

Installation Instructions for EZflow Systems in Alaska



In accordance with 18 AAC 72, the State of Alaska Department of Environmental Conservation grants approval of **EZflow** brand drainfield systems in the construction of conventional deep trench, shallow trench, and bed onsite domestic wastewater treatment and disposal systems. Engineers, Certified Installers, and approved homeowners may install the **EZflow** brand drainfield systems, without plan review as long as the conditions listed below are met, and only for conventional soil absorption fields that they are approved and qualified to install under 18 AAC 72.015 as amended 07-11-02.

- 1001-P
- 1002-H
- 1002-V
- 1003-H
- 1003-T
- 1003-V
- 1401-A*
- 1201-P
- 1202-H
- 1202-V
- 1203-H
- 1203-T
- 1203-V
- 1401-P*

Note: Also approved is **EZflow 1401-A and 1401-P which can be installed in a vertical system of one 1401-P and the desired number of 1401-A cylinders. For vertical configurations, the 1401-P cylinder should be placed on the bottom of the trench with the desired number of aggregate only cylinders placed on top. These 2 products can be used together to customize the desired height and width configuration.*

Infiltrator Systems Inc. shall certify installers during or prior to their first installation after having passed **EZflow** Certification Training.

Conditions for Use:

1. The soil absorption area dimension requirements will not change from those shown in the Certified Installer's Manual (CIM-August 1,2000). The deep trench will be determined by multiplying the effective depth by the length of the trench x 2 side walls, the shallow trench and bed will be determined by the basal area of the absorption field. No reduction in the size will be granted for the use of the **EZflow** brand drainfield systems.
2. The calculation of the effective depth for the deep trench systems, using **EZflow** components is from the bottom of the 4 inch distribution pipe to the bottom of the trench. Not from the top of the geo-synthetic aggregate bundle that surrounds the distribution pipe.
3. Shallow trenches with multiple distribution laterals and bed systems must have a solid 4 inch distribution header.
4. All systems **must** be covered with filter fabric before final backfilling.
5. Traditional monitor tubes are required on all systems. Monitor tubes are required at the end of each trench and at both ends of a trench if the sewer line intersects the trench such as to make a "tee" connection.

At least two monitor tubes are required in opposite corners of all bed type soil absorption systems. A monitor tube in each corner is highly recommended.

6. Depth of ground cover over the system does not change from the minimum required cover shown in Table 6 of the CIM.
7. Currently bed systems require a minimum of 12" of leach rock, therefore bed design systems will require the use of the 12" diameter **EZflow** bundles. The deep trench systems will be dependent on the width of the installers equipment bucket, but could use either the 10" or 12" diameter **EZflow** bundles.

Materials and Equipment needed

- **EZflow** Bundles
- **EZflow** Geotextile
- **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 18 AAC 72, as well as the local health department's regulations.

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.

Minimum infiltrative area shall be in accordance with Table B (18 AAC 72.035(d)(6)). Application rates are shown in Table 7 and sizing in Table 8 in the Installers Manual.

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. All sites shall meet applicable site, soil, and construction criteria in accordance with 18 AAC 72.
2. The bottom and sides of the excavation shall be level per 18 AAC 72.
3. If during the excavation process the infiltrative surface becomes smeared, the surface should be raked or otherwise roughened to remove smeared soils.
4. All conventional onsite systems must have frost penetration protection as shown in Table A, per 18 AAC 72.035(c).
5. 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.

6. Excavate trench to permitted/approved width / depth. Excavations should not be left open in order to prevent freeze-up or an unsafe condition.

7. Separation distances must comply with 18 AAC 72.02. When possible, trenches should be horizontally separated by at least two (2) times the effective depth of the system or six (6) feet, which ever is larger.

8. Remove plastic **EZflow** stretch wrap prior to placing bundles in the trench(es). Remove any plastic wrap in the trench before system is covered.

9. 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 maybe required, should be butted against the other aggregate-only bundles and do not require any type of connection.

10. Header or lead lines from distribution box or device will be connected to the top or centermost pipe bundle in each trench or inserted into the pipe.

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

12. Effluent distribution lines shall be installed level.

13. **EZflow** systems require covering over the top of the system with a geotextile filter fabric. VISQUEEN or other impermeable material may not be used.

14. The soil cover over the effluent disposal field should be a minimum of two feet of topsoil.

15. Backfill should be according to **EZflow**'s guidelines. Soil within 6" of the EPS bundles shall be loosely placed and not compacted.

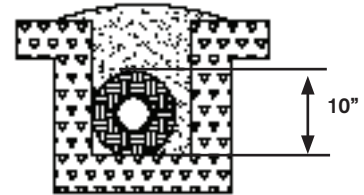
16. Systems must be graded to drain water away from septic tank and the absorption area. Final grading over a wastewater disposal system should be slightly mounded to allow for settling. Construction machinery should not be driven over infiltrative area.

Repeat steps 1 thru 16 for each required trench.

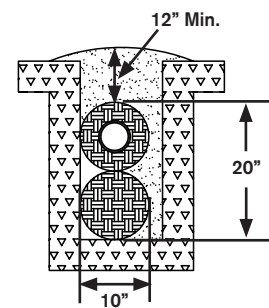
Approved **EZflow** Products

The State of Alaska Department of Environmental Conservation approved these **EZflow** products on a foot per foot basis.

