

Installation Instructions for EZflow Systems in Maryland



The Maryland Conference of Local Environmental Health Directors and Maryland Department of the Environment Groundwater Permits Program Product Review Committee approved the use of Infiltrator Systems Inc. **EZflow** products as an alternative to a gravel aggregate system when properly installed, with the following conditions.

- No credit given for absorption area where soil or fill material is in contact with the sidewall.
- No allowance for reduction in the amount of required absorption area.
- Property owner acknowledges in writing to the Health Department that this is an alternative to a gravel aggregate system and allows the Health Department to periodically inspect the system.
- Inspection ports are to be installed.

Any site where **EZflow** products are installed must meet the *General Provisions, Site Evaluation Criteria, and Design and Construction of Conventional On-Site Sewage Disposal Systems requirements*, in accordance with Title 26, Subtitle 04, Chapter 02, *Sewage Disposal and Certain Water Systems for Homes and Other Establishments in the Counties of Maryland Where a Public Sewage System is Not Available*.

Absorption Area Sizing shall be based on bottom area only for standard trenches, and trench sidewall and bottom area for deep trenches. An area of suitable soil must be available to install and duplicate a conventional subsurface sewage disposal system.

EZflow by Infiltrator shall certify installers during or prior to their first installation as having passed **EZflow** Certification Training.

Materials and Equipment needed

- **EZflow** Bundles
- **EZflow** Barrier Paper
- **EZflow** Internal Pipe Couplers
- Pipe for Header and Inlet
- Backhoe

Installation Instructions

The instructions for installation of **EZflow** products are given below. This product must be installed in accordance with the appropriate state regulations and codes.

In cases where linear footage required is not in multiples of 10, installer may (a) reduce the product to needed length and refasten netting to the pipe or, (b) use an additional 5 or 10 feet of product to exceed the required trench length.

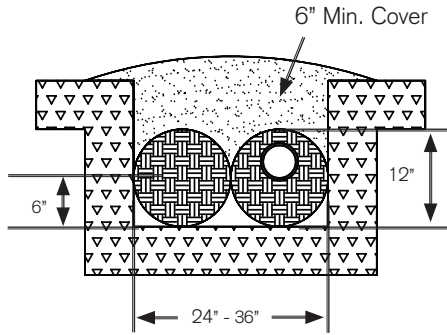
1. After the local health department has determined sizing, configuration, and layout for the **EZflow** systems, stake or mark with paint the location of trenches and lines. Be careful to set correct tank, invert pipe, header line or distribution box and trench bottom elevations before installation of pipe bundles.
2. Trenches shall not be excavated when soil is wet enough to smear or compact easily. If smearing or glazing of trench sidewalls and bottom has occurred in clay soils, it is recommended these soil surfaces be raked or scarified.

3. The drainfield is to be a level or serial distribution type of modification of either, depending on site characteristics.
4. Drainfield trenches shall follow the ground surface contours so that variations in trench depth will be minimized.
5. Absorption trenches shall be placed on contour. The lateral separation of trenches shall not be less than 6 feet between each 2 foot wide standard trench, and not less than 9 feet between each 3 foot wide standard trench. The minimum distance between deep trenches shall be two times the depth of the EPS aggregate in the deepest trench or 18 feet, whichever is the lesser distance.
6. Excavate trench to approved depth and width according to diagrams on following page, with a minimum cover of 6".
7. Remove the plastic **EZflow** stretch wrap prior to placing bundles in the trench(es) from trench before it is covered.
8. Place **EZflow** bundle(s) in the **EZflow** 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.
9. 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.
10. The bottom of the trenches and distribution lines shall have a grade from level to no greater than four (4) inches.
11. **EZflow** EPS bundles are flexible and can fit in curved trenches as may be necessary to avoid trees, boulders, or other obstacles.
12. If the soil backfill to be used is granular, cohesionless soil (such as fine dry sand), it may be desirable to place a barrier over the assembly to prevent the soil from infiltrating the system. This barrier may be of Kraft building paper or other approved cover material.
13. Soil material excavated from trenches should be used in backfilling and should be shaped or mounded over trenches to ensure surface water runoff, until initial settling has taken place. Soil within 6" of EPS bundles shall be loosely placed and not compacted.
14. The trench top shall be compacted to the maximum degree possible with a backhoe bucket.

Repeat steps 1 thru 14 for each required trench.

