Trench Design Installation Instructions

1. EnviroChamber systems are sized according to state/local regulations. Many regulations permit use of shorter EnviroChamber systems than would be required for a pipe-and-gravel system. If state/local requirements are not available, the length of the EnviroChamber system would then be the same as a pipe-and-gravel system.

2. Excavate trench(es) to appropriate width, depth, and length as specified by state/local codes. Trench bottom(s) must be level. Trench sidewalls should be vertical.

3. Prepare trench bottom(s) and sides for chamber installation. Remove debris from trench bottom(s) and level imperfections left by debris removal or excavation process. Trench bottom(s) must be smooth and level. Scour bottom(s) and sides to remove any smearing. (Figure 1)

4. Install end plate in inlet end of first chamber to be placed in trench: (Figure 2)
   a. Align two pilot holes on top of chamber with two dowels on top of end plate.
   b. Push top of end plate up into chamber until top dowels insert into top chamber pilot holes.
   c. Push bottom of end plate towards chamber until side dowels “snap” into side pilot holes on chamber.

5. Place first chamber into inlet end of trench, and install second and following chambers:
   a. Align pilot holes on inlet end of next chamber with dowels on outlet end of chamber installed previously.
   b. From outlet end, lower next chamber against previous chamber until side dowels on outlet “snap” into pilot holes of inlet end of chamber.
   c. Repeat steps a and b until ready to install last chamber in trench.

6. Install last chamber and closed end plate:
   a. Align and insert top two dowels on outlet end of last chamber with pilot holes on end cap.
   b. Push end cap down towards the chamber until chamber side dowels “snap” into end cap holes. In serial installations or installations where multiple trenches are to be connected, knockout in closed end plate pipe opening can be removed with saw or hammer to allow insertion of outlet pipe.

7. Slide inlet pipe from distribution box into inlet hole of end plate (step 4) until pipe butts against pipe stop. Knockout accepts 4” (100mm) Schedule 40, 4” (100mm) SDR, or 4” (100mm) Hancor Smoothwall sewer and drain pipe.

8. For multi-trench installation, repeat steps 4 – 7 for additional trench(es).

9. “Walk” backfill in on both sides of chambers. Sufficiently walking backfill into position is important for achieving soil stability. (Figure 3)

10. Backfill trench(es) on both sides of chamber installation until backfill material is at desired height in trench. Backfill must meet state/local specifications. Ensure that backfill does not contain large stones, frozen materials or other debris.

11. Install access/inspection port riser pipes: (Figure 4)
   a. Use saw or hammer to remove knockout(s) from pipe opening(s) in top of appropriate chamber(s).
   b. Insert section of pipe with a coupler into riser opening until coupler rests against top of opening.

12. Backfill remainder of chamber installation. Use small bulldozer or backhoe to level surface area, keeping at least 12” (300mm) of backfill under tracks at all times. If a rubber-tired backhoe is used, be sure the wheels do not go directly over the chambers or trench area until sufficient cover (12” [300mm]) is in place.
Bed Design Installation Instructions

1. Excavate bed area to appropriate width, depth, and length as specified by state/local codes. Chambers are laid side-by-side starting at distribution box. Bottom of bed must be level and free of debris. (Figure 5)

2. Follow steps 3 - 7 under “Trench Design Installation Instructions” to assemble rows of EnviroChamber units in bed area.

3. Backfill installation’s sidewall areas until backfill is level with the top of chambers around bed perimeter and between chamber rows: (Figure 6)
   a. First, backfill the perimeter of bed.
   b. Next, backfill area between chamber rows.

   When backfilling sidewall areas, ensure that chamber rows remain in original installation positions (i.e., they do not get pushed sideways, off grade, etc.).

   Backfill must meet state/local specifications. Ensure that backfill does not contain any large stones, frozen material or other debris.

4. Follow steps 10 - 12 under “Trench Design Installation Instructions” to install any necessary access/inspection riser pipes and to finish backfilling and leveling bed area.

   For large installations where backfilling cannot be completed from bed sides, use only a light tracked vehicle to finish backfilling. Ensure that sufficient material (12” [300mm]) is maintained under tracks at all times.

Pressure Dosing Applications

EnviroChamber units are ideal for pressure dosing applications. To connect a pressure dosing system to an EnviroChamber unit:

1. Locate two small dosing dimples on outlet end of chamber and punch through with hammer and screwdriver or drill a small hole.
2. Thread plastic pipe tie through pilot holes in top of chamber.
3. Insert pressure pipe into inlet hole of first chamber and end plate.
4. Secure pipe against top of chamber using pipe tie (step 2). (Figure 7)
5. Knock out or drill hole in outlet end cap with hole saw to accommodate pipe size as required.