Installation Instructions for EZ*flow* Systems in Pennsylvania

The State of Pennsylvania Department of Environmental Protection approves Infiltrator Systems Inc. **EZ***flow* branded products 1202H, 1202H-GEO, 1203H, and 1203H-GEO for use as part of a subsurface wastewater disposal system approved under the Wastewater System and Potable Water Supply Rules, effective January 1, 2005 (Rules). The wastewater disposal systems must be designed, installed and operated in accordance with Chapter 73 and the Alternate Systems Guidance (Document #362-0300-007).

If a site is otherwise suitable for installation of an onlot system using an absorption area for final treatment and disposal of sewage effluent (including elevated sand mounds), **EZ***flow* may be installed with an up to 1/3 reduction in the size of the absorption areas when all of the following standards are met. In conformance with Chapter 73, Section 73.16(d), only the bottom area of the bed or trench may be used in calculating absorption area requirements. No additional size reduction is allowed for **EZ***flow* designs when these configurations are used in conjunction with secondary treatment units, advanced treatment units, composting toilets or other system components that would otherwise allow for sizing reductions.

a. Soil profile evaluation and percolation tests must document that there is sufficient area for installation of a full-sized absorption area (prior to the calculation of the up to 1/3 reduction).
b. The property owner must be provided with a 5-year warranty from Infiltrator Systems Inc.
c. The leaching chamber system must be installed in accordance with all applicable specifications and appropriate general installation requirements listed herein.
d. The products are manufactured in 5 and 10 feet lengths. Designs incoporating **EZ***flow* may required trench length not divisible by the naumfactured length. In this case the installer may round up to the next 5 or 10 fee tlength so long as all set back requirements are maintained, or may cut the product as described in the manufacturers recommended cutting procedure. End caps may be drilled to allow sleeving of pressurized distribution pipe.
e. All **EZ***flow* in absortion areas must be marked with utility tape or other similar material detectable using ametal detector as a means of identifying the exact location of the chamber after the final cover is placed over the area.
f. All **EZ***flow* should be certified to withstand the AASHTO H-10-44 highway structural rating.

Product Descriptions
1. The 1202H drainfield system is 12 inches in diameter by 5 or 10 feet long. One of the polythylene net bundles contain expanded polystyrene aggregate only and one contains a four-inch pipe surrounded by EPS aggregrate.

2. The 1202H-GEO drainfield system consists of the same product specifications as the as the 1202H described above but with the addition of geotextile fabric prefabricated between the netting and aggregate spanning 180 degrees ± 15 degrees along the top of each cylinder.

3. The 1203H drainfield system is 12 inches in diameter 5 or 10 feet long. Two of the polyethylene net budnles contain expanded polystyrene aggregate only and one contains a four-inch pipe surrounded by EPS aggregate.

4. The 1203H-GEO drainfield system consists of the same product specifications as the as the 1203H described above but with the addition of geotextile fabric prefabricated between the netting and aggregate spanning 180 degrees ± 15 degrees along the top of each cylinder.

Materials and Equipment needed
- **EZ***flow* Bundles
- **EZ***flow* Barrier Paper (if not using GEO)
- **EZ***flow* Internal Pipe Couplers
- **EZ***flow* Versa Couplers
- Pipe for Header and Inlet
- Backhow or Mini-excavator
- Transit or laser level
- Shovel
- Metal rake

Installation Instructions
The instructions for installation of **EZ***flow* products are given below. This product must be installed in accordance with Chapter 73 and the Alternate Systems Guidance (Document #362-0300-007), as well as the local health department's current design manual.

1. After the local health department has determined sizing, configuration, and layout for the **EZ***flow* systems, stake or mark with paint the location of trenches and lines. Be careful to set correct tank, invert pipe, header line or distribution box and trench bottom elevations before installation of pipe bundles.

2. If smearing or glazing of trench sidewalls and bottom has occurred in clay soils, it is recommended that these soil surfaces be raked or scarified.

3. The proper elevation of solid PVC effluent pipe going to each trench should be determined to ensure compliance with the required maximum trench bottom depth as shown on the approved permit. This height may vary dependent on system height and configuration used.

4. Remove **EZ***flow* stretch wrap prior to placing bundles in the trench(es). Remove any stretch wrap in the trench before system is covered.

5. Place **EZ***flow* bundle(s) in the **EZ***flow* configuration approved by system design permit specified for the particular site. The top or center-most bundles containing pipe are joined end to end with an internal pipe coupler. Any additional aggregate only bundles that may be required, should be butted against the other aggregate-only bundles and do not require any type of connection.

