

INSTALLATION INSTRUCTIONS FOR THREADED CONCRETE INSERT WITH EPOXY

1. Marking the Deck

- a. In the fulcrum roller of your stand, you will find a roll of paper. This is the template for the deck holes.
- b. First, mark a centerline on the deck (preferably lining up to a spot on the opposite end of the pool), that is perpendicular to the pool edge.
- c. Lay out the paper template on the pool deck, lining up the edge marked "Edge of Pool" with the edge of the pool or coping. Align the marked centerline on the template with the centerline on the deck.
- d. The marks  indicate the location of holes to attach the stand to the deck. Use a center-punch to transfer the hole pattern to the concrete.
- e. Double-check the layout on the concrete before drilling by placing both the main support and the ladder in place to verify the hole location.
- f. After removing the paper template, draw a cross-hair extending 6" in each direction at each hole location.



Figure 1

2. Drilling the Holes

Hole location is **critical**. It is difficult to drill an accurate hole location with a hammer drill. Further, a hammer drill will not drill through rebar should you encounter it. We recommend using a core-drilling rig with a diamond core bit. A core drill (*figure 1*) will drill an accurate hole location and drill through rebar. If no core drill is available, we recommend hiring a contractor that is experienced in core-drilling concrete. *Skip the following steps if a contractor is to be hired to drill the holes.*



Figure 2

- a. Use a 1 1/8" diameter diamond core bit to drill the holes in the concrete.
- b. Center the diamond core bit over one of the holes by using the cross hairs previously marked on the deck (*in step one*) to line up the diamond core bit.
- c. Carefully drill the hole, following the instructions for your core-drilling rig (*figure 2*).
- d. Drill each hole to a depth of 5 1/2". Use a shop vac to clean up each of the holes as you drill them.
- e. When all holes have been drilled, use oil-free compressed air (80 psi min.) to blow all debris and water from each hole. Use a shop vac to collect the debris while blowing out each hole (*figure 3*).



Figure 3

- f. Place the threaded insert into the hole to check for desired depth. The threaded insert must not protrude above the surface of the deck.
- g. Remove the threaded insert. Use the supplied brush to clean the walls of the hole. The correct technique is to use a twisting motion while brushing.
- h. Use oil-free compressed air and a shop vac to clean out the hole (*figure 4*). Drill and clean **all** holes before proceeding to *step 3*.

3. Preparing the Epoxy Dispenser (*figure 5*)

- a. Screw on the supplied mixing nozzle onto the foil pack (*parts A & B epoxy*).
- b. Before inserting the cartridge in the dispenser, pull the piston advance rod to the rearmost position while pressing the release button.
- c. Line up the attachment hole at the front of the cartridge with the installation lug located at the front of the dispenser cradle, with the Hilti logo facing upright. Swing the rear end of the cartridge down and hook to the rear installation lug on the dispenser cradle.
- d. Insert the foil pack as far as it will go into the plastic cartridge.
- e. Fold the cartridge down into place until you hear an audible click.
- f. Pull the trigger. A piercing point built into the junction piece opens the epoxy foil pack automatically. The epoxy components can be seen mixing as they pass through the nozzle.
- g. The epoxy that first flows out of the mixing nozzle is not mixed well enough and is not suitable to use. Pull the trigger twice, then press the release button. Discard the dispensed epoxy.



Figure 4



Figure 5

4. Applying the Epoxy

- a. The epoxy must be injected into the hole without forming air pockets. To achieve this, insert the mixing nozzle to the base of the hole and slowly withdraw the nozzle after each trigger pull.
- b. Holes should be filled approximately 2/3 full (*figure 6*). Insure that the gap between the anchor and the concrete is completely filled with adhesive.
- c. After injecting the epoxy, depressurize the dispenser by pressing the release trigger. This will prevent epoxy from discharging from the dispenser.



Figure 6

5. Inserting the Anchors

- a. Each anchor has a plastic cap to protect the threads during this procedure. Do not remove protective caps until installation of the diving stands begins.
- b. Insert the threaded anchor into the hole, turning the anchor clockwise while inserting.
- c. The anchor must be inserted into the hole until the top of the anchor is flush with the surface of the concrete (or tile) or slightly below.
- d. A small quantity of epoxy should ooze from the hole once the threaded insert is inserted (*figure 7*). Wipe off excess epoxy from concrete.
- e. If too much epoxy comes out the hole after the threaded insert is inserted, adjust the amount of epoxy used accordingly.
- f. If gaps are visible between the threaded anchor and the concrete, immediately inject some epoxy into the crack.
- g. **Caution: This epoxy has a short working time and a fast cure time (see table below).** Once the working time has elapsed, do not disturb the anchor. Stands can be installed immediately after cure time has expired.
- h. Loctite 243 Threadlocker (supplied) must be used with the stainless-steel installation bolts. This will keep the bolts tight as well as provide lubrication to prevent seizing.



Figure 7

Ambient Temp	Working Time	Cure Time
42°-50° F	40 minutes	2-5 hours
51°-68° F	15 minutes	1-5 hours
69°-86° F	9 minutes	1 hour
87°-104° F	6 minutes	1 hour