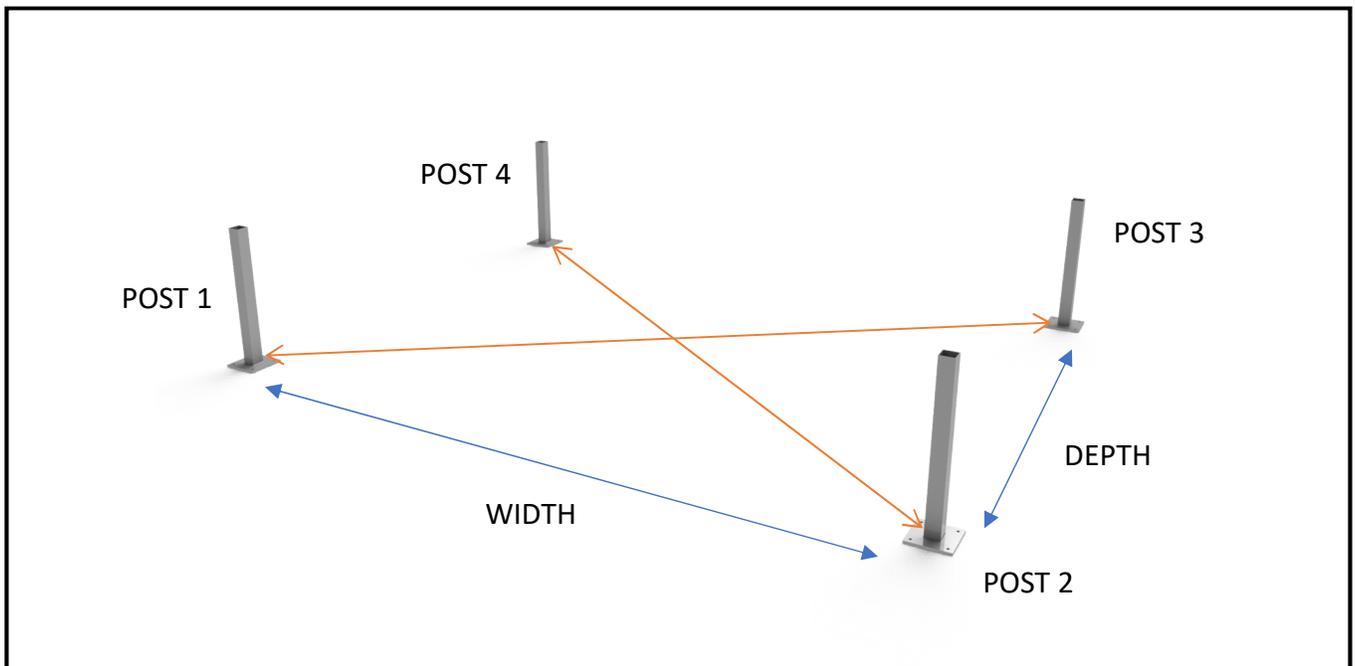
5

CONCRETE FOOTINGS

1. Set out the welded corner post bases. Base plans for each size of pergola can be found on pages 7, 8 & 9. **20ft pergolas will have 6 post bases. Set aside 2 for a later step.**
2. Measure diagonally from the post stubs corner-to-corner. Then, measure the opposite diagonal (**Image 1**). Adjust the base plates so the diagonal measurements in both directions are equal, and match the dimensions shown on the base plan for your size of pergola.
3. Mark/Trace around the base plates to mark their location.

Tip: Using the beams and rafters, line up their pre-drilled holes with the center of the post stubs to ensure the bases are correctly positioned. (See page 16 for example image).

