

TECH TALK

Precast Concrete Septic Tank Installation – Economical, Fast, Simple

Proper installation of each tank is absolutely critical for it to function properly and remain watertight. The precast septic tank is the engineered component – not the backfill process. Concrete tanks are strong enough to withstand the soil loading required of them, whether full or empty. Plastic and fiber-glass tanks require much more care in backfilling. Most require special select materials. Most have to be filled with water as you tamp the backfill in lifts. Concrete tanks are designed to be backfilled with the same material taken to dig the hole.

Precast tanks are set by the tank manufacturer to insure they are handled properly, with appropriate equipment. This is another key link in the chain of Quality Control, another real advantage you get when you deal with a local PCANY Listed precaster.

Use high quality preformed seals for all joints. Mating surfaces must be clean before placing the butyl gasket. Manholes, risers, inspection ports, etc. must be properly sealed. Recheck tank for joint alignment and grade before backfilling. PCANY Certified Tanks are supplied with flexible pipe fittings to assure watertight connections between the tank and pipes. With time, pipes may settle, and this changed angle of pipe entry/exit will begin to leak unless it is fitted with a flexible joint connector.

Take care when back filling, to prevent damage or misalignment to the entry and exit piping, the tank and fittings, or any joints. Backfilling and compacting should be placed in approximately uniform layers less than 24 inches thick, sequentially around the tank. The excavated material may be reused for this purpose; there is no need to bring in more expensive select backfill materials. Obviously, care should be taken to exclude large rocks or boulders from backfill for a septic tank of any material.

Concrete tank walls are significantly heavier than fiberglass or plastic tanks, and are least likely to float. However, even empty concrete tanks will float if the water level rises high enough. To prevent this, after the tank is set, keep water pumped out of the excavation until backfilling is complete, or fill the tank with water, or place soil on top of the tank.

Standard concrete septic tanks are suitable to bury 36 inches below ground level. If the tank is to be deeper, or if any vehicular traffic is expected over the tank (including during construction), specially designed tanks are available. Tell your local PCANY Listed precaster what you need.



Above are examples of two tanks quickly and easily installed using native materials.

This **TECH TALK** is part of a series related to septic tanks, whose goal is to inform. We welcome your participation, assistance, suggestion or complaint.

The Precast Concrete Association of New York (PCANY) is an organization of over 100 members. It has 30 concrete producers, 17 of whom produce concrete septic tanks. Our mission is to assure the physical integrity and satisfactory performance of septic tanks for the benefit of all who depend upon on-site wastewater treatment systems. To successfully achieve this mission, PCANY has:

1. Established a "Manufacturers Certification Program", which includes a Quality Control/Quality Assurance component, to produce and deliver precast concrete septic tanks that are watertight and structurally sound.
2. Communicated with the regulatory community to develop standards for the siting, installation, monitoring, maintenance, management and operation of all components of an on-site wastewater treatment system.
3. Acted on behalf of all PCANY members through participation on committees and boards, where the unique attributes and importance of the concrete septic tank in the on-site management of wastewater are subjects of discussion.
4. Published "Concrete Septic Tank Installation Guidelines."

PCANY SEPTIC TANK PRODUCING MEMBERS --

Binghamton Precast & Supply, Binghamton 607-722-0334
Burnett Concrete Products, Inc, Wolcott 315-594-2242
Concrete Building Supply, Plattsburgh 518-563-0700
R. Deso, Inc, Champlain 518-298-8411
Eastern Precast Co, Inc, Brookfield, CT 203-775-0230
The Fort Miller Co, Inc, Schuylerville 518-695-5000
Grimm Building Materials Co, Troy 518-272-1100
Guardian Concrete Products, Schenectady 518-372-0080
Jefferson Concrete Corp, Watertown 315-788-4171

Keeler Vault Co., Inc., Hudson, NY 518-851-6281
Kistner Concrete Products, East Pembroke 585-762-8216 **
Lakelands Concrete Products Inc, Lima 585-624-1990
Oneonta Block, Oneonta 607-432-6641
Sunnycrest Inc., Auburn 315-252-7214
Woodard's Concrete Products, Inc, Bullville 845-361-3471
United Concrete Products, Inc., Yalesville, CT 800-234-3119
Zeiser Wilbert Vault, Elmira 607-733-0568
**and E. Bethany, Lockport, Springville, Clifton Springs, Jamestown

The PCANY website, www.pcanry.org, identifies the plants that have qualified under our Certification Program, and lists the specific tanks authorized to cast in the "PCANY LISTED" red disk, which means they have been properly designed, manufactured, and vacuum tested for water tightness. The RECOMENDED GUIDELINES FOR INSTALLATION OF CONCRETE SEPTIC TANKS is also listed.

