Product Notes

Product Note 3.121A

Re: BioDiffuser Bio 2 and Bio 3 Installation Guidelines - New York State

Date: December 1, 2004
(Issued October 1, 2005)

The BioDiffuser chamber is an economical, easy to install alternative to the conventional on-site leachfield system. In a conventional on-site leachfield system, 4" pipe and gravel are used to dispose effluent. Chamber units reduce or eliminate the gravel, thereby eliminating many of the problems inherent in gravel systems: compaction, loss of storage, fines clogging the gravel. The open bottom of the chamber creates increased infiltrative surface area and a higher long-term acceptance rate. Because a narrower trench is used and the reduction factor applied when using chambers, a smaller footprint is needed resulting in a decrease in equipment, labor and real estate. Several modifications incorporated into compliance requirements of the State of New York, create installation procedures which differ slightly from those described in 3.121. When installing the Bio 2 and Bio 3 chamber products in the State of New York, please refer to the following instructions. Should you have general questions about system design or installation in the State of New York, please refer to Appendix 75-A, "Wastewater Treatment Standards – Individual Household Systems."

Trench Installation Guidelines

1. Excavate trench to proper width and depth as described in the design and as required by state and local code. A minimum of 12" of cover is recommended for all chambers. For Bio 2, 18" minimum trench width is recommended and a 24" trench for Bio 3. See ADS Standard Details for more information.

2. Smooth irregularities in the excavation. A level, flat surface is required.
3. Assemble the BioDiffuser chambers in the trench excavation by engaging the "dome" end of the installing chamber over the "post" end of the chamber already in place. No screws required.
4. Knock out the scribed holes in the end cap of the first chamber unit and install distribution pipe from the distribution box or septic tank as described in the plan. Knockouts will accommodate either SDR 32.5, Schedule 40 or ADS-3000 Triplewall® pipe. Score the appropriate groove in the knockout with a knife before removing the plug with a shovel handle to create a 4.2" or 4.5" hole as required.

5. Install a splash plate on the ground at the beginning (and end where applicable) of each row of chambers which will be receiving effluent through the end plate. Place end plates on end units of the chamber line. Secure in places with backfill (no screws required).

6. Connect serial lines of the chambers in the same manner, where called for.
7. Fill sidewall area to top of chambers with native soil (or select fill where required). Coarse sand or fine gravel is recommended. Heavy clay, silt or debris shall not be included in the backfill.

8. "Walk in" fill to compact soil along the sides of the chamber. This is important to achieve load rating.
9. Complete the backfill of the system with native soil or select fill to the depth specified in the system design and as required by state and local codes. Avoid large rocks and debris in backfill material. Do **not** drive equipment over the BioDiffuser chambers installed in trench applications. For vehicular loading applications, all BioDiffuser chambers are approved for H-10 loading when installed with a minimum of 12" and a maximum of 3' of granular cover after consolidation.

Bed Installation

The use of chambers in leaching beds is allowed in the State of New York , with several important conditions. First, the area between the leaching chambers must be filled with 3/4" to 1 1/2" washed gravel or crushed stone. Native soil is unacceptable (see item #6). Also, to promote equal distribution of effluent when used in a leach bed design, pressure distribution is required. Gravity distribution is not allowed (see items #4 and #5). Finally, the ends of each of the trench distribution lines must be connected to create a "closed system" (see item #5).

1. Excavate and level installation area. See ADS Standard Details for more information.

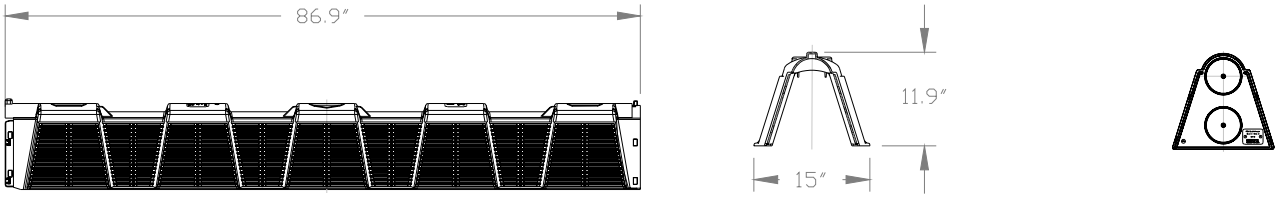
2. Scarify surface to remove any smearing that may occur during excavation. Smooth irregularities in the excavation. A level, flat surface is required.
3. Prepare to assemble the Bio chambers in adjacent rows to cover the desired area. As pressure distribution is required, using a cordless drill with a 3/8" to 1/2" bit, drill a single hole in each side of the "post" of each chamber unit. Prior to engaging the "dome" over the "post" of two consecutive units, suspend the pre-drilled distribution pipe in the top of the "post" end with a plastic pipe strap. (Holes in distribution pipe shall point up). Engage the "dome" over the "post". Continue this process the length of the chamber line. Pipes will be supported every 7.2 feet. Again, no screws are required.

