



10-8-08

RE: Plunge Cutting/Electrical Box-Cutting Porcelain Tile

Please see the below information in reference to cutting and drilling porcelain tile.

Some production runs of porcelain tile are a bit harder/denser than others, this can make plunge cuts even more difficult.

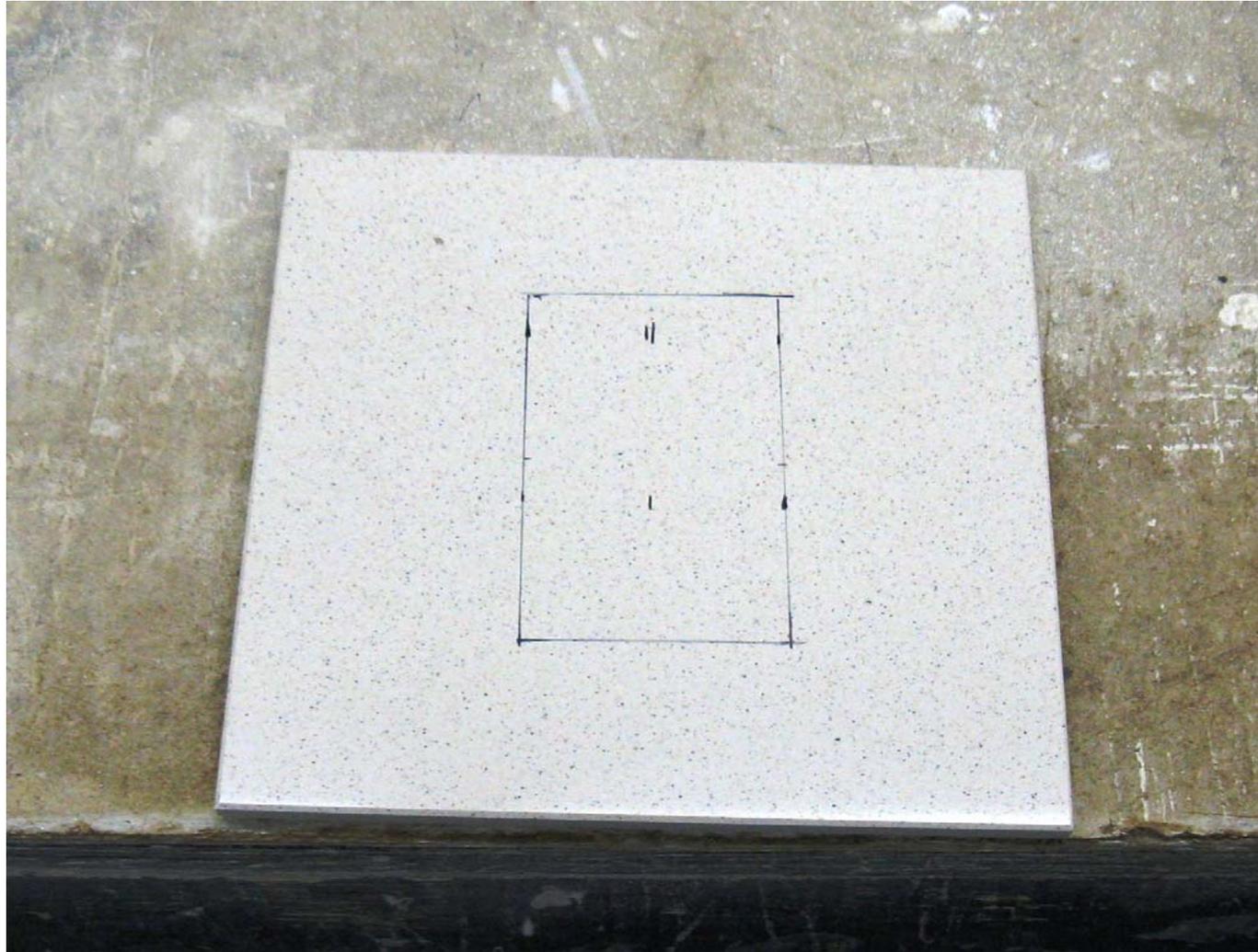
- We do know that anything that can be done to keep the tile cool and stationary during the cutting process will help greatly.
- Soaking in cold water before (and after) making a cut does help.
- Pausing for 30 to 60 seconds between cuts is also beneficial.
- Use a new blade (Crossville uses a MK 415 XL 8" blade, phone 800-421-5830) designed for cutting hard materials like porcelain and granite
- Make a series of steady slow cuts working deeper into the tile body with each cut.
- Gantry or bridge saws provide the greatest control on this type of cut by keeping the tile stationary and lowering vibration from the blade.
- Draw the shape of the cut on the front and back of the tile
- Using a diamond core bit designed to penetrate porcelain, drill $\frac{1}{4}$ to $\frac{1}{2}$ holes in each corner of the shape and 1 hole in the middle to weaken the center.
- Be sure to maintain a continuous supply of water to cool the hole and the drill bit during cutting.
- Time to complete a box cut 20 to 25 minutes.
- **Porcelain tile was engineered to be very hard and durable. Alteration or removal of 10 to 12 square inches (plunge cuts/box cuts) of the finished tile, in some instances, may be beyond the capability of the porcelain to withstand, especially when the cut is off center and too close to edge of the tile.**

