

# Installation Instructions for EZflow Systems in San Diego County, California



Pursuant to San Diego County Code of Regulatory Ordinances, Division 8, Title 6, Chapter 3, Section 68.301, [On-Site Wastewater Systems, Septic Tanks and Seepage Pits] of Division 8 of Title 6, and the Onsite Wastewater Treatment Systems, Permitting Process and Design Criteria (6-10-08) and the Design Manual for Onsite Wastewater Treatment Systems (6-26-08 Edition), of the Department of Environmental Health, Land and Water Quality Division, an approval was issued to Infiltrator Systems Inc., EZflow expanded polystyrene (EPS) aggregate leachfield system. This product is an alternative leach line material to be used as a replacement for approved gravel and pipe components.

1. The EZflow product is to be installed in accordance with the manufacturer's instructions. All setback and installation requirements will be the same as standard leach line systems in San Diego County.
2. Sizing of leach fields utilizing EPS shall be the same as standard leach lines.
3. All users of the EZflow EPS Aggregate Systems shall be provided with a copy of the manufacturer's installation instructions and the system shall be installed in accordance with these instructions.
4. Infiltrator Systems Inc. shall certify installers, during or prior to their first installation, as having passed EZflow Certification Training.

The EZflow brands approved for use in San Diego County are the 1202H/1202H-GEO, 1204S/1204S-GEO, and the 1206V/1206V-GEO. These models are described below:

1. The 1202H/1202H-GEO consists of two 12" in diameter, EPS bundles, one beside the other in a minimum 24 inch wide trench. One EPS bundle contains a 4" perforated pipe and the other is EPS aggregate only. The perforated pipe is positioned towards the top of the trench. This model is installed in a standard three-foot deep trench and may also be used using the steep slope policy.
2. The 1204S/1204S-GEO, consists of two 12" in diameter, EPS bundles, aggregate only, one beside the other in the bottom of a minimum 24 inch wide trench. Two additional EPS bundles are placed on top of the first two. One of these EPS bundles contains a 4" perforated pipe and the other is EPS aggregate only. The perforated pipe is positioned towards the top of the trench. This model is installed in a standard four-foot deep trench.
3. The 1206V/1206V-GEO consists of two 12" in diameter, EPS bundles, aggregate only, one beside the other in the bottom of a minimum 24 inch wide trench. Two additional EPS aggregate only bundles are placed on top of the first two. Two more EPS bundles are placed on top of the above bundles.

One of these EPS bundles contains a 4" perforated pipe and the other is EPS aggregate only. The perforated pipe is positioned towards the top of the trench. This model is installed in a standard five-foot deep trench.

## Materials and Equipment needed

- EZflow Bundles
- EZflow Internal Pipe Couplers
- EZflow Versa Couplers (optional)
- Barrier Material (if not using a GEO product)
- Pipe for Header and Inlet
- Watertight distribution box as needed
- Backhoe

## Installation Instructions

1. The instructions for installation of EZflow products are given below. This product must be installed in accordance with San Diego County Criteria and Manual as noted in the first paragraph above.
2. In cases where linear footage required is not in multiples of ten, the installer may (a) reduce the product to the needed length and refasten the netting to the pipe or, (b) use an additional 5 or 10 feet of product to exceed the required trench length.
3. 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 EPS pipe bundles.
4. All sites shall meet applicable site, soil, location, separation distance and construction criteria as noted earlier.
5. The top of each 1202H-GEO, 1204S-GEO and 1206V-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 positioned upward and is in contact with the fabric contained in the adjacent cylinder before backfilling.
6. If not using a GEO product, EZflow systems require covering over the top of the system with an untreated building paper.
7. Remove EZflow stretch wrap prior to placing bundles in the trench(es). Remove any stretch wrap in the trench before system 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. If smearing or glazing of trench sidewalls and bottom has occurred in soils containing enough clay or silt, it is recommended that these soil surfaces be raked or scarified.

10. 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 that is used. 11. Leach lines shall not be installed under driveways, parking area, or other impervious coverings.

12. The bottom of the trench shall be level or sloped a maximum of 2 inches per 100 feet. (Sec. 68.345(c)).

13. Excavate trench to permitted/approved width/depth.

14. The minimum separation between any two trenches shall be 10' on center per Sec. 68.345(b).

15. Tight lines shall connect leach lines with distribution boxes. Distribution boxes shall meet the criteria of Sec. 68.344.

16. **EZflow** systems require covering over the top of the system with a polypropylene, nonwoven, geo-textile filter fabric or the use of an **EZflow** GEO model.

