



Chapter 01: How to Build a Freestanding Deck



Step 1: Choose the Perfect Location

When choosing the location for your freestanding deck, prioritize level and stable ground for a solid foundation. Make sure it's easy to access from your home and consider post placement for hassle-free installation later on.

Step 2: Obtaining Permits and Checking Building Codes

Before starting your deck project, check local building regulations. Contact your city or county authorities to check for necessary permits and guidelines.

Step 3: Gathering Tools and Materials

Gather the necessary tools and materials and get ready to build your freestanding deck.

Pro Tip

Place a weed barrier under the entire deck, including beneath the stairs prior to building the deck frame. Simply lay down the fabric and secure it with ground pins to keep pesky weeds from making an unwanted appearance.

Step 4: Build the Deck Frame

After determining the dimensions of your deck, build the frame by cutting pressure-treated lumber to the required size and assembling the frame using three-inch deck screws. For added support, you can strengthen the frame with structural fasteners and the appropriate galvanized angles.

Step 5: Add Joists

Next, add joists for your Trex decking. Begin this step by ensuring your deck frame is level and squared. Then, begin to position the joists parallel to each other. Trex decking requires joists with a 16-inch on center for boards that are perpendicular to the joists. If the boards are at a diagonal this can drop down to 12" on center. See Trex install instructions for appropriate on-center spacing.

Pro Tip

On-center reference to the distance from the center of one joist to the center of the next one.

Keep in mind that not all joists need to be placed at this stage, but enough to keep the frame sturdy.

Secure the necessary joists to the frame, making sure they are tightly fastened. Double-check that all joists are level and aligned properly.

Pro Tip

Ensure your deck is a perfect rectangle by taking diagonal measurements from opposite corners across the frame, i.e., from top left to bottom right and top right to bottom left. If both measurements are identical, you'll have a precisely squared deck.

Step 6: Mark the Post Locations

Use a marking spray to indicate where each post will be placed on the ground. If possible, temporarily move the deck frame out of the area to make digging easier.

Step 7: Dig Post Holes

Use a post hole digger to dig holes for each post. Check with your local municipality for depth and width requirements. For added durability against the elements, choose pressure-treated wood posts. Then, check with your local municipality to confirm the type of footing required for your freestanding deck.

Step 8: Secure Posts and Check for Levelness

Prop the deck frame on 4x4 posts. Temporarily hold the frame to the posts using clamps, ensuring they are level and square. Mix concrete and pour it into each post hole.

Step 9: Install Remaining Joists

Once the posts are secured to the frame, remove the clamps and proceed to add the remaining joists to meet the 16-inch spacing requirement. Use joist hangers for added strength and the approved connection for the posts to the beam.

Step 10: Add Blocking

Once the joists are in place, install blocking between them to prevent bowing and add extra strength to the deck structure.

Step 11: Build the Stair Frame

Decide on the number and width of stairs, then construct a frame that matches these measurements.

Step 12: Installing the Stair Posts

Prepare and level the ground beneath the stair location, position the stair frame, and secure it to the deck frame. Mark and dig the post holes, place the posts, and secure them with concrete.

Step 13: Apply Trex Tape

[Trex Protect™](#) tape is a weatherproof barrier that protects your deck's joists from moisture, preventing rot and decay. Unroll the tape over each joist to apply it and firmly press it down.

Step 14: Install the First Board

Position the first Trex board against the frame's outer edge. Secure it using a [Universal Starter Clip](#).

Step 15: Continue Installing Boards with Hidden Fasteners

Insert the first hidden fastener into the first board's groove, aligning it with the joist. Secure it in place with a screw.

Place subsequent boards beside the first one, leaving gaps to help with water drainage and ventilation. Slide hidden fasteners into each groove, securing the boards to the joists with screws.

Step 16: Add Boards to the Stairs

Use the cardboard trick for a precise and accurate fit on your deck stairs.

Take a large piece of cardboard and cut out the shape of the stair section. Lay the cardboard template on the Trex boards, mark the outlines, and use a circular saw to make the cuts.

After checking for accuracy, install the stair boards in the same manner as the deck.

Step 17: Add Fascia

Finally, to achieve a clean and polished finish, install fascia boards on the outer edges of the deck. Cut the fascia slightly larger than the total deck frame and deck board. Drill holes and secure the fascia with the fasteners identified by the fascia manufacturer. Also, construction adhesive is required when install deck boards as fascia.

Consider mitering the corners and using a deck screw depth setter for a seamless look.

Your freestanding deck is now complete! Consider adding finishing touches such as [lighting](#), [comfortable furniture](#), or a [stylish railing](#). Enjoy relaxing and entertaining year-round on your beautiful new Trex freestanding deck.