INFILTRATOR®
water technologies

Ohio

Design and Installation Manual for Quick4 Chambers in Ohio



Infiltrator Chambers in Ohio	
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The purpose of this product information sheet is to provide specific design and installation information pertinent for the use of Infiltrator Quick4 Plus chambers in Ohio.

For more detailed design information, please contact Infiltrator Water Technologies at 1-800-221-4436

Ohio

INTRODUCTION

Quick4 Equalizer 24 Chambers

The Quick4 Equalizer 24 chambers can be installed in an 18-inch wide or 24-inch wide trench. The Quick4 Equalizer 24 Low Profile (LP) chamber is designed for shallow placement applications. There are a variety of system inletting options to choose from, with and without a distribution box.

Quick4 Equalizer 24
nominal chamber specifications

Size	16”W x 53”L x 11”H
Effective Length	48”
Invert Elevation	6”

Quick4 Equalizer 24
nominal chamber specifications

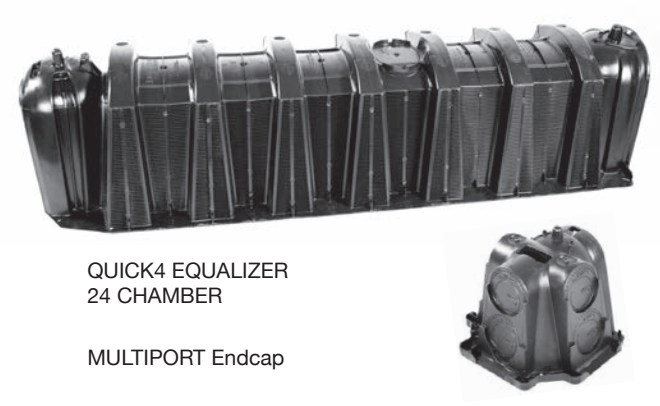
Size	16”W x 53”L x 8”H
Effective Length	48”
Invert Elevation	2”

Quick4 Plus Equalizer 36 Low Profile Chambers

The Quick4 Plus Equalizer 36 Low Profile (LP) chamber can be installed in a 24-inch-wide trench. This chamber is 4 inches shorter than other Equalizer 36 models allowing for shallower installation. The Quick4 Plus All-in-One and the Quick4 Plus Endcaps are available with this chamber, providing increased flexibility in system configurations..There are a variety of system inletting options to choose from, with and without a distribution box.

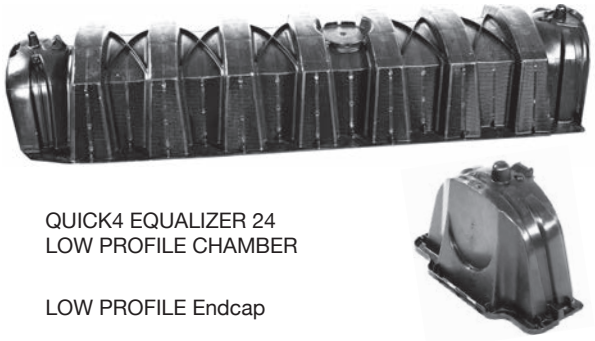
Quick4 Equalizer 36 Low Profile
nominal chamber specifications

Size	22”W x 53”L x 8”H
Effective Length	48”
Invert Elevation	3.3” and 9”



QUICK4 EQUALIZER
24 CHAMBER

MULTIPORT Endcap



QUICK4 EQUALIZER 24
LOW PROFILE CHAMBER

LOW PROFILE Endcap



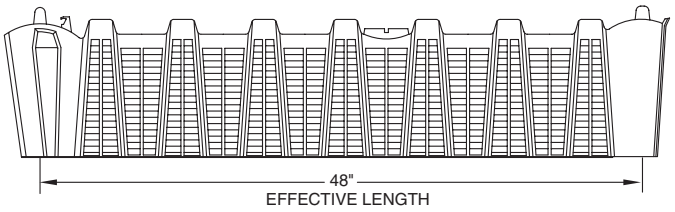
QUICK4 PLUS EQUALIZER 36
LOW PROFILE CHAMBER

QUICK4 PLUS
ENDCAP

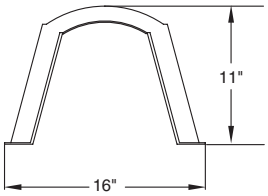
QUICK4 PLUS
ALL-IN-ONE 8 ENDCAP

PRODUCTS

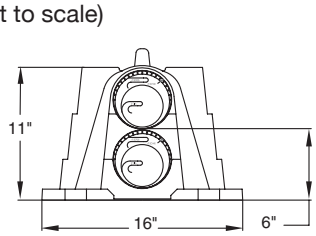
Quick4 Equalizer 24 Chambers



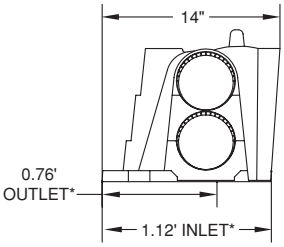
TYPICAL SIDE AND END VIEWS
(not to scale)



MULTIPORT ENDCAP
(not to scale)

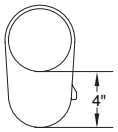


FRONT VIEW

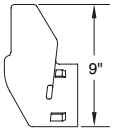


SIDE VIEW

INVERT ADAPTER
(not to scale)

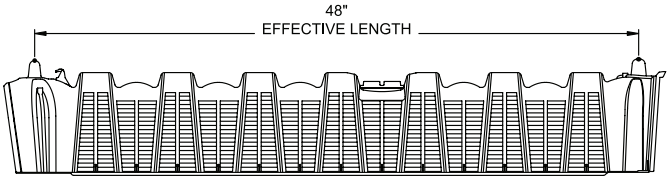


FRONT VIEW

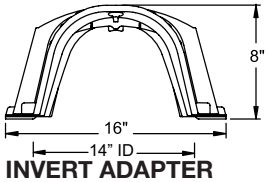


SIDE VIEW

Quick4 Equalizer 24 Low Profile Chambers

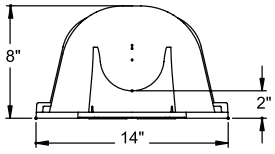


TYPICAL SIDE AND END VIEWS
(not to scale)

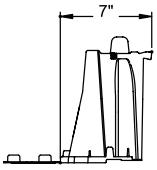


INVERT ADAPTER
(not to scale)

