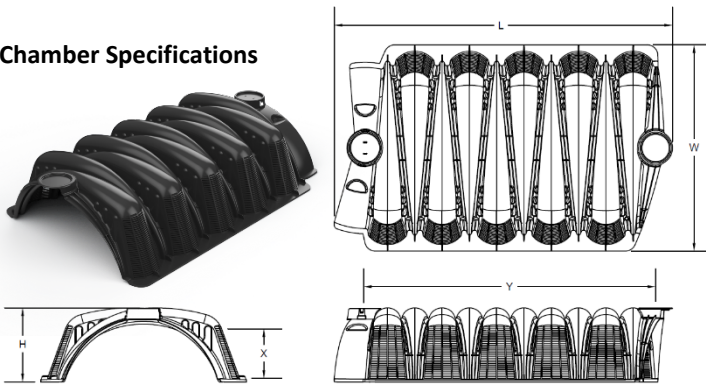


Overview

Prinsco Pro4 Chambers are a highly efficient, gravelless drainfield solution for residential and commercial septic systems. They were specifically designed for professional contractors who are looking for cost efficiency, delivery convenience, ease of installation, and application flexibility while maximizing drainfield infiltration area.

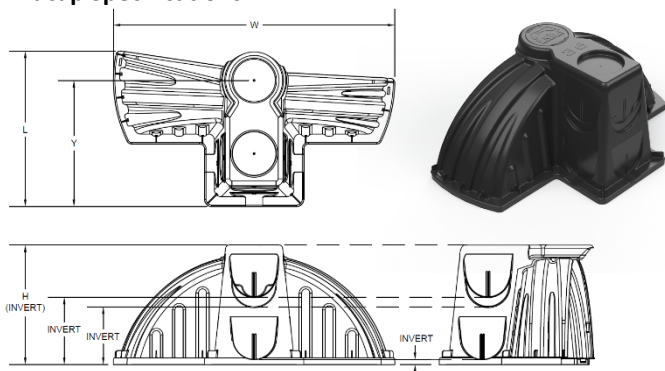
Pro4 chambers are designed to exceed the requirements of the International Association of Plumbing and Mechanical Officials (IAPMO) standards. The Pro4's unique, asymmetrical arches provide maximum structural performance to meet the demands of today's drainfield installations. Their interlocking coupler allows for 10° of joint articulation in either direction for contoured trench or bed applications.

Chamber Specifications



Pro4 Chamber Specifications			
Chamber	Pro4/24	Pro4/36	Pro4/36 HC
Dimensions (L x W x H)	55" x 22" x 12"	56" x 34" x 12"	56" x 34" x 16"
Effective Length (Y)	48"	48"	48"
Chamber Storage	32 gal	51 gal	65 gal
Sidewall Height (X)	8.5"	8.5"	12.2"
Open Bottom Area	6.4 ft ²	9.8 ft ²	9.8 ft ²
Weight	11 lbs	14.5 lbs	17 lbs

Endcap Specifications



Pro4 Endcap Specifications			
Endcap	Pro4/24	Pro4/36	Pro4/36 HC
Dimensions (L x W x H)	16" x 20" x 12"	16" x 29" x 12"	16.5" x 29 x 16"
Effective Length (Y)	13"	13"	13.5"
Invert Elevations	0.5", 6", 7", 12"	0.5", 6", 7", 12"	0.5", 10", 11", 16"
Endcap Storage	4.5 gal	7 gal	10 gal
Weight	2.7 lbs	3.6 lbs	4.5 lbs

Bed Installation

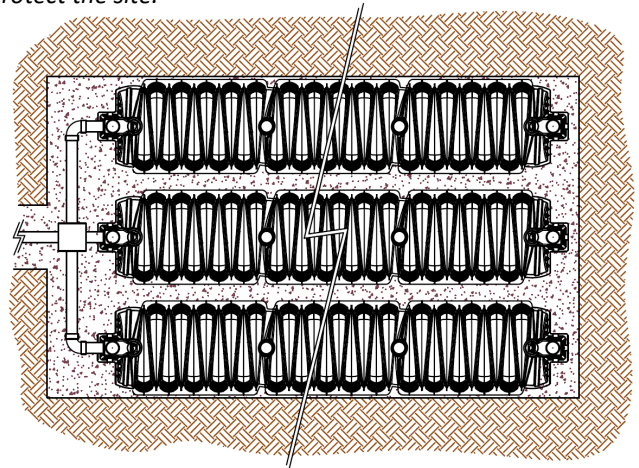
Before you begin the installation, read these instructions and any documents referenced in it. Pro4 chambers may only be installed per State and/or local regulations and, like all drainfields, must have prior site and soil conditions approved. Contact your local health department if the chamber installation requirements need clarification.