Image 1

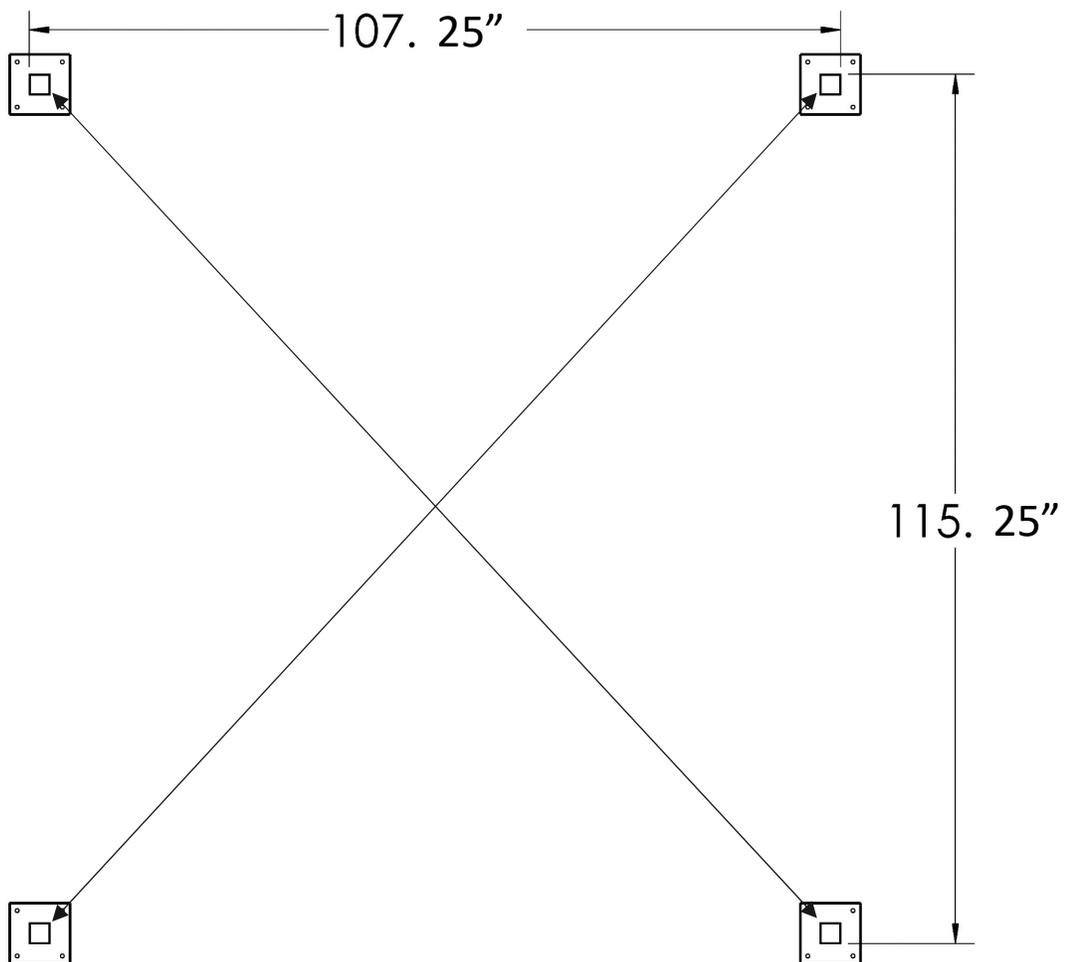


Base Plans

12 x 12 Base Plan

Anchoring the Post Bases to Footings

FRONT

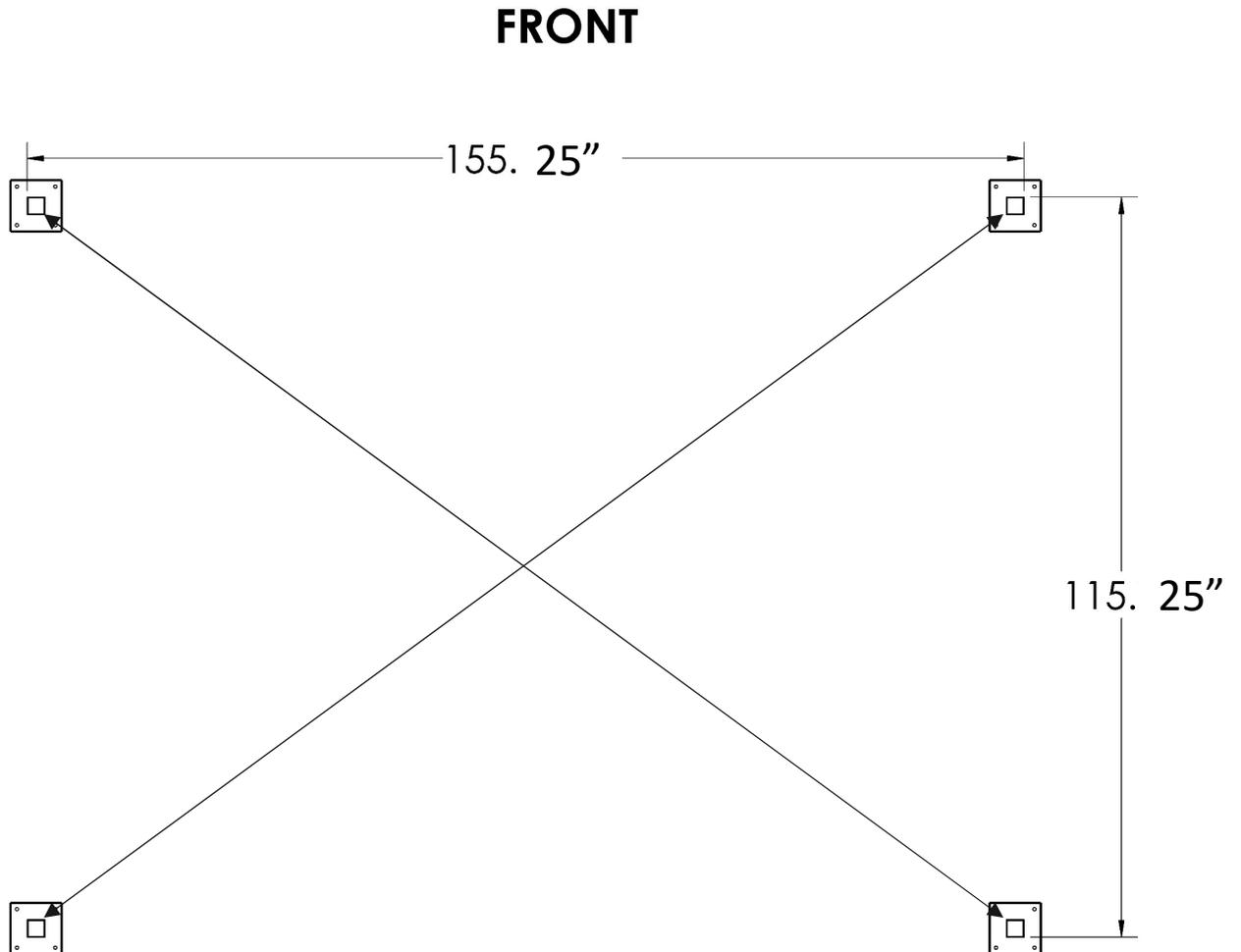


DIMENSIONS TAKEN FROM POST STUBS
MAKE SURE DIAGONALS ARE EQUAL

Base Plans

16 x 12 Base Plan

Part I – Setting out the post bases

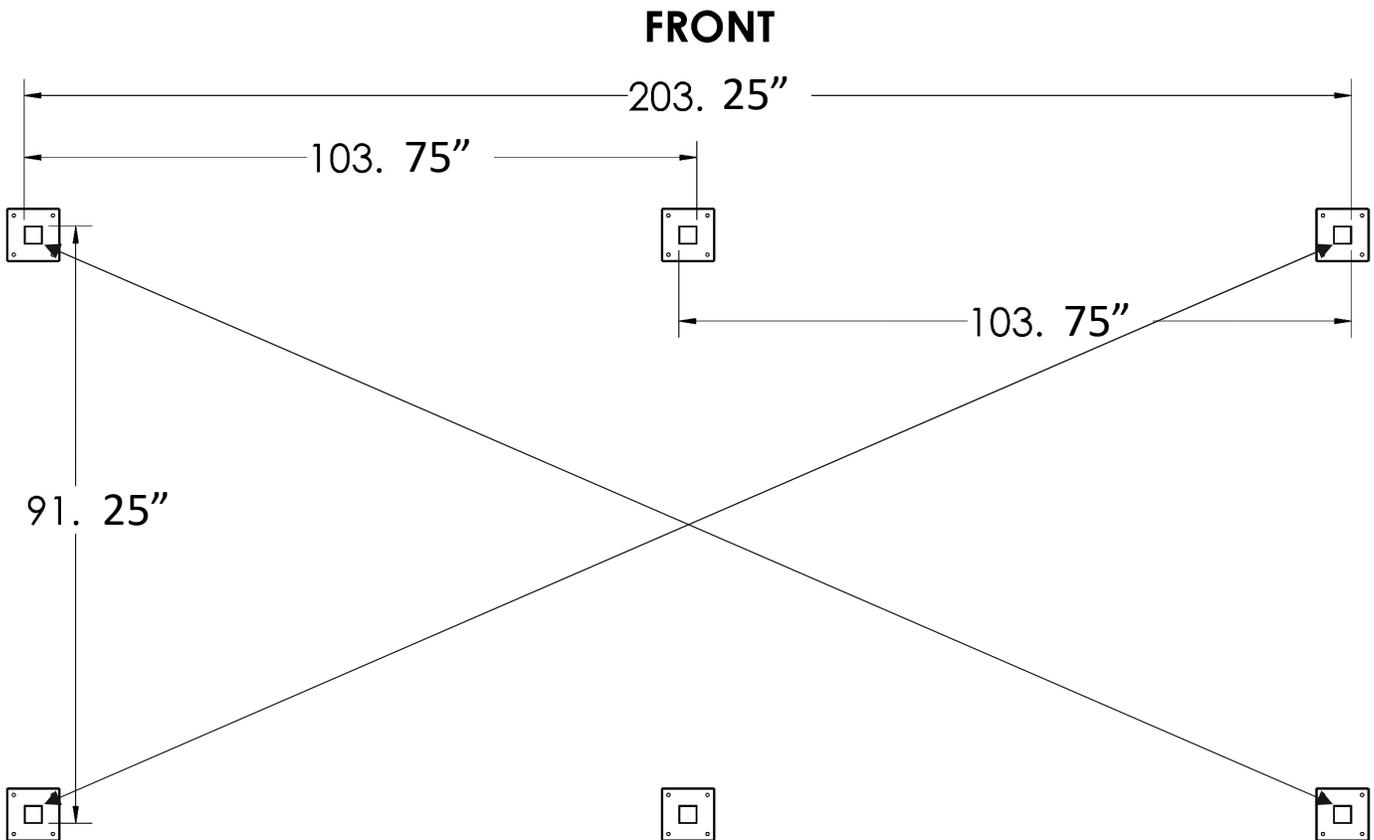


DIMENSIONS TAKEN FROM POST STUBS
MAKE SURE DIAGONALS ARE EQUAL

Base Plans

20 x 10 Base Plan

Part I – Setting out the post bases



**DIMENSIONS TAKEN FROM POST STUBS
MAKE SURE DIAGONALS ARE EQUAL**

4. Dig a footing hole 25" wide x 25" across x 25" deep. (Check with local building departments for frost depth requirements and add that to your footing depth).
5. Fill with concrete and leave to set.

Note: Footings must be set before installation. The pergola must not be installed to a concrete slab alone. If installing to existing concrete slab, cut existing concrete, dig footings and fill with new concrete.

Installation

Part I: Installing End Caps (Rafters and Shade Slats)

1. Set up saw horses or a table.
2. Set all the 2"x 5" rafters (2x5 section with one pre-drilled hole near each end and 2x5 profiles with no holes) on the saw horses.
Note: Take care when handling, being careful not to scratch the surface.
3. Locate the 2x5 rafter end caps.
4. Insert the end cap and fasten with one (1) #10 3/4" TEK Screw on the top of all rafters. **(Image 2)**

Image 2

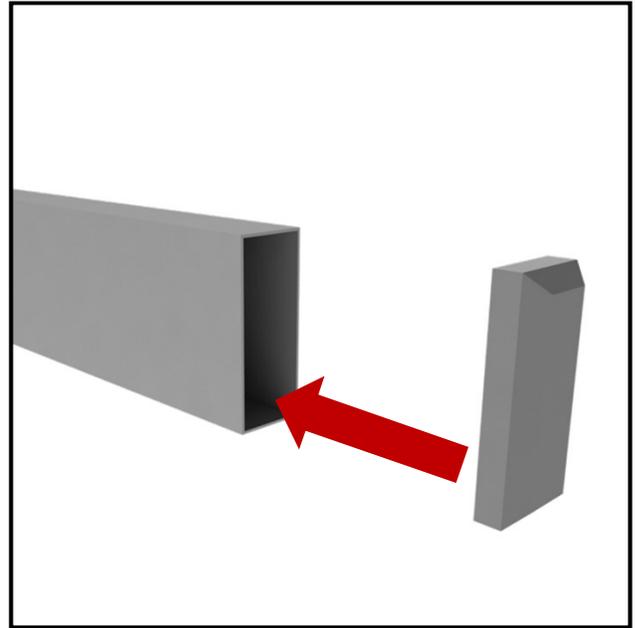
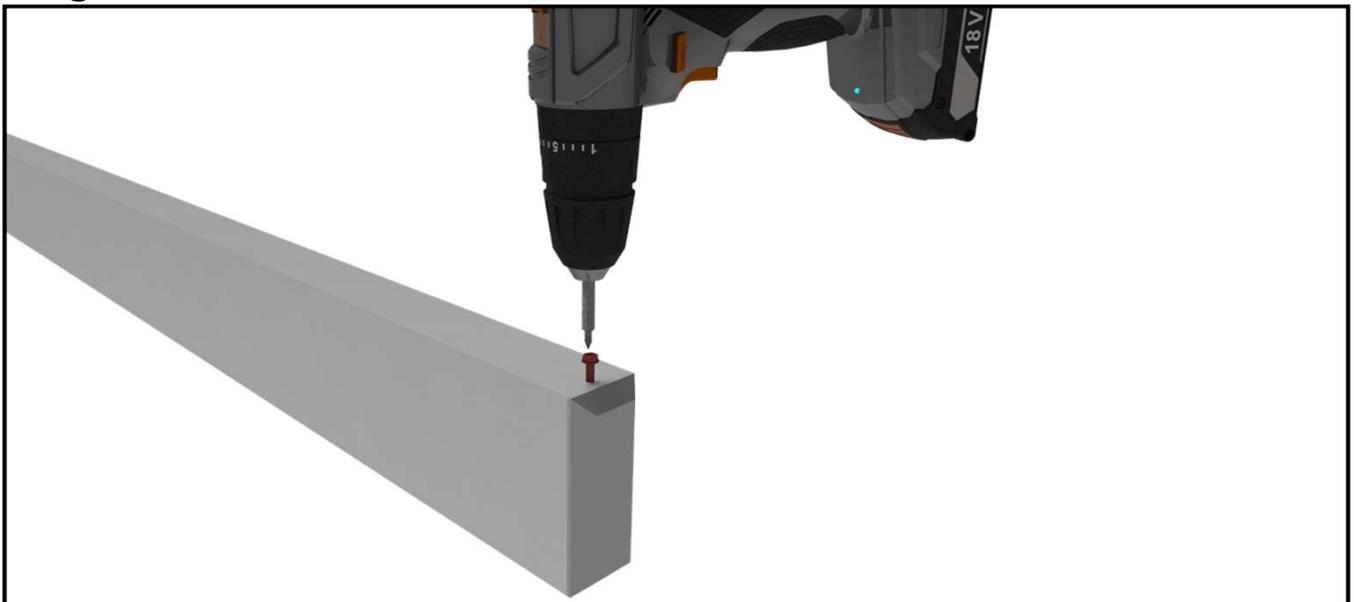


Image 3



Part I: Installing End Caps (Rafters and Shade Slats)

5. Repeat for the remaining rafters.
6. Set out the 1x3 shade slats on the saw horses or table being careful not to scratch them.
7. Locate the 1x3 plastic shade slat end caps.

For 12ft wide pergolas, insert end caps into BOTH ends of the shade slats. (32 End Caps) *Do not need to fasten – push fit*

For 12x16ft wide pergolas, insert end caps into ONE end of the 8ft shade slats. (32 End Caps) *Do not need to fasten – push fit*

For 10x20ft wide pergolas, insert the end caps into ONE end of the 10ft shade slats. (26 End Caps) *Do not need to fasten – push fit*

Part I: Installing End Caps (Rafters and Shade Slats)

8. Insert the end caps into the appropriate shade slats (see previous step for guidance). Tap the end caps into place using a hammer. **(Images 4 and 5).**

Image 4

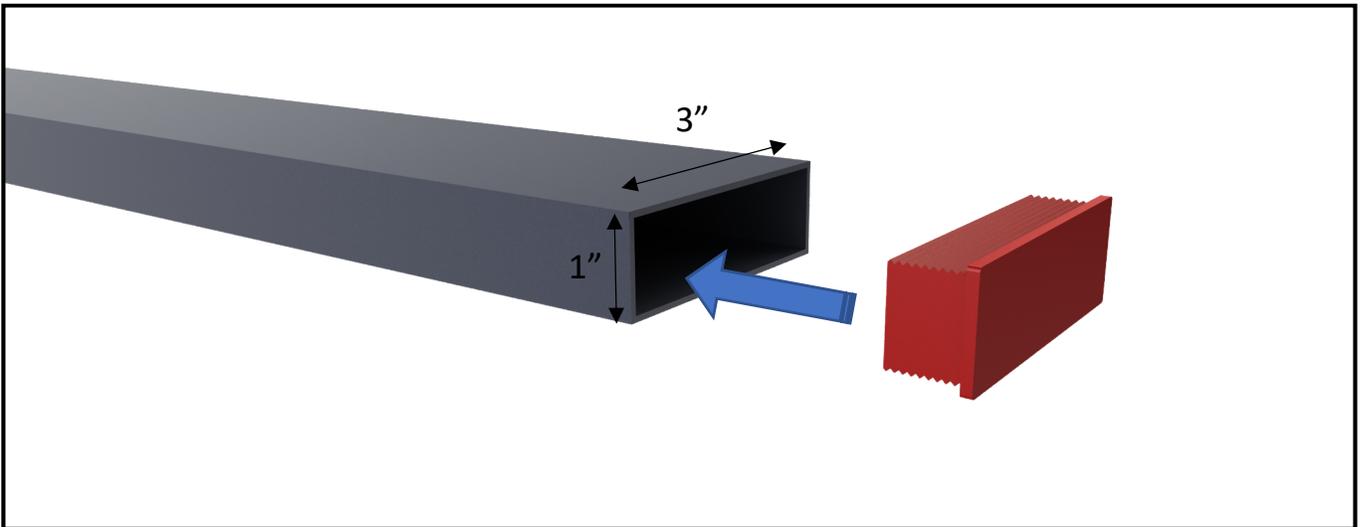
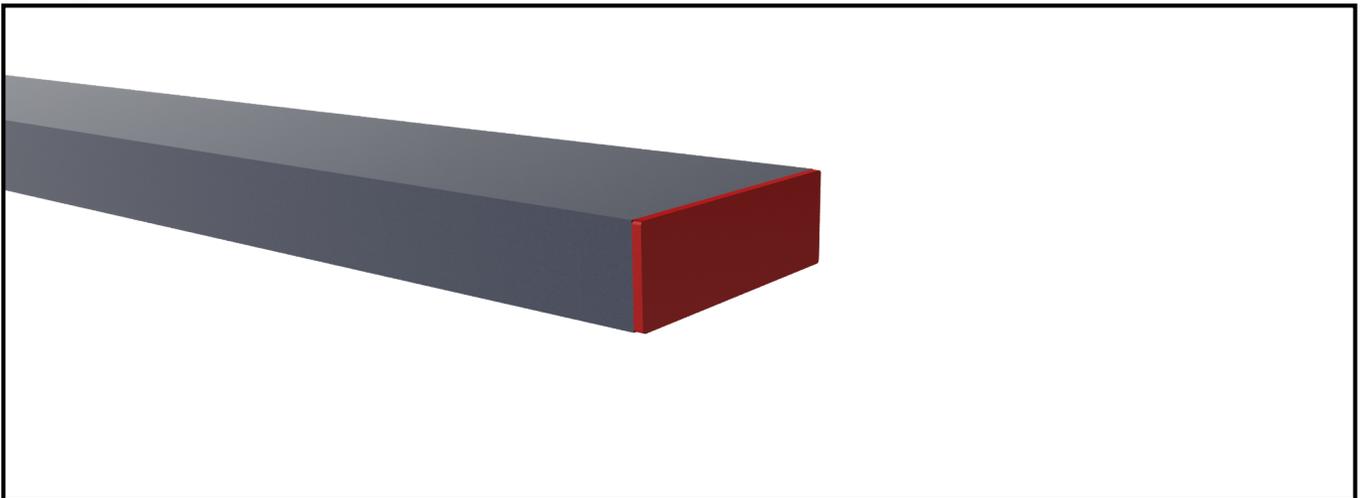


Image 5

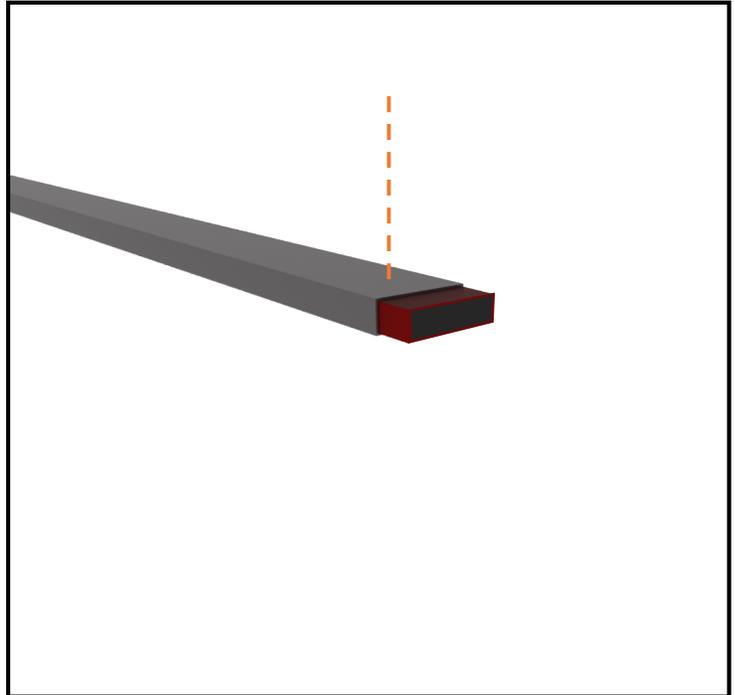


16ft and 20ft Pergolas Only – Skip to Part 2 if not applicable

9. **16 ft pergolas:** IN the OPEN END of 16 shade slats, insert the silver 3" splice for 1x3 slats half-way into the slat and fasten with one (1) #10x3/4 tek on the 3" top side (**Image 6**).