LOW PROFILE ENDCAP
(not to scale)



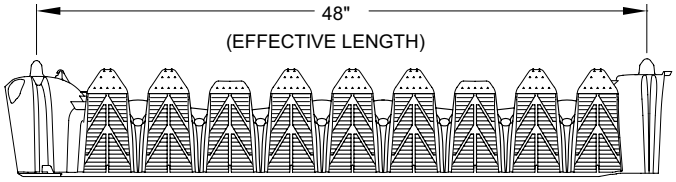
FRONT VIEW



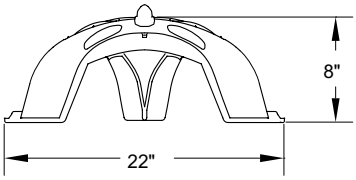
SIDE VIEW

PRODUCTS

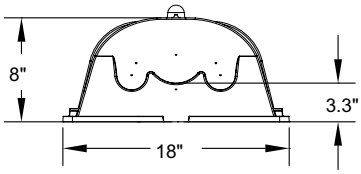
Quick4 Plus Equalizer 36 Low Profile (LP) Chambers



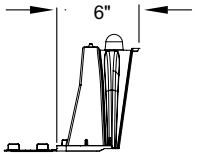
TYPICAL SIDE AND END VIEWS
(not to scale)



LOW PROFILE ENDCAP
(not to scale)

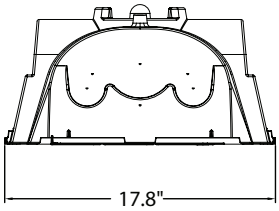


FRONT VIEW

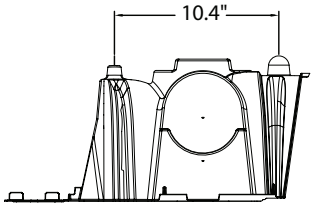


SIDE VIEW

Quick4 Plus All-in-One Endcap

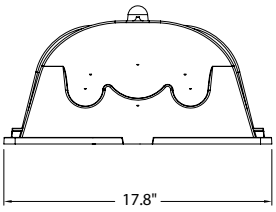


FRONT VIEW

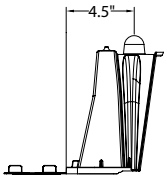


SIDE VIEW

Quick4 Plus Endcap



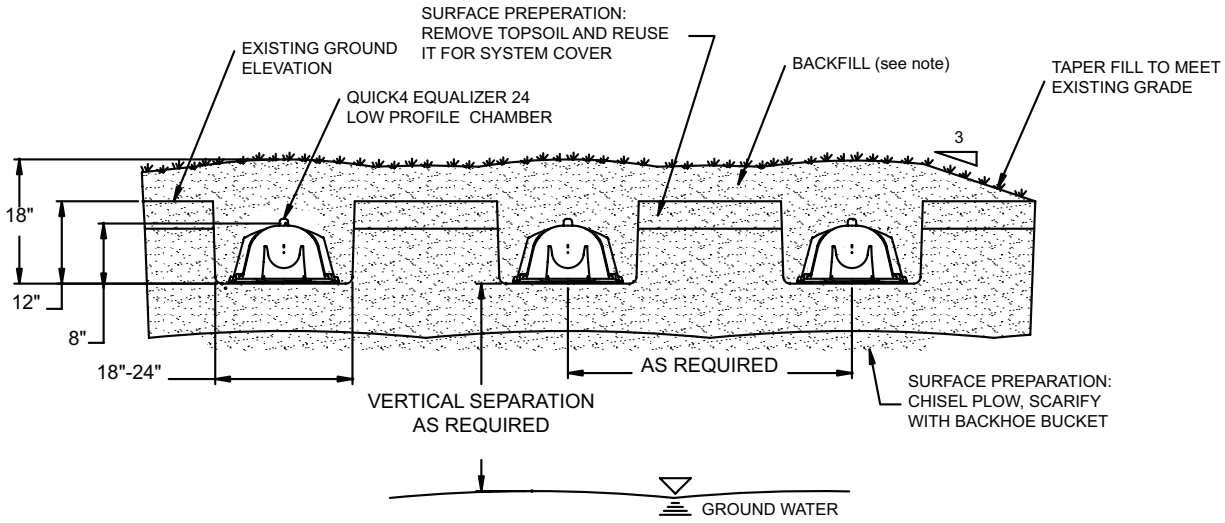
FRONT VIEW



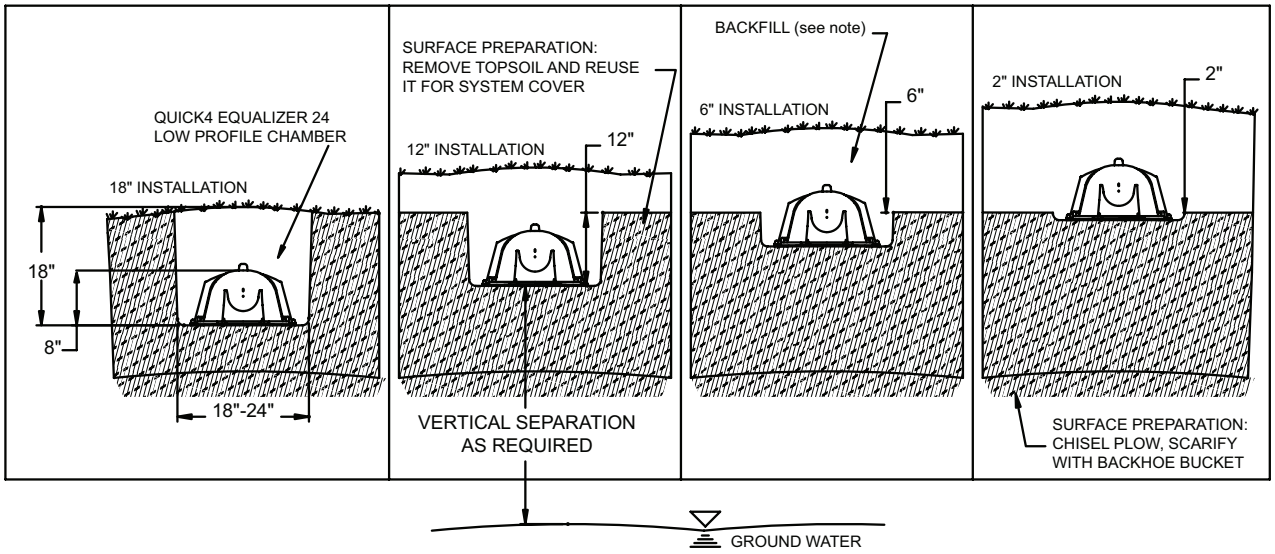
SIDE VIEW

CHAMBER CONFIGURATIONS

Quick4 Equalizer 24 LP Shallow Trench Configurations



TYPICAL 12" DEPTH PROFILE CROSS SECTION
(not to scale)



18" DEPTH PROFILE
AT VARIOUS ELEVATIONS CROSS SECTION
(not to scale)

NOTE:

1) Excavation material from the shallow trench can be used as backfill. Any additional material needed for backfilling must be of similar soil composition and permeability to the original soil.

