

Arc 36LP-4

Installation Instructions

Before You Begin

This document addresses the installation of Arc 36 LP-4 chambers. The Arc 36 LP-4 chambers are designed for shallow placement applications. All chambers may only be installed according to state and/or local regulations. If unsure of the installation requirements for a particular site, contact the local health department. Like conventional systems, the soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine the proper sizing and siting of the system before installation.

Note: When installing in sandy soil conditions, wheeled construction equipment is prohibited over the top of system. Tracked equipment can be used over top of system with a minimum of 6" of soil cover.

MATERIALS AND EQUIPMENT NEEDED

- | | |
|---|---|
| <input type="checkbox"/> Arc 36LP-4 Chambers (3608A4) | <input type="checkbox"/> Drill |
| <input type="checkbox"/> Quick4 Plus All-in-One 8 Endcaps | <input type="checkbox"/> Hole Saw |
| <input type="checkbox"/> PVC Pipe and Couplings | <input type="checkbox"/> Screw Gun* |
| <input type="checkbox"/> Backhoe | <input type="checkbox"/> Small Valve-cover Box* |
| <input type="checkbox"/> Laser, Transit or Level | <input type="checkbox"/> 4-inch Cap for Inspection Port |
| <input type="checkbox"/> Tape Measure | *Optional |
| <input type="checkbox"/> Shovel and Rake | |
| <input type="checkbox"/> Utility Knife | |
| <input type="checkbox"/> 1 1/4-inch Drywall Screws* | |

These guidelines for construction machinery must be followed during installation.

- Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an H-10 AASHTO load rating.
- Only drive across the trenches when necessary. Never drive down the length of the trenches.
- To avoid additional soil compaction, never drive heavy vehicles over the completed system.

Excavating and Preparing the Site

Note: As is the case with conventional systems, do not install systems in wet conditions or in overly moist soils, as this causes machinery to smear the soil.

1. Stake out location of all trenches and lines. Set elevations of tank, pipe, and trench bottom.
2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect site during rainfall.
3. Excavate and level trenches with proper width and center-to-center separation. Verify that trenches are level or have the prescribed slope.

Note: Over excavate in areas where you are planning to contour.

4. Rake bottom and sides if smearing has occurred while excavating. Remove any large stones and other debris. Do not use bucket teeth to rake trench bottom.

Note: Raking to eliminate smearing is not necessary in sandy soils. In fine textured soils (silts and clays), avoid walking in the trench to prevent compaction and loss of soil structure.

Preparing the Endcap

Note: Quick4 Plus 8 and Quick4 Plus All-in-One 8 Endcaps are available for use with the Arc 36LP-4 chambers on either end of the trench, depending upon the installer's preference and configuration requirements.

1. With a hole saw drill an opening appropriate for pipe diameter being used (normally 3 - 4 inches) on front or side of endcap using center point marking (see illustration) as a guide.



Drill end cap.

Installing the System

1. Check the header pipe to be sure it is level or has the prescribed slope.

2. Set the invert height as specified in the design from the bottom of the inlet.

3. Place the first chamber in the trench.

4. Place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.

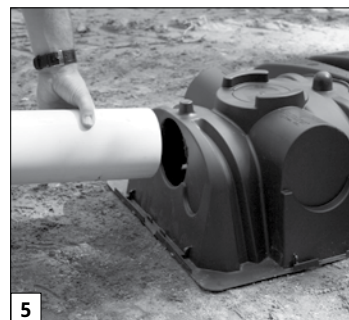
Optional: Fasten the endcap to the chamber with a screw at the top of the endcap.



Place end cap inlet end.

5. Insert the inlet pipe 2.5 inches into the opening on the front of the endcap. Insert fully to the internal pipe stop.

6. Lift and place the end of the next chamber onto the previous chamber by holding it at a 45-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower the chamber to the ground to connect the chambers.



Insert inlet pipe.

Note: The connector hook serves as a guide to ensure proper connection and does not add structural integrity to the chamber joint. Broken hooks will not affect the structure or void the warranty.

7. Swivel the chamber on the pin to achieve the proper direction for the trench layout.

Note: The chamber allows up to 10-degree swivel in either direction at each joint.

8. Continue connecting chambers until the trench is completed.

Note: As chambers are installed, verify they are level or have the prescribed slope.

9. The last chamber in the trench requires an endcap. Lift the endcap at a 45-degree angle and align the connector hook on the top of the chamber with the raised slot on the top of the endcap. Lower the endcap to the ground and into place.

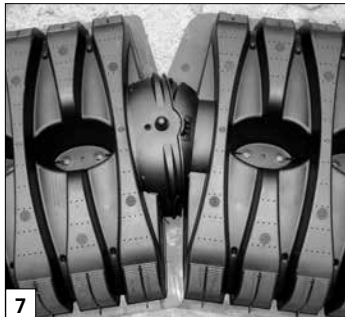
Note: Place a few shovels of soil around the endcap to secure it during backfill.

10. To ensure structural stability, fill the sidewall area by pulling soil from the sides of the trench with a shovel. Start at the joints where the chambers connect. Continue backfilling the entire sidewall area, making sure the fill covers the louvers.

11. Pack down fill by walking along the edges of trench and chambers.

Note: In wet or clay soils, do not walk in the sidewalls.

12. Proceed to the next trench and begin with Step 1.



Swivel chambers.



Place end cap outlet end.

Installing Quick4 Plus All-in-One 8 Endcap as a Mid-line Connection

Note: See mid-line piping options on the back of this document.

1. With a hole saw drill an opening appropriate for the pipe diameter being used on the side (3.3" invert) or on top (9.0" invert) of the Quick4 Plus All-in-One 8 Endcap.

Note: Piping configurations are determined by the preference of the installer or designer.

2. With a hole saw, drill an opening on the end of the Quick4 Plus All-in-One 8 Endcap to create an invert at 0.5 inches. This will allow effluent to fill both sides of the chamber line.

2. Snap off the molded splash plate located on the bottom front of the endcap.

3. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

4. Place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.

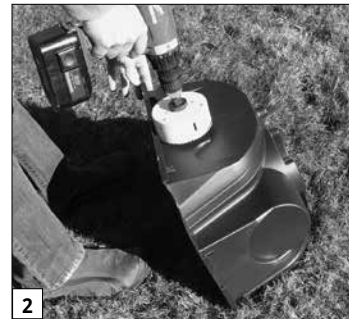
Optional: Fasten endcap to chamber with a screw at the top of endcap.

5. Insert the connection pipe 2.5 inches into the opening on endcap.

6. Repeat Steps 1 through 5 for additional trenches.



Drill endcap on side or top.



Drill endcap on end.

Contact Infiltrator's Technical Services Department for assistance at

1-800-221-4436 or info@infiltratorwater.com