10. **20 ft pergolas:** IN the OPEN END of 13 slats, insert the silver 3" splice for 1x3 slats half-way into the slat and fasten with one (1) #10x3/4 tek on the 3" top side (**Image 6**).

Image 6



16 ft pergolas: For 16ft wide Pergolas you will have 8 pieces of 8ft 2"x5" beams with each beam having 2 holes pre-drilled at one end. There will also be 4 silver-colored full-length splice inserts to join the beams together to make 4 beams 16ft long.

20 ft pergolas: For 20ft wide Pergolas you will have 8 pieces of 10ft 2"x5" beams with each beam having 2 holes pre-drilled at both ends. There will also be 4 16" silver-colored splice inserts to join the beams together to make 4 beams 20ft long.

16ft and 20ft Pergolas Only – Skip to Part 2 if not applicable

11. Set 2 pieces of a 2" x 5" beam on a flat smooth surface taking care not to scratch the profile. Have the pre-drilled holes at opposite ends.
12. Measure and mark the silver 16" long SPLICE at 8" (**Image 8**).

Image 7

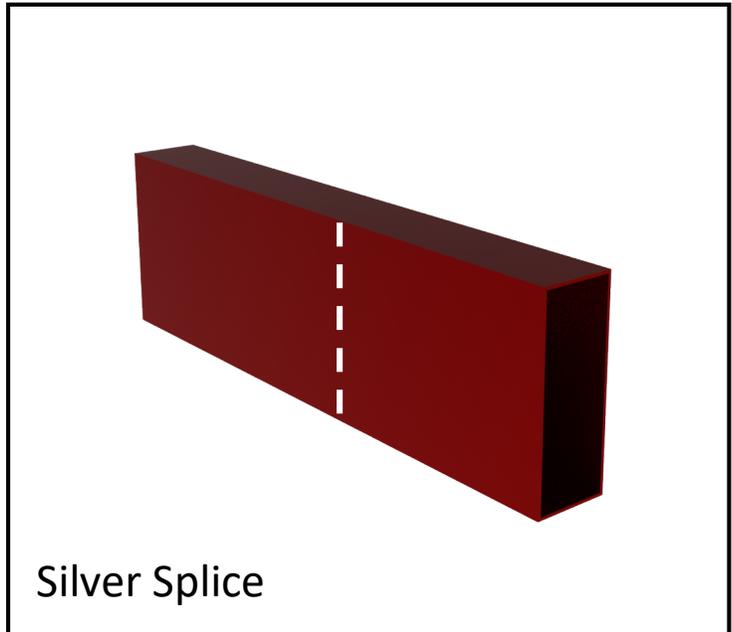
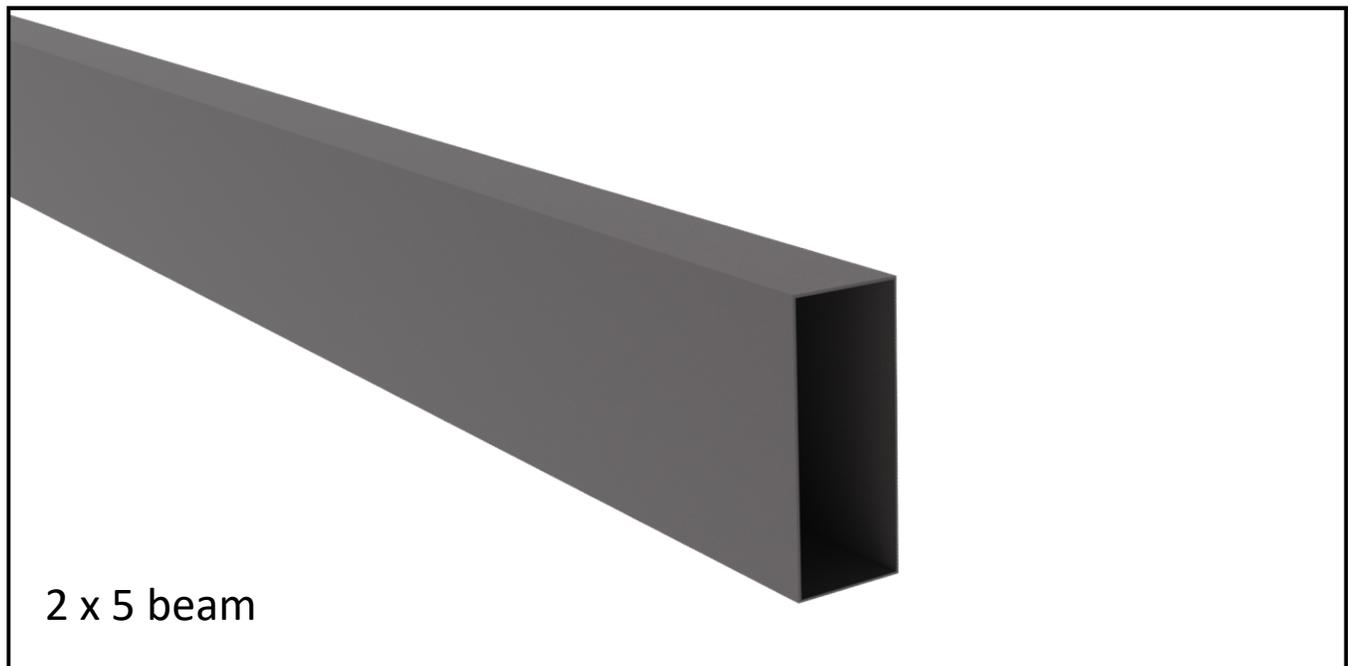


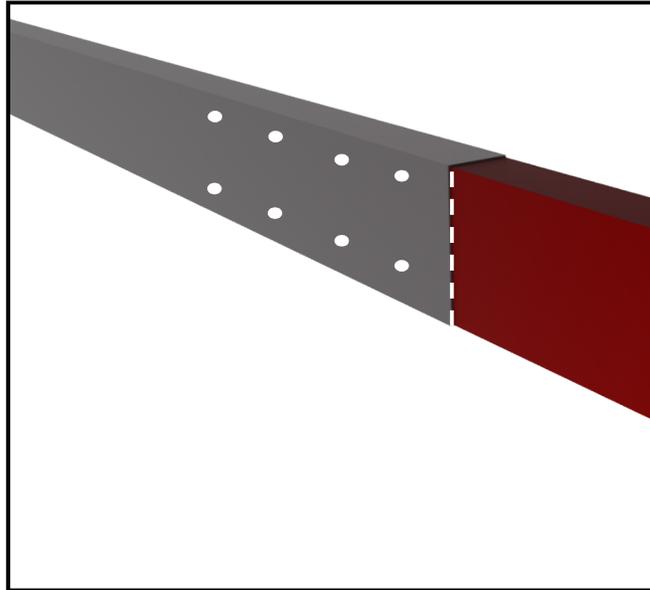
Image 8



20ft Pergolas Only – Skip to Part 2 if not applicable

- Slide the 16" SPICE into one of the beams to the center 8" mark of the splice. Using the #14 tek screws, fasten through the beam into the splice on the screw pattern marks.
- Slide the second beam over the splice and BUTT the TWO BEAMS for a TIGHT fit. Make sure both beams are STRAIGHT and the JOINT is TIGHT.

Image 9



16ft Pergolas Only – Skip to Part 2 if not applicable

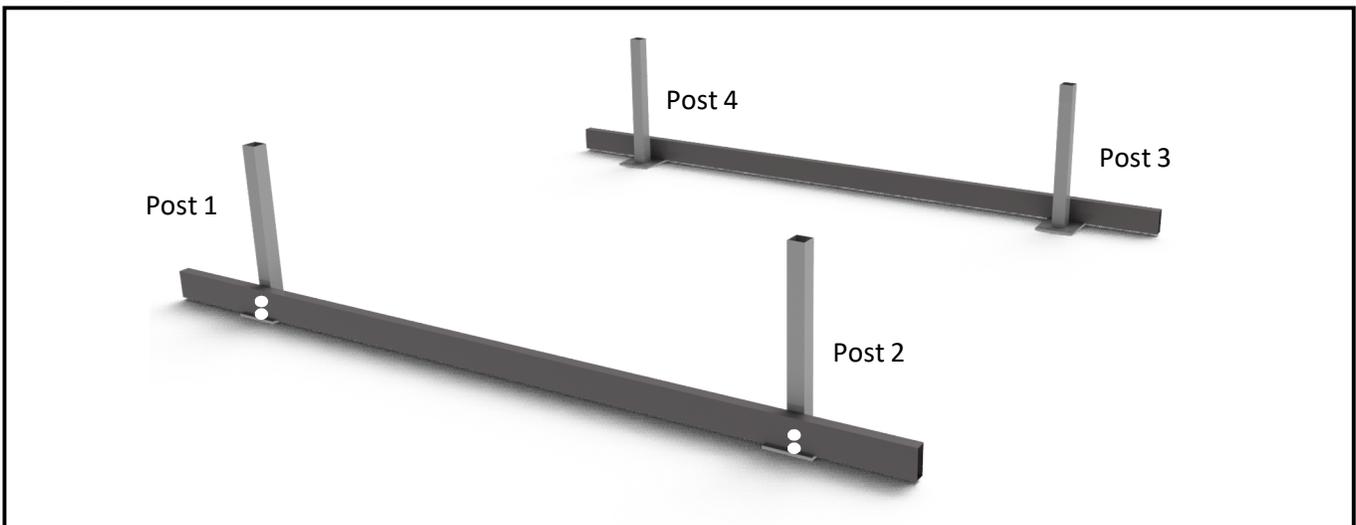
- Slide two 8ft beams over the full-length silver splice. The two pre-drilled holes should be at each end.
 - The splice should be inset about 3" at each end of the beam. Make sure the 2x5 beams are tight in the middle.
-
- Using the #14 tek screws, fasten through the beam into the splice on the screw pattern marks. Fasten through the beams into the splice as shown in the fastening pattern (**Image 9**).
 - Turn the beam over and fasten the second side following the screw pattern.
 - Repeat & complete for the other 3 sets of beams.

Part 2: Anchoring the Post Bases to Footings

Note: Make sure to let all new footings cure for 24hrs prior to installing the post bases.