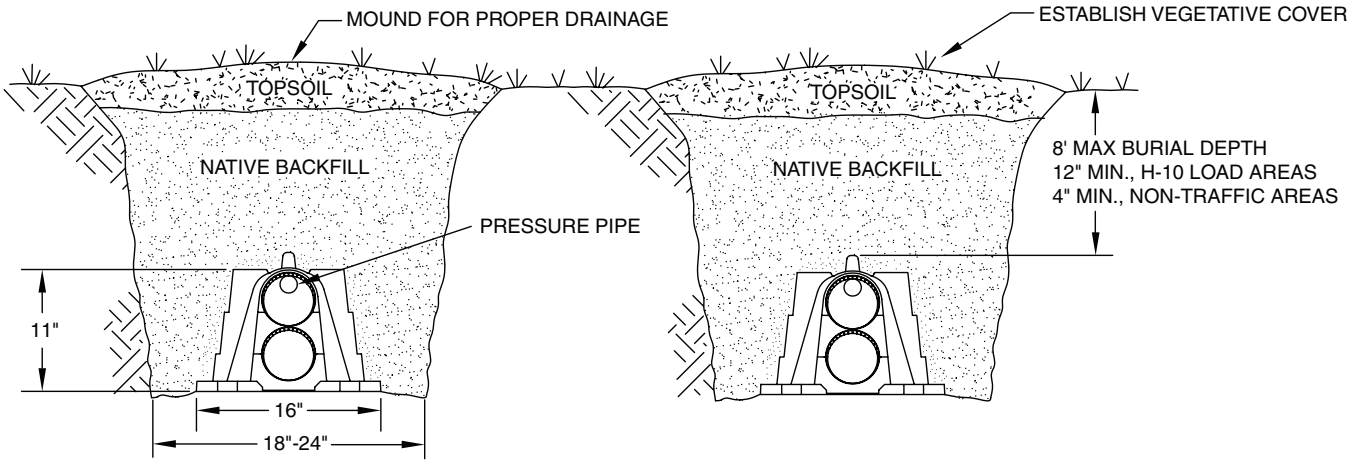
Depth of Cover	Max. Loading Rate
12"	H-10 (16,000 lbs.)
6"	10 PSI
4"	Tracked Vehicles Only

2) A minimum cover of 4" may be allowed.

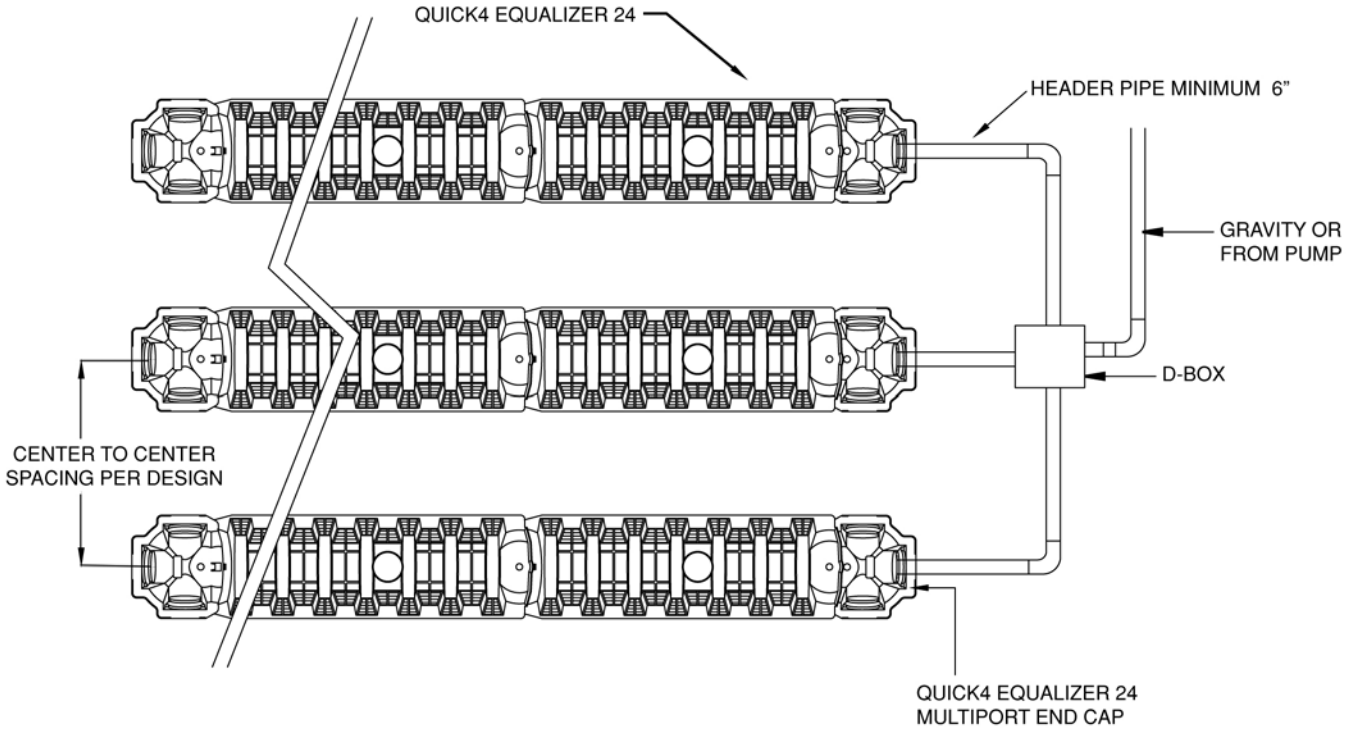
CHAMBER CONFIGURATIONS

Quick4 Equalizer 24 Equal Distribution Configurations

TYPICAL CROSS SECTION
(not to scale)



