DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

North Carolina Prefabricated Tank Approval

Issued To: AK Industries, Inc.
PO Box 640
Plymouth, IN 46563-0640

For: 1,050 and 1,500 gallon septic tanks, and 750 and 1,000 gallon pump tanks

Date: October 11, 2021

I. Material
   A. The tanks shall be manufactured as per the approved drawings, specifications, and testing results. All other wastewater system components shall be as described in 15A NCAC 18A .1900.
   B. Specific criteria for these tanks have been based on ASTM standards and IAPMO/ANSI Z1000-2103 Prefabricated Septic Tanks. The criteria that have been demonstrated via third-party testing for the material to meet include:

Material Property	Value
Ultimate tensile strength	2,400 psi, minimum
Stress crack resistance	150 hours
Flexural modulus of elasticity	85,000 psi, minimum

II. Design Criteria

   A. Wall thickness: 0.389 inches for AKS50833 and AKS95233, 0.48 inches for AKS50833-HVY and AKS95233-HVY, and 0.47 inches for AKS20580 and AKS22250
   B. Tank dimensions as shown on the plans

Tank Size	750 gallon (PT)	1,000 gallon (PT)	1,050 gallon (ST)	1,050 gallon (ST)	1,500 gallon (ST)	1,500 gallon (ST)
Tank Model Number	AKS20580	AKS22250	AKS50833	AKS50833-HVY	AKS95233	AKS95233-HVY
Approval Number	PT-2147	PT-2148	STB-2148	STB-2149	STB-2150	STB-2151
Length (outside)			125.75 inches	125.75 inches	124.5 inches	124.5 inches
Width (outside)	80 inches in diameter	89.5625 inches in diameter	66.5 inches	66.5 inches	65 inches	65 inches
Height (outside)	67.125 inches	69 inches	54.75 inches	54.75 inches	71 inches	71 inches

III. Tank Sizing

Based on the criteria established in 15A NCAC 18A .1952.

IV. Risers

Approved risers for use with AK Industries septic tanks are the Polylok 20-inch risers and the Tuf-Tite 20-inch risers. Approved risers for use with AK Industries pump tanks are the Polylok 24-inc risers and the Tuf-Tite 24-inch risers.

V. Pump Tank Calibration

A calibration chart specific to the pump tank size must be provided to allow the operator to perform a valid pump drawn down test.

VI. Siting Criteria

A. Tanks shall not be installed in areas with saturated soil conditions or indication of a seasonal high water table, per 15A NCAC 18A. 1942(a), between the ground surface and the bottom of the proposed tank installation excavation.
B. Tanks shall not be installed in areas which are to be subject to vehicular loading of any kind.
C. Tanks shall not be stored or installed in areas which may be subject to exposure to an ignition source.
D. Tank top must be at least 6 inches below the finished grade. Maximum burial depth is 24 inches below grade. Only the septic tanks with HVY in the AK Industries, Inc model number can be installed 36 inches below grade. The riser over the pump (outlet end) must be 6 inches above finished grade.
E. Other siting criteria as specified in 15A NCAC 18A .1900, et seq. and minimum setback distances, as specified in 15A NCAC 18A .1950, shall be met.

VII. Installation and testing procedures

A. Manufacturer's installation instructions for AK Industries, Inc tanks shall be adhered to, except as required herein or by 15A NCAC 18A .1900, et seq.
B. Tanks shall be distributed through a network of dealers/distributors authorized by AK Industries, Inc, after all personnel involved in the sale of the septic tanks have completed AK Industries, Inc. authorized product training. Authorized dealers may only sell tanks to authorized installers.
C. All AK Industries, Inc approved tanks shall be installed by an installer who has been authorized in writing by AK Industries, Inc.
D. When digging the excavation for the tank, allow for an extra 6 to 12 inches of space around the tank.
E. Place 6 to 12 inches of sand, free flowing soil, or gravel not larger than ¾ inch diameter in the bottom of the excavation.
F. Level tank before removing straps in case further excavation is needed.
G. When backfilling, start adding water to the tank and one additional foot of free flowing soil, sand, or pea gravel. Continue backfilling by adding water to the tank and aggregate or loose soil at the same rate while backfilling.
H. Glue connections to the tank while allowing for the correct slope to and from the tank.
I. Continuing backfilling to the top of the tank.

VIII. Operation, maintenance and monitoring requirements

A. System management entity, inspection/maintenance and reporting frequency requirements shall be in accordance with 15A NCAC 18A .1961
B. Operation, maintenance and monitoring requirements shall be in accordance with the manufacturer's installation instructions, except as required herein or by 15A NCAC 18A .1900, et seq.
C. The operator in responsible charge (ORC), where applicable, during their regular inspection and the local health department, during their regular system review, should remove any access lids and inspect the tanks for sign of infiltration, leakage, and structural failure. Any problems noted shall be reported to the local health department, AK Industries, Inc, and the Environmental Health Section, On-Site Water Protection Branch. Repairs made shall be consistent with the recommendations of AK Industries, Inc, and the Environmental Health Section, On-Site Water Protection Branch.