4. Drill an appropriate size hole in every end plate, according to the outside diameter of the distribution pipe. Attach end plates to chambers and secure in place with 3/4" to 1 1/2" washed gravel or crushed stone. Connect distal ends of distribution pipe to one another to create a "closed system".
5. Fill sidewall area to top of chambers with native soil (or select fill where required). Coarse sand or fine gravel may also be used; no heavy clay, silt or debris should be included.
6. "Walk in" fill to compact soil along the sides of the chamber. Avoid large rocks and debris in the backfill material. Do not drive over the BioDiffuser chambers. Chambers must have a minimum of 12" and no more than 3' of cover.

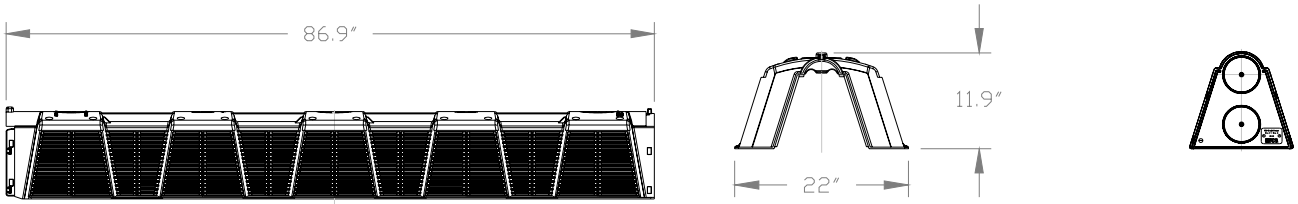
BioDiffuser Chamber Specifications

See ADS Standard Details for additional information.

Bio 2 Chamber



Bio 3 Chamber



Chambers	Bio 2	Bio 3
ADS Product #	1500BD	2200BD
Width	15″	22″
Height	11.9″	11.9″
Length	86.9″	86.9″
Invert Height	6.87″	6.87″
Units/Pallet	90	60

BIODIFFUSER LIMITED WARRANTY

1. PSA, Inc. (“PSA”), a subsidiary of ADS, Inc., warrants to the original purchaser that each BioDiffuser unit is free from defects in materials and workmanship for one year from the date of purchase, when installed in accordance with the manufacturer’s instructions. This warranty will not apply to any units that have been subjected to abuse or mishandling, or that have been repaired or altered by anyone other than PSA. PSA’s sole responsibility under this warranty shall be the replacement of the unit. PSA’s obligation under this warranty shall not include any transportation charges or the costs of installation and IN NO EVENT SHALL PSA BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

2. TO THE EXTENT ALLOWED BY LAW, THIS WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES (WHETHER EXPRESS, IMPLIED OR STATUTORY), INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

3. The purchaser shall be responsible for insuring that installation of the unit is completed in accordance with all applicable laws, codes, rules and regulations. In no event shall PSA be responsible for any loss or damage to the purchaser, the units, or any third party resulting installation or shipment.

4. No statements or representations made by any representative of PSA shall alter, vary or expand the provisions of this warranty. This warranty is applicable only to the original purchaser and there shall be no third-party beneficiaries to this warranty.

5. All claims made under this warranty shall be presented to PSA in writing no later than thirty (30) days after the discovery of any defect in the BioDiffuser unit. Any claim under this warranty that is not presented within 30 days upon discovery shall be deemed unconditionally waived.

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ADS / PSA BioDiffuser Chambers can be ordered in pallet quantities. Contact your ADS Customer Service Center for ordering details - 1-800-821-6710