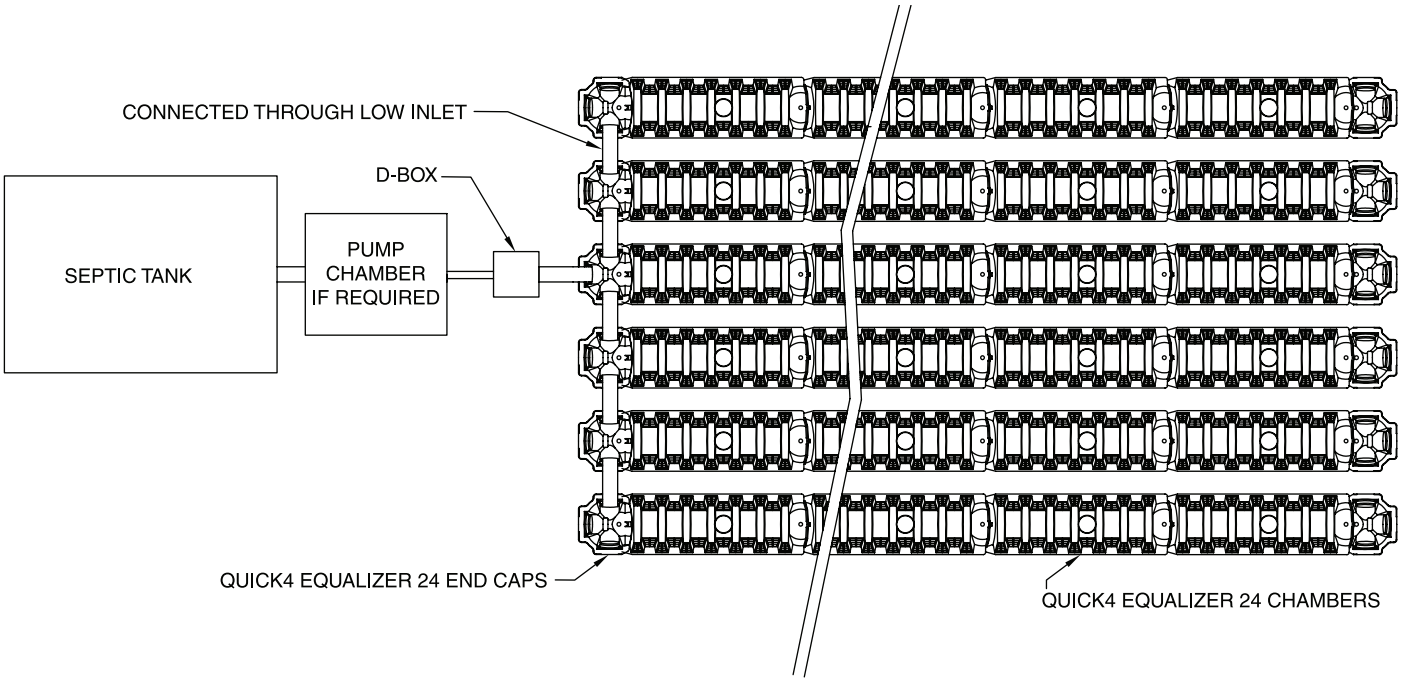
TYPICAL PLAN VIEW
(not to scale)



CHAMBER CONFIGURATIONS

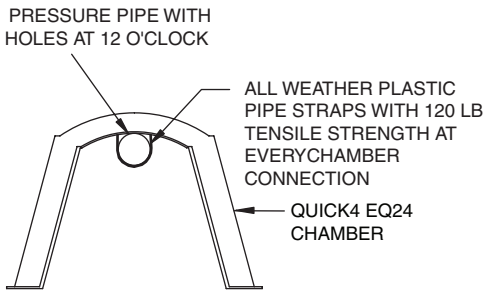
Quick4 Equalizer 24 Header Manifold Distribution

TYPICAL PLAN VIEW
(not to scale)

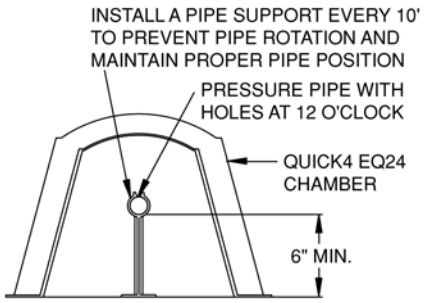


Quick4 Equalizer 24 Pressure Distribution Configurations

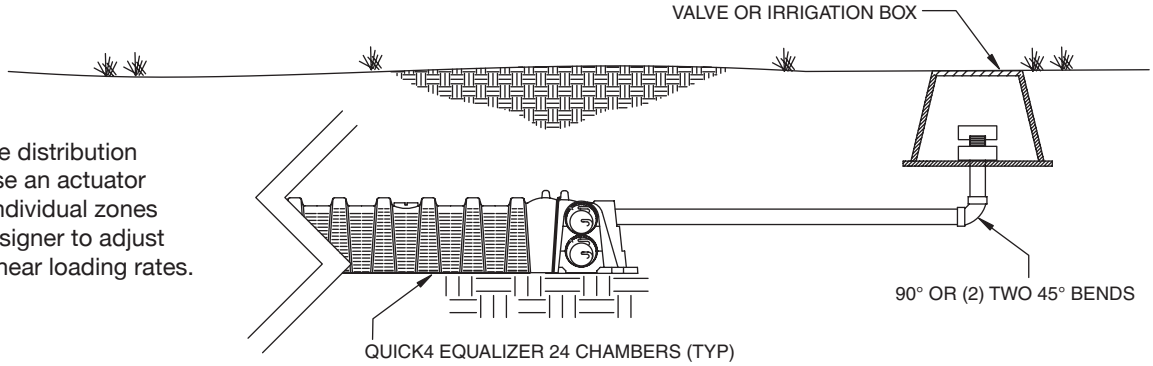
TYPICAL HANG PIPE END VIEW
(not to scale)



PIPE SUPPORT END VIEW
(not to scale)



