

Installation Instructions

Extend the Pitch



ARC inc.

With an ARC TrueDEK® Classic foundation, an installer can easily extend pitch planes to make a shower bigger than the base itself. Just think of the foundation as a drainage template; making a bigger shower is simply a matter of extending pitches beyond that template to achieve the desired dimensions.

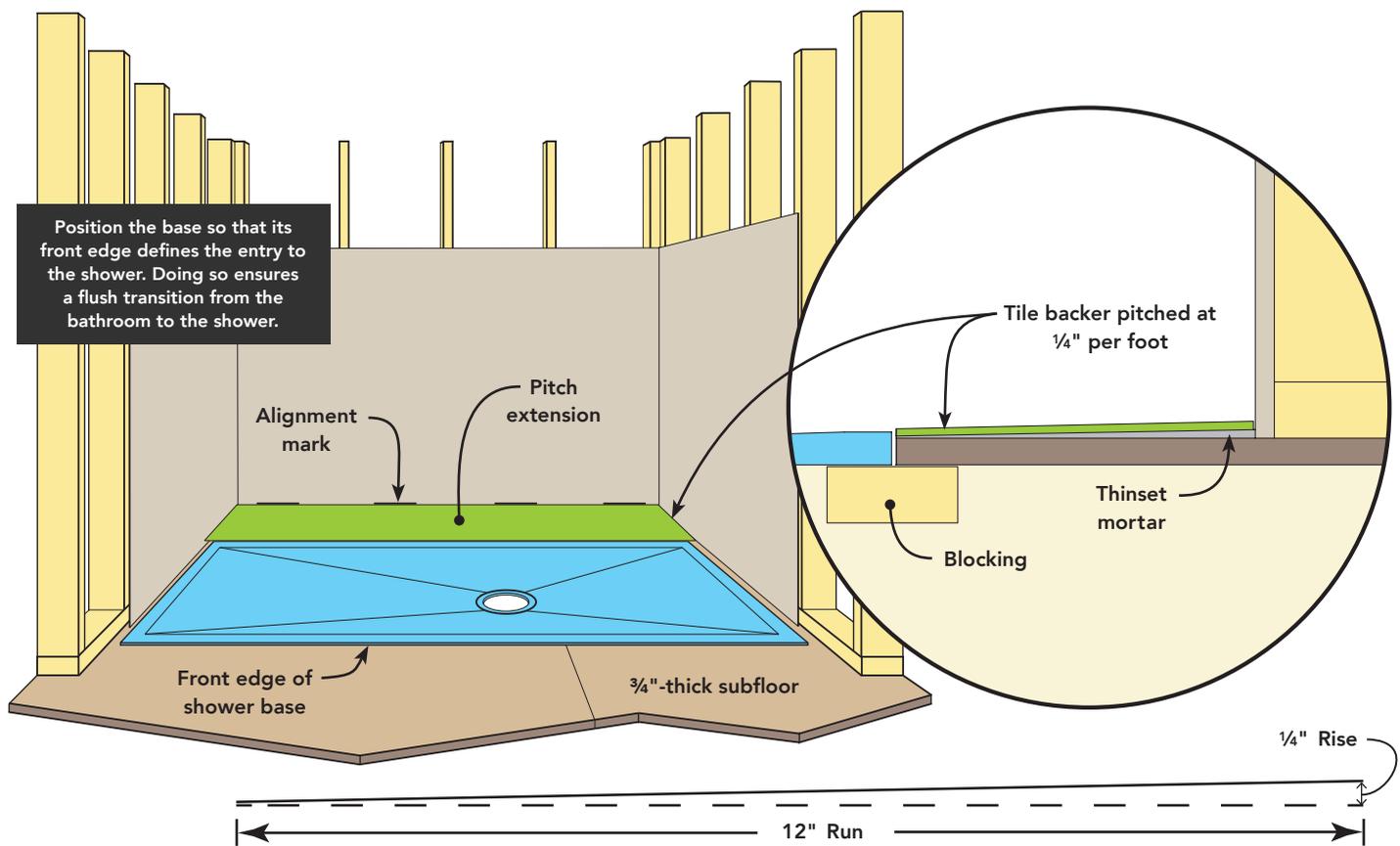
Extending pitches can be accomplished on wood subfloors or on concrete. On the following pages we offer several techniques and ideas that you can adapt to meet the needs of most any project. As with so many aspects of construction, you may have to get creative to implement our suggestions in your “real world” circumstances. ARC’s purpose here is to provide general guidance. Hopefully you’ll find the information helpful.