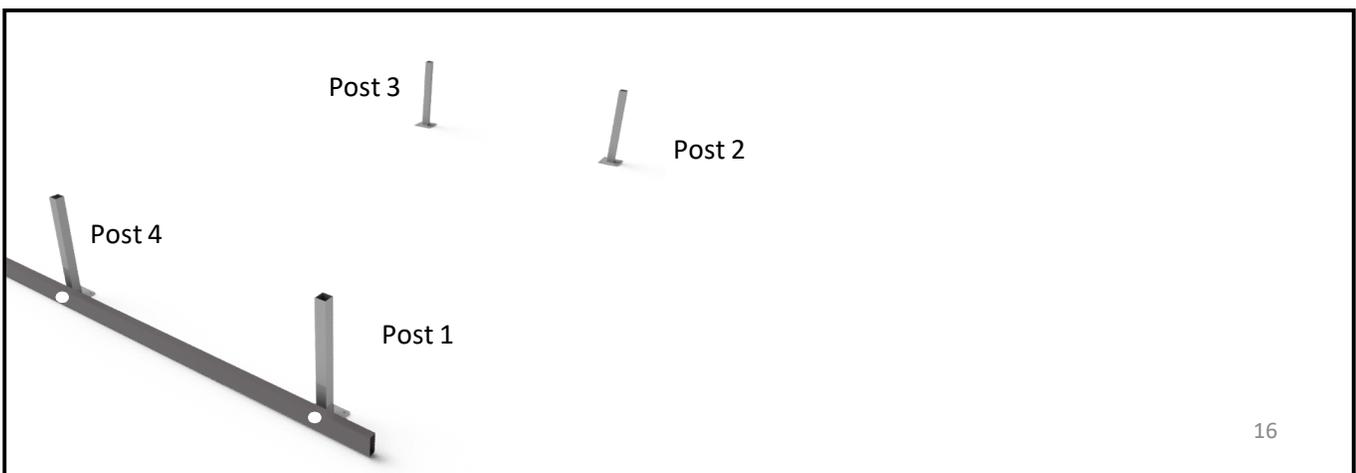
1. Set the Welded base plates on the footings.
2. Repeat steps 1 & 2 in **Part I** of this guide to position the post bases.
3. Set two 2"x5" beams with the pre-drilled 5/8" holes across from Base #1 & #2 and #3 & #4 to center the holes with the post stubs as a check for the measurements (**Image 10**).

Image 10



4. Use the 2 rafters with pre-drilled holes to check the distance between bases #1 & #4 and #2 & #3.

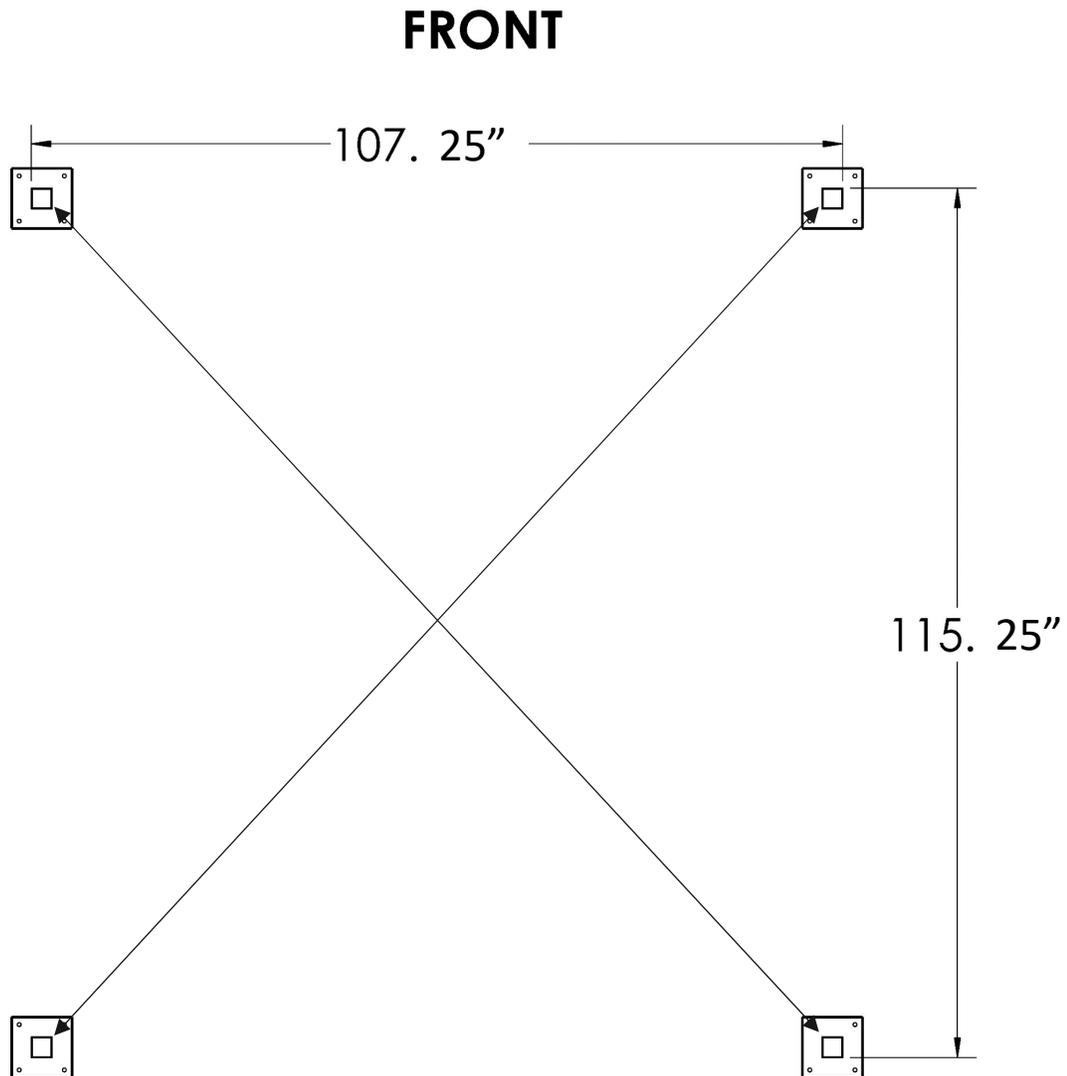
Image 11



Base Plans

12 x 12 Base Plan

Anchoring the Post Bases to Footings



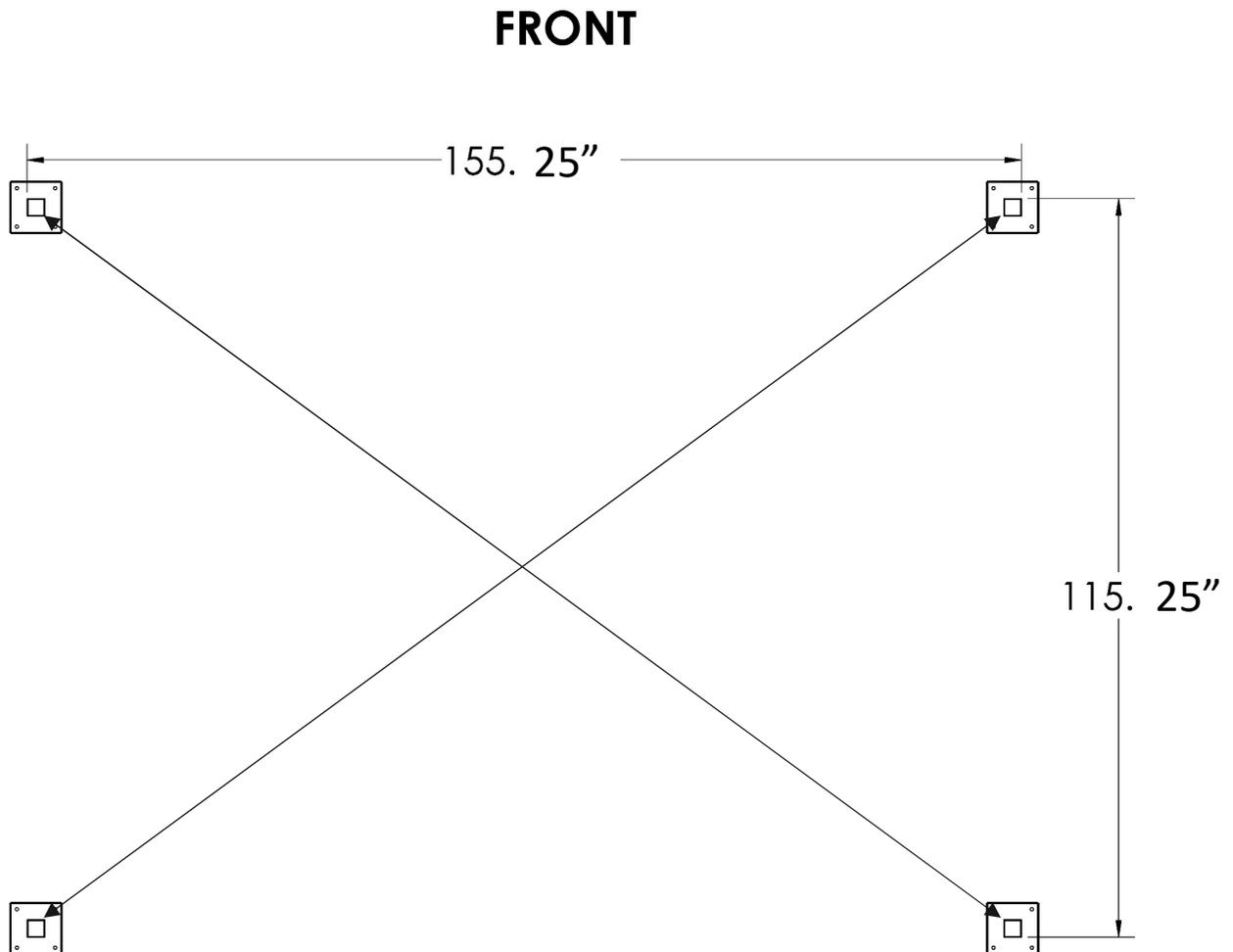
DIMENSIONS TAKEN FROM POST STUBS
MAKE SURE DIAGONALS ARE EQUAL

Note: Footings must be set before installation. The pergola must not be installed to a concrete slab alone. If installing to existing concrete slab, cut existing concrete, dig footings and fill with new concrete.

Base Plans

16 x 12 Base Plan

Part I – Setting out the post bases



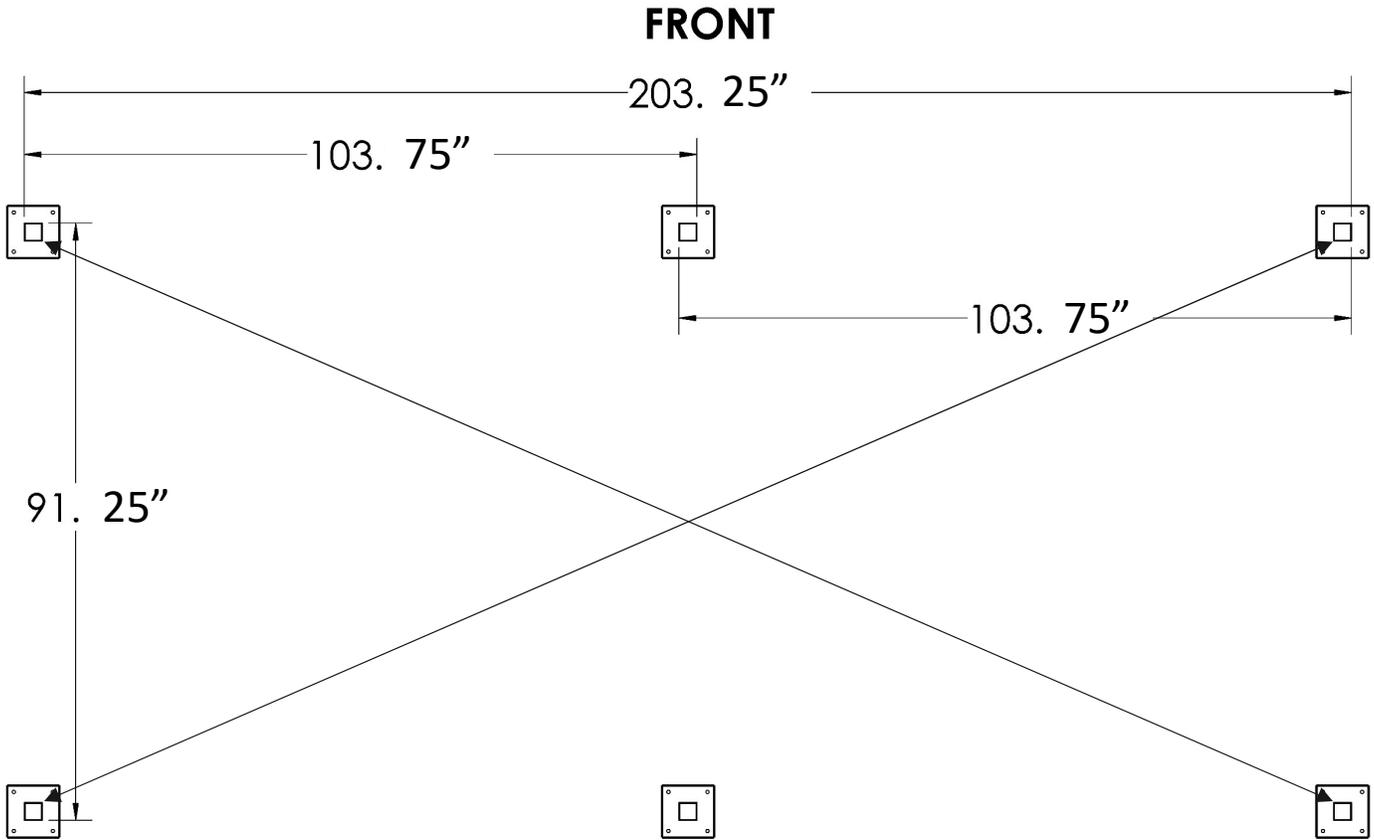
DIMENSIONS TAKEN FROM POST STUBS
MAKE SURE DIAGONALS ARE EQUAL

Note: Footings must be set before installation. The pergola must not be installed to a concrete slab alone. If installing to existing concrete slab, cut existing concrete, dig footings and fill with new concrete.