TYPICAL CLEANOUT EXTENSION DETAIL SIDE VIEW
(not to scale)

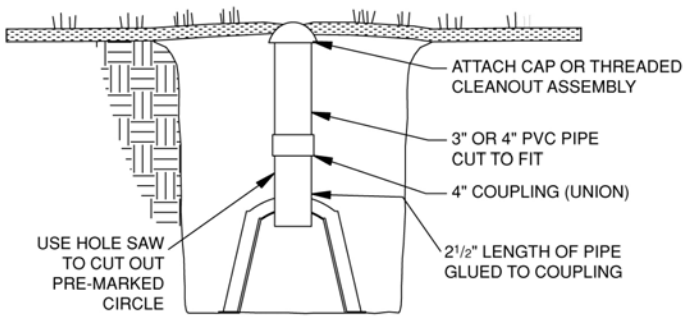


NOTE: Pressure distribution designs may use an actuator valve to dose individual zones allowing the designer to adjust for excessive linear loading rates.

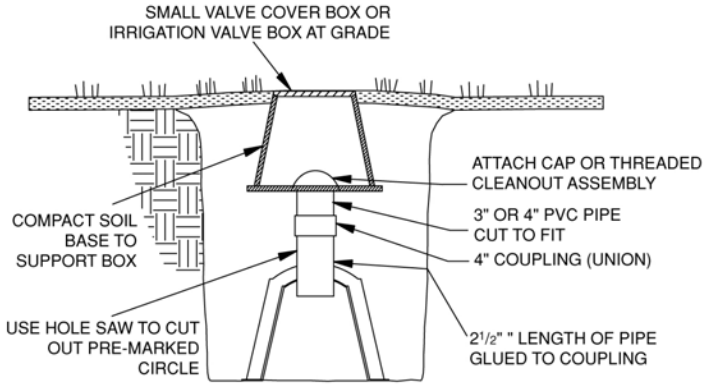
CHAMBER CONFIGURATIONS

Quick4 Equalizer 24 Optional Inspection Port Details

OPTION A: CHAMBER RISER TO GRADE
(not to scale)



OPTION B: INSTALLATION WITH VALVE BOX
(not to scale)



INSTALLATION INSTRUCTIONS

Quick4 Equalizer 24 Trench Systems

Before You Begin

Quick4 Equalizer 24 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. Have your local regulator conduct a thorough site evaluation to determine the proper sizing and siting of the system before installation.

Materials and Equipment Needed

- ☐ Quick4 Equalizer 24 chambers
- ☐ Multiport Endcaps
- ☐ PVC Pipe and Couplings
- ☐ Backhoe
- ☐ Laser / Transit / Level
- ☐ Shovel and rake
- ☐ Tape measure
- ☐ 11⁄4-inch Drywall Screws
- ☐ Screw Gun
- ☐ Hole Saw*
- ☐ Small Valve-Cover Box*
- ☐ 4-inch Cap for Inspection Port*
- ☐ Invert Adapter*
- ☐ Chisel plow*

*Optional

These guidelines for construction machinery must be followed during installation.

- ☐ Avoid direct contact with chambers with construction machinery. Always maintain a minimum of 12 inches of compacted cover over the chambers. Chambers with this minimum covering can support AASHTO H-10 loads of 16,000 lb/axle in all soils except sand.
- ☐ Do not drive over trenches. If unavoidable use a tracked vehicle. Never drive down the length of the trenches.
- ☐ Onsite rules do not allow for vehicular traffic over drainfields. Compaction may affect performance even if it does not damage the product.

Excavating and Preparing the Site

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

NOTE: For shallow applications scarify the turf with a backhoe bucket or till with a chisel plow. Prepare per local requirements.

1. Stake out the location of all trenches and lines. Set the elevations of the tank, pipe, and trench bottom.

2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect the site during rainfall events.

3. Excavate and level 18” to 24” wide trenches with proper center-to-center separation. Verify that the trenches are level or have the prescribed slope.

NOTE: Over excavate the trench width in areas where you are planning to contour.

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

5. Verify that each trench is level using a level, transit, or laser.

Preparing the MultiPort Endcap

1. With a utility knife start the tear-out seal at the appropriate diameter for the inlet pipe. The seal allows for a tight fit for 3-inch, 4-inch SDR35, and 4-inch SCH40 pipe.

2. Pull the tab on the tear-out seal to create an opening on the endcap.

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

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

5. Insert the inlet pipe into the endcap at the beginning of the trench. Extend the pipe into the endcap roughly 3 inches before reaching the stop. (Screws optional.)



1. Start tear-out seal.



2. Pull tab on tear-out seal.

Installing the System

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

NOTE: Header pipe may be a minimum of 6” in length.

2. Set the invert height at 6 or 10 inches as specified in the design from the bottom of the inlet.

NOTE: Use the Invert Adapter to achieve a 10” invert height. See detail drawing on page 3.

3. To attach the chamber to the MultiPort Endcap, place the inlet end of the first chamber over the back edge of the endcap. Line up the notches on the bottom of each side of the endcap with the slots on the bottom edge of the chamber.

4. Insert two 11⁄4” drywall screws on each side of the Quick 4 EQ24 chamber. Tighten each screw until the MultiPort Endcap is firmly secured to the chamber.



4. Insert drywall screws.

5. Lift and place the end of the next chamber onto the previous chamber by holding it at a 90-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.



5. Connect the chambers.

NOTE: When the chamber end is placed between the connector hook and locking pin at a 90-degree angle, the pin will be visible from the back side of the chamber.

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.

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

NOTE: The chamber allows up to a 15-degree swivel in either direction at each joint.

7. Continue connecting the chambers until trench is completed.

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

8. The last chamber in the trench requires an endcap. To attach the MultiPort Endcap, lift the endcap at a 45-degree angle and insert the connector hook through the opening on the top of the endcap. Applying firm pressure, lower the endcap to the ground to snap it into place. Do not remove tear-out seal in the MultiPort Endcap.

NOTE: Use straight lengths of pipe with the MultiPort Endcap at the trench ends to create fitting-free looped ends.

9. 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.

10. Pack down the fill by walking along the edges of the trench and chambers. This is an important step in assuring structural support.

