

# Michael's

## PRECAST CONCRETE

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**INSTALLATION INSTRUCTIONS** for Michaels precast concrete septic and dosing-septic tanks. These instructions conform to the DEQ's Oregon administrative Rules for on-site Sewage Disposal, Chapter 340, Division 71& 73, effective Oct. 11, 2000. (Revised August 21, 2008)

**Site Preparation:** The hole to receive the tank should be a minimum of 8 feet in diameter. (See the blueprints of the specific tank for tank dimensions.) The bottom of the hole must be undisturbed soil or packed sand or packed crushed rock and must be level.

**Assembly:** The bottom half of the tank must be placed using all three lifting points on the inside bottom corners of the tank. The three equal lengths of cables (or straps or chains) must be at least six feet in length. Prior to setting the top half of the tank, the rims of both halves must be clean from any rocks, mud or other debris. Concrete Sealant's CS101, (or Bestfit's Bestseal C-56) sealant is placed to join the two halves. The sealant must be centered on the inner ledge of the bottom half of the tank, overlapping the ends 1". The top half of the tank can then be sure of a proper seal.

**Weep Hole:** All tanks have a 1/2:" drain hole in the center of the bottom half of the tank. This hole must be plugged at or before the time of installation. A small amount of gasket material may be used and must be tightly packed into the hole to prevent leakage.

**Pipe Connection:** For pipe connections, gaskets are cast into the tanks at the inlet and outlet and are sized for 4" Schedule 40 PVC or ABS pipe are a very tight fit. Any burrs on the pipe must be removed. A light coating of petroleum jelly may be necessary to make a fit. No sealant is required at the gasket connections. Schedule 40 ABS or PVC must be used across excavated area to undisturbed soil. Attach couplers with solvent conforming to ASTM 3138.

**Risers:** Watertight manhole risers are required on all septic and dosing-septic tanks. The minimum height required for septic tanks is 6" above the top of the tank and extending to the ground surface or above. The minimum height required for dosing-septic tanks is 12". (Maximum height for Michaels' square concrete riser is 36" greater than 36" requires a 30" diameter riser we recommend using PVC.) Each tank is made with a square key way around the manhole to receive the square riser or by request a 24" or 30" round Orenco tank adapter (or approved equivalent) can be cast into top of tank to receive the PVC riser. An odor seal must be placed on the underside of the riser lid before putting the lid in place. A clean-out riser/inspection port of 6" Schedule 360-34 pipe with a slip cap is fitted into a 6" cast-in gasket over the inlet of the tank and must be water tight.

**To install the square riser** place the sealant into the key way, making sure to pinch the sealant square at the corners and lap the ends 1". Carefully place the riser squarely in the key way. Apply weight uniformly to the top of the riser to insure full contact with the sealant. If risers are stacked repeat the process at each joint.

**To install a 24" or 30" PVC riser,** wipe the areas to be bonded with a clean rag to ensure a clean, dry bonding surface that is free of debris. To bond a riser to an Orenco tank adapter (or approved equivalent), select the appropriate adhesive AHD100 (or approved equivalent) and apply a bead to the outside of the adapter carefully slide the riser onto the adapter. Orient the riser correctly before the adhesive starts to set.

**Water testing:** Fill the tank with enough water to reach a minimum of 2" into the riser. Allow the water to level to settle and become stable. Mark the level in the riser and indicate date, time and sign with initials of the person responsible for the water test.

**Backfilling:** When backfilling around tank, fill evenly all around with material removed from hole. Use material free of large rocks or organic debris. **DO NOT** backfill before inspection.

**Buoyancy:** In high water table areas or in situations where the concrete tank is used for a holding tank only, and the tank is pumped empty periodically, The possibility of the tank floating must be addressed. Plans for this are available upon request.

**Dosing tank apparatus:** All instructions for installation and placement of pump control floats, valves, wiring, etc. are provided on printed material obtained from Orenco Systems, Inc. and incorporated into the engineered plans of Michaels' tanks. The float settings are calculated and preset by Orenco Systems, Inc. to accommodate the configuration and capacity of Michaels' septic-dosing tanks. (For 4" or 90 gallon cycle, the "alarm on" setting measured down from the top is 15". The "pump on" setting is 17" and the "pump off" setting is 21". For the 2" or 45 gallon cycle the "pump off" setting is 15"). Settings for the 500 gallon tank differ please request these settings.

**Warranty / Limitations:** Any Michaels Precast Concrete tank that is delivered and set by Michaels Precast Concrete is warranted to be water tight. When a water test is preformed and if the tank is found to have a leak, Michaels precast Concrete will repair it for no charge. Any Michaels Precast Concrete tank that is not set by Michaels Precast Concrete, If found to have a leak, must be the responsibility of the installer to repair. However, Michaels Precast Concrete will repair the tank if requested, for a fee.