



July 7, 2011

NORWECO, INC.
SALES DEPT.
DON BACH
220 REPUBLIC ST
NORWALK OH 44857-1196

NORWECO, INC.
SALES DEPARTMENT
MICHAEL S. PRICE
220 REPUBLIC ST
NORWALK OH 44857-1196

Re: Description: SEWAGE TREATMENT SYSTEMS, AERATED (also see SEWAGE TREATMENT APPARATUS)
Manufacturer: NORWECO, INC.
Product Name: SINGULAIR® WASTEWATER TREATMENT SYSTEM
Model Number(s): 960-1500 FOR DOMESTIC WASTEWATER TREATMENT

3-COMPARTMENT CONCRETE TANK WITH SINGULAIR® AERATOR, A TERTIARY TREATMENT DEVICE, MIDDLE AERATION TANK AND APPROVED EFFLUENT FILTER IN THE THIRD COMPARTMENT

(36 IN. MAX. DEPTH OF BURY; MAX. DFW 1500 GPD; MAX. 1.2 LBS. BOD5/DAY; MIN. 1500 GAL. CAPACITY UPSTREAM SEPTIC TANK; RISERS 6-72 IN. HIGH; ACTUAL CAPACITY 1300 GALS.; TANK DIMENSIONS = 123 IN. L X 78 IN. W X 66 IN. H)

[BIO-KINETIC WASTEWATER SYSTEMS, CHLORINE DOSED SYSTEM CONTAINED IN 3-COMPARTMENT TANK WITH AERATOR AND BK-2000 EFFLUENT FILTER SYSTEM; OPTIONAL AT1500 UV SYSTEM]

Product File No: 20110128

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters Comm 82 through 84, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. **This approval is valid until the end of July 2016.**

This approval is contingent upon compliance with the following stipulation(s):

- This tank must be designed to withstand the pressures to which it will be subjected.
- The manufacturer must keep at the manufacturing plant a set of plans and specifications bearing the department's stamp of approval. The plans and specifications must be open to inspection by an authorized representative of the department.
- 1. A copy of this approval letter must be supplied to the buyer and installer of each tank sold.
 2. All laitance, loose or foreign material must be removed from each joint surface prior to the sealant being applied.
 3. Continuous sealant meeting Federal Specification SS-S-00210-A must be applied to each tongue and groove wall joint.
 4. After placement of the concrete sections on the sealant, continuous squeeze-out of the sealant must be visible inside and outside the tank.
 5. A certified plumbing inspector must confirm compliance with limitations 2, 3 and 4 above, by direct observations during each process.

- This product must have a warning label located on the cover of the BIO-KINETIC system stating "WARNING DO NOT ENTER TANK. THE BIO-KINETIC SYSTEM MUST BE SERVICED FROM GRADE USING PROPER TOOLS AND EQUIPMENT. CONTACT YOUR LOCAL NORWECO DISTRIBUTOR FOR SERVICE."
- The joint used to connect the inlet pipe to this product must be caulked in accordance with s. Comm 84.40 (5) (a) and (17), of the Wis. Admin. Code.
- When this product does NOT include the integral Bio-Kinetic UV system and receives wastewater from dwellings, it will produce an effluent quality with a maximum monthly average value for BOD5 of less than or equal to 30 mg/L, TSS of less than or equal to 30 mg/L TSS and F.O.G. of less than 30 mg/L.
- When this product receives wastewater quality with a maximum monthly average value for BOD5 of less than or equal to 220 mg/L, TSS of less than or equal to 150 mg/L TSS and F.O.G. of less than or equal to 30 mg/L the effluent from this product will have a fecal coliform value of less than or equal to 10,000 cfu/100ml.
- All pre-cast tanks shall be Commerce approved tanks.
- When the Bio-Kinetic UV Disinfection System (AT1500) and the bulb or any other part of the UV System fails, the Service Pro Control Center will employ both audible and visual alerts.

**Table 1 Maintenance, Inspection, Pumping Requirements
SINGULAR® 960 SERIES (models 500, 750, 1000, 1250 & 1500)**

Initial/Startup Inspection/ Maintenance Requirements 6-8 weeks after introduction of sewage
Routine Inspection/Maintenance Cycle 6 months or as required by state/local authorities
Ongoing Pumping Cycle and/or Requirements 2-4 years, or as required by state/local governmental unit

Back-Wash Cycle N/A

NSF 40 Effluent Standard Class I

BOD5 Credit for Downsizing Basal Area YES

Fecal Credit for Reduction of Vertical Separation NO*

Additional Comments

Manufacturer may require a serving contract and trained, properly credentialed personnel;

Bio-neutralizer de-chlorination tubes not recommended in WI;

Must include state-approved BIO-KINETIC effluent filter

* Fecal reduction credit only provided when the Bio-Kinetic UV System (AT1500) is installed.

- **AERATOR: A SINGULAR ® AERATOR, providing 1725 rpm and 60 hertz, single-phase fractional HP motor is required of all installations and installed above grade.**

This approval supersedes the approval issued on 10/05/2005 under product file number 20050705.

This approval letter shall be incorporated with your previously approved plans and/or specifications approved under product file number 20050705.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,



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