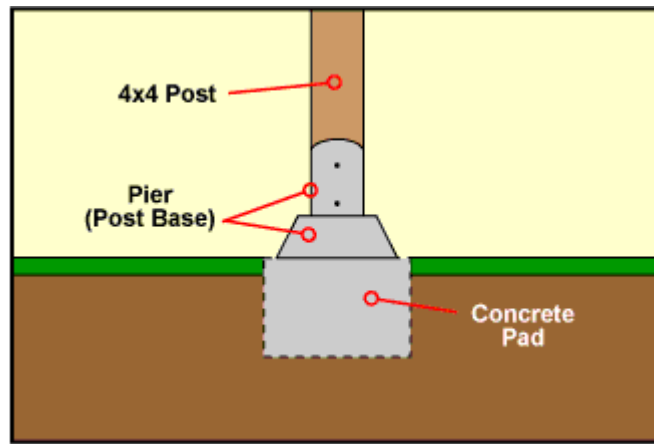


# Deck Post Holes & Foundation

## OVERVIEW



## Introduction

This tutorial will guide you through the process digging the deck post holes and then mixing and pouring the concrete. Before the concrete completely sets, you will then position the precast concrete piers.

You should have a fairly comprehensive list of materials for this project. If you have a pickup truck you can begin hauling the materials, otherwise, most home improvement centers will deliver. Be sure to inquire about delivery charges, if your order is large enough, the delivery may be free.

### BEFORE YOU START...



#### SKILL LEVEL & TIME TO COMPLETE

Time to complete this project depends on the size of the deck and the level of help available, the times listed here are for two people on a 10'x 30' deck with the house defining two sides of the deck.

- Beginner - 7 to 9 hours
- Intermediate - 6 to 8 hours
- Advanced - 5 to 7 hours



**CAUTION** Check your layout from the Marking & Layout tutorial--check one more time to make sure the string lines are in the right place.



**COMMON MISTAKE** Follow the mixing ratios of dry concrete mix and water, the final strength will be reduced if the ratios are off.



**HELPFUL TIP** Order more concrete than you need, it is easier to have extra than go back for more.



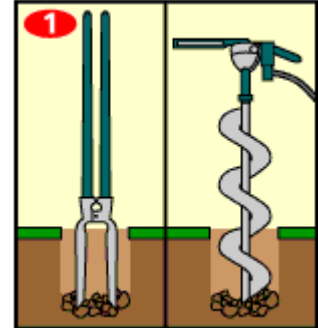
**HELPFUL TIP** Watch the weather, if it is going to rain or be below freezing, consider letting the sky clear and the ground warm up before pouring concrete.



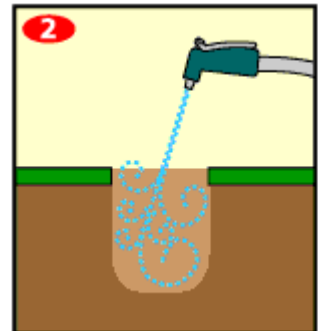
**HELPFUL TIP** If you have more than a cubic yard of concrete to pour (27 cubic feet), consider getting a concrete buggy. If you have two or three cubic yards, consider a concrete truck, as the cost can easily be balanced by the convenience. Note, concrete usually comes bagged in 60 and 90 pound bags, a 60# bag equals 1/3 cubic foot, and a 90# bag is 1/2 Cubic foot.

## STEPS

1. Gather your tools at the deck site and keep them close at hand. Dig the holes for the concrete pads and make sure the excavated dirt is kept out of the way. Dig all of the holes before starting the concrete. Be sure to remove all "crumbs" from the hole. If the soil is not firm, it might be necessary to build some forms to keep the holes at a reasonable size and shape. This form material must be removed after the concrete is cured and dirt should be packed in around the void left by the form. Another tip: put the dirt on plastic or plywood and it will be easier to haul away.



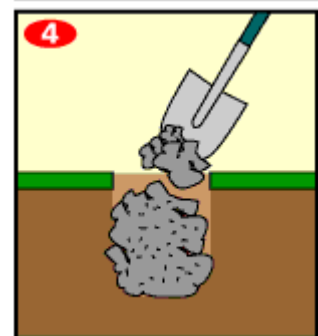
2. Set up your mixing station so that there you do not have to move the mixed concrete far as it becomes very heavy. If the ground is very dry, dampen the holes with the garden hose. This will keep the water from leaching out of the wet concrete into the dry ground.



