

Product Notes

Product Note 3.121

Re: BioDiffuser Standard & High Capacity Chamber Installation

Date: October 10, 2002



60°

The BioDiffuser chamber is an economical, easy to install alternative to the conventional on-site leachfield system. In a conventional system, 4" pipe and gravel are used to fill the excavation. 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, and masking.

The BioDiffuser chamber may be used on any site suitable for conventional gravel on-site systems.

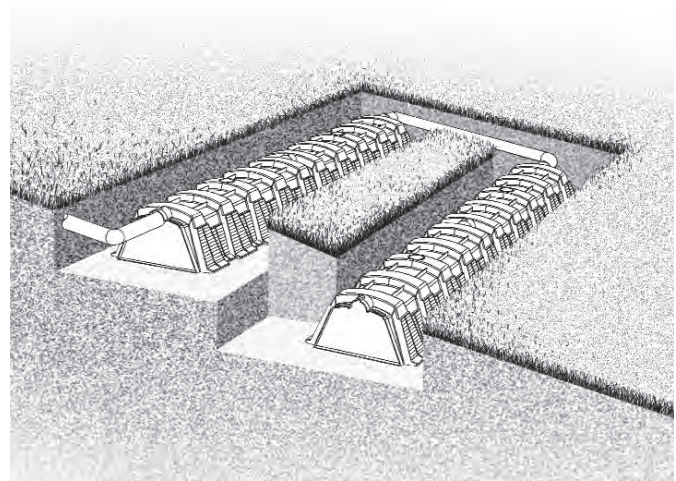
Trench Installation Guidelines

1. Excavate trench to 3' wide and proper depth as specified in the system design and as required by state and local codes.
2. Scarify the bottom & sidewall surfaces to remove any smearing that may have occurred during excavation. Smooth irregularities in the excavation. A level, flat surface is necessary.
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. Place end plates on end units of the chamber line. Secure in place with backfill (no screws required). Connect distribution pipe in the knock-outs as required by plan.
5. 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 35, 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.
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 full weight/ load rating.

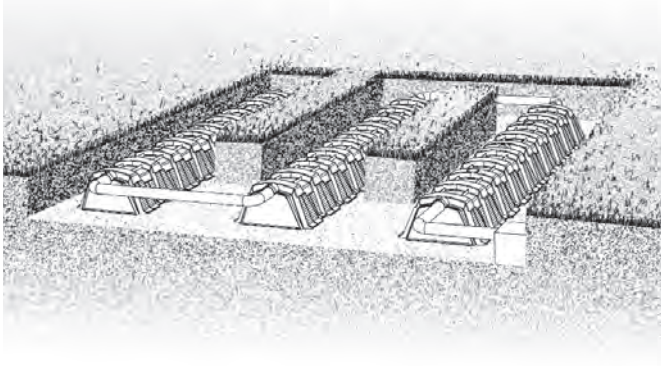


Trench Detail

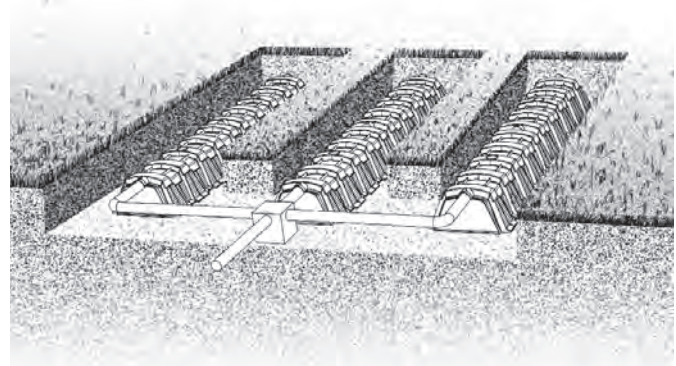
9. Complete the backfill of the system with native soil or select fill to the depth specified in the system design and as required by state and local codes. Avoid large rocks and debris in backfill material. Do **not** drive equipment over the BioDiffuser chambers without bridging the excavation. For vehicular loading applications, all BioDiffuser chambers are approved for H-10 loading when installed with a minimum of 12" of cover after consolidation. **Only the 14" High Capacity Model is approved for H-20 load installations. H-20 loads require a minimum of 18" of cover after consolidation.** Well-graded gravel and careful compaction is recommended for H-20 load installations.