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

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

Installing Optional Inspection Ports

1. With a hole saw, drill the pre-marked area in the top of the chamber to create a 4-inch opening.

2. Set a cut piece of pipe of the appropriate length into the corresponding chamber's inspection port sleeve.

NOTE: The sleeve will accommodate up to a 4-inch SCH40 pipe. See page 9 for detail drawings.

Covering the System

Before backfilling, the system must be inspected by a health officer or other official as required by State and local codes. Create an as-built drawing at this time for future records.

1. Backfill the trench by pushing fill material over the chambers with a backhoe. It is acceptable to use rock or other clean course material as backfill.

NOTE: Do not drive over the trenches unless a tracked vehicle is used.

NOTE: For shallow cover applications, mound 12 inches of soil over the system before driving over it, and then grade it back to 6 inches upon completion.

2. It is best to mound several inches of soil over the finish grade to allow for settling. This also ensures that runoff water is diverted away from the system.

3. After the system is covered, the site should be seeded or sodded to prevent 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 drainfield location so they will not cross it with equipment or vehicles.

3. Use two screws to fasten the pipe to the sleeve around the inspection port.

Quick4 Equalizer 24 LP Chamber Systems

Before You Begin

Quick4 Equalizer 24 LP Chambers are designed for shallow placement applications and 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.

Materials and Equipment Needed

- ☐ Quick4 Equalizer 24 LP chambers
- ☐ Endcaps
- ☐ PVC Pipe and Couplings
- ☐ Backhoe
- ☐ Laser / Transit / Level
- ☐ Shovel and rake
- ☐ Tape measure
- ☐ Utility knife

These guidelines for construction machinery must be followed during installation.

- ☐ Avoid direct contact with chambers when using construction equipment.
- ☐ 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 the systems in wet conditions or in overly moist soils, as this causes machinery to smear the soil.

1. Stake out the location of all trenches and lines. Set the elevations of the tank, pipe, and trench bottom.

2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect the site during rainfall events.

3. Excavate and level 18” wide trenches with proper center-to-center separation. Verify that the trenches are level or have the prescribed slope.

NOTE: Over excavate the trench width in areas where you are planning to contour.

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

5. Verify that each trench is level using a level, transit, or laser.

Preparing the Endcap

1. With a hole saw drill a opening appropriate to the pipe diameter being used (typically 3 to 4 inches) on the front of the endcap.

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.

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.



4. Place endcap onto first chamber.

5. Insert the header pipe 2.5 inches into the opening on the front of the endcap.

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.



6. Connect chambers.

NOTE: When the chamber end is placed between the connector hook and locking pin at a 45-degree angle, the pin will be visible from the back side of the chamber.

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 a 15-degree swivel in either direction at each joint.

8. Continue connecting the 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.



9. Attach endcap to last chamber.

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.



10. Walking-in the fill.

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

Installing Optional Inspection Ports

1. With a hole saw, drill the pre-marked area in the top of the chamber to create a 4-inch opening.

2. Set a cut piece of pipe of the appropriate length into the corresponding chamber's inspection port sleeve.

NOTE: The sleeve will accommodate up to a 4-inch SCH40 pipe.

3. Use two screws to fasten the pipe to the sleeve around the inspection port.

4. Attach a threaded cap or cleanout assembly onto the protruding pipe at the appropriate height.

5. A small valve cover box may be used if inspection port is below the desired grade.

Covering the System

Before backfilling, the system must be inspected by a health officer or other official as required by State and local codes. Create an as-built drawing at this time for future records.

1. Backfill the trench by pushing fill material over the chambers with a backhoe. Keep a minimum of 12 inches of compacted cover over the chambers before driving over the system.

NOTE: Do not drive over system while backfilling in sand.

NOTE: For shallow cover applications, it is recommended that tracked construction equipment be used. You must mound 12 inches of soil over the system before driving over it, and then grade it back a minimum of 4 inches upon completion.

2. It is best to mound several inches of soil over the finish grade to allow for settling. This also ensures that runoff water is diverted away from the system.

3. After the system is covered, the site should be seeded or sodded to prevent 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 site location so they will not cross it with equipment or vehicles.

Quick4 Equalizer 24
Pressurized Sand Mound Systems

Before You Begin

Quick4 Equalizer 24 chambers can only be installed according to state and/or local regulations. Contact your local regulator for specific requirements.

Soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine proper sizing and siting of the system before installation.

Materials and Equipment Needed

- ☐ Quick4 Equalizer 24 chambers
- ☐ MultiPort Endcaps
- ☐ Pressure Lateral Pipe
- ☐ Sand and Specified Fill Material
- ☐ Laser / Transit / Level
- ☐ Plastic Pipe straps, all weather, 120 lb. tensile strength nylon prohibited
- ☐ Utility Knife or Hole Saw
- ☐ Backhoe/Bulldozer/Skid-Steer
- ☐ Glue
- ☐ Rake
- ☐ 2” Drywall Screws*
- ☐ Garden Hose*
- ☐ Chisel Plow*
- ☐ Paving Block*

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.
- ☐ Avoid stones larger than 3 inches in diameter in backfill. Remove stones this size or larger that are in contact with chambers.

Preparing the Site

1. Review site plans to determine the height of the seasonal high water table or other limiting factors.

2. Calculate the number of sand lifts necessary. Lifts should measure 6 to 12 inches in height.

3. Confirm that the sand (imported fill) meets plan specifications. If no specifications are available, Infiltrator Water Technologies recommends sands that meet the grain size specifications (ASTM C33)
in Table 2.

TABLE 2 : GRAIN SIZE SPECIFICATIONS (ASTM C33)

Sieve Size	% Passing
3/8”	100%
No. 4	90% - 100%
No. 30	20% - 60%
No. 200	0% - 5%

4. Install sedimentation and erosion control measures.

5. Cut trees flush to the ground (or remove if code allows), remove surface boulders that can be easily rolled off, and remove vegetation over 6 inches in height.

6. Rough or plow the area parallel with the contour of the land. Do this by using the teeth of a backhoe or a multiple share plow, chisel plow or a similar implement attached to lightweight equipment. Avoid rotary tilling.

Placing the Sand



1. Use a dozer or backhoe to evenly spread a one-foot lift of specified fill material over the required area.

NOTE: Compaction is critical to prevent settling and will not have a significant effect on permeability of clean, sandy fill.