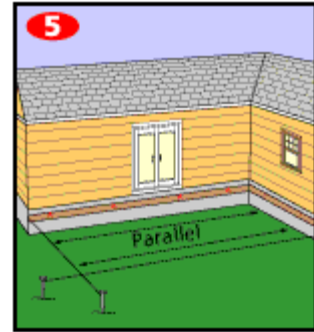
3. Begin mixing the concrete with a gallon (not a critical measure) of water in the bottom of the mixing tub, and then add the dry mix. Add water slowly until all of the concrete is wet. When the concrete is completely mixed with water the mixture should be a little stiff, which means that when you take a scoop of mixed concrete and roll it back into the mix and it maintains its shape.



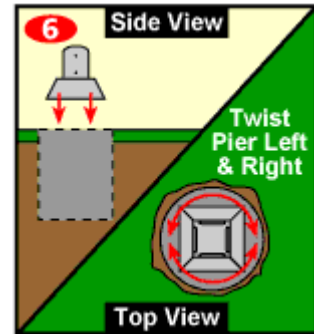
4. Pour or shovel the fully mixed concrete in the hole and tamp it down into the corners and edges with a rod or your shovel.



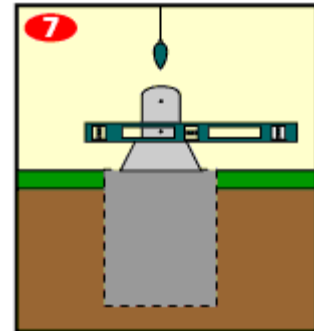
5. Once the hole is evenly filled, smooth the top surface so that it is level and even using a "wood float." The surface does not have to be as smooth as your driveway, just even it out.



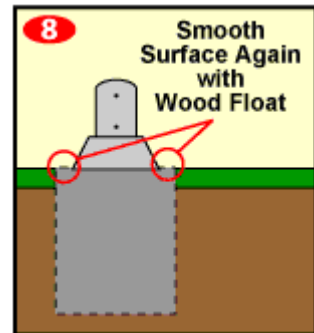
6. The concrete will begin to harden, however you have some time before placing the precast concrete pier. If the uncured concrete is too wet, you will need to wait until it is dry enough to support the pier and yet still allow the pier to sit down into the mix a bit. If the mix is a bit thick, set the pier in place on top of the wet concrete and twist the pier left and right a couple of times to force the pier into the wet concrete.



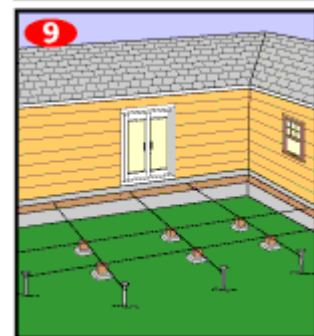
7. Once the pier is in place, check to see that it is level and use a plumb bob to position it directly below the location you have marked with the string grid line.



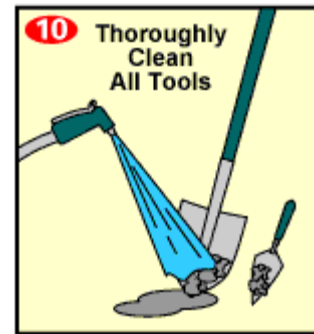
8. Go back to the uncured concrete and smooth out any bumps and wrinkles you created when placing the pier using the concrete float. Repeat the last few steps until all of the concrete pads and piers are in place.



9. When all the pads are completed, take a few steps back and survey your handiwork to make sure that everything is in place. You will be glad you did when everything sets and you move on to the next tutorial.



10. When you finish the concrete, be sure to thoroughly clean all of your tools. It will be much easier now than waiting until you need the tools again and the concrete is set and solid.



## SHOP LIST

### Materials Needed

- Concrete
- Post Bases
- Fresh Water

### Tools Needed

- Spade and other shovels
- Breaker bar
- Concrete mixing hoe
- Concrete finishing tools, wood float
- Torpedo level
- Plumb bob
- Mixing pan or wheel burrow
- Garden hose with spray nozzle
- "Rod" for tamping concrete