All suggestions for extending pitches assume that you already understand the proper installation of a TrueDEK shower base. Making a shower bigger than the base is an “advanced” tech-

nique, and the shower base installation process must be well understood before attempting this more challenging adaptation.

It’s important to keep in mind that ARC shower bases are $\frac{7}{8}$ " thick at the edges, and any pitch extensions will rise above the thickness of the shower base edges. This is important to note when a level-entry shower is your goal. To preserve the flush entry advantages of an ARC shower, position the shower base so that one edge aligns with the entrance of your shower area, and extend pitches only at the sides or rear of the shower base. This way, the front of the shower base will be flush with the subfloor. If you plan to have a curb or some other object at the front of your shower, however, extending the pitch to the front doesn’t matter because an elevation increase will be hidden.

Pitch extensions add huge versatility to building an ARC shower because they expand the dimensional limits of the pre-fabricated shower base sizes.



Example #1

It's easy to extend the pitch to the rear of a TrueDEK Classic base in an alcove. All you need to do is install tile backer on top of the subfloor at a pitch of at least $\frac{1}{4}$ " per foot ($\frac{1}{4}$ " rise:12" run) in the area behind the shower base. For pitch extensions, we prefer to use non-aggregate cement backer board (HardieBacker is one example) because it's rigid and edges can be sanded easily, though you can use the type of tile backer you like best. Most local codes require the installation of $\frac{1}{4}$ "-thick or $\frac{1}{2}$ "-thick tile backer above $\frac{3}{4}$ "-thick subfloor. Please check your local building codes for this information.

Install the TrueDEK foundation, positioning the base to the front of the shower area to ensure a flush transition between the shower entrance and the bathroom floor. Make sure you support all edges of the base and subfloor with joists and blocking, and add blocking to support the drain hole (following the TrueDEK Classic installation instructions). Once you have the base secured, install $\frac{1}{2}$ "-thick tile backer over the wall framing—sheathing walls before topping the floor with tile backer usually makes for the best order of events.

Many installers mark the wall to indicate the high point of a sloped extension panel. You'll have to calculate this measurement, which is based on $\frac{1}{4}$ " per foot slope. For example, if your panel is 12" wide, mark the wall $\frac{1}{2}$ " above the subfloor ($\frac{1}{4}$ " for slope, and $\frac{1}{4}$ " for the thickness of the panel). For a 6" wide panel, make marks $\frac{3}{8}$ " above the subfloor ($\frac{1}{8}$ " slope, and $\frac{1}{4}$ " thick panel). And so on.

Cut a tile backer panel to size and mix the modified thinset mortar. Spread mortar with a notched trowel—a $\frac{1}{4}$ " \times $\frac{3}{8}$ " notched trowel is fine—and put thinset on both the subfloor and the back of the panel. Next, set the panel into position and gently press the panel's front edge (the edge next to the shower base) so it nearly contacts the subfloor. Along the wall, slowly press the panel until you see the alignment marks.

Once the mortar begins to set up (allow it to become slightly firm, but not dry), drill countersunk pilot holes in the extension panel and drive screws so they're snug (most tile backer manufacturers specify a screw type). Secure tile backer throughout the remainder of the bathroom per manufacturer's directions using modified thinset mortar and screws. Afterward, rough-up the shower base and fine-tune the adjacent edge of the pitch extension with 100 grit sandpaper, and follow all gap filling and waterproofing steps to prepare the shower and bathroom for tile or stone coverings.