Base Plans

20 x 10 Base Plan

Part I – Setting out the post bases



DIMENSIONS TAKEN FROM POST STUBS
MAKE SURE DIAGONALS ARE EQUAL

Note: Footings must be set before installation. The pergola must not be installed to a concrete slab alone. If installing to existing concrete slab, cut existing concrete, dig footings and fill with new concrete.

Part 2: Anchoring the Post Bases to Footings

- Starting with base #1, DRILL one 1/2" hole, at least 4" deep. Use a masonry bit & Hammer drill using the base plate hole as a guide.
- Tap in the Wedge Anchor into the hole, spin the nut down a little and hit the bolt head with hammer into the hole & tighten the nut snug (**Image 12**).
- Drill a second hole diagonally across from the first hole and repeat steps 4 and 5.
- Finish the remaining holes and anchors in base #1.
- Starting with base #3 on its footing, checking the diagonal measurements are equal and repeat steps 4, 5, 6 and 7 for base #3 (**Image 13**).
- Repeat steps and measurements for bases #2 & #4.

Image 12

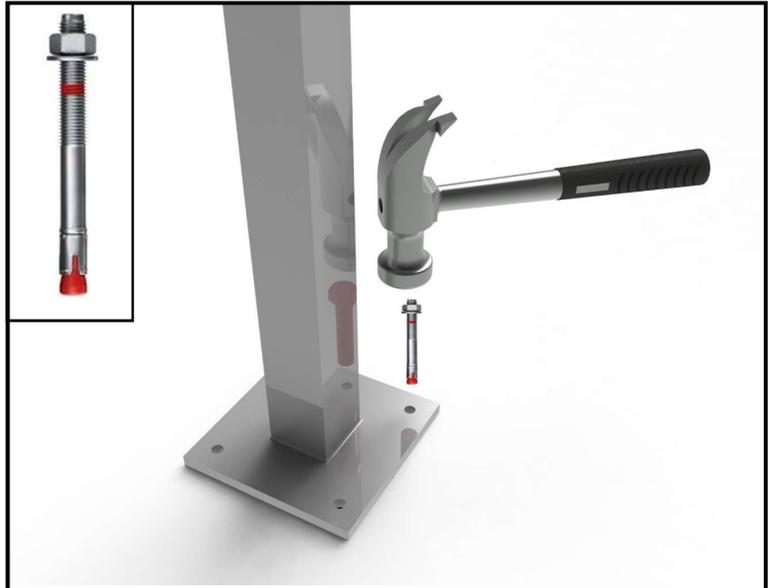
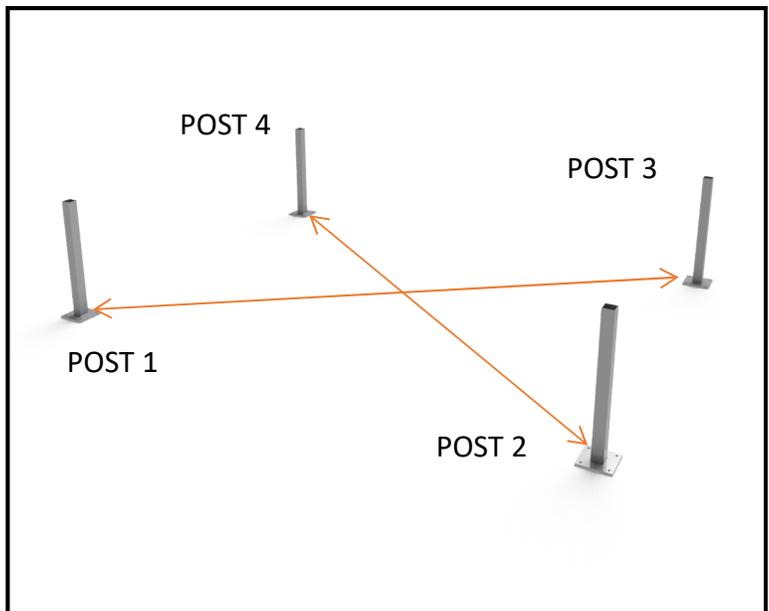


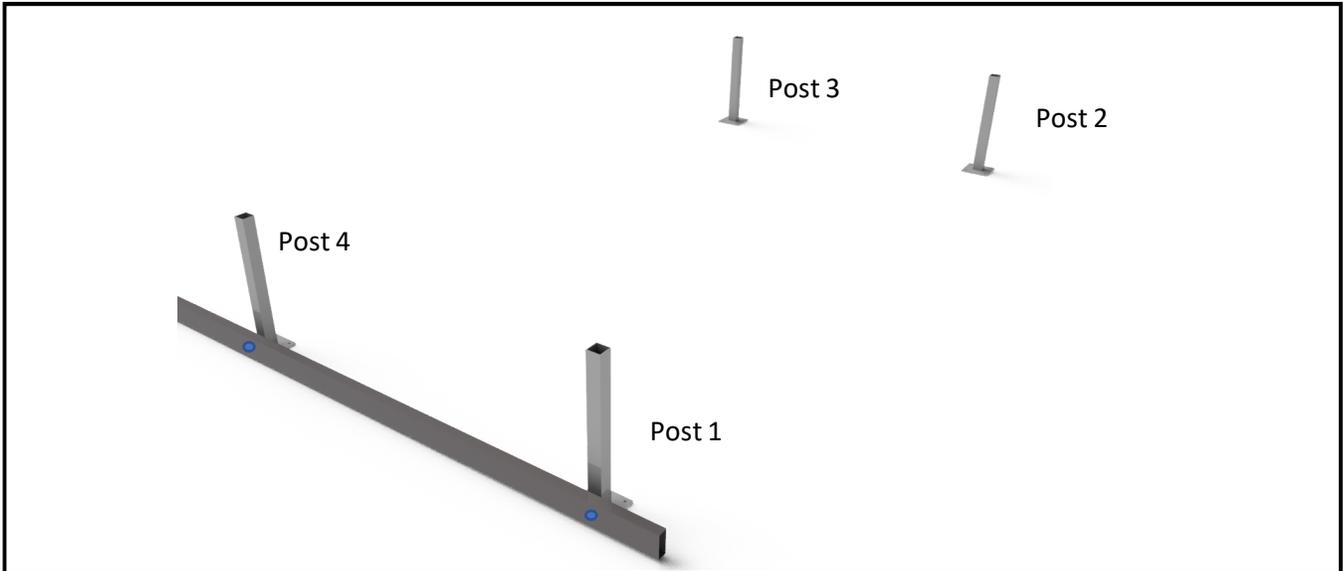
Image 13



Part 3: Installing the Posts & Beams

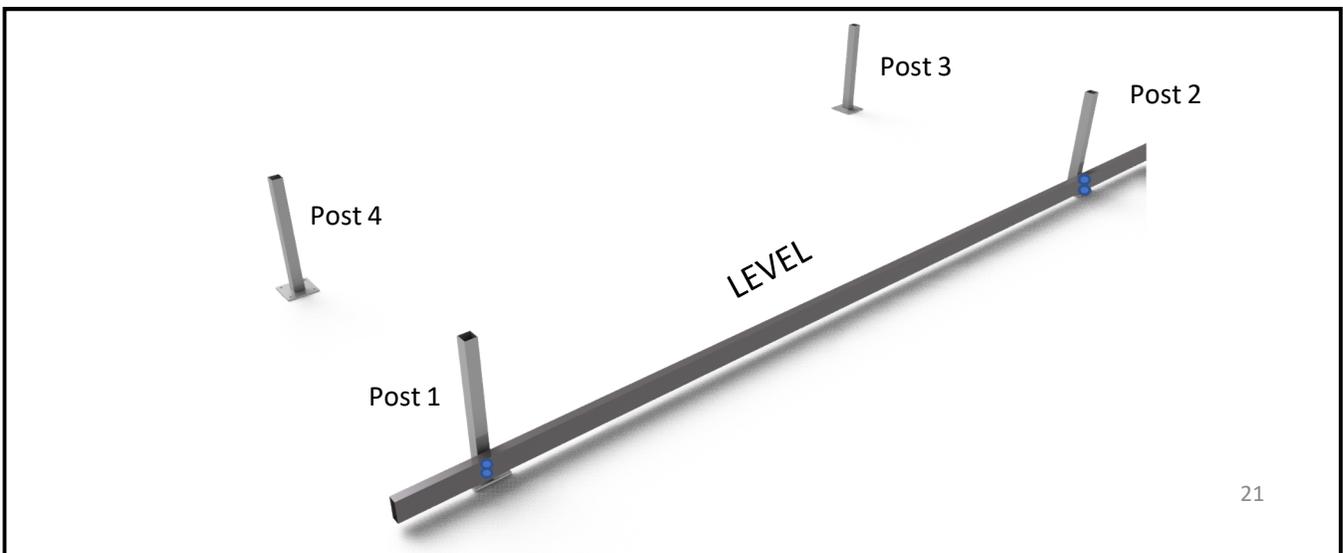
1. Set a 2"x5" rafter on the footings of #1 & #4. Place a level on the beam to see which footing (post 4 or post 1) is lower. **(Image 14).**

Image 14



2. Repeat step 1 with footings #2 & #3. Note which is lower.
3. Now, run a beam connecting the two lowest footings. Level it to find the lowest footing out of all 4. (This could be a diagonal e.g. post 3 to post 1) **(Image 15).**

Image 15

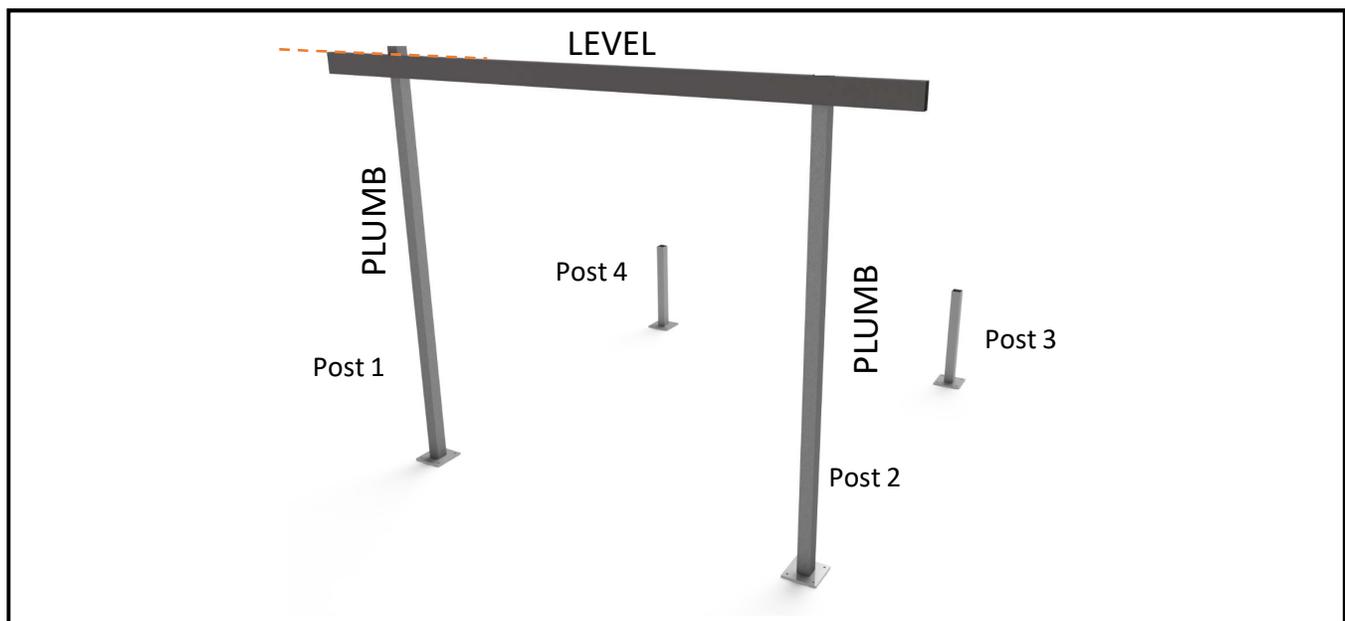


Part 3: Installing the Posts & Beams

Bases #1 & #2 are paired together for the double beams. Bases #3 & #4 are paired together for the double beams.