17. Soil back fill shall be a minimum of six inches and **EZflow**'s guidelines. Soil within 6" of the EPS bundles shall be loosely placed and not compacted. Back fill shall meet the criteria of Sec. 68.332.1.

18. Final cover above the effluent trenches shall be graded to reduce infiltration of surface water and minimize erosion.

Repeat steps 1 thru 17 for each required trench.

After the system has been completely covered, only drive across the trenches when completely necessary. Never drive along the leach trench lines. To avoid additional soil compaction, prevent any heavy equipment from driving across or along the leach field area.

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

### Maintenance

The owner of the system shall at all times properly operate and maintain the onsite sewage disposal system. Only sanitary sewage shall be introduced into the system.

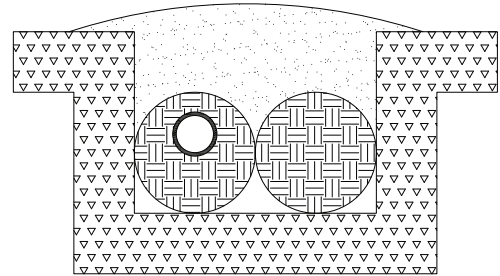
### **EZflow** Inspection

An inspection is required by the Department prior to backfilling. No person shall backfill the system prior to approval per Sec. 68.332 and .332.1.

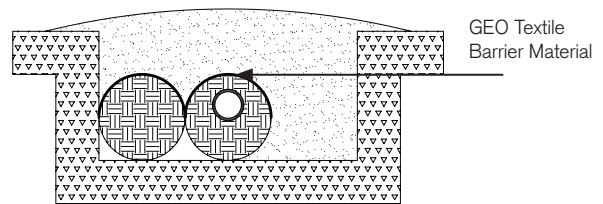
Septic tank, header pipe, distribution box, leach trench bottom, grade, depth, and cover shall be in accordance with County Manual, criteria or policy and shall be installed per **EZflow** Manufacturer's Installation Guide.

## Approved **EZflow** Products

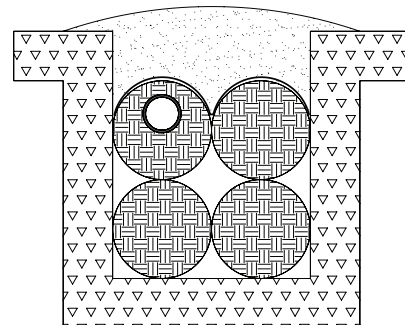
**EZflow** 1202H



**EZflow** 1202H-GEO



**EZflow** 1202H-GEO



## EZ<sub>flow</sub> Sizing

The minimum area (SF) necessary for a given site is determined by the results of the percolation tests and on daily sewage flow (gpd) and is shown in the table in the Manual as LF for the standard gravel trench 18 inch wide trench per percolation rate (min./inch) per bedroom.

Square footage requirement are calculated as shown below:

**A.R. = Application Rate (gallons/sf/day)**

**T = percolation rate**

**A.R. = 5/√t**

**Flow = SF absorption area required**

**A.R.**

The total length of the trench required for **EZ<sub>flow</sub>** models shall be determined by dividing the total absorption area (SF) required by the SF/LF of the product configuration being installed. **EZ<sub>flow</sub>** systems, in trench configuration shall be sized as follows:

Unit	Dimensions W x H (in.)	Trench Width	Leaching Area (SF/LF)
1202H	24 x 12	24"	3.0
1204S	24 x 24	24"	5.0
1206V	24 x 36	24"	7.0

### EZ<sub>flow</sub> 1202H

**SIZING EXAMPLE:** 300 sq. ft. required  
300 sf / 3.0 sf/lf = 100 lf required

Properties & Specifications	
Overall System Height	12"
Trench Width	24"
Trench Depth	36"
Trench Sizing	3.0 sf/lf

### EZ<sub>flow</sub> 1204S

**SIZING EXAMPLE:** 300 sq. ft. required  
300 sf / 5.0 sf/lf = 60 lf required

Properties & Specifications	
Overall System Height	24"
Trench Width	24"
Trench Depth	48"
Trench Sizing	5.0 sf/lf

### EZ<sub>flow</sub> 1206V

**SIZING EXAMPLE:** 300 sq. ft. required  
300 sf / 7.0 sf/lf = 43 lf required

Properties & Specifications	
Overall System Height	36"
Trench Width	24"
Trench Depth	48"
Trench Sizing	7.0 sf/lf



**INFILTRATOR<sup>®</sup>**  
systems inc.

6 Business Park Road • Old Saybrook, CT 06475 • 800.689.7759