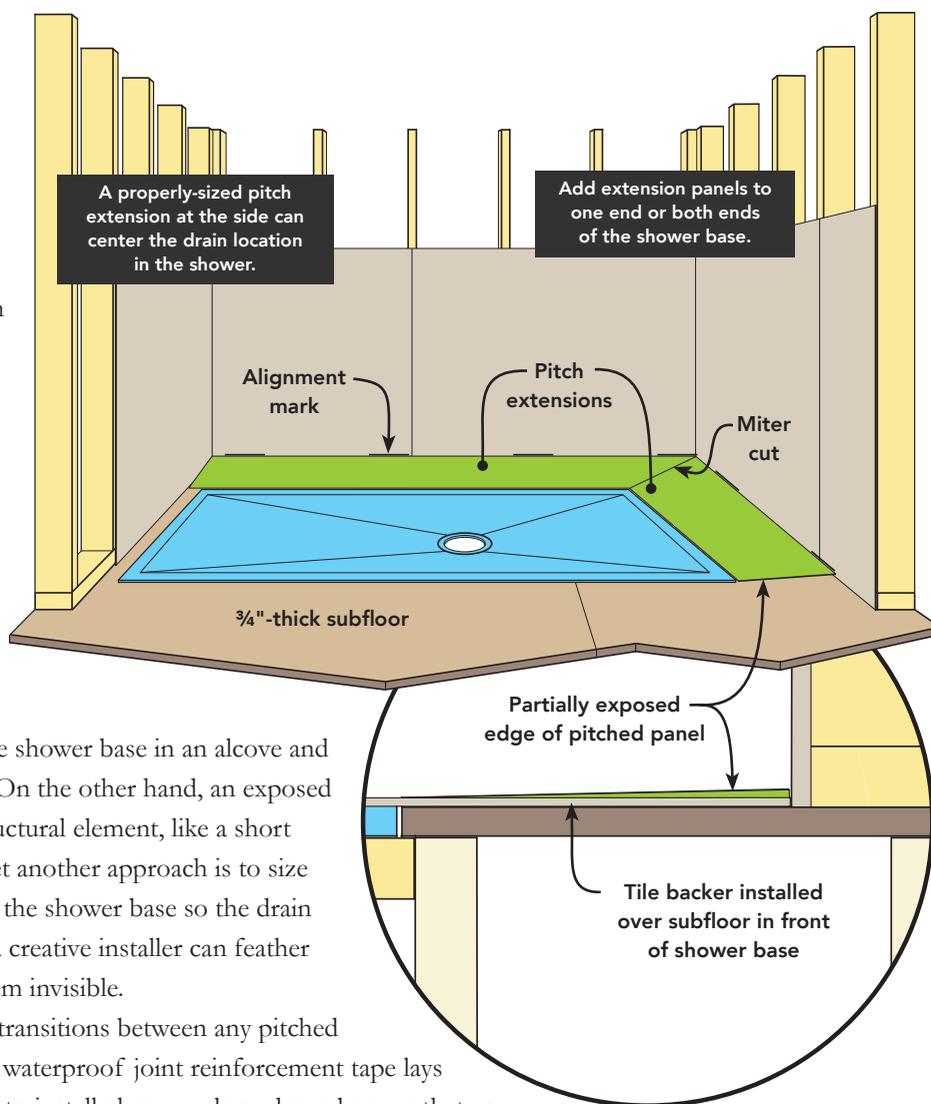
Example #2

In addition to a pitch extension at the rear, you can also extend a pitch to one or both sides of an ARC standard shower base. The material requirements and process for installing side pitch extensions is the same as in Example #1. You will need to miter-cut any extension panel ends that meet at shower base corners.

One detail about side extensions is worth pointing out. The forward edge of a pitched side panel will remain partially exposed after all subfloor areas are covered with tile backer. The amount of exposure varies—the greater the width and rise of the pitched panel, the more its edge will show.

To minimize edge exposure, you can center the shower base in an alcove and add equally wide pitch extensions to both sides. On the other hand, an exposed edge at one end is often easier to hide with a structural element, like a short bump-out wall, a glass screen, or a glass door. Yet another approach is to size pitch extensions at the rear and sides to position the shower base so the drain is centered in the alcove. Whatever way you go, a creative installer can feather these transitions with thinset mortar to make them invisible.

Before waterproofing, you do want to feather transitions between any pitched edges and adjacent, unpitched tile backer so that waterproof joint reinforcement tape lays flat and has full support underneath. If you plan to install glass panels or doors be sure that you feather transitions appropriately in preparation for them.



Different Methods for Different Situations

The methods provided in these instructions are practical, require little in the way of tools, and get the job done quickly and accurately. But there's more than one way to extend the pitch of a TrueDEK Classic shower base to reshape or enlarge a shower. Here's an alternative to consider.

Instead of sloping tile backer panels, as described in our examples, install tile backer on the subfloor per manufacturer's instructions, then slope mortar over the tile backer to achieve the desired pitch. Ardex X 32 Microtec, Mapei Kerabond T, and TEC Super Flex are good choices for these applications. These products can be spread to a feather edge or built up to a considerable thickness (checkout each product for specific performance characteristics and limitations).

