NuCast Precast Concrete Step & Riser

Installation and Care Manual

Installation of NuCast Precast Concrete Steps

Single Step Installation Guide

1. Prepare the Base or Ground Where Your Step Will be Installed

If replacing steps, first remove any old steps and clear remaining debris. Next, make sure that you compact the soil where the step will be sitting. It is extremely important to ensure the ground is very well compacted, as precast steps are heavy and can sink into loose soil. After compacting the ground, level it to ensure your precast step sits evenly.

OPTIONAL FOR SINGLE STEPS: For extra stability and better drainage under a single precast step, you can create a concrete pad upon which the precast step will sit. To do so, prepare the base by removing 12 inches of topsoil and replace with 8 inches of base material such as crushed concrete or gravel. Compact and level the base material. Next you will place rebar at a distance of two feet between columns of rebar and one foot between rows of rebar. Ensure the rebar is about two inches above the base material and two inches below the top of the where the concrete base will end. Tie the intersections of rebar. Next mix a high-strength concrete mix and pour it into place up to a thickness of 4 inches. Smooth and level the top and allow to cure per manufacturer's instructions.

2. Measure the Width

To install a single step, you will need to first determine the width of the step you would like to install. For most standard porches, a three-foot (3 FT) or four-foot (4 FT) step will suffice. The staff at your supply yard or retailer should be able to assist you in determining the correct width for your step. Please make sure to check local zoning ordinances to ensure compliance with any requirements.

3. Measure the Height

After measuring the width, you will need to measure the distance between the base that you prepared in step one (1) and the porch top or landing area. Generally, a standard single step will require a seven-inch (7 IN) step. Staff at the supply yard or retailer where you purchased your step should assist you in determining the correct height needed for your step. Please make sure to check local zoning ordinances to ensure compliance with any requirements.

4. Installing the Step

Before placing the step on your compacted ground or concrete pad, add a 1/4 inch to 3/8 inch layer of mortar, such as Quickrete mortar (sold separately), to the bottom of your precast step. Ensure that the mortar is applied evenly to ensure a level placement of the step.

5. Apply Sealant

NuCast precast concrete steps are manufactured for durability. However, we strongly recommend applying a high quality and silicone-based sealer for maximum protection.

Multi-Step Unit Installation Guide

1. Prepare the Base or Ground Where Your Multi-Step Unit Will be Installed

If replacing steps, first remove any old steps and clear remaining debris. When creating a multi-step unit, you must create a concrete pad for the steps to sit on. We recommend a concrete step even for a single step installation; however, it is a necessity for multi-step units, as precast steps are heavy and can sink into loose soil.

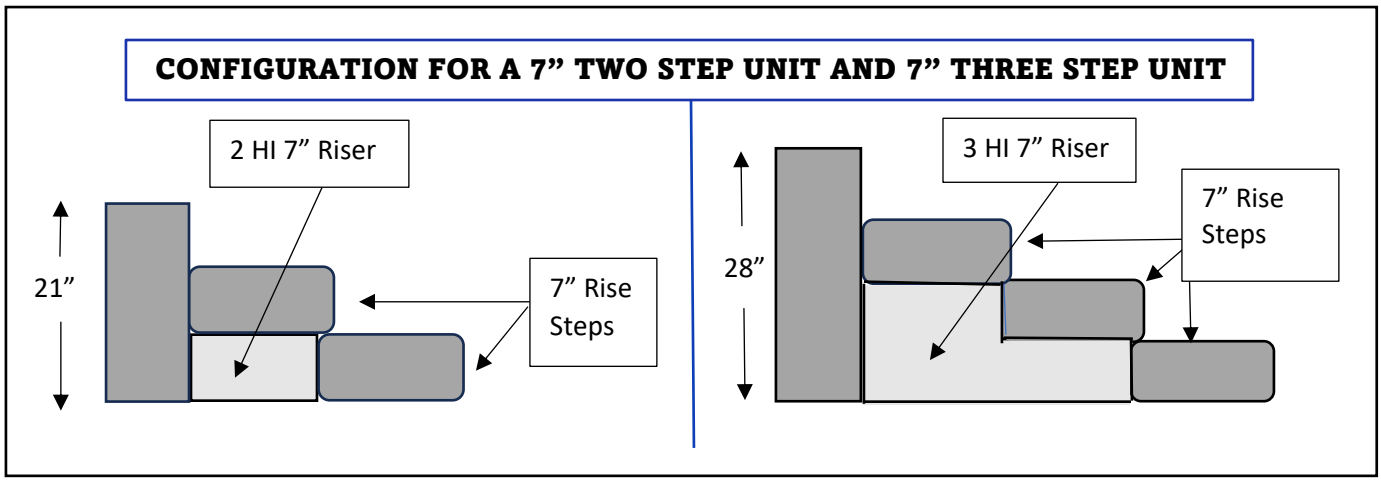
To create a concrete pad upon which your multi-step unit will sit, first prepare the base by removing 12 inches of topsoil and compacting the remaining soil. Then add 8 inches of base material such as crushed concrete or gravel. Compact and level the base material. Next you will place rebar at a distance of two feet between columns of rebar and one foot between rows of rebar. Ensure the rebar is about two inches above the base material and two inches below the top of the where the concrete base will end. Tie the intersections of rebar. Next, mix a high-strength concrete mix and pour it into place to a thickness of 4 inches. Smooth and level the top and allow to cure per manufacturer's instructions. Once the concrete pad is poured and cured, you can begin installing your steps.

