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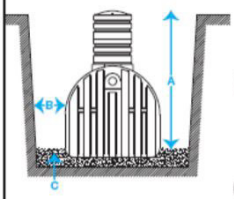
Installation Instructions

Underground Tank

1. EXCAVATION

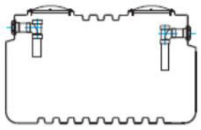


A. Excavate to a depth that will provide a minimum of 6" and a maximum of 30" of cover over the top of the tank. This will avoid collapse and over-expansion of the tank and possible leakage.

B. Allow 18" to 24" on both sides and both ends of the tank. Failure to comply with allowance ranges could cause tank collapse.

C. Bed the tank in well-packed sand – 6" minimum in soil terrain, 12" minimum in rock terrain. The tank should be installed level.

2. SEPTIC TANK CONNECTIONS

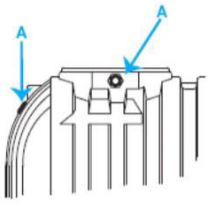


A. Septic tanks 750 gallons and larger and blue BRUISER tanks are supplied with PVC sanitary tees and adapters at the inlet and outlet. The PVC adapter has two sockets for use with either 4" schedule 40 pipe or 4" SDR 35 pipe.

B. Inlet and outlet piping should be solvent welded to the adapters using standard PVC cement.

C. Tanks without PVC adapters (300 sphere, 500 sphere and 500 septic) use Part No. 61765 gasket kit.

3. WATER TANK CONNECTIONS

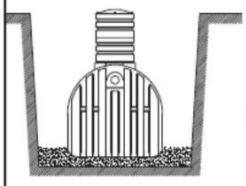


A. Install bulkhead fittings in either side of manway or end rib as shown.

B. Tank must be vented.

C. For water-tight seal, lid should be sealed with silicone caulking. Re-use stainless steel screws supplied with lid.

4. MANHOLE EXTENSIONS



A. Install manhole extension before you backfill.

B. Manhole extensions are supplied with gaskets and screws. Re-use the lid gasket and screws to attach the lid at the top of the manhole extension.

C. Note the direction of flow. The inlet is higher than the outlet.

5. BACKFILLING EXTERIOR

A. CAUTION: Fill tank with water as your backfill, keeping water level even with backfill level as you go to prevent possible collapse.

B. Backfill with 12" layers and compact each layer. ALWAYS COMPACT ENDS FIRST.

C. Tamp and compact backfill under inlet and outlet pipes.

D. Maximum backfill over the top of the tank is 30". Mound soil over the top to provide positive drainage.

6. BACKFILL MATERIALS

The preferred material for backfill surrounding and covering the tank is a sand/gravel mixture as described below. For blue BRUISER tanks and white cistern tanks, native soil may be used for backfill and those tanks may be left empty while backfilling. For yellow and black septic tanks, the sand/gravel mixture is required and the tanks must be filled with water during the backfilling process. BRUISER tanks and cistern tanks should be filled one-fourth full after installation.

A. The sand/gravel mixture should be a mixture of sand and gravel, 100% smaller than 1½", and about 50% smaller than ¼".

B. All fill should be free of any wood, masonry debris, silt or clay.

For septic installations, it is important to contact your local or state sanitarian regarding approved installation procedures.

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CAUTION

Failure to comply with the points below voids warranty

A. Do not install any tank in water saturated cly or in a high water table. The tank may collapse and its contents will escape.

B. Tanks are not fire-resistant. Do not store them near an open flame or heat in excess of 180° F.

C. Do not install any tank under the path of vehicles or heavy equipment.

D. If a yellow or black septic tank is pumped for normal maintenance, it should be refilled immediately. If a blue BRUISER tank or a white cistern tank is pumped empty, it should be immediately refilled to one-fourth cof capacity. Spherical 300 & 500 gallon tanks may be left empty.

E. Norwesco yellow and black septic tanks, blue BRUISER tanks, and cistern tanks are designed only for use as underground tanks.

F. Norwesco yellow or black septic tanks, with the exception of the 300 & 500 gallon spherical tanks, cannot be used as holding tanks or pump tanks because the tank may collapse if it is left empty underground. **Blue BRUISER tanks, white cistern tanks, and 300 or 500 gallon spherical tanks can be used for holding or pumping applications where permitted by local codes.**

G. White cistern tanks and blue BRUISER tanks are made of resins that meet FDA specifications for the storage of drinking water and can be used for that application. Yellow septic tanks and black septic tanks must not be used for drinking water.

H. Protect the tank from sharp objects which could puncture it and cause leakage.

Norwesco advises against the use of a plastic underground tank for any other uses! Such uses would void any Norwesco product warranty either stated or implied. In no event shall Norwesco be held liable for any consequential damages.

WARRANTY

The Norwesco underground tanks, when installed in accordance to manufacturer's instructions, are warranted against defective materials and/or workmanship for a full three (3) years from date of manufacture. Should a defect appear within the warranty period, Norwesco will supply a new, equivalent tank in replacement thereof. Norwesco's liability is limited to the value of the tank itself and specifically excludes the cost of installation and/or removal and consequential damages.

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Standard and Bruiser Septic and Cistern Tank Additional Install Guidelines

During dry conditions, place the tank in the hole exactly where it needs to go and add approx. 6" of water in it so it is still moveable then rotate the tank slightly back and forth to get the ribs to fully bed into the sand. After bedding, ensure the tank is level side to side and end to end. Then, fill the tank as you backfill so it will not move during backfilling. Follow main instructions for backfilling process. Ensure that manways and lids are all fastened in place during the backfilling process.

VERY IMPORTANT: Below Ground Tanks should never be placed in low-lying areas where surface water is draining toward and into the tank areaas this can create high ground water levels directly around the tank which can collapse or otherwise damage the tank or the fitting connections.

Backfill tank with the material listed in the installation instructions and 1 foot at a time while keeping water approx. at the same level as the backfill (or a bit ahead of) height throughout the entire backfill process. Compact each foot starting with the ends first and then sides as equal as possible and again - 1 foot at a time. Foot compact - avoid use of compacting equipment.

Ensure that absolutely no clay or mucky soil is used or mixed in with the backfill material.

Ground water should be kept away from tank area by drainage at base level of tankand ground cover should be sloped away from the top of the tank - i.e. approx. 6" higher over center of tank than the surrounding area so ground is sloped away in all directions to direct water away from the tank area.

A vertical inspection pipe (4" - 8" dia. with removable cap on top) or sump tube can be installed next to the tank if necessary for inspection of ground water level before pump-puts or dewartering with a pump if ever necessary.

Following the main Installation Instructions as well.

In case of partial collapse of tank from allowing water to fill in the tank excavation area after tank has been freshly back-filled - i.e: install tank on a Fri. and it rains over the weekend and fills up tank excavation area.

Best things to do at this point is to excavate the tank out fully and remove it from the hole (remove only if necessary to re-excavate and re-bed the tank as below). Will likely be necessary to reshape the tank back to normal by placing on firm level surface and fill approx. 1' with water and pry up under ends to get bottom ribs to stretch back out from their compression and leave tank full for at least half a day or so.

Redo the base elevation leveling with minimum 6" of coarse, loose and levelled sand (no sharp stones) to bed the tank back into. Ensure excavation is 18 - 24" wider and longer than the tank all the way around the tank.

If the tank is free from buckling and creasing then it **may** be OK to reuse but will no longer be covered by the manufacturer's warranty.
Contact BARR Plastics with any questions.