4. Measure down 4-3/4" from the top of a 9ft post and mark it. Set one of the 9ft long 3"x3" posts over the LOWEST base. (In the example images, this is base #2). Set another 9ft long 3"x3" post over the paired mate to the LOWEST base.
5. Set a ladder by each post. 2 people lift up the 2"x5" beam, which has two holes 5/8" diameter drilled near each end. The holes should line up in the center of each post. The person at the LOWEST FOOTING holds the top of beam even with the top of the post. The second person levels the beam and MARKS the **second** post on the top side of the beam (**Image 16**).

Image 16

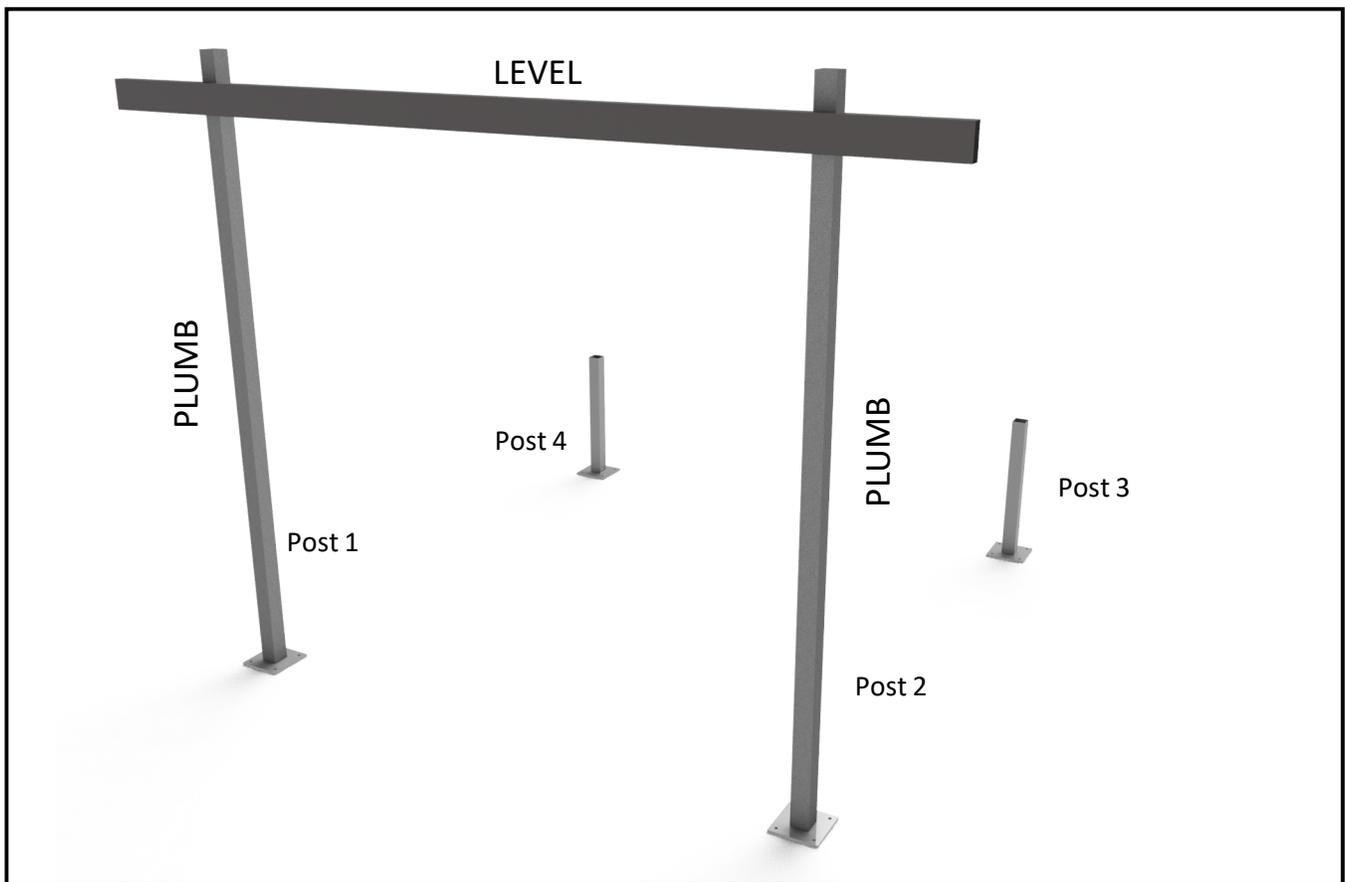


6. Cut the post at the mark made using a chop saw, skill saw or hacksaw.

Part 3: Installing the Posts & Beams

7. Measure down 4-3/4" from the TOP of the **SECOND POST** and mark it. Hold the posts plumb level vertically, center the BEAM 5/8" access holes to the posts. Hold the top of beam UNDER the 4-3/4" mark on BOTH POSTS. RE-CHECK beam to be LEVEL (**Image 17**).

Image 17

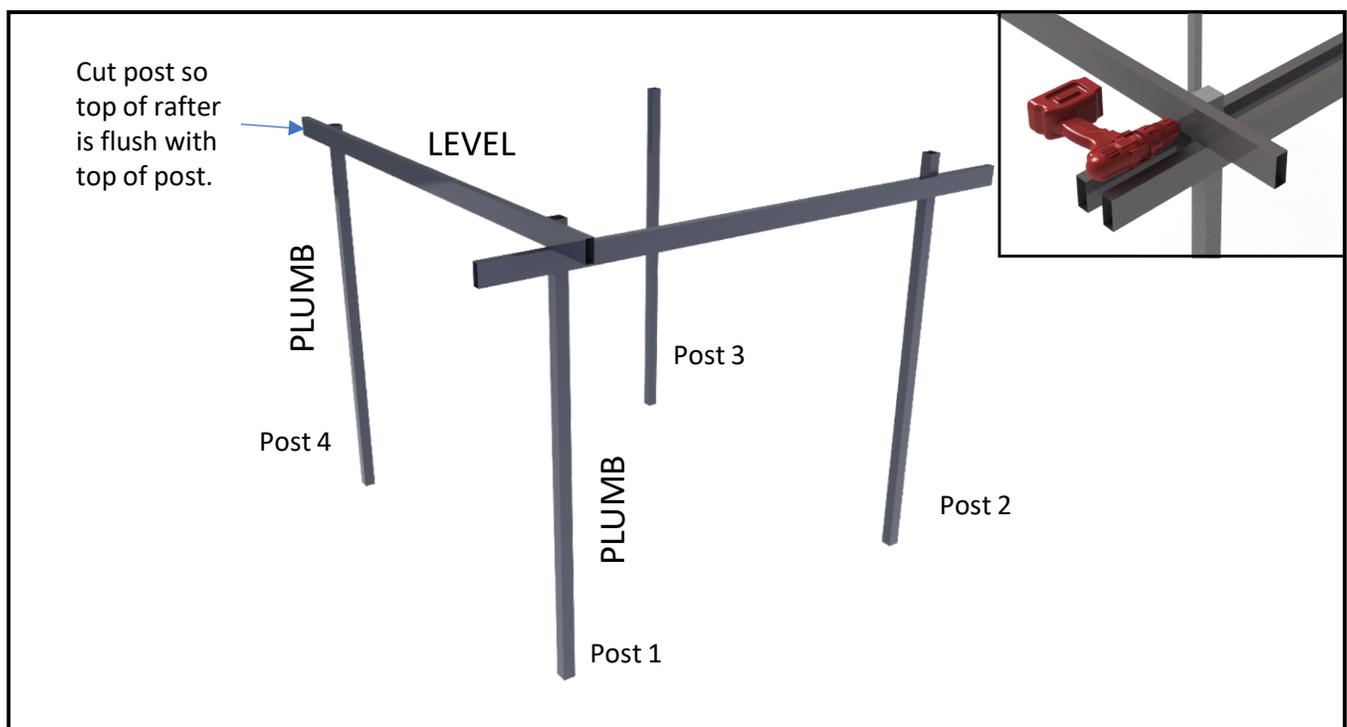


8. FASTEN through the access holes into the post using the #14 tek screw.
9. After the first beam is up, set the posts on the remaining 2 post bases with ladders beside them.

Part 3: Installing the Posts & Beams

10. Take a 2"x5" **rafter with pre-drilled holes**. Set it on the beam and level it across to the opposite post. Make sure both are plumb level vertically. The holes in the rafter should line up with the center of the posts. Mark a line above the rafter on the second post. **(Image 18)**.

Image 18



11. CUT the marked post at the line. Recheck level and fix the rafter to the post using #14 TEK screws through the pre-drilled holes.
12. Repeat steps 10 & 11 for the second set of posts, using a second pre-drilled rafter (posts 2 and 3 in the example image).

Part 3: Installing the Posts & Beams

13. Push another beam to the underside of the two rafters. RE-CHECK beam to be LEVEL. FASTEN through the access holes into the posts using the #14 tek screws (**Image 19**).

14. Push remaining beams up to underside of rafters on the inside face of the posts. Hold the posts plumb level vertically, center the BEAM 5/8" access holes to the posts.

15. FASTEN through the access holes into the post using the #14 tek screws (**Image 20**).

Image 19

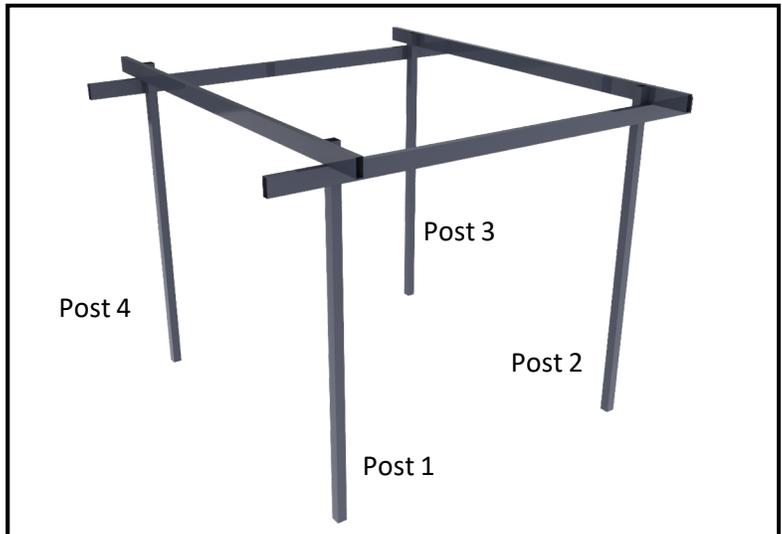
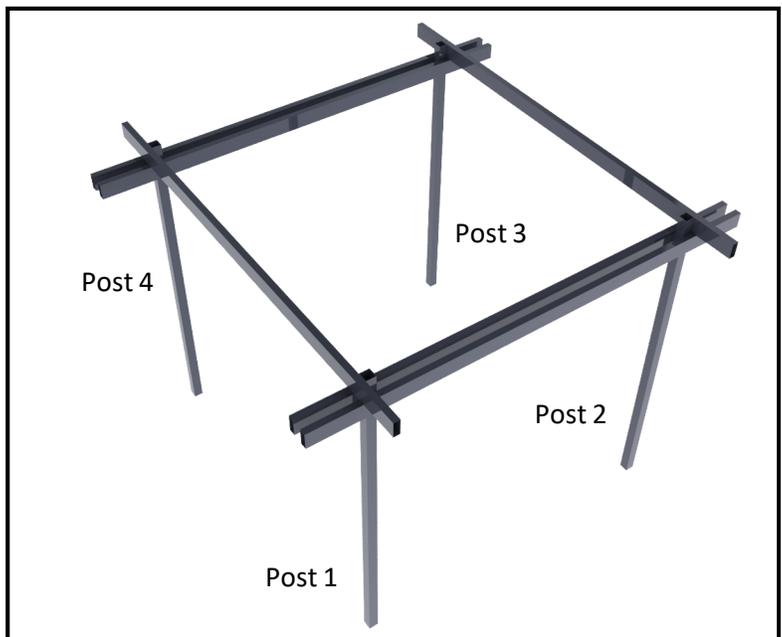


Image 20



Part 3: Setting the Posts and Beams

For 20ft Pergolas Only – 12 & 16 ft Skip to Part 4.