2. To obtain the necessary compaction, a tracked vehicle or wheeled backhoe can be driven over the entire bed. After first tracks are made across the bed, move across the bed at increments equal to the width of the wheels/ tracks. A vibratory plate compactor may also be used for compaction. Optimal moisture content to aid compaction is approximately 10%. Add water as necessary to obtain appropriate moisture content.

NOTE: Check local regulations to determine if wheeled vehicles are allowed on fill systems. Wheeled vehicles may be used on the base fill. No wheeled vehicles are allowed over the chambers in a fill system.

3. Place consecutive lifts following Steps 1 and 2 until design elevation is achieved (desired elevation is the infiltrative surface). Lifts should not exceed a 12 inch height.

4. Lightly drag a landscape rake over the final infiltrative surface to scarify the top 1⁄2 inch of the sand. Check bed elevation to be sure it is level.

Quick4 Equalizer 24 Pressurized Sand Mound Systems

Installing Chambers and Endcaps

1. To allow pressure laterals to drain after each dose, drill a hole in the bottom of the pipe at the end of the pressure line. Place the snap-off splash plate or a paving block at the bottom of the trench to protect the infiltrative surface from erosion.

2. With a hole saw, drill out the appropriate diameter hole to accommodate the pressure lateral pipe.

3. Insert the pressure lateral pipe into the endcap's drilled opening and slide it into the manifold pipe. Glue the pressure lateral pipe to the manifold pipe.

4. With the pressure lateral pipe through the endcap, place the inlet end of the first chamber over the back edge of the MultiPort Endcap or slide the chamber under the Low Profile Endcap.

5. (Method A) Secure the pressure lateral pipe to the top of the first chamber with a plastic pipe strap at the outlet end of the unit. Slide the strap up through a slot in the chamber top, down through the other slot, and cinch the two ends around the pipe. The Infiltrator Pipe Support may also be used to hold and stabilize the pipe. See page 7 for detail drawing.

6. (Method B) With the holes pointing up, stabilize the pressure lateral pipe on the ground to prevent it from moving.

7. Lift and place the next chamber onto the previous one at a 90-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower it to the ground to engage the interlocks.

8. (Method A) Secure the lateral pipe to the top of the next chamber once in place. Follow the same method in Step 5.

9. Continue interlocking chambers and securing the pipe until the row is completed.

10. Before attaching the final endcap, remove the tongue of the connector hook on the last chamber with a pair of pliers.

11. Insert the pressure lateral pipe through the hole in the final endcap and slide the endcap towards the last chamber. Lift the endcap over the modified connector hook and push straight down to secure it to the chamber.

NOTE: If cleanout extensions are required, use a hole saw to cut a hole in the endcap at the proper elevation so that the lateral pipe can extend. For clean-out access, a 90-degree elbow that extends to the soil's surface can be attached to the lateral pipe.

12. If installing multiple rows of chambers, follow Steps 1-9 to lay the next row of chambers parallel to the first. Keep a minimum separation distance between each row of chambers as required by local code.

Covering the System

Before backfilling, the system must be inspected by a Health Officer or regulatory official as required by state and local codes. Create an as-built drawing at this time for future records.

1. Place a 2-foot high pile of berm material around the perimeter of the sand mound and directly against the outer rows of chambers for stabilization.

2. Ladle soil between the chamber rows to the top sidewall louver to prevent chamber movement before final backfill. Firm the soil between the chamber rows by walking it in. This important step assures correct structural support of the system.

3. Push the berm material between and over the chamber rows with a dozer. Keep a minimum 12-inches of compacted cover over the system.

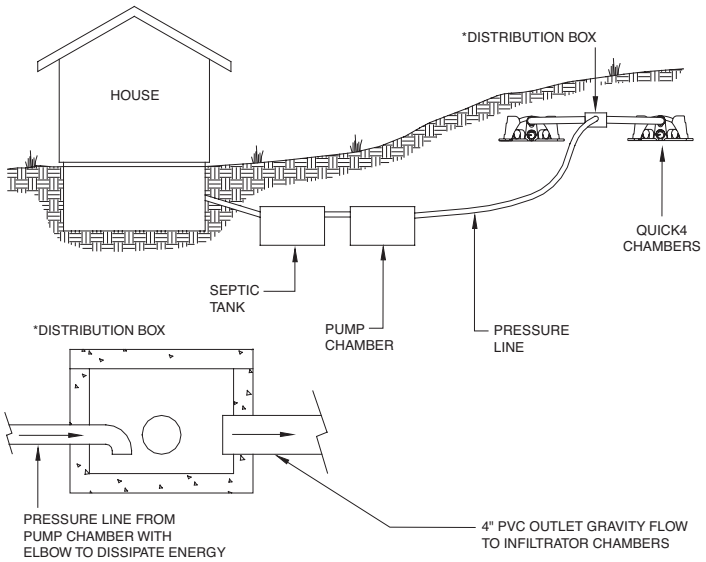
NOTE: NO wheeled machinery is allowed on chambers in mounds. Tracked vehicles may be used.

4. After the system is covered, the site should be seeded or sodded to prevent 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 drainfield location so they will not cross it with equipment or vehicles.

Flood Dose Onsite Systems

In a flood dose onsite system, the effluent is pumped to a distribution box which receives a predetermined dose volume of effluent. It is then gravity fed to the soil absorption field and distributed to the chamber trenches. In a flood dose onsite system, the effluent is gravity fed as shown in the Figure below.



Quick4 Plus Equalizer 36 Low Profile Chamber Systems

Before You Begin

Quick4 Plus Equalizer 36 LP 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.

Materials and Equipment Needed

- ☐ Quick4 Plus EQ36 LP chambers
- ☐ Quick4 Plus Endcaps
- ☐ Backhoe / Excavator
- ☐ Shovel and Rake
- ☐ Laser / Transit / Level
- ☐ Utility Knife / Screwdriver
- ☐ Tape Measure
- ☐ Screw Gun*
- ☐ 2-inch Drywall Screws*

*Optional.

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.

**Compacted to a comparable level of native soil.

Excavating and Preparing the Site

1. Stake out the location of all trenches and lines. Set the elevations of the tank, pipe, and trench bottom.

2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect the site during rainfall events.

3. Excavate and level 2-foot wide trenches with proper center-to-center separation.

NOTE: Over excavate the trench width in areas where you are planning to contour.

