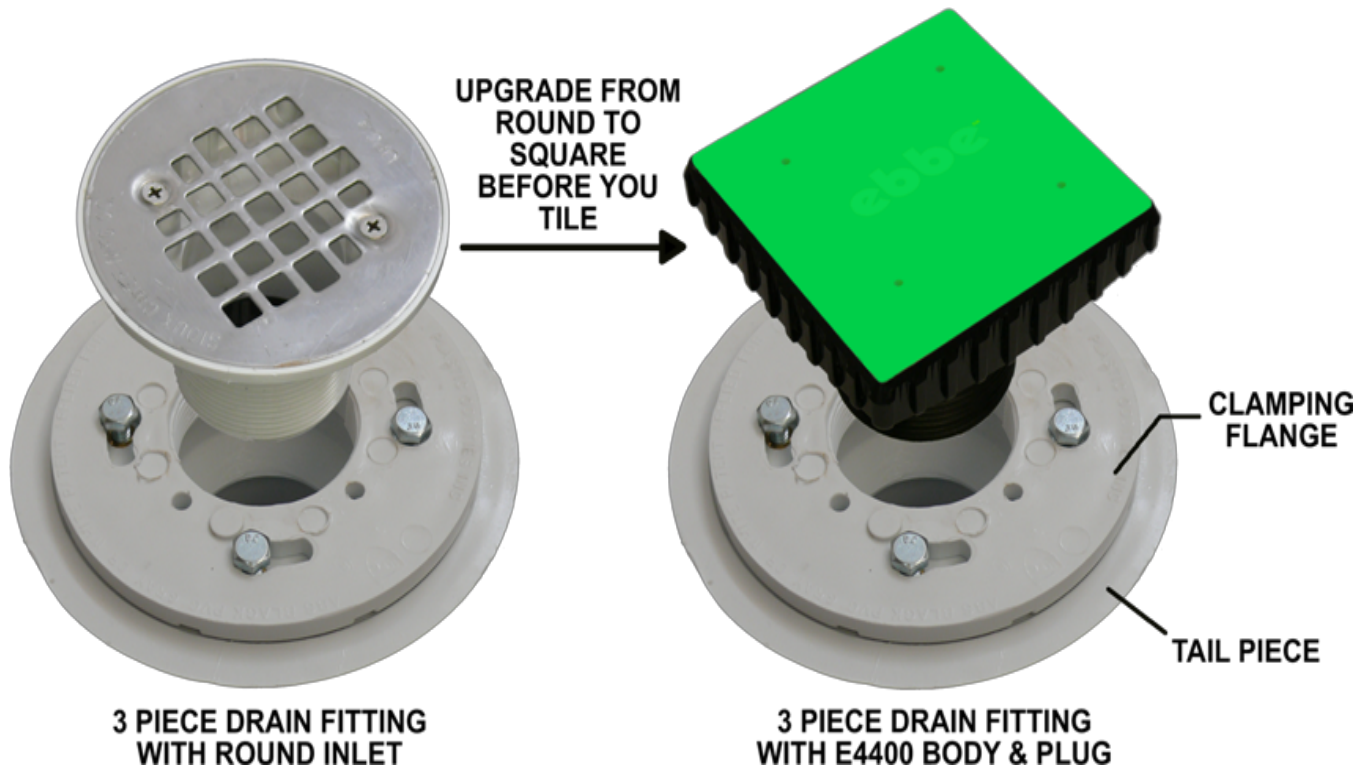


# How to Install Ebbe Drains

Ebbe Drains fit directly into most common 2" (pipe size) ABS or PVC 3 piece shower drain fittings. The **4" Square Drain Riser** replaces the round "Riser" or "Inlet" portion of these drains. In most cases this simply requires the round "Riser" or "Inlet" portion of the drain to be removed and replaced by the riser.



The fit between the **4" Square Drain Riser** and the clamping flange of each drain brand will vary. Some will fit looser than others. If the fit is too loose to create good thread engagement Teflon plumbers tape can be used to build up the riser to a larger diameter as needed to create a snug fit. The sole purpose of the threaded fit is to allow the riser to be raised by unscrewing it later in the process of building and tiling the shower floor. It is helpful to realize that these threads are not intended to ultimately carry the structural load of foot traffic over the drain. Those loads are carried by the mortar bed that is packed beneath and around the square bowl of the drain riser when properly constructed.

**Replace the round drain riser portion of a common 3 piece shower drain with the ebbe Square Drain Riser & Plug. Adjust the 4" Square Drain Riser to proper mortar bed height.**

NTCA specifications require that the minimum mortar bed thickness at the drain be no less than 1 3/8" thick. We assume that this means the thickness above the waterproofing membrane. This is the requirement when building a common "floating" mortar bed. One that does not bond to the waterproofing material below it. Non-bonding waterproofing materials include flexible sheet vinyl,

rubber, Chloraloy, and Hot Tar.

There is no such thickness requirement when the mortar bed is installed over a bondable waterproofing such as a fabric faced membrane, pressure sensitive faced composite, or a properly applied liquid waterproofing layer.

1. Install, compact and screed a sloped mortar bed to the top of the drain plug surface. While the mortar is still workable, clear and maintain a 6" diameter mortar free area around the drain to permit the drain riser to be raised by unscrewing.
2. Raise the drain riser by twisting it out to the desired tile + thinset mortar height soon after the slope is established.
3. Compact and screed mortar immediately around and beneath the riser.
4. Check tile height again. Make any height adjustments now. It is a better practice to make the drain slightly high rather than too low. You can always float the tile higher with more mortar behind it. Allow the mortar bed to cure.
5. Install tile over the cured mortar bed. Grout the shower as usual and to the drain riser keeping the plug in place. Keep the grout level as high as possible surrounding the drain. Do not remove the plug until the grout has thoroughly cured. The plug keeps the drain opening absolutely square and at the perfect size for a proper fit to the Drain Grate. Removing the plug prematurely can cause the grout to crack and will create an improper fit to the grate.