Serial System



Series System

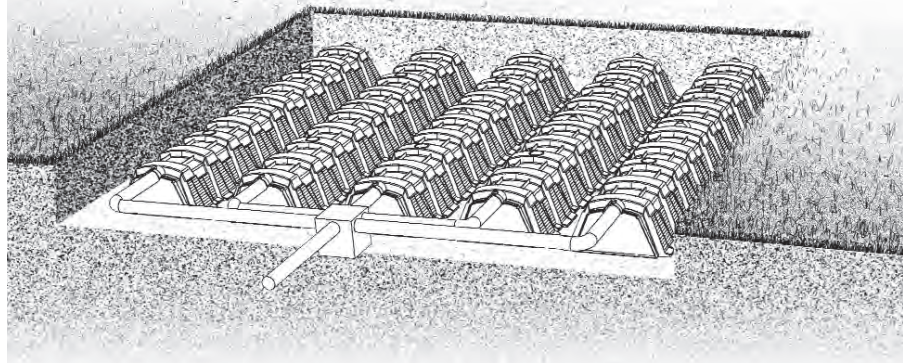


Trench System

Bed Installation

1. Excavate and level installation area.
2. Scarify surface to remove any smearing that may occur during excavation. Smooth irregularities in the excavation.
3. Assemble the BioDiffuser chambers in adjacent rows to cover the desired area by placing the "dome" end of the installing chamber over the "post" end of the chamber already in place. No screws required.
4. Place end plates on end units of the chamber line. Secure the end caps in place with backfill (no screws required). Connect distribution pipe in the knock-outs as required by plan.
5. 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 35, 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.

6. 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.
7. "Walk in" fill to compact soil along the sides of the chamber. This is important to achieve full weight / load rating.
8. Using a light tracked machine, cover the BioDiffuser chambers 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 the backfill material. Do **not** drive equipment over the BioDiffuser chambers without bridging the excavation. For vehicular loading applications, all BioDiffuser chambers are approved for H-10 loading when installed with a minimum 12" of cover after consolidation. **Only the 14" High Capacity Model is approved for H-20 load installations. H-20 loads require a minimum of 18" of cover after consolidation.** Well graded gravel and careful compaction is recommended for H-20 load installations.

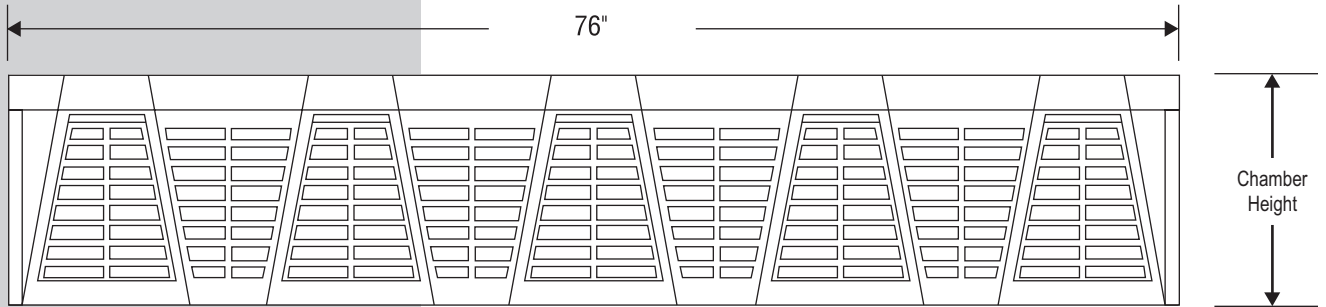


Bed System

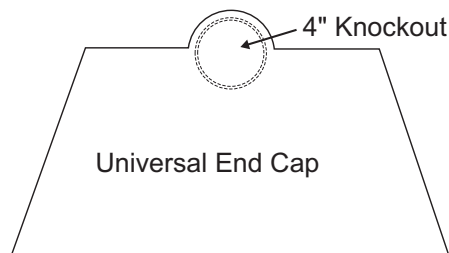
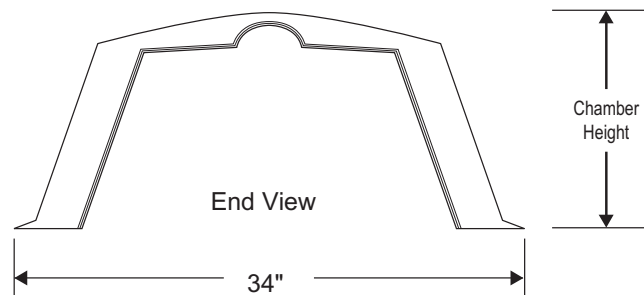
BIODIFFUSER LIMITED WARRANTY

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 from 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.

BioDiffuser Specifications



All three BioDiffuser sizes can withstand H-10 loads when installed with properly graded and compacted soils. A minimum of 12" of cover is required for H-10 loads. The 14" High Capacity BioDiffuser is designed for H-20 loads. A minimum of 18" of cover is required for H-20 loads.



Available Sizes

ADS Product #	1100 BD	1400 BD	1600 BD
Chamber Dimensions	11" Standard	14" High Capacity	16" High Capacity
Length	76"	76"	76"
Width	34"	34"	34"
Height	11"	14"	16"
Invert	6.5	9	11.3