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INSTALLATION GUIDE

Arc™ 36, Arc 36 LP & Arc 36 HC Chamber

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June 2012

The Arc 36, Arc 36 LP and Arc 36 HC chambers are an economical, easy-to-install alternative to the conventional on-site leachfield system. In a conventional on-site leachfield system, 4-inch pipe and gravel are used to fill the excavation. The Arc chamber units eliminate the need for gravel, thereby reducing many of the problems inherent in gravel systems, including compaction, loss of storage, and fines. The open bottom design of the Arc chamber maximizes infiltrative surface area, while its structural design ensures long-term trench integrity. As allowed by state or local codes, chamber system designs commonly result in sizing credits that reduce the leach field area required within the field footprint. This affords a decrease in machine time, trucking costs, and labor to the installer and increased usable land to the homeowner, and developers.

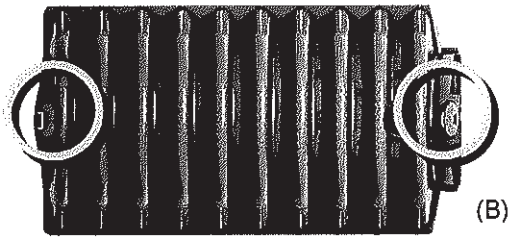
Trench Installation Guidelines

1. Excavate trench to proper width and depth as described in the design and required by state and local codes. Excavation and proper elevation should be set according to a permit formulated from a soil evaluation by the local health department, soil scientist, or engineer. For any traffic condition up to an AASHTO H-10 (16,000 lbs/axle) maximum load limit, the minimum cover over the crown of all Arc chambers shall be 12 inches. The total minimum trench depth, when measured to the bottom of the chamber, shall be 14 inches for the Arc 36 LP, 18 inches for the Arc 36 and 22 inches for the Arc 36 HC, in non-traffic applications. For trench installations, a minimum 3-foot wide trench is required for the Arc 36, Arc 36 LP and Arc 36 HC. Reference system design and state or local codes for minimum separation specifications between trench lines.

2. Smooth irregularities in the excavation and trench bottom and clear any large rocks or debris from the bottom of the trench. Scarify the soil if smearing is present. Arc by Infiltrator recommends all drainfield trench bottoms or absorption beds should be prepared level. Any allowed slope or fall should be determined and based on your state or local codes.

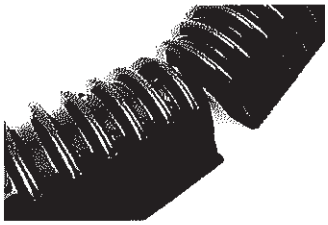
3. Chamber Assembly

   a. Install the first chamber with the "dome end" (A) of the "lock & drop" joint at the header end of the trench. Please reference the installation directional arrows which are located on the top of the chamber inspection port.



   b. Assemble all Arc chambers in the trench excavation by first placing the "dome end" of the incoming chamber over the "post end" (B) of the chamber already in place. Raise the post end of the incoming chamber and slightly pull the chamber back until the dome stops and is locked into the post end joint.

   c. The trench area in front of the base should be free of rocks, soil clumps or other obstructions to ensure proper base fit and "lock & drop" joint chamber engagement. A positive connection to the "lock & drop" joint will occur when the incoming chamber is laid flat on the trench bottom.



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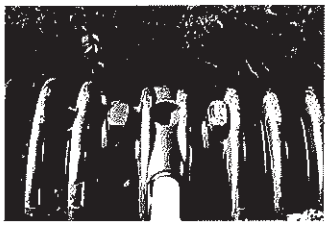
d. A "push-out" tab is located on the "post end" of each chamber. This tab should be utilized at the end of each trench line run to prevent soil migration from entering the septic system. Press the "push-out" tab over the "post end" lip until it snaps into place.