Preparing the Endcap

Note: Quick4 Plus and Q4 Plus All-in-One Endcaps are available for use with Quick4 Plus chambers on either end of trench, depending upon installer's preference and configuration requirements.

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

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.

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.



4. Place endcap inlet end.

5. Insert the inlet pipe 2.5 inches into the opening on the front of the endcap.

6. Lift and place the end of the next chamber onto 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 chambers.

Note: When the chamber end is placed between the connector hook and locking pin at a 45-degree angle, the pin will be visible from the back side of the chamber.



5. 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 warranty.

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



6. Connect chambers.

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.



9. Place endcap outlet end.

NOTE: Place a few shovels of soil around the endcap to secure 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 louvers.

11. Pack down fill by walking along 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.

Installing Optional Quick4 Plus Inspection Ports

Inspection ports may be installed on the chamber or the Quick4 Plus All-in-One Endcap. The Quick4 Plus Endcap does not allow inspection port construction.

Quick4 Plus All-in-One Inspection Port

1. With a hole saw drill the pre-marked area in the top of the Quick4 Plus All-in-One Endcap to create a 4-inch opening.

2. Set a cut piece of pipe of the appropriate length into the corresponding endcap's inspection port sleeve.

NOTE: Sleeve will accommodate up to a 4-inch Schedule 40 pipe.

3. Use two screws to fasten pipe to the sleeve around the inspection port.



All-in-One inspection port.

4. Attach a threaded cap or cleanout assembly onto the protruding pipe at appropriate height.

5. A small valve cover box may be used if inspection port is below desired grade.

Chamber Inspection Port

1. With a hole saw drill the pre-marked area in the top of the chamber to create a 2.5-inch opening.

2. Set a cut piece of pipe of appropriate length into the corresponding chamber's inspection port sleeve.

NOTE: The sleeve will accommodate up to a 2.5-inch Schedule 40 pipe.

3. Use two screws to fasten the pipe to the sleeve around the inspection port.

4. Attach a threaded cap or cleanout assembly onto the protruding pipe at the appropriate height.

5. A small valve cover box may be used if the inspection port is below the desired grade.

Covering the System

Before backfilling, the system must be inspected by a health officer or other official as required by State and local codes. Create an as-built drawing at this time for future records.

1. Backfill the trench by pushing fill material over the chambers with a backhoe. Keep a minimum of 12 inches of compacted cover over the chambers before driving over the system.

NOTE: Do not drive over system while backfilling in sand.

NOTE: For shallow cover applications, you must mound 12 inches of soil over the system before driving over it, and then grade it back to 6 inches upon completion.

2. It is best to mound several inches of soil over the finish grade to allow for settling. This also ensures runoff water is diverted away from the system.

3. After the system is covered, site should be seeded or sodded (per state and local requirements) to prevent 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 site location so they will not cross it with equipment or vehicles.

INSTALLATION CHECKLIST

The location, depth, installation, inspections and backfilling of an Infiltrator Quick4 Chamber system must be planned and flow the construction permit and the Quick 4 installation instructions. The installer shall adhere to the following during the installation, in addition to the requirements of the Quick 4 installation instructions:

Before Installation

_ Is the chamber system to be installed approved in accordance with all state and local regulations?

_ Has a sewage treatment systems construction permit been issued by the local board of health for the installation?

Pre-Installation Steps

_ Has the soil moisture content been checked to three inches below the planned trench bottom?

_ Where required by location regulations, have erosion control measures been installed as necessary to protect the sewage treatment and area and/or adjacent sensitive area?

_ Is the header pipe installed level or at the prescribed slope?

Installing the Chamber System

_ Are the elevations of the chamber trench bottom properly set?

_ Are the excavated trench bottoms level?

_ Has any smearing of the trench bottom or sidewall occurred during installation: If so, see Quick4 installation instructions.

_ Have all debris and rocks been removed from the trench excavation?

_ If present, have all footprints on the trench bottom been raked or scarified?

_ Has the appropriate knock-out or tear-out seal been prepared in inlet endcap to achieve correct inlet height?

_ Is each chamber unit and endcap securely connected to adjacent unit(s)?

_ Has an observation port been installed within a chamber line or at the drop box for monitoring the liquid level?

Backfilling, Inspection and Final Cover

_ Has the sidewall area been filled tot he top of the sidewall and compacted by walking the edges of the trench and chambers?

_ Where required, has an as-built plan been prepared for the inspector?

_ Has installed Quick4 chamber systems been inspected by local board of health prior to covering?

_ Is final cover installed to height and mounded as per the Quick4 installation instructions and the system design as described in the construction permit?

_ Has vehicular traffic of non-tracked equipment over the trenches been avoided?

_ Are approved Quick4 chambers installed in accordance with Quick4 installation instructions, local regulations, state regulations, and an authorized sewage treatment system construction permit as issued by the local board of health.

DISCLAIMER: This checklist provides general guidance on Quick4 chamber installations for typical site conditions. The installer is responsible for determining site-specific tank installation requirements based on conditions and other factors determined at the site at the time of installation. The installer is responsible for conducting the installation in conformance with applicable state and local requirements as well as the manufacturer's installation instructions to achieve proper function.

Ohio Limited Septic Warranty for Infiltrator Chambers

(a) The structural integrity of each chamber, endcap and other accessory manufactured by Infiltrator (collectively referred to as "Units"), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator's installation instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date upon which a septic permit is issued for the septic system containing the Units; provided, however, that if a septic permit is not required for the septic system by applicable law, the one (1) year warranty period will begin upon the date that installation of the septic system commences. In order to exercise its warranty rights, Holder must notify Infiltrator in writing at its corporate headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for those Units determined by Infiltrator to be defective and covered by this Limited Warranty. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(c) This Limited Warranty shall be void if any part of the chamber system (chamber, endcap or other accessory) is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty.

Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change this Limited Warranty in any manner whatsoever, or to extend this Limited Warranty. No warranty applies to any party other than the original Holder.

The above represents the standard Limited Warranty offered by Infiltrator. A limited number of counties have different warranty requirements. Any purchaser of Units should contact Infiltrator's corporate headquarters in Old Saybrook, Connecticut, prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.

NOTES

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U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending. Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Water Technologies. Infiltrator is a registered trademark in France. Infiltrator Water Technologies is a registered trademark in Mexico. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies.
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Contact Infiltrator Water Technologies' Technical Services Department for assistance at 1-800-221-4436