To use one example, Ardex X 32 can build to a maximum thickness of 1 1/4", so you could use it directly on plywood subfloor as a filler and pitch extender—the product requires 3/4"-thick subfloor rated as exterior grade plywood. Any of these products are also suitable for extending slopes onto concrete, as in the photo at right. In this example, the installer is about to float pitches from the shower foundation to the walls to increase the size of the shower.

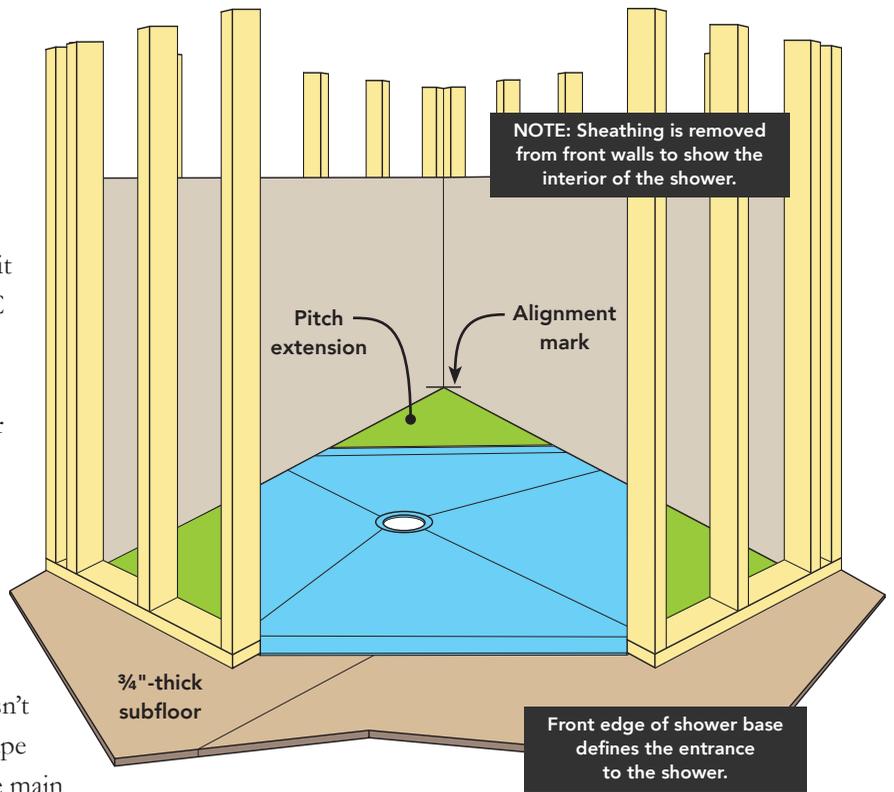


Example #3

Another popular shower design is the neo-angle, four-walled enclosure. Typically, the entrance into a shower of this type is left open or filled with a glass door. While the shower base installation may look a bit unconventional, it really is easy to do. As with all ARC shower foundations, all edges as well as the drain area must be supported with blocking or joists (joists spaced no more than 16" on-center). Also, the shower base must be installed level.

To ensure a flush transition from the bathroom into the shower, the shower base is turned 45° to the orientation of the walls so that one edge of the base defines the entrance. Often in circumstances like this, corners of the shower base are cut to fit the base inside the wall framing, though cutting corners isn't always necessary. It really depends on the size and shape of both the shower base and the shower framing. The main point is to spin the shower base 45° to the walls to preserve the advantages of level-entry.

Cut the shower base corners as needed, then install the base on the prepared joists and blocking—be sure it's all level and even. After securing the base with polyurethane construction adhesive and screws, cut three triangular-shaped tile backer pitch extensions to fit the shower corners. Install the extensions using modified thinset mortar to achieve a minimum slope of 1/4" per foot. For the best bond, "butter" the bottom of each extension with thinset mortar before pressing them into position on top of the subfloor.



Cut the corners of your TrueDEK Classic shower base using a circular saw and carbide blade.



After making sure the base rests level and even on all blocking and joists, install it with adhesive and screws.



Spread thinset with a trowel, making sure it is high in the corner to yield a 1/4" per foot slope.



Apply thinset to the underside of the extension panel, then gently press it into position.



Thinset is a good gap filler and can be used to smooth transitions from extension panels to the shower base.



Allow thinset to dry a while, then, once it's firm, drill countersunk pilot holes and drive screws.