2. Measure the Width

To install a single step, you will need to first determine the width of the step you would like to install. For most standard porches, a three-foot (3 FT) or four-foot (4 FT) step will suffice. The staff at your supply yard or retailer should be able to assist you in determining the correct width for your step. Please make sure to check local zoning ordinances to ensure compliance with any requirements.

3. Measure the Height

After measuring the width, you will need to measure the distance between the base that you prepared in step one (1) and the porch top or landing area. You will then need to purchase steps in a height that allow you to cover that measured height equally. For example, if your height is 21 inches, you will need two 7 inch rise steps and one 2 HI 7 inch riser. If your height is 18 inches, you will need two 6 inch rise steps and one 2 HI 6 inch riser. See below for an example of different configurations for a 7 inch rise step. As always, the staff at the supply yard or retailer where you purchased your step will assist you in selecting the right height for your steps and riser.



4. Installing the First Step and Riser

Before placing the step on your compacted ground or concrete pad, add a 1/4 inch to 3/8 inch layer of mortar, such as Quickrete mortar (sold separately), to the bottom of your precast riser and your precast first or base step. Ensure that the mortar is applied evenly to ensure a level placement of the step and riser. You should also apply a small amount of mortar to the side of the riser that will be in contact with your porch.

5. Installing the Step

Once the first or base step and riser are in place, place your next step on top of the riser, again adding 1/4 inch to 3/8 inch of mortar to the bottom of the next step. Continue this process for all steps that will be in your multi-step unit.

6. Apply Sealant

NuCast precast concrete steps are manufactured for durability. However, we strongly recommend applying a high quality and silicone-based sealer for maximum protection.

Caring for Your NuCast Precast Concrete Steps

Concrete steps, including precast steps such as your NuCast Precast Concrete Step, are designed for durability and to withstand the harshest outdoor climates. However, there are certain things you can do to ensure that your NuCast steps maintain maximum durability for the longest period possible.

1. Apply a Sealant

NuCast strongly recommends applying a concrete sealer annually to protect against water, ice, and stain. Choose a high quality, silicone-based sealer designed for outdoor use that also contains UV and freeze-thaw resistance.

2. Keep Clean

Sweep your step regularly to remove debris and dirt that can eventually breakdown and seep into the pores in your concrete. Annually, or more often, if necessary, wash your steps with a mild detergent to prevent buildup of grime or mold. Avoid harsh cleaners or acidic solutions, as they can erode the step surface.

3. Repair Cracks Immediately

If there are any cracks in your steps, fill them with concrete patching material to prevent water from seeping in and creating further damage. Use a flexible sealant for small cracks.

4. Prevent Freeze-Thaw Damage

Avoid using de-icing salts, as they can deteriorate concrete. Instead use sand or cat litter for traction. If salts are necessary, remember to clean immediately upon thaw. Clear ice and snow quickly to prevent water absorption.