## **BEFORE YOU BEGIN**

These installation instructions are for AeroFin. AeroFin may only be installed according to applicable state and local health permitting authority requirements.

If unsure of the installation requirements for a site, contact your permitting authority or system designer. If unsure of the applicability of AeroFin for a given site, contact Infiltrator Water Technologies. The soil and site evaluation and the design of the onsite system must be reviewed, approved and a construction permit obtained from the local permitting authority before installation.

### Materials and Equipment Needed

- AeroFin
- AeroFin Manifold
- AeroFin Endcaps
- System sand
- AeroFin Installation Tool
- PVC pipe and couplings
- Excavation equipment
- Laser, transit or level
- Shovel and rake
- ☐ 4-inch inspection port and cap if required
- Tape measure

# Common practices shall apply to the installation of AeroFin. These include, but are not limited to:

- avoid soil compaction on the infiltrative surface area, including all areas downslope of a sloped system;
- use a tracked vehicle for material installation if possible;
- avoid installation during wet periods
- □ install the AeroFin components and system sand on the same day that the system footprint is excavated/exposed.

## **Handling Instructions**

Compression of the AeroFin components during transport, storage, or construction shall be avoided.

## **Excavating and Preparing the Site**

**NOTE:** Do not install the system during periods when the soil is sufficiently wet to exceed its plastic limit, as this causes construction machinery to smear the soil.

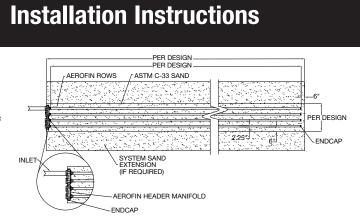
- 1. Stake out the locations of tank(s), pipes, and corners of the system to be tilled/ excavated, per system design. Set the elevations as shown on the approved plan.
- **2.** Install sedimentation and erosion control measures if required or needed.

**NOTE:** The installation of temporary drainage swales/berms (surface diversions) may be necessary to protect the site during rainfall events.



**AeroFin** 

AeroFin may only be installed according to State and/or local regulations. If unsure of the installation requirements for a particular site, contact the local permitting authority.



- **3.** Excavate the system area or till the ground as per the design.
- **4.** Rake the bottom and sides (when applicable) of the excavation if smearing has occurred during excavation. Remove large stones and protruding roots.

**NOTE:** Smearing does not occur in sandy soils, so raking is not necessary. In fine textured soils (silts and clays), avoid walking on the excavation bottom to prevent compaction and loss of soil structure.

**5.** Verify that the system area is at the proper elevation and slope from side-to-side and from end-to-end using a level, transit, or laser.

#### **Installing AeroFin**

- 1. Install the 6 in. deep system sand basal layer over the entire bed area as per the design. System sand should be leveled and stabilized prior to placement of the AeroFin system. Installer should retain records certifying that system sand meets ASTM C-33 requirements.
- 2. Assemble the AeroFin Manifold and place it in the proper location(s) on the system sand basal area. Connecting the required number of manifold sections together outside the bed area before setting them in place can the make the installation process easier.



**3.** Insert the bottom of each AeroFin conduit into the manifold at a 45 degree angle leaving the top not engaged. Once all conduits are in the 45 degree position engage all conduits and the manifold together at once. Using the snap-lock feature ensure each conduit is securely fastened in place.



4. Next, working down the length of the bed begin connecting AeroFin conduits end to end using the integrated snap lock joints to create rows to the specified bed length.



5. Fin rows shall be installed level to within +/- ½ in. (total 1 in. tolerance) of the specified elevation. A laser level or transit is recommended to ensure proper alignment.

- 6. Fin rows shall be:
- Installed parallel to the contours; and
- Separated by a minimum of 6 in. of system sand.

#### **AeroFin Installation Tool**



Infiltrator offers an installation aid for installing fin rows, ensuring the minimum 6 in. of system sand between fin rows is maintained throughout the system and fins do not move during installation. The AeroFin row spacer is to be removed after backfill. The AeroFin Installation Tools is reusable and available where AeroFin components are sold.



7. Once the fins are placed on the surface of the system sand and the distal end manifold system and/or end caps are connected to the fins per design, additional system sand shall be ladled between and to the top of each of the fin rows and lightly compacted by walking in the sand after placement for fin stabilization and support. Backfilling in a progressive process down the length of the bed moving the AeroFin Installation Tools as you progress will yield the best results. Providing spacing support with the AeroFin Installation Tool every 4-feet will provide the best results. System sand shall also be installed on each side and at each end of the backfilled fin rows, per the design. The system sand shall be stabilized between and around each AeroFin conduits by walking it in.



**8.** Remove AeroFin row spacers and store for next system installation.



#### **Covering the System**

**NOTE:** Before covering, the system shall be inspected and approved by a representative of the local permitting authority, in compliance with state and local regulations and procedures.

- 1. Material placed around the system sand and above the fins may be additional system sand or material meeting state and local requirements. However, the final 6 in. placed above or adjacent to the fins shall be comprised of material that will sustain plant growth.
- 2. Backfill the system by pushing material over the AeroFin system. It is best to mound several extra inches of soil over the finish grade to allow for settling. This also ensures that runoff is diverted away from the system. Keep a minimum of 12 in. of consolidated cover over the fins before driving over the system with tracked equipment. It is important to avoid all traffic over the AeroFin Manifold during the backfill procedure. The manifold is not rated for vehicular traffic.
- **3.** After the system is covered, the site should be seeded or sodded to mitigate the potential for erosion.

**NOTE:** If the system is for new home construction, it is important to leave marking stakes along the boundary of the system. This will notify contractors of the system location so they will not cross it with equipment or vehicles. Vehicles and equipment should remain clear of the downslope side of the system.

See AeroFin Design and Installation Manual for operation and maintenance guidelines.

Infiltrator Water Technologies Limited Warranty is available at www.infiltratorwater.com



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water technologies

4 Business Park Road P.O. Box 768 Old Saybrook, CT 06475 860-577-7000 • Fax 860-577-7001 **1-800-221-4436** 

www.infiltratorwater.com • info@infiltratorwater.com

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