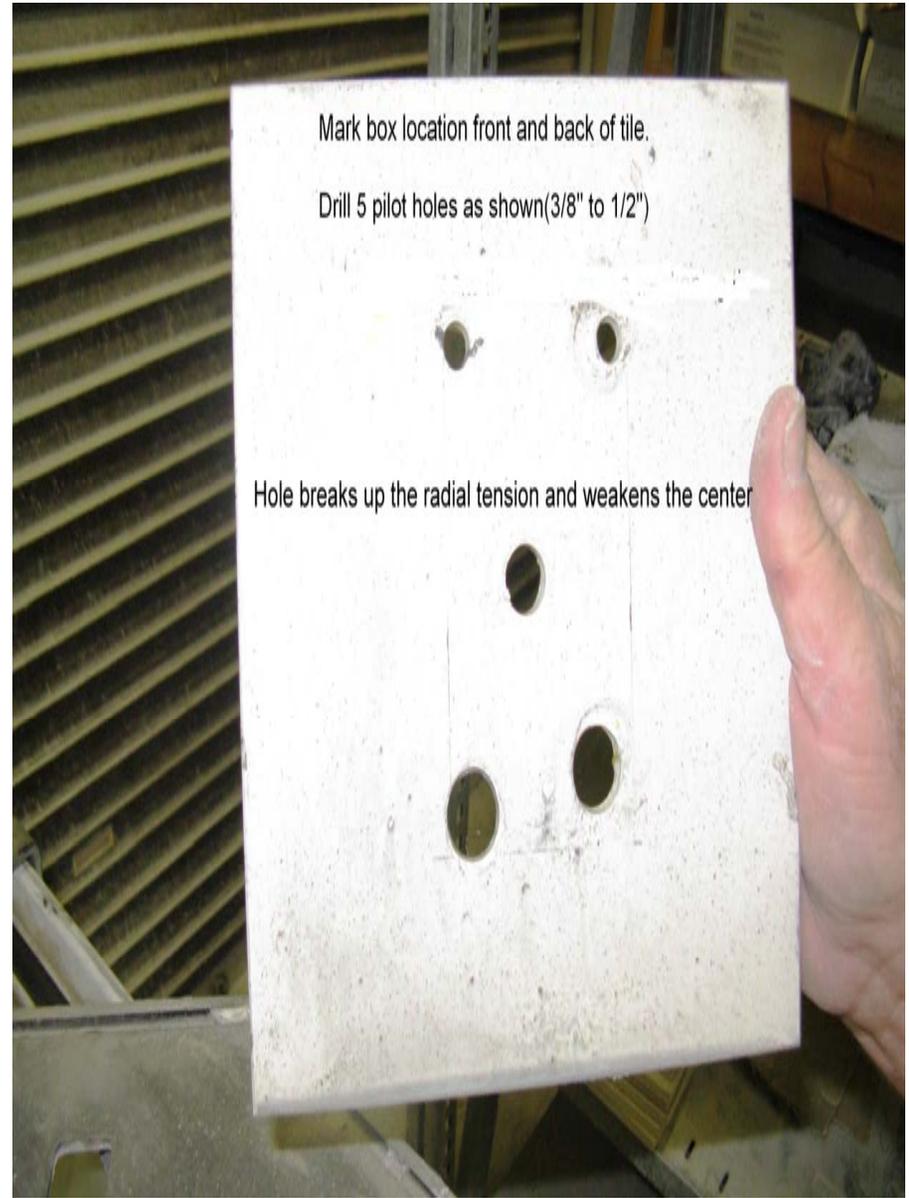
Crossville Technical Services

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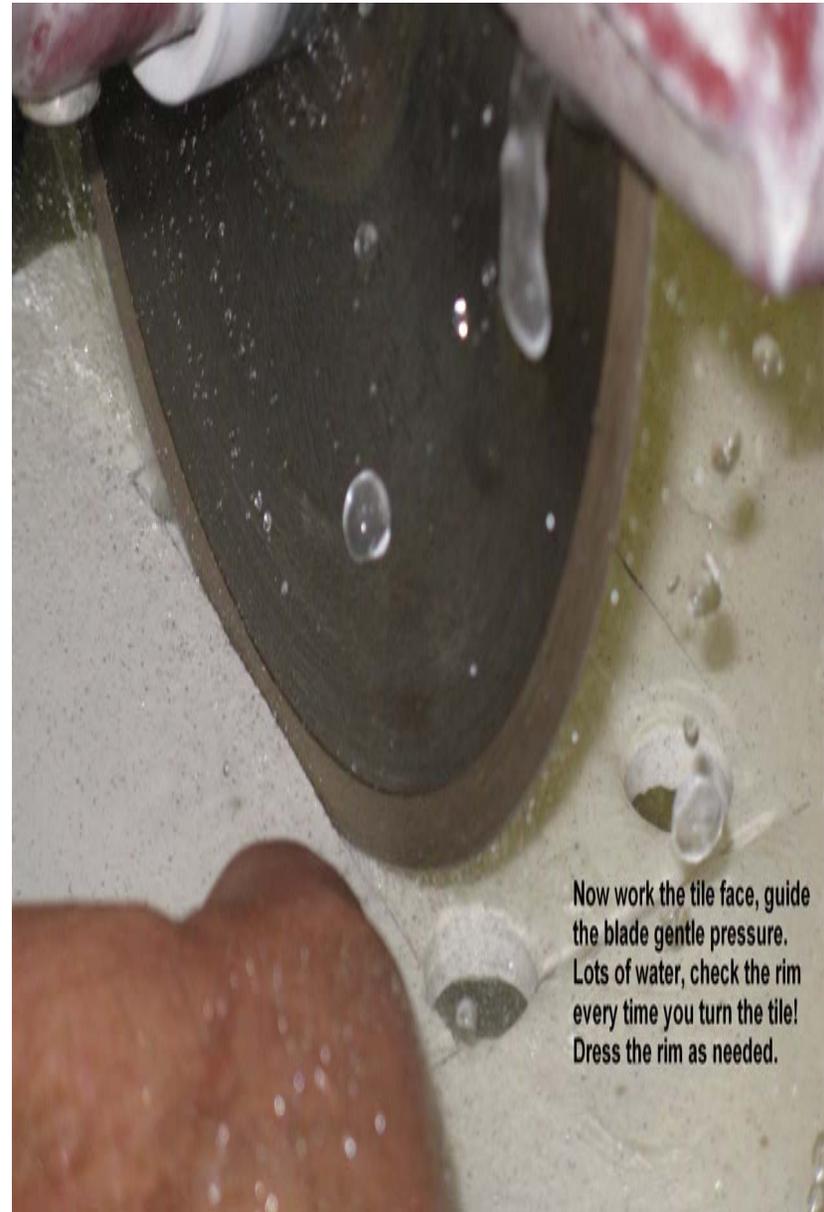
Electrical Box-Cuts on Porcelain







Connect the holes working tile back, guide the blade, minimal pressure. Use fresh blade, check blade for glazed over rim.



Now work the tile face, guide the blade gentle pressure. Lots of water, check the rim every time you turn the tile! Dress the rim as needed.