Required materials and tools:

- Pro4 Chambers and Endcaps
- PVC pipe and couplings
- Excavating equipment
- Leveling equipment
- Shovel and rake
- Measuring device
- Cordless drill, drill-bits, and hole-saw

Site Preparation

Do not install the system when there are wet soil conditions. Install erosion control prior to installation if necessary to protect the site.



Step 1: Establish the location of the system components, including the bed and mark out accordingly. Set the elevations for the system components and chamber system according to plan and per state and local codes. Refer to the Vehicle Loading section for specified cover requirements.

Step 2: Beds should be level. For jurisdictions requiring sloped beds, measure and verify necessary slope for the bed's base.

Step 3: Clear any debris within the installation area and hand rake the bed's base. If any base or sidewall smearing has occurred, scarify those surfaces.

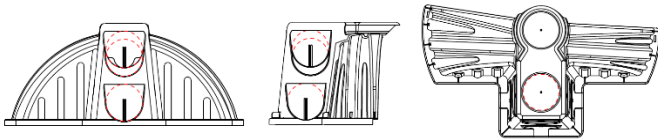
Step 4: Perform a final elevation check on the bed and system components before installing chambers.

Preparing the Pro4 Endcaps

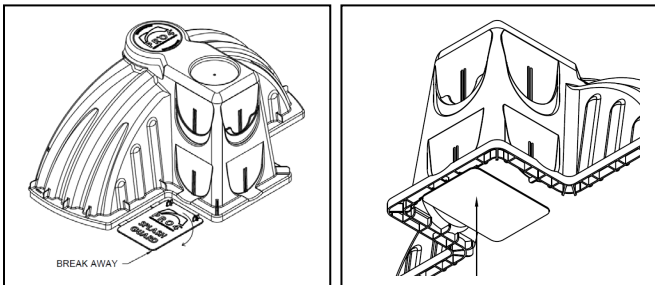
Use the appropriate Pro4 Endcap model per Pro4 Chamber size, see Pro4 Endcap Specifications for sizes.

Step 1: Drill an opening in the endcap with a hole saw where the inlet pipe will be inserted. Select the drill point based upon the invert elevation and hole size. Pro4 Endcaps can accommodate up to 4" Schedule 40 and SDR-35 pipe.

Pro4 Endcap Inlet Drill Locations



Step 2: Install the splash plate by removing the guard from the endcap and inserting the risers of the guard into the channels underneath the endcap footer.

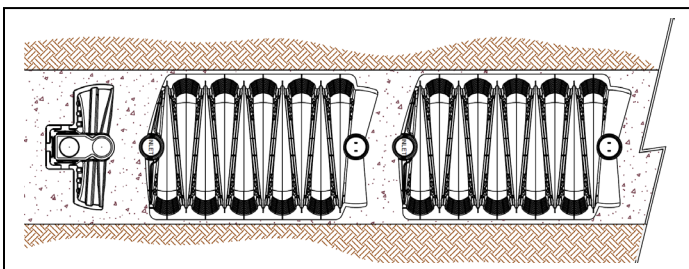


Note: For pressure mound systems, also refer to Pro4 Pressure Distribution Installation Instructions.

Installing the System / Chamber Assembly

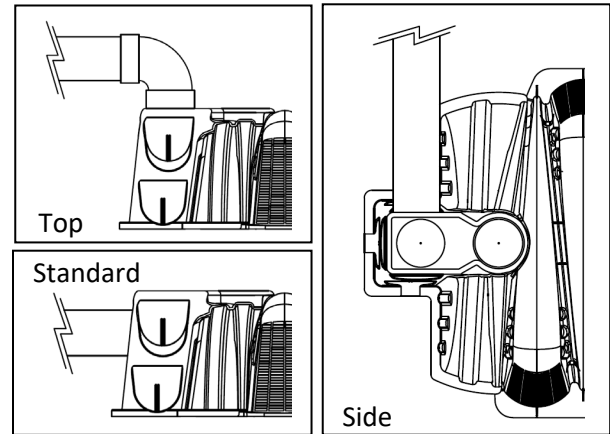
Step 1: Check the elevation of the invert and make sure it is aligned with the header pipe.

