How-To Build a Rectangular Deck

**STEP 1 - Place the two corner Dek-Block® piers closest to the house.**

Set them directly on the soil. If the ground is sloped, remove some top soil from directly underneath the block until the block sits level. The blocks should be as close to the house as possible. Verify the correct distance between the blocks by referencing the dimensions found on the plan. The outside edge of the finished deck will extend out past the center of the Dek-Block® piers by 13 1/2" on both sides.

There is no such thing as a perfectly level yard. I get a lot of calls and e-mails from people who try not to use 4x4 posts. The best tip I can give anyone building a rectangular deck is to use 4x4 posts, even if you only have a very slight slope of the yard. Leveling every block to each other is very difficult and time consuming. If you need a 2-1/4" 4x4 post, make the cut. It takes about 90 seconds to measure and cut, and the post only weighs a few pounds. Moving a block up or down to an exact measurement takes 4 to 10 minutes per block. Remember, these are 42 lb. blocks you’re working with. Save your back for carrying the cooler onto the deck when you’re done.

Don’t spend an excessive amount of time leveling the dek-Block® piers. The block does not need to be perfect. The block can be leveled with only your eye. If the block looks level move on, using a framing level is unnecessary. Any slight difference will be made up with the 4"x4" post. However, you want to make sure the Dek-Block® piers are sitting FLAT. You do not want any rocking of the piers on the ground.
STEP 2 - Level the support board.

Locate the highest corner Dek-Block® pier. Position a 2"x6" support board in or above this first block to your desired height. If the entire deck will be elevated, you will need to have a 4"x4" post in the first block.

If the entire deck is elevated you will need to find the height of the first 4"x4" post to determine your starting point. First determine your reference point for the top of the deck surface. This may be the threshold of a door or a point on the siding. Mark a line level with this point that will extend near the first block. From this line, hold a level out over the block and measure from the bottom of the level to the pocket of the block. From this measurement, subtract the thickness of the surface board plus the thickness of the support board (1 1/2" + 5 1/2" = 7"). Cut the first 4"x4" post at this measurement and continue with the directions.

Place a 2"x6" support board in the slot of the Dek-Block® pier or on the 4"x4" post and extend over the second corner Dek-Block® pier. Now, using a level on top of the 2"x6" support board, measure the distance from the bottom of the 2"x6" support board to the bottom of the pocket in the Dek-Block® pier. Next cut a 4"x4" post to length and position the 2"x6" support board on top. Make sure to verify that the 2"x6" support board is level. Do not attach the 2"x6" support board to the 4"x4" post yet.

If the deck is placed next to a door, the deck should be between 1/2" and 1" below the door’s threshold. Or if you want a step up to the door, the deck should be between 6"-7" below the door. You don’t want anything between 1"-6” as this will create a trip hazard.
**Floating Foundation**

**Deck System**

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**STEP 3 - Level the furthest point.**

Begin by positioning the two remaining corner Dek-Block® piers. Measure from the house out to the outside edge of the groove in the block. (For example: If the deck will be 10 feet deep, position the block so that the outside edge of the groove is 10 feet from the HOUSE. Do NOT use the the first row of blocks as a measuring reference.) Use the same width between the Dek-Block® piers as the first row.

Next, remove the first support board closest to the house. Temporarily position a 2"x6" end board on top of the first row's 4"x4" post or block, and extend it to the outside corner block. Using a level on top of the 2"x6" end board, measure the distance from the bottom of the 2"x6" end board to the bottom of the pocket on the Dek-Block® pier. Cut a 4"x4" post to length and position the 2"x6" end board on top. Verify the 2"x6" end board is level. When level, remove the end board and repeat for opposite side.
STEP 4 - Square the frame.

Place a 2"x6" support board on top of each row of Dek-Block® piers. Attach the 2"x6" end boards to support boards using two 2 1/2" deck screws at each connection. Using a level as a guide, ensure that both end boards and both support boards are level.

Next, measure the diagonal distance from opposite corners. Adjust the outside support boards and Dek-Block® piers until the diagonal distance between opposite corners is EQUAL.

After the deck is square and level in all four directions, attach the 2"x6" support boards to the 4"x4" posts using two 2 1/2" deck screws. At an angle from each side (toe-screw).

NOTE: The end boards will extend past the support boards up to the house. Leave a 1/8" to 1/2" gap between the end board and the house. This is not shown on our standard plans.
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STEP 5 - Attach remaining 2"x6" support boards.

Position and attach the remaining 2"x6" support boards to the end boards using the dimensions provided on the plan. Use two 2 1/2" deck screws to attach the support board to the end board.
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STEP 6 - Position remaining Dek-Block® piers.

Using the frame as a guide, position the remaining Dek-Block® piers directly beneath the frame using the dimensions provided on the plan. The blocks on the perimeter of the deck should be 12” in from each end.

When positioning the blocks, the dimensions do not need to be exact. There is a lot of “play” in the spacing between the piers. As long as you do not exceed 5 feet between blocks, the deck will be fine. For example, it is fine to have one row spaced at 3 feet 10 inches from the one block and 4 feet 2 inches from the other block. Just be sure to have all of the Dek-Block® Piers aligned in a straight row. This will ensure a well-balanced look in the end.
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STEP 7 - Fill remaining 4"x4" posts.

In each row, measure the distance between the 2"x6" support board and the Dek-Block® pier. Cut 4"x4" posts to length and position them between the support board and the Dek-Block® pier. Repeat this step until all 4"x4" posts are cut and positioned. Next, secure all support boards and 4"x4" posts using two 2 1/2" deck screws at an angle from each side (toe-screw).

This is a great job for 2 people. Have one person measure the height for the 4"x4" post and another person cut the post. Go down the rows measuring and cutting all of the posts, then place all the posts at the same time. This may require lifting the frame up slightly in order to get the post under the support board.

If you are building by yourself, go down the rows measuring the height for the 4"x4" posts. Write the measurement on a piece of paper and on the side of the support board. Next cut all the 4"x4" posts and position them accordingly.
STEP 8 - Attach the decking.

Starting from one side of the deck, attach the first 2"x6" surface board so it's flush to the edge of the deck. The surface board will overhang the first support board closest to the house. Leave a 1/8" to 1/4" gap between the end of the surface board and the edge of the house. Next, secure the connection of each support board with two 2 1/2" deck screws. If the surface boards are pressure treated and wet, position the boards with their edges touching. Within a few days, a small gap will form as the boards dry and shrink. If the surface boards are cedar, redwood, or composite decking, leave a 1/8" gap between the surface boards.