For 20ft wide pergolas: Install the 2 remaining posts and bases by lining up the center of the 3” post with the central beam split point. Once lined up fasten through the pre-drilled access holes to the posts. Then fix the bases to the ground using the method in part 2 - Image 12. **(Image 21)**

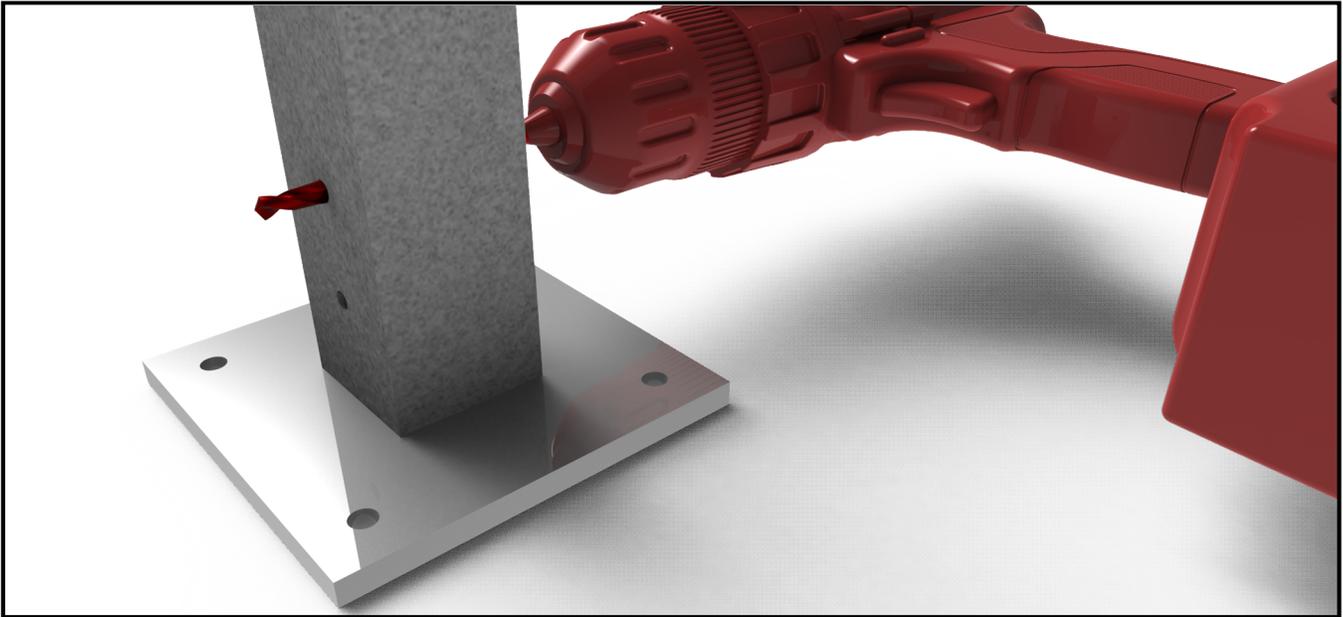
Image 21



Part 4: Securing Posts & Post Endcaps

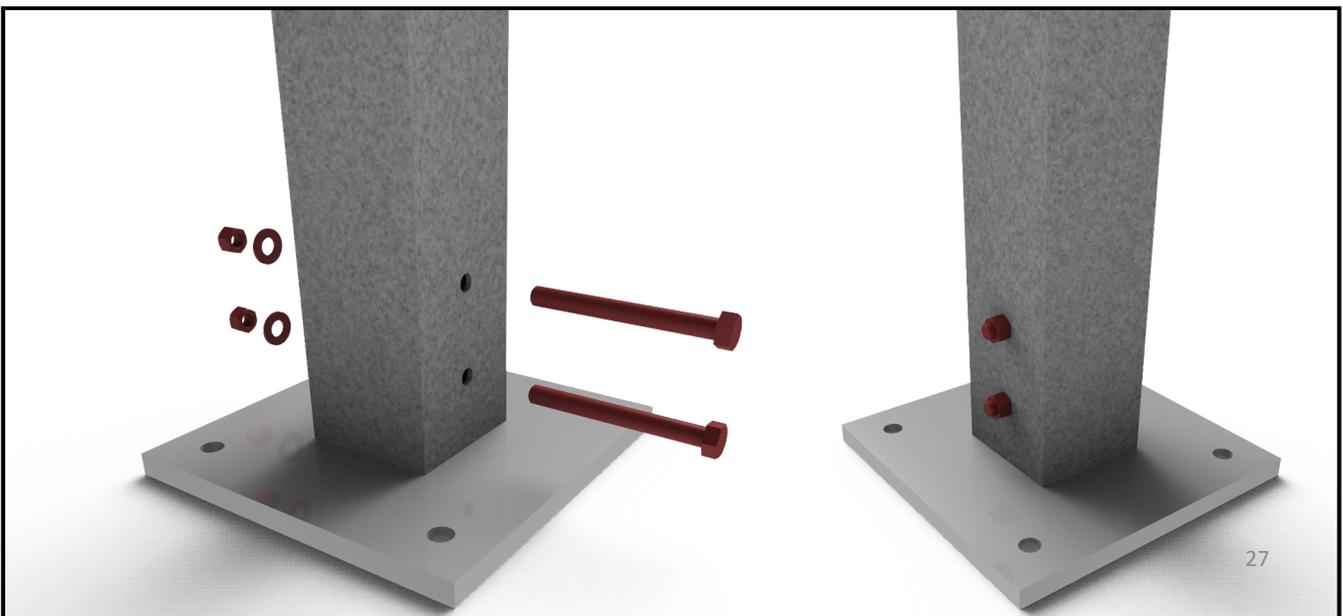
1. Drill two 3/8" holes through the posts in line with the pre-drilled holes in the base plate stubs. **(Image 22)**

Image 22



2. Insert a bolt. Place a washer and nut on the end and tighten. **(Image 23)**
3. Repeat for all posts.

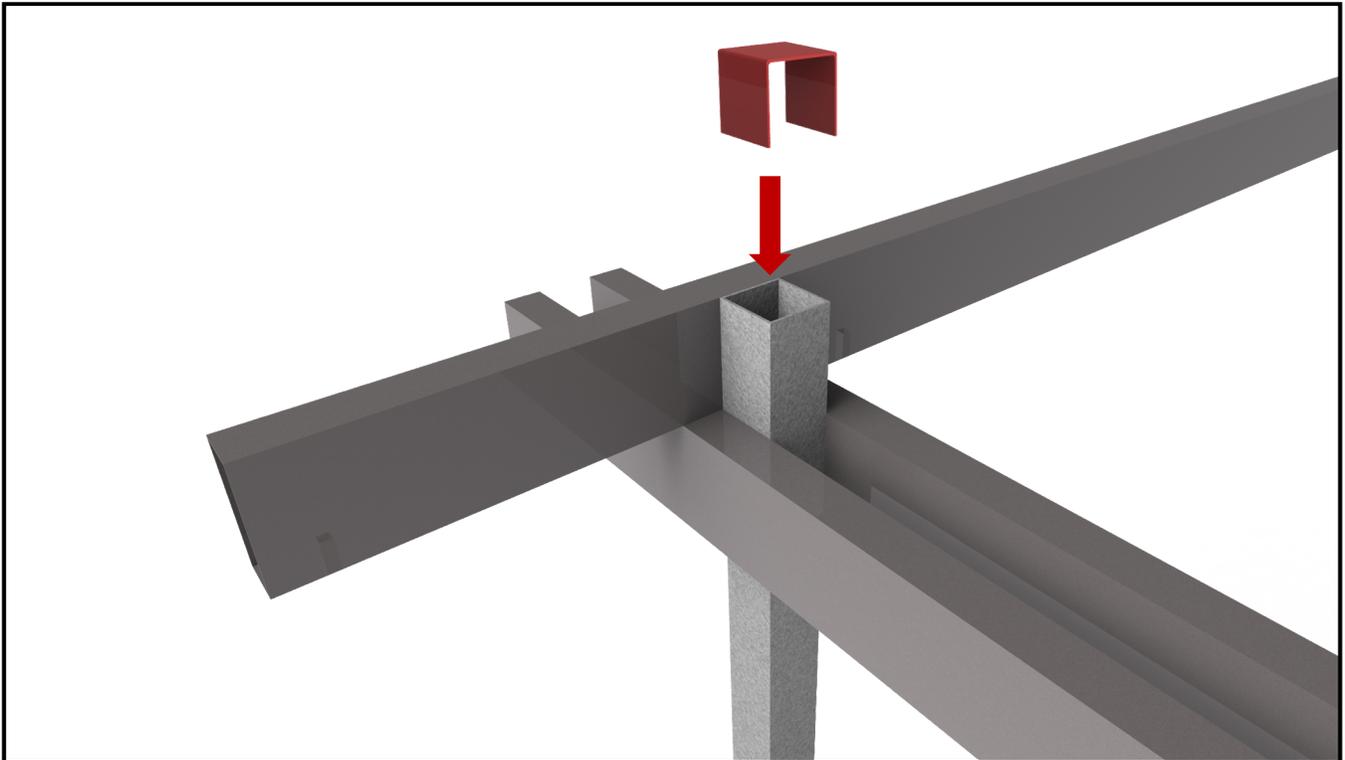
Image 23



Part 4: Securing Posts & Post Endcaps

4. Install post endcaps and fasten with one #10 3/4" TEK screw (**Image 24**).

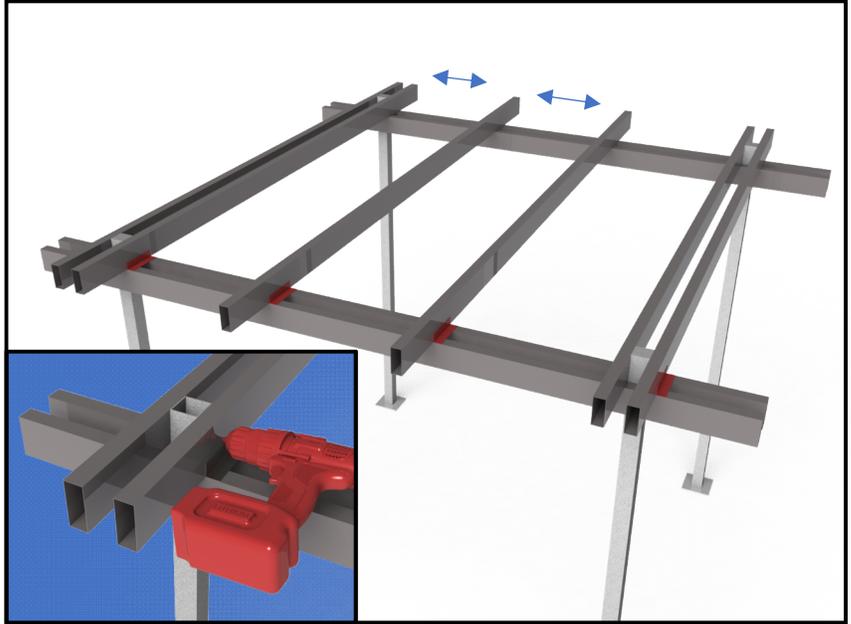
Image 24



Part 5: Installing Rafters

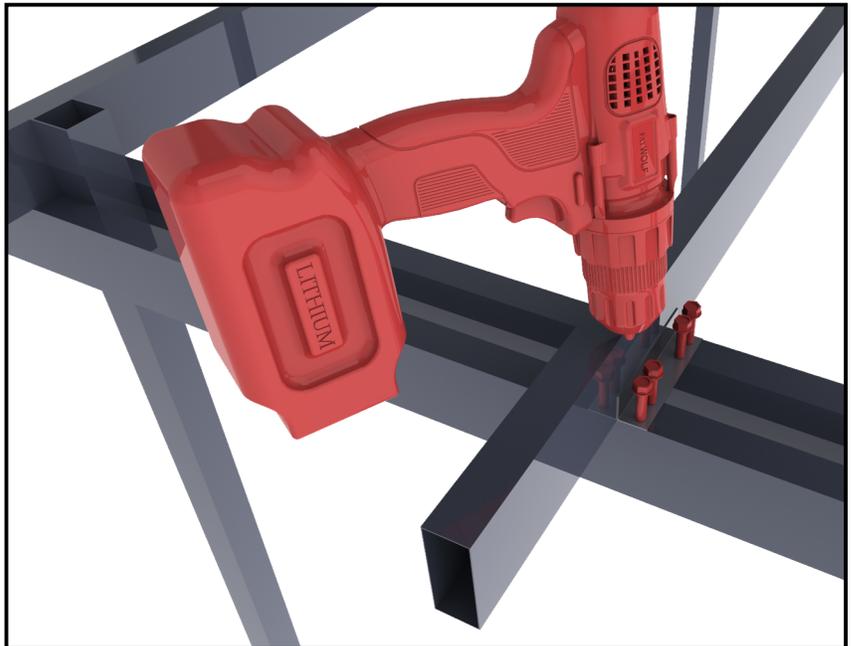
1. Push the remaining **pre-drilled** rafters up against the inside face of the posts. **For 20ft pergolas, also place pre-drilled rafters either side of the central post.** You should now have rafters on either side of all posts. **Fasten the pre-drilled rafters to the inside of the posts using one #14 TEK screw.** Lay out the remaining rafters with equal spacing and make sure they are parallel. Place angle brackets on one side of the rafters (**Image 25**).

