

# Norwalk Concrete Industries, Inc. Installation Information

Please call NCI at <u>419-668-8167</u> or email <u>info@nciprecast.com</u> for any product question or order placement!

This document does not serve as an entire list for NCI product installation information.

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### SEPTIC / AERATION EXCAVATION INFORMATION

Tank	Width*	Length*	Inlet*	Outlet**	Tank Height			
Septic / Lift Station								
500	5 ½'	8 ½'	53"	51"	69"			
1000	6'	9'	53"	51"	66"			
1500	7'	11'	53"	51"	66"			
2000	7'	12'	65"	62"	78"			
Aeration								
600 GPD	6 ½'	10 ½'	60"	56"	72"			
750 GPD	6 ½'	10 ½'	72"	68"	84"			

\*Minimum Excavation Size

## **CISTERN EXCAVATION INFORMATION**

Tank	Width*	Length*  1 1/4" Suction Line Coupling From Tank Top		Tank Height
1250	6'	9'	30"	69"
1850	7'	11'	30"	69"
2500	8'	14'	25"	68"
3300	9 ½'	16'	31"	62"
5500	9 ½'	16'	31"	96"

\*Minimum Excavation Size

<sup>\*\*</sup>Inlet and outlet dimensions are from the outside bottom of tank to pipe flowline

#### TANK INSTALLATION

Special care must be taken with the excavation to ensure that the hole bottom is smooth and free of rocks. The hole bottom must be filled with a minimum of 4" of sand or small stone. This is to properly cushion the bottom and provide support for movement during repeated filling and draining. Care must be taken with backfilling the excavation as large rocks or lumps dropped against the tank walls may cause fractures in the precast walls. A rule of thumb is nothing larger than your fist should be used. Backfill should be compacted to 90% of the original ground compaction.

Tanks can be partially filled to 1/3 of capacity prior to backfill. Do not fill the tank above the joint until backfill weight is placed on top of the tank. Rising water exerts pressure on the joint and may cause it to separate if not backfilled. Tanks 1850 gallons and below are vacuum tested for watertightness at the plant. Larger two piece tanks are tested on site.

Warranty coverage requires tanks be buried 18" below finished grade to protect plumbing lines and prevent frost heave. Stock tank tops should not be used as part of a floor, patio or sidewalk. Tanks for this type of use require special construction.

Norwalk Concrete is not responsible for plumbing or electrical connections to the tank. We recommend that the pump and filter system on tanks be installed by a qualified contractor. Special couplings and hole locations can be added as required to meet job specific installations.

Tanks should be cleaned before first use to remove construction materials. Generally cleaning with a vacuum and a light wash with diluted bleach water is sufficient. Avoid the use of soaps or harsh cleaners. Buried tanks re considered a confined entry space by OSHA. Proper precautions must be taken for worker safety before entering a tank.

Filling of hauled water tanks takes care to prevent contamination of the tank. Some water sources may have fine chemicals used in the water treatment process. This material can settle in hauled water tanks and be discharged when purchasing bulk water. It will settle inside tanks and appear as a white powder that clouds water when stirred. While non toxic, this powder may plug faucet screens and impact laundry. It can be removed from the tank at a low water level with a wet vacuum.

Regular maintenance should include an annual inspection, cleaning if necessary and washing the lid and fill locations with clean water. Cistern applications require additional filters and force blockers be installed. Check your local health department for requirements. Health Department permits are required for both hauled water and cistern tanks.

#### SEPTIC TANK AND LIFT STATION INSTALLATION

The hole bottom should be smooth and free of rocks. Use #57 leveling stone if needed. Tanks should be set to within 1/2" of level side to side and be checked so they are level end to end lengthways. There is 2" of design fall between the inlet and outlet through the tank. Care must be taken with backfilling as large rocks or lumps dropped along the tank may fracture the sidewall. A rule of thumb is nothing larger than your fist be used and nothing dropped from more than 12" above the tank top. Frozen or extremely wet soil is never a good idea along a tank wall.

Tanks can be partially filled to 1/3 the tank level prior to backfill. Do not fill above the tank joint without backfill weight on top of the tank. Rising liquid exerts pressure on the joint and may cause it to separate if there is no weight on the top. Filling a tank full of water slows the bacteria growth process in the system as it dilutes raw sewage significantly.

The maximum design burial depth below grade is 36". Standard tanks should not be used as part of a structure foundation, floor or patio. This type of tank can be custom built.

Avoid filling tanks with muddy water, paint residue, drywall debris, and harsh cleaning products as it kills bacteria needed to break down sewage in the tank and in leach lines and mounds. All tankage is considered confined space and should never be entered.

#### LABOR RATES AND FIELD SERVICES

NCI provides field repair services and labor at a per hour rate, per man. Travel and equipment rate charges will apply. Services include confined space entry certified staff where needed for below grade and limited access. Types of work performed may include crack sealing and epoxy injection, joint repair, pump and control panel retrofit and remote monitoring equipment. Quotes are provided based on a customer supplied description of work or a site assessment by NCI employees. A minimum plant charge exists for casting specialty precast concrete items. **Please inquire.** 



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