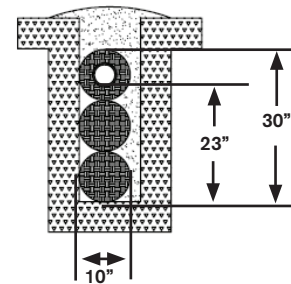
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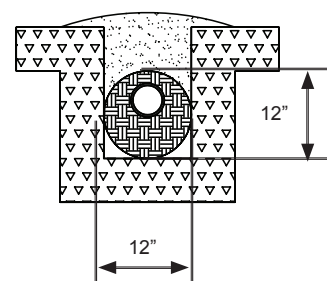
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EZflow 1003V

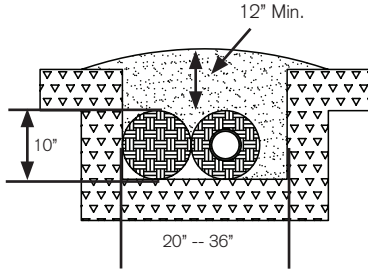


EZflow 1201P

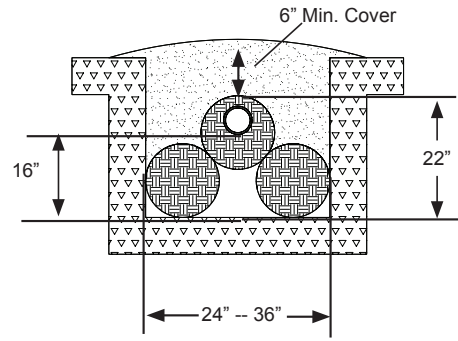


Approved EZflow Products

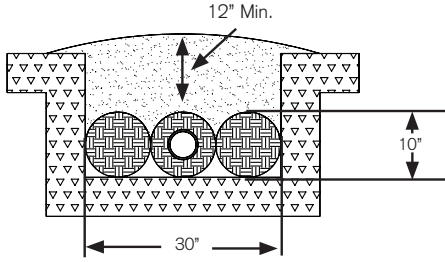
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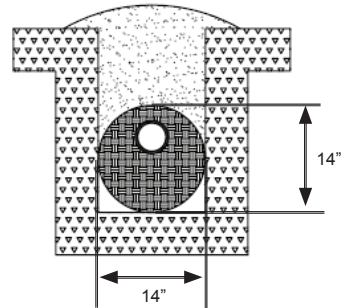
EZflow 1203T



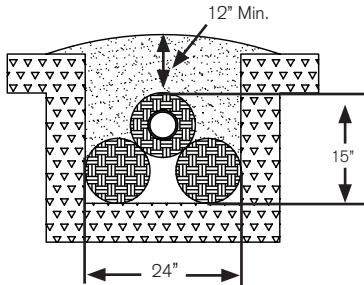
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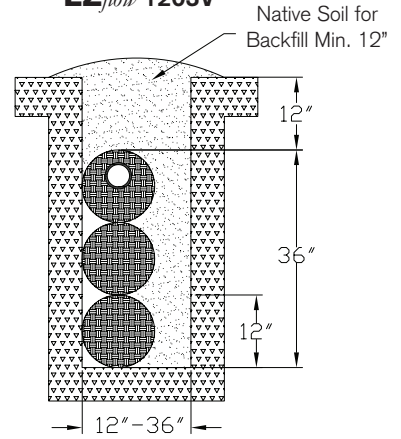
EZflow 1401-P



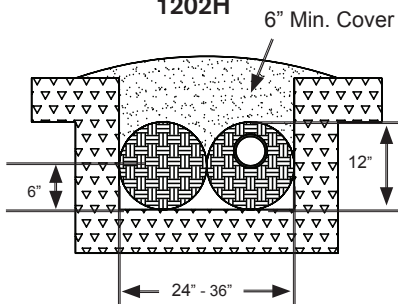
EZflow 1003T



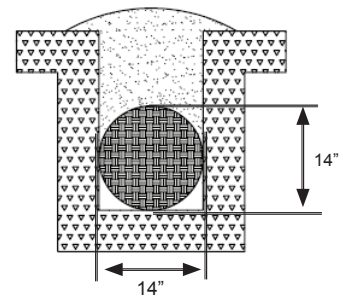
EZflow 1203V



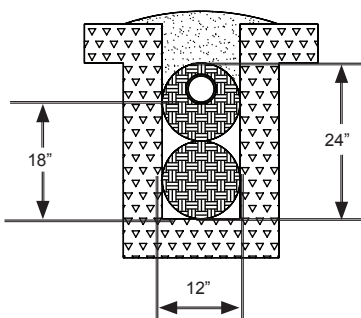
1202H



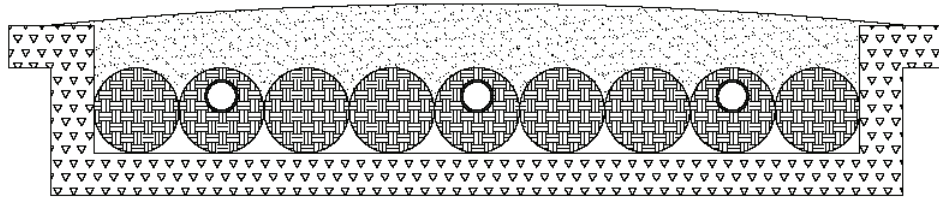
EZflow 1401-A



EZflow 1202V



EZ_{flow} Bed System



Bed system construction drawings are shown in Installers Manual figures 13 and 14.

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

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

Deep Trench

Deep trench construction is shown in Installers Manual Figures 9 and 10.

Shallow Trench

Deep trench construction is shown in Installers Manual Figures 11 and 12.

EZ_{flow} Inspection

As required by state or local regulations, be sure to obtain proper installation inspection 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.

Four-inch septic pipe units are self leveling. Units are engineered with holes at 12, 4 & 8 o'clock.



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