Step 2: Position the first chamber within the start of the bed. The end of the chamber marked **INLET** begins the row and should be facing the header pipe.



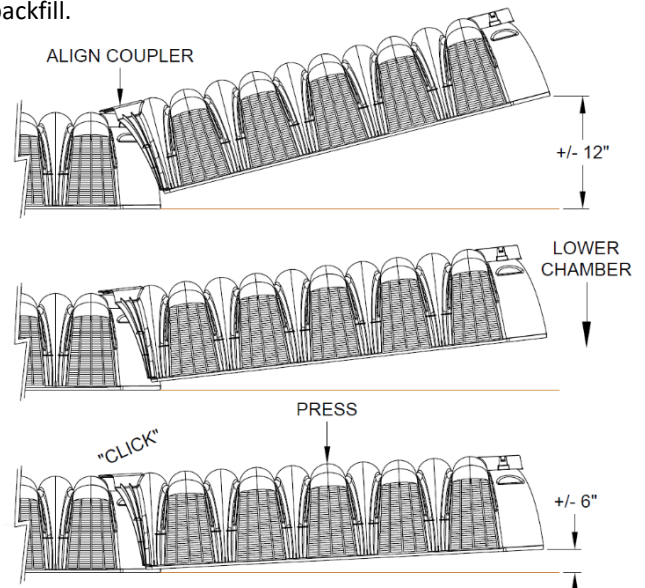
Step 3: Place the prepared endcap over the chamber and make sure it is aligned with the header pipe. The endcap will snap into place with locking tabs when pressed down on the chamber.

Inlet Options



Step 4: Insert the inlet pipe into the prepared endcap opening. The pipe should be inserted at least 2".

Step 5: With another chamber, align the coupler end marked **INLET** over the previously placed chamber. Lower the chamber towards the ground. Press down on the center of the chamber until a noticeable "click" is heard to obtain full engagement. The chamber-to-chamber coupler has a positive locking feature designed to keep the chambers secure during backfill.



Note: Chambers can be disengaged by lifting the end of chamber away from the connection. Multiple disengagements may cause the locking tabs to break. If this occurs, a screw may be used to connect the chambers.

Step 6: For installations following contours, rotate the chambers to align with the bed contour. Pro4 chambers joints can rotate a maximum of 10° in both directions.

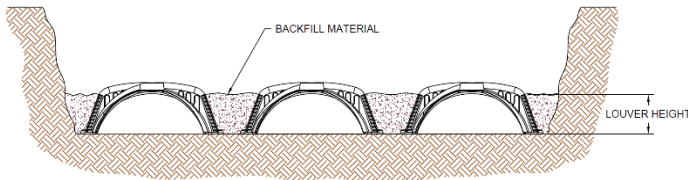
Step 7: Continue installing the chambers until the lateral is complete.

Step 8: Install an endcap on the last chamber in the lateral.

Step 9: Follow this process for each lateral in the bed.

Note: It is recommended that chambers in bed systems have 3"- 6" spacing between rows. Follow local and state codes regarding chamber spacing.

Step 10: Once all the chambers and endcaps are installed in the bed, begin carefully backfilling with soil around the sides of the chamber and around the endcaps. Fill soil just above the top of the sidewall louvers. Remove any large rocks that meet the sidewalls.



Step 11: Compact this soil by walking along the sides of each chamber.

Note: Walking in the soil is an important step that will keep the chambers from shifting during final backfill and provide the necessary support when covering the system.

Installing the Optional Inspection Port

Pro4 Chambers are designed to accommodate an optional inspection port at the beginning and end of trench laterals and mid-line at 4-foot intervals.

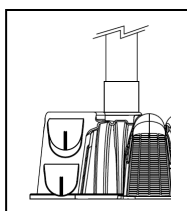
Step 1: On the marked area on the chamber or endcap, use a hole saw to drill for the inspection port pipe. The top cut-out sections can accommodate up to 4" Schedule 40 pipe.

