

Installation Instructions for EZflow Systems in Sacramento County, California



Pursuant to the Sacramento County Code, Section 6.32.130, and the following regulation: County of Sacramento, Department of Health, Environmental Health Branch, Rules and Regulations Regarding Minimum Requirements for the Design, Construction and Installation of Individual Sewage Systems, 2-26-83, rev. 4-15-87, an approval was issued, by the Environmental Management Department (EMD), on, August 5, 2008, to EZflow brand leach field system.

The EZflow brands to be used in the county is the EZflow 1202V, or the EZflow 1202V-GEO, which consists of two 12" in diameter, EPS bundles, one stacked on top of the other in an 18 inch wide trench. The top bundle contains a perforated plastic pipe and the bottom is EPS aggregate only. The GEO model contains a filter fabric pre-manufactured in between the netting and the aggregate.

EMD finds that the EZflow EPS leach field material is suitable for use in Sacramento County as a substitute for leach field rock under the category of 'gravelless trench and is approved subject to the following standards and requirements:

1. The use of the EPS leach field material shall comply with all applicable requirements of the Sacramento County "Rules and Regulations for Construction and Installation of Individual Sewage Disposal Systems."
2. Sizing of leach fields utilizing EPS shall be equivalent to standard rock filled trenches. Currently no reduction in leach field area is allowed for gravelless systems.
3. All users of the EZflow Drainage Systems shall be provided with a copy of the manufacturer's installation instructions and the system shall be installed in accordance with these instructions.

Infiltrator Systems Inc. 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 (if not using GEO product)
- Pipe for Header and inlet
- Watertight distribution box as needed
- Backhoe

Installation Instructions

The instructions for installation of EZflow products are given below. This product must be installed in accordance with Sacramento County Rules and Regulations for Construction and Installation of Individual Sewage Disposal Systems.

In cases where linear footage required is not in multiples of 10, 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.

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. All sites shall meet applicable site, soil, and construction criteria in accordance with the noted Rules and Regulations, Sections III, V thru VII and X.

1. Leach lines shall not be installed under driveways, parking area, or other impervious coverings. (Rules, Sec. V., F.).
2. The bottom and sides of the excavation shall be level per Sec. VII, E.2., j.
3. 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.
4. 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.
5. Excavate trench to permitted/approved width/depth. (See Sizing Table at end of Installation Instructions for details).
6. The minimum separation between any two trenches shall be 10' on center per Sec. VII, E.1. Leach lines shall follow the contours. (Sec. VII, E.1. &)
7. Tight lines shall connect leach lines with distribution boxes at the junction of two or more effluent lines per Sec. VIII, E.2.i.
8. Distribution boxes shall meet the criteria of Sec. VII., B.
9. The maximum grade of the leaching pipe shall be one inch of fall in twenty-five feet. The bottom of the leaching trench shall be level. (Sec. VIII, E.2.j.)
10. 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.
11. 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.
12. Final cover above the effluent trenches shall be graded to reduce infiltration of surface water and minimize erosion.

Repeat steps 1 thru 12 for each required trench.

EZ_{flow} 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 Table III (Sec. VII., C.) for individual residential systems as SF per bedroom for gravel systems. Sizing for commercial and nonresidential systems is shown in Table IV (Sec. VII., C.) as an application rate.

The sizing for residential systems using EZ_{flow}'s 1202V model (Two 12 inch diameter, EPS bundles, one stacked on top of the other in an 18 inch wide trench is approved equivalent to a 18 inch gravel trench. Table EZ_{flow} 1202V, below, shows the SF and LF required for a given percolation rate (Min./Inch) and number of bedrooms (BR). A configuration drawing is also shown below.

Sizing Example

Using Table EZ_{flow}1202V for a 30 min./Inch percolation rate, and 4 Bedroom (BR) system, follow the 30 Min./Inch horizontal row, across to the 4 BR vertical column, and see the required minimum 1000 SF area and required 250 LF of EZ1202V EZ_{flow} product.

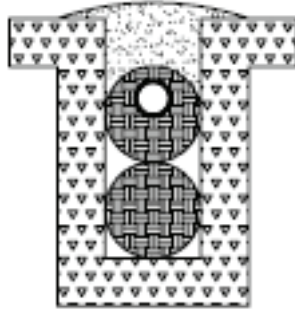
Design Criteria for Individual Dwellings	Total Required Square Feet / Total Linear Feet of EZ _{flow} 1202V									
Average Time in Minutes for Water to Fall One Inch (Min./Inch)	1 Bedroom		2 Bedrooms		3 Bedrooms		4 Bedrooms		Add for Each Extra Bedroom	
	SF	LF	SF	LF	SF	LF	SF	LF	SF	LF
2 or Less	85	21	170	43	255	64	340	85	85	21
3	100	25	200	50	300	75	400	100	100	25
4	115	29	230	58	345	86	460	115	115	29
5	125	31	250	63	375	94	500	125	125	31
10	165	41	330	83	495	124	660	165	165	41
15	190	48	380	95	570	143	760	190	190	48
30	250	63	500	125	750	188	1000	250	250	63
45	300	75	600	150	900	225	1200	300	300	75
60	330	83	660	165	990	248	1320	330	330	83
Over 60 minutes unsuitable for leach line.										

- Note:*
1. Installation shall be according to manufacturer's instructions and specifications.
 2. This sizing chart is for domestic strength septic tank effluent.
 3. Permits are required for installation of EZ_{flow} EPS Aggregate System for leach fields.

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Approved EZflow Products

EZflow 1202V



EZflow 1202V is approved on a foot for foot basis.

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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

All sewage disposal installations, including repairs, shall be inspected before being covered. Systems to accommodate new structures shall not be used until inspected and approved per Rules Sec., II.,C.

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

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