

# Arizona Department of Environmental Quality



Karen Peters Director

## Notice of Proprietary Treatment Product Listing Pursuant to Arizona Administrative Code R18-9-A309(E) ADEQ LTF # 96784

## 1. Proprietary Treatment Product Name, Model, and Description

Product Name: AeroFin Wastewater Treatment System (AeroFin WWTS)

Models: AeroFin WWTS

Description: The AeroFin WWTS is a combined treatment and disposal onsite wastewater

treatment system. The AeroFin is comprised of the AeroFin fins, the system sand, and the AeroFin distribution manifold. Effluent moves from the bottom of the fins up, maximizing exposure to the system sidewalls. A geotextile surrounds the fins and provides additional surface area for biological activity.

This listing is applicable for design flows up to 24,000 gpd.

#### 2. Manufacturer Information

Name: Presby Environmental Inc.,

A wholly owned subsidiary of Infiltrator Water Technologies, LLC

Address: 143 Airport Road

City/State/Zip: Whitefield, NH 03598

Phone: 800-473-5298

Fax: N/A

Website: www.infiltrator.com

#### 3. Recognized Treatment Performance

Parameter	Statistical Measure	Value
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ), mg/L	30-day arithmetic mean	5 mg/L
Total Suspended Solids (TSS), mg/L	30-day arithmetic mean	4 mg/L
Total Nitrogen as Nitrogen(TN), mg/L	five-month arithmetic mean	53 mg/L
Total Coliform, Colony Forming Units/100mL	95th percentile	1,000 (Log <sub>10</sub> 3)

## 4. Product Applicability and Limitations for Use for a Recognized General Permit Technology

**Applicability:** This listing is only for the Infiltrator AeroFin product and is listed as an engineered pad treatment technology specified in A.A.C. R18-9-E309.

#### **Limitations:**

- **A.** The AeroFin must receive wastewater that is treated to a level equal to or better than specified in R18-9-E302(B). Additionally, it must meet oil and grease ≤ 75 mg/L requirement contained in R18-9-101(46).
- **B.** This approval listing EXCLUDES appurtenances which are considered to be an alarm, control panel, control, switch, timer, wiring, other electrical devices, and installation components; which are subject to both the manufacturer specifications and any more restrictive requirement in 18 A.A.C. 9, Article 3.
- **C.** This listing is for the treatment of wastewater that meets the definition of typical sewage in R18-9-101(46).
- **D.** The product requires the use of a septic tank that meets the requirements of R18-9-A314.
- **E.** The manufacturer recommends inspection of the treatment and disposal system every 2-3 years, or as needed, as part of regular maintenance.
- **F.** The requirement of R18-9-A312(B)(4)(e) has been met by providing twenty-four-hour emergency storage of wastewater with the use of a septic tank.
- **G.** The maximum loading rate shall not exceed 1.88 gal/ft of fin.
- **H.** The AeroFin shall be installed in native soil in a level trench configuration or bed configuration.
- **I.** System sand shall be placed a minimum of 6 inches below and between the fin rows and a minimum of 6 inches horizontally around the perimeter of the AeroFin rows.
- **J.** The use of pressure distribution with the AeroFin product is prohibited. Pumps may be used when necessary only to gain elevation and feed a distribution box which then distributes effluent by gravity.
- **K.** The use of a disinfection device under R18-9-E320 is prohibited.
- **L.** The system sand extension is limited to a maximum width of 20 feet.
- M. The maximum trench width is 8 feet. The maximum trench length is 115 feet. (See exceptions 5.c & d)
- **N.** The maximum bed length is 115 feet. Any excavation wider than 8 feet is considered a bed. (See exceptions 5.c & d)
- **O.** The sand fill material for above-grade installations shall meet the requirements of ASTM-C33 or an approved equal.
- **P.** ADEQ approves the Infiltrator AeroFin Design & Installation Manual, dated July 2023, for this proprietary product. In addition, it should be noted that the Arizona Administrative Code (AAC) states the following: "if manufactured components are used, an applicant shall design, install, and operate the on-site wastewater treatment facility following the manufacturer's specifications" as per R18-9-A312(F)(2).
- **Q.** The product, including the pretreatment works, is subject to A.A.C. R18-9-A312(F)(2) through (4).