Approved EZflow Products

EZflow 1002H

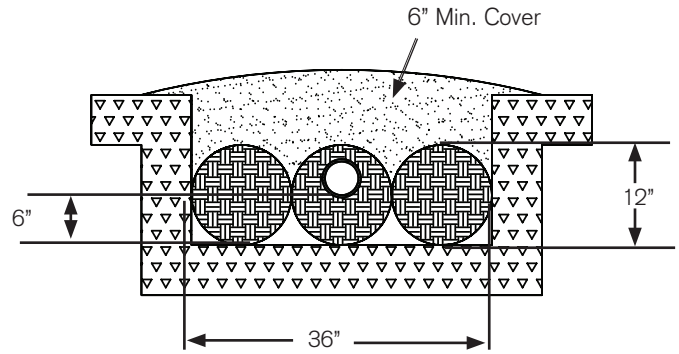


EXAMPLE: - 300 sq ft. required
 $300 \text{ sf} \div 2.0 \text{ sf/ft} = 150 \text{ lf}$ required

Properties and Specifications

Overall System Height	12"
Invert Height	6"
Trench Width	24"-36"
Min. Trench Depth	18"
Trench Sizing	2.0 sf/ft

EZflow 1203H

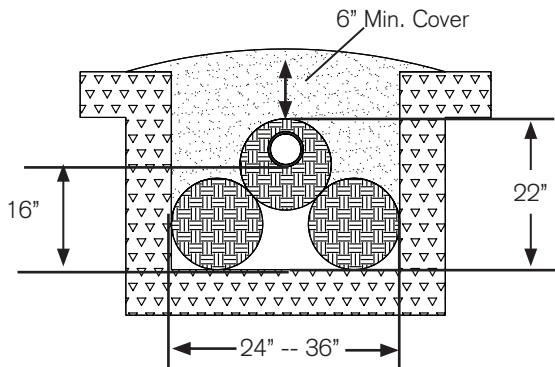


EXAMPLE: - 300 sq ft. required
 $300 \text{ sf} \div 3.0 \text{ sf/ft} = 100 \text{ lf}$ required

Properties and Specifications

Overall System Height	12"
Invert Height	6"
Trench Sizing	3.0 sf/ft
Trench Width	36"
Trench Depth	18"

EZflow 1203T

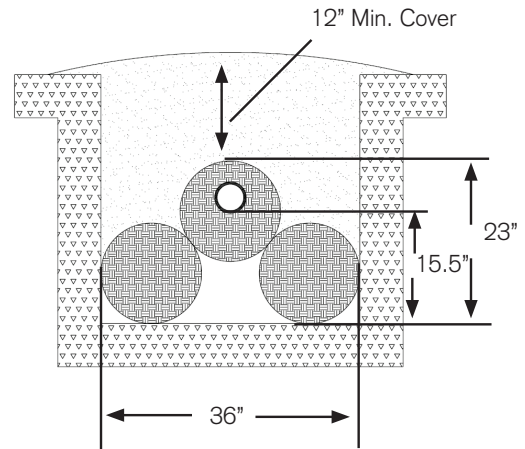


EXAMPLE: - 300 sq ft. required.
 $300 \text{ sf} \div 2.0 \text{ sf/ft} = 150 \text{ lf}$ required

Properties and Specifications

Overall System Height	22"
Invert Height	16"
Trench Width	24"-36"
Min. Trench Depth	26"
Trench Sizing	2.0 sf/ft

EZflow 1403T

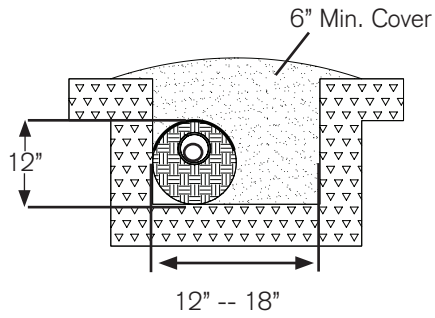


EXAMPLE: - 300 sq ft. required
 $300 \text{ sf} \div 3.0 \text{ sf/ft} = 100 \text{ lf}$ required

Properties and Specifications

Overall System Height	23"
Invert Height	15.5"
Trench Sizing	3.0 sf/ft
Trench Width	36"
Trench Depth	29"

EZflow 1201-P LPP System



The central cylinder of the 1203H which contains the offset four-inch pipe may be used as an alternative to rock aggregate in a low pressure pipe (LPP) system, sized equivalent to LPP systems as required in regulations).

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

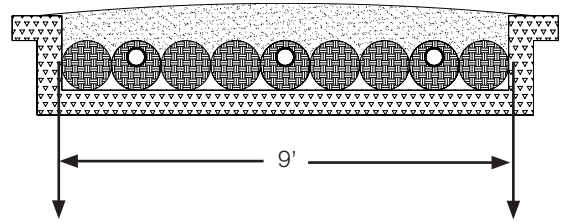
Sod or seed the drainfield area to control erosion, as may be required by Permit or local policy.

Maintenance

It is the property owner's responsibility to maintain the system in a safe and sanitary manner.

EZflow Bed and Mound Systems

1200 Bed System



1200 Horizontal Drainfield System may be used in a bed system with the three cylindrical bundles placed in rows next to each other. This system will replace the conventional method at a ratio of one to one. The convenience of this system can help determine the exact layout and cost, as well as saving on installation time. This system may be adapted to a low pressure system as shown in the LPP 1200 Bed System drawing.

EZflow 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.

Barrier over systems, if required, shall consist of untreated building paper.



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