6. The top of each 1202H-GEO and 1203H-GEO cylinder contains a filter fabric pre-manufactured in between the netting and aggregate. The fabric is inserted to prevent soil intrusion. The installer shall make sure that the fabric is on top and is in contact with the fabric contained in the adjacent cylinder before backfilling.

7. If not using a GEO product, **EZ***flow* systems require covering over the top of the system with a biodegradable material approved by the manufacturer.

8. Header or lead lines from distribution box or device will be connected to the top or center-most pipe bundle in each trench or inserted into the pipe.

9. The **EZ***flow* Drainfield Systems should be installed in a level trench in all directions (both across and along the trench bottom) and should follow the contour of the ground surface elevation (uniform depth), with all continuous adjoining 10-foot cylindrical bundles placed end to end, with the central bundle distribution pipe interconnected, without any dams, stepdowns or other water stops.

10. When surface slopes are greater than two percent, the bottom of the nitrification trenches shall follow the contour of the ground. An engineer's level or equivalent shall be used for installation and inspection.

11. **EZ***flow* EPS bundles are flexible and can fit in curved trenches as may be necessary to avoid trees, boulders, or other obstacles.

12. The finished grade over the drainfield should be landscaped to prevent the ponding of surface water.

13. Soil cover above the original grade should be placed at a uniform depth over the entire drainfield, except as required to prevent the ponding of surface water.

14. The soil cover should be placed over drainfield after proper preparation of the original ground surface.

15. The soil cover over the drainfield should be to a depth of at least six inches.

Repeat steps 1 through 15 for each required trench.

The area of the disposal field shall not be used for vehicular traffic or parking or underground utilities to include water lines. Doziers, trucks, and other heavy vehicles shall not be allowed to run over the septic tank, field lines or other parts of the system.

Sod or seed the drainfield area to control erosion, as may be required by Permit or local policy.

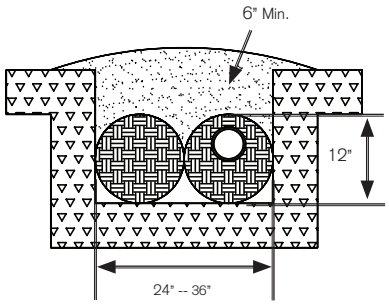
EZ*flow* Inspection

As required by state or local regulations, be sure to obtain proper installation inspection and authorization from the health department prior to covering the system.

Septic tank, header pipe or D box, trench bottom, grade, depth, and cover shall be in accordance with state rules and regulations unless otherwise specified.

Approved EZ*flow* Products

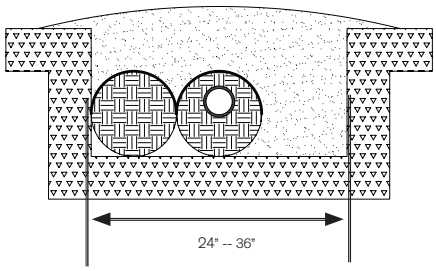
EZ*flow* 1202H/1202H-GEO



EXAMPLE: 900 sq ft. required
900 sf ÷ 3.0 lf/sf = 300 lf required

Properties and Specifications

Overall System Height	12"
Invert Height	6"
Trench Modification	33%
Trench Width	24"-36"
Trench Depth	18"

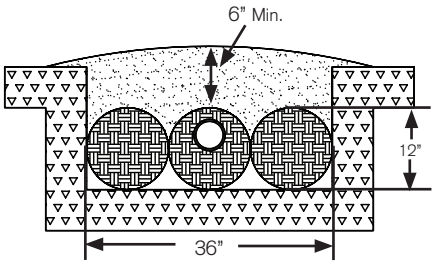


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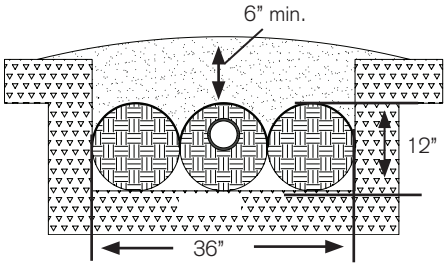
EZ*flow* 1203H/1203H-GEO



EXAMPLE: 900 sq ft. required
900 sf ÷ 4.5 lf/sf = 200 lf required

Properties and Specifications

Overall System Height	12"
Invert Height	6"
Trench Modification	33%
Trench Width	36"
Trench Depth	18"



EXAMPLE: 900 sq ft. required
900 sf ÷ 4.5 lf/sf = 200 lf required

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Overall System Height	12"
Invert Height	6"
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