

HOW TO BUILD AN ARBOR

Step A: Dig Holes for the Footings

1. Lay out the location of the posts, 5 ft. apart, using stakes and string. Make sure the layout is square by measuring from corner to corner and adjusting the layout until these diagonal measurements are equal.
2. Dig postholes at the corners to the required depth, using a posthole digger.
3. Fill each hole with 6" of gravel.

Step B: Set the Posts

1. Position the posts in the holes. To brace them in a plumb position, tack support boards to the posts on adjoining faces. Adjust the posts as necessary until they're plumb.
2. Drive a stake into the ground, flush against the base of each 2 × 4. Drive galvanized deck screws through the stakes, into the 2 × 4s.
3. Mix one bag of dry concrete to anchor each post. Immediately check to make sure the posts are plumb, and adjust as necessary until the concrete begins to harden. Be sure to let the concrete dry at least 24 hours before continuing.

Step C: Install the First Tie Beam

1. Measure, mark, and cut all the lumber for the arbor. Cut a 3 × 3" notch off the bottom corner of each tie beam, a 2 × 2" notch off the bottom corner of each 2 × 4 rafter, and a 1 × 1" notch off the bottom corner of each cross strip.

2. Position a tie beam against the outside edge of a pair of posts, 7 ft. above the ground. Position the beam to extend about 1 ft. past the post on each side.

3. Level the beam, then clamp it into place with wood screw clamps. Drill two $\frac{3}{8}$ " pilot holes through the tie beam and into each post. Attach the tie beam to the posts with 3" lag screws.

Step D: Add the Second Tie Beam

1. Use a line level to mark the opposite pair of posts at the same height as the installed tie beam.
2. Attach the remaining tie beam, repeating the process described in #2 and #3 of Step C.
3. Cut off the posts so they're level with the tops of the tie beams, using a reciprocating saw or handsaw.

Step E: Attach the Rafters

- Attach the rafters to the tops of the tie beams, using rafter ties and galvanized nails. Beginning 6" from the ends of the tie beams, space the rafters 2 ft. apart, with the ends extending past each tie beam by 1 ft.

Step F: Install the Cross Strips

1. Position a cross strip across the top of the rafters, beginning 6" from the ends of the rafters. Center the strip so it extends past the outside rafters by about 6". Drill pilot holes through the cross strip and into the rafters. Attach the cross strip with galvanized screws. Add the remaining cross strips, spacing them 1 ft. apart.
2. Finish your arbor by applying wood sealer/protectant.



D. Attach the other tie beam and trim the tops of the posts flush with the tie beams.



E. Attach the rafters to the tie beams with rafter ties and galvanized nails.



F. Space the cross strips 1 ft. apart and attach them to the rafters.