Image 25



2. Make sure the brackets are perpendicular to the beams. Fasten the brackets to the beams using 2 #10x3/4 tek screws into each beam - 4 total. (**Image 26**).

Image 26



Part 5: Installing Rafters

3. Fasten angle brackets to the beams at the other end of the rafters using the same method. **Image 27.**
4. Make sure all the rafters have an equal overhang over the beams.

Image 27



Part 5: Installing Rafters

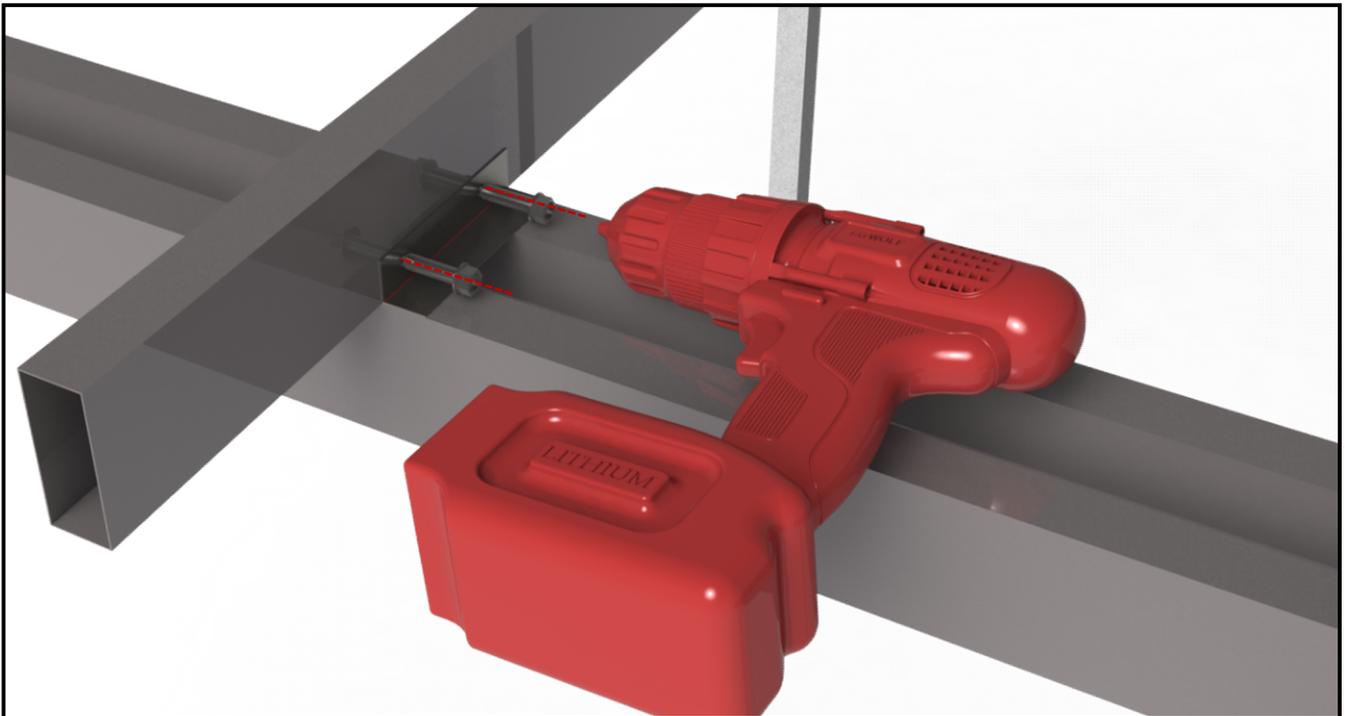
Image 28



Part 5: Installing Rafters

5. Make sure the RAFTER is STRAIGHT and UPRIGHT. FASTEN BOTH ENDS using two #10x3/4 tek screws through the Angle Bracket into the Rafter over each beam. **(Image 29).**

Image 29



Part 5: Installing Rafters

6. Fasten the remaining RAFTER ANGLE BRACKETS to the DOUBLE BEAMS and to the other side of each RAFTER. Push the Rafter ANGLE BRACKET TIGHTLY against the RAFTERS & FASTEN. **(Image 30).**

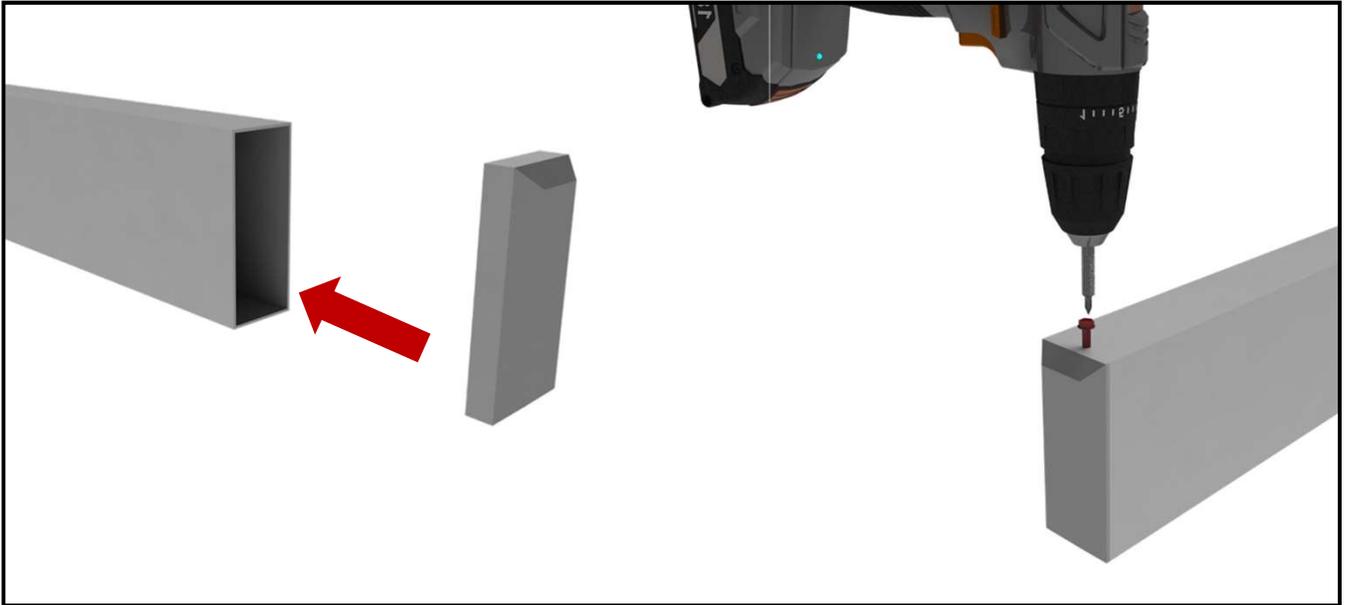
Image 30



Part 6: Installing Final Endcaps

1. Install the beam end caps using the same method in part I steps 2 & 3. Fasten with one #10 x 3/4" TEK screw (**Image 31**).

Image 31



Part 7: Installing Shade Slats

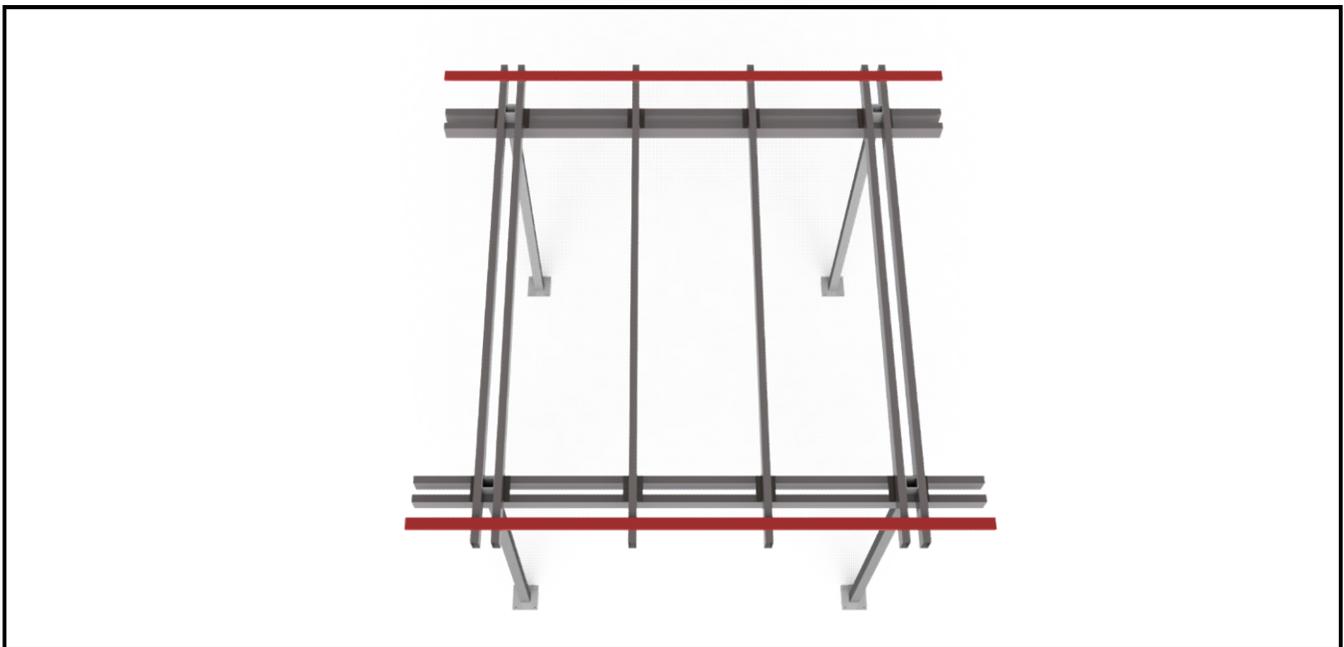
12 ft pergolas: This pergola will have 12ft 1x3 Shade slats. At the FRONT & BACK of the RAFTERS, MEASURE & MARK 3" on the TOP SIDE of the FIRST, LAST and MIDDLE RAFTERS.

16 ft pergolas: Join two (2) 1x3 slats together on top of the rafters...fasten using one (1) #10x3/4" tek screw. This pergola will have 16ft 1x3 Shade slats. At the FRONT & BACK of the RAFTERS, MEASURE & MARK 3" on the TOP SIDE of the FIRST, LAST and MIDDLE RAFTERS.

20 ft pergolas: Join two (2) 1x3 slats together on top of the rafters...fasten using one (1) #10x3/4" tek screw. This pergola will have 20ft 1x3 Shade slats. At the FRONT & BACK of the RAFTERS, MEASURE & MARK 4-1/2" on the TOP SIDE of the FIRST, LAST and MIDDLE RAFTERS.

1. Take one 1x3 SHADE SLAT and set it behind the FRONT MARK and place another slat behind the BACK mark, as shown. **(Image 32). (Both slats should be on the inner side of the marks).**

Image 32



Part 7: Installing Shade Slats

2. Fasten using one #10x2" Tek through the 1x3's into every Rafter.
3. Put approximately one third of the 1x3 slats on top of the rafters, pushing them against the first 1x3 slat in front. Make sure the ends are all flush with one another. **(Image 33).**

Image 33



4. The spacing between the shade slats is the width of 2 slats (6 inches). Therefore, leave two and fasten the third shade slat to every rafter using one #10 TEK screw. **(Image 34).**

Part 7: Installing Shade Slats

Image 34



5. Remove the loose slats and repeat.
6. For the final slats, center them between the previous and final slats. Position the slats so that they have equal spacing and fasten (**Image 35**).

Image 35