Step 2: Insert the section of pipe into the cutout port based on the desired method:

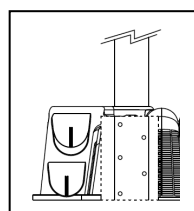
Method A: Pipe extends down a few inches, supported by a pipe coupler.

Method B: Pipe extends down to trench bottom with multiple holes at various elevations.

Method A



Method B



Step 3: Secure the pipe using a screw thru the coupler ring.

Step 4: Fasten either a threaded clean out cap or non-threaded cap to the end of the inspection pipe at the specified length to allow access after covering the system.

Covering the Pro4 Bed Chamber System

State and local codes require that chamber systems be inspected and approved prior to backfilling by a health official or other official with jurisdiction.

Step 1: Begin by backfilling the bed with soil using a track-hoe or back-hoe. Remove any large rocks from the soil before backfilling.

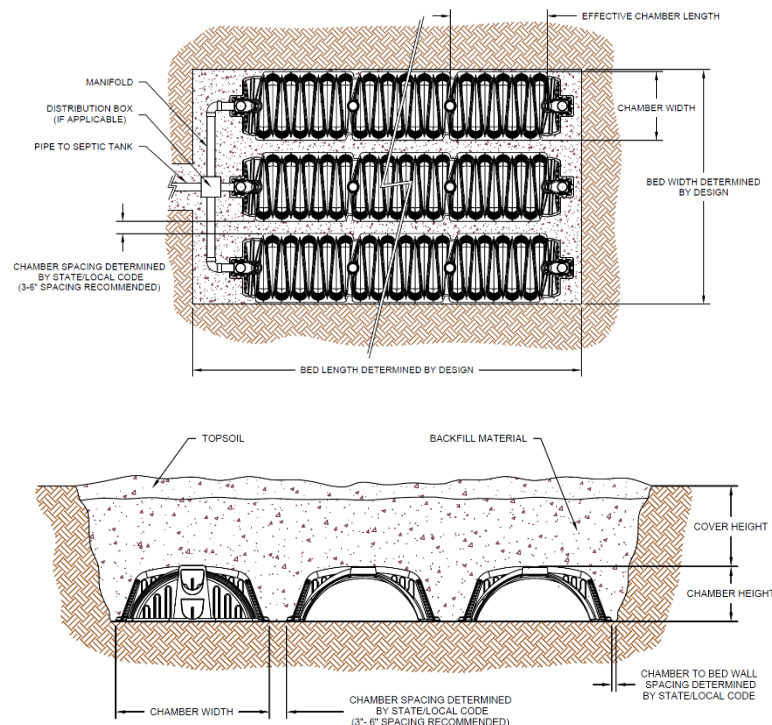
Note: Do not drive wheeled vehicles over the bed system when applying backfill.

Note: A minimum 6" of cover is required for non-traffic application. A minimum of 12" of compacted cover is required before a vehicle can drive over the chamber system. Refer to Vehicle Loading for requirements found below in this document. Pro4 chamber bed applications allow for a maximum of 4' of cover.

Step 2: It is recommended to allow for soil settling by adding 3-4 additional inches soil the system. This additional soil will also help protect against potential erosion.

Step 3: To prevent further erosion, cover the system with seed or sod.

Step 4: For new construction, it is recommended to mark the area around the system to prevent construction vehicles from unknowingly driving over the system.



Vehicle Loading

When operating a vehicle near a chamber drain field, avoid driving directly over the top of the chamber. Pro4 Chambers require a minimum of 12" of compacted cover over the top of chambers to support AASHTO H-10 loading. This loading is equivalent to 16,000 lbs. axle weight. For shallow cover applications installed with 6" of compacted backfill, chambers can support tracked vehicles that are less than 10,000 lbs. gross vehicle weight. It is recommended to mound 12" of soil over the bed system before driving over it and grade the cover to 6" upon completion. When backfilling and driving over a chamber system, do not travel parallel over the length of chamber rows, but rather perpendicular. Additional soil compaction may occur if heavy equipment is operated over a system. Do not drive over the system when backfilling with sand.

For gravity trench and pressure dosing applications see: *Pro4 Gravity Trench Installation Instructions* & *Pro4 Pressure Distribution Installation Instructions*.

Prinsco's Pro4 Limited Warranty is available at www.Prinsco.com or call (320) 222-6800.

For questions and technical support: Please contact Prinsco Technical Services at (320) 222-6800 or visit us at www.Prinsco.com.

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