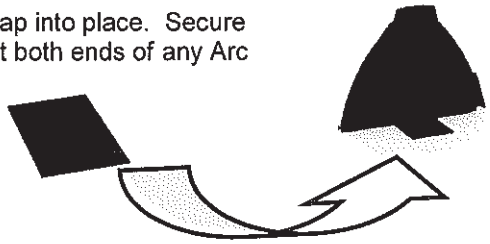
e. All Arc chambers are designed with an articulating joint that allows for a free-range horizontal rotation of 20 degrees, with a maximum of 10 degrees in either direction. Do not over-rotate the joint beyond 10 degrees. Each Arc chamber is equipped with the "lock & drop" joint which will allow up to 10 degrees of rotation per five foot chamber section.

f. The Arc 36 and Arc 36 HC chambers offer a Side Port Coupler (SPC) accessory. Installation of the SPC will increase trench radius of up to 10 additional degrees of articulation in either direction or increase plumbing inlet options. This unit can be installed between any two Arc 36 or Arc 36 HC chambers within the trench line or at the end of a run with the universal end cap.

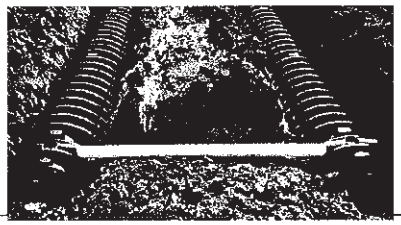


4. Prior to installing the end caps, remove the appropriate knockouts for pipe connections by placing the end cap face down on a hard surface and cutting with either a hole saw or utility knife. Where a hole saw is used to create a pipe opening, centering pilot dimples are placed in the middle of each knockout for the hole saw bit. The knockout will accept 4" SDR 35, 4" Schedule 40 pipe, 4" Arc by Infiltrator-3000 TripleWall® pipe, or 4" Arc by Infiltrator Leach Bed pipe. 3" options are denoted by the inner ring knockout. Inlet pipe must not exceed 2 inches in length beyond the end cap. Inlet pipe extending beyond 2 inches will interfere with the chamber and hinder end cap assembly. Upper knockouts shall be used for inlet piping. Lower knockouts are provided for return lines or continuous circuit piping in bed or mound systems.

5. Place lip of end cap over the end of the chamber unit and snap into place. Secure in place with backfill. The universal end cap is designed to fit both ends of any Arc chamber. The end cap shall be placed so that the Arc logo faces outward. Receiving pockets for 6" x 8" splash plates are incorporated into every end cap.



6. Where required by local codes, a splash plate shall be placed under the inlet end of the chambers. Each end cap is equipped with splash plate receiving pockets. Place the splash plate into the positioning fins prior to end cap assembly. Connect serial or manifold lines of the chambers in the same manner as described in steps 4 and 5 above.



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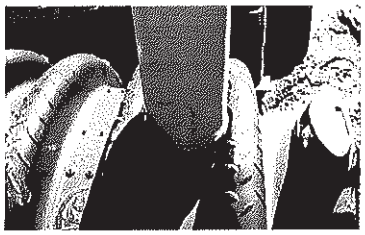
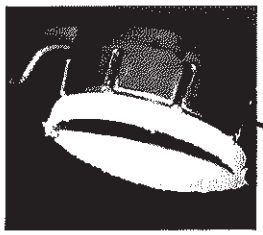
7. All Arc chambers offer slots on the "post end" to accommodate zip straps in order to hang pressure-dosing pipe. Where pressure-dosing pipe is used, end caps should be prepared with a hole saw to adequately accommodate the outside diameter of the dosing pipe.

8. An easy-knockout inspection port is provided on the roof aspect of each Arc 36, Arc 36 LP, and Arc 36 HC chamber. Once the knockout is removed, the resulting opening will accept 4" SDR 35 (4.5" O.D.) or 4" Schedule 40 (4.215" O.D.) pipe. The Schedule 40 pipe may require moderate coaxing with a rubber mallet. Arc chamber inspection ports are labeled with both size knockout rings.