#### 5. Alternative Criteria and Exceptions for Use under the Recognized General Permit Technology

Alternative:	None
Exception:	a. When the wastewater does not meet the definition of typical sewage as defined in R18-9-101(46), a Manufacturer's Design Review Report shall be submitted for review and approval along with the Notice of Intent to Discharge. This Design Review Report shall specify component capacities, control settings, and supplemental installation & operational practices.

b. The geotextile material as specified in R18-9-E309(D)(4) is not required for the AeroFin since the geotextile material is already incorporated into the construction of the unit itself.
c. The maximum trench width requirement of 36" per Table contained in R18-9-E302(C)(2)(c), the minimum bed width of 10', or the maximum bed width of 12' per Table contained in R18-9-E302(C)(3)(b) does not need to be met.
d. The maximum trench length of 100' per Table contained in R18-9-E302(C)(2)(c) or the maximum bed length of 100' per Table contained in R18-9-E302(C)(3)(b) does not need to be met.

### 6. Documents Used as the Basis for this Proprietary Treatment Product Listing Notice

Application for Treatment Product Listing:	February 14, 2023	
3 <sup>rd</sup> Party Test data:	- NSF Official Listing Letter for AeroFin Models dated 05/22/23.	
	- Onsite Wastewater Technology Report — EnviroFin2 Soil Dispersal System- Barnstable County Department of Health and Environment/Massachusetts Alternative Septic System Test Center dated October 2021.	
Installation Instructions:	Infiltrator Water Technologies – Infiltrator AeroFin Design and Installation Manual July 2023.	
Manufacturer's Warranty:	Infiltrator Water Technologies – Infiltrator AeroFin Design and Installation Manual July 2023.	
Manufacturer's Specifications:	Infiltrator AeroFin Application Package submitted October 27, 2022.	
Manufacturer's Design Calculations & Drawings:	Infiltrator AeroFin Application Package submitted October 27, 2022.	
Operation & Maintenance Manual:	Infiltrator Water Technologies – Infiltrator AeroFin Design and Installation Manual July 2023.	
Owner's Manual:	No specific owner's manual. The information is provided in the Infiltrator Water Technologies – Infiltrator AeroFin Design and Installation Manual June 2023 serves as an owner's manual.	

## 7. Terms and Conditions for this Proprietary Treatment Product Listing Notice

- A. This Notice of Proprietary Treatment Product Listing shall remain in effect until any of the following occurs:
  - 1. Applicable provisions of the Arizona Administrative Code, Title 18, Chapter 9, Article 3 are revised;
  - 2. Documents used for the basis of this listing are altered or modified;
  - 3. Manufacturer claims which are relied upon for this listing are later determined to contain an error or omission;
  - 4. The manufacturer requests termination of this listing;
  - 5. A listing error or omission is identified; or
  - 6. The manufacturer and ADEQ mutually agree to reissue this notification to incorporate correction or update for any reason.
- B. This Notice of Proprietary Treatment Product Listing does not apply when the:

- 1. Listed proprietary treatment product is modified or operated in a manner that conflicts with Arizona law or the documents used for the basis of this listing action in Section 6.
- 2. Listed proprietary treatment products are used in a manner that cannot achieve the performance in Section 3 above.
- C. This Notice of Proprietary Treatment Product Listing applies solely to the product specified in Section 1 above.
- D. The manufacturer is responsible for notifying ADEQ of changes to the contact information at the following address:

Attention: Product Listing Supervisor

Engineering Review Desk,

1110 West Washington Street

Phoenix, AZ 85007.

E. The listing by ADEQ of any proprietary product or service is not an endorsement by ADEQ or the State of Arizona. ADEQ does not endorse, represent, guarantee, warranty or defend the use of any product which is authorized for use pursuant to A.A.C. R18-9-A309(E). Product providers are a direct source unrelated to ADEQ or the State of Arizona. Use of any listed product is at the user's risk and the State assumes no liability.

Signature:	DocuSigned by:	Date Signed:	9/5/2023	
Title:	Randall Matas, Deputy Director – Water Quality Division			

ADEQ LTF # - 96784; ADEQ File No. 20220489

Reviewer: LAL