Inside view

9. Fill sidewall area to top of chambers with native soil (or select fill where required). Fill shall be compacted to the minimum requirements necessary for the soil type used. "Walking in" the soil is an acceptable means for achieving the compaction level along the sides of the chamber.

10. 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, as they may eventually impinge on the chamber. As common practice, avoid driving any equipment over the chambers prior to final backfill. Where vehicular loading will be anticipated, all Arc 36, Arc 36 LP and Arc 36 HC chambers are approved for AASHTO H-10 (16,000 lbs/axle) loading when installed with a minimum of 12 inches to a maximum of 8 feet of cover after consolidation*.

11. When preparing the final grade, grading shall be such that stormwater is diverted away from the drainfield. System final grade should be crested or sloped, never left flat or concave. Channel storm and downspout water away from the drainfield. Final grading should be slightly to moderately limited soil to help maintain an aerobic state in the drainfield. Venting is not required, but is recommended to promote oxygen access to the drainfield. Venting practices may be required by state or local code.

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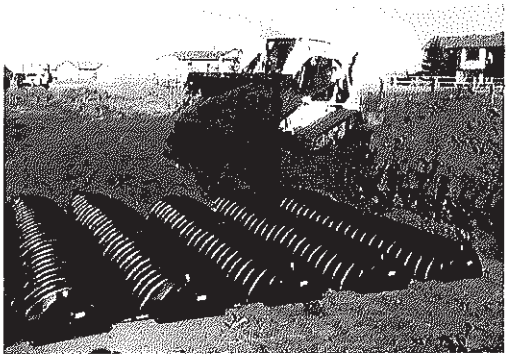
Bed Installation Guidelines

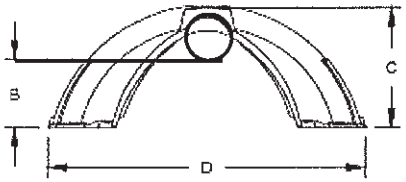
1. Excavate bed to proper width and depth as described in the design and as required by state and local code. For any traffic condition up to an AASHTO H-10 (16,000 lbs/axle) maximum load limit, the minimum cover over the crown (top of chamber) of the chamber shall be 12 inches.

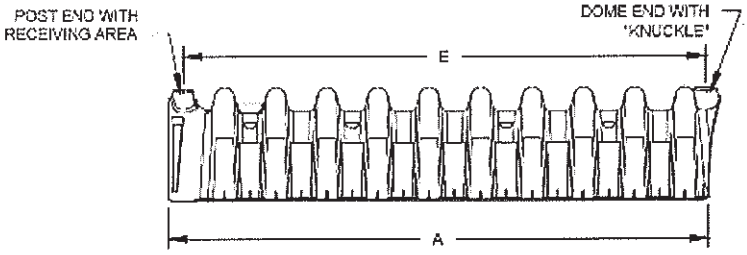
2. Smooth irregularities in the excavation and clear any large rocks or debris from the bottom of the bed. Slope of the bed shall be determined based on state or local code.



3. For chamber assembly, see steps 3 through 10 in the Trench Installation Guidelines above.

*Cover height and live loading limits are impacted by both soil type and compaction requirements. Arc by Infiltrator should be contacted when poor soils are encountered or, if unknown, when fill heights exceed 4-feet.





	Arc 36	Arc 36 LP	Arc 36 HC
Length (A)	63 in	64 in	63 in
Repeat Length (E)	60 in	60 in	60 in
Invert Height (B)	7.25 in	3.8 in / 8.0 in**	10.74 in
Overall Height (C)	13 in	8 in	16 in
Overall Width (D)	34 in	34 in	34 in
Capacity	8 cu ft (60.14 gal)	5.84 cu ft (43.71 gal)	10.7 cu ft (80 gal)

**8 in invert height can be obtained by entering through inspection port.

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