

Installation Instructions for EZflow Systems in Massachusetts



Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, Massachusetts Department of Environmental Protection issued a Certification for General Use for Infiltrator Systems Inc. **EZflow** brand drainfield systems listed below:

- 1202V
- 1203H
- 1203T
- 1402V
- 1203T-24

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

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 310 CMR 15.000, 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.

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 310 CMR 15.000.
2. The bottom and sides of the excavation shall be level per 310 CMR 15.246(1).
3. 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.
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 as specified in 310 CMR 15.251(1)(d). Where ever possible, trenches shall follow the contours.
7. Remove plastic **EZflow** stretch wrap prior to placing bundles in trench(es). Remove any plastic wrap in 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. 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. **EZflow** EPS bundles are flexible and can fit in curved trenches as may be necessary to avoid trees, boulders, or other obstacles.
11. **EZflow** systems require covering over the top of the system with a polypropylene, nonwoven, geotextile filter fabric per Certificate for General Use, ASTM D-3786, D-4751, and D-4491.
12. Effluent distribution lines shall be installed level. The soil cover over the effluent disposal field should be a minimum of three inches of topsoil.
13. Backfill should be Title 5 fill per 310 CMR 15.255 and **EZflow**'s guidelines. Soil within 6" of the EPS bundles shall be loosely placed and not compacted.
14. Final cover above the effluent trenches shall be graded to reduce infiltration of surface water and minimize erosion.

Repeat steps 1 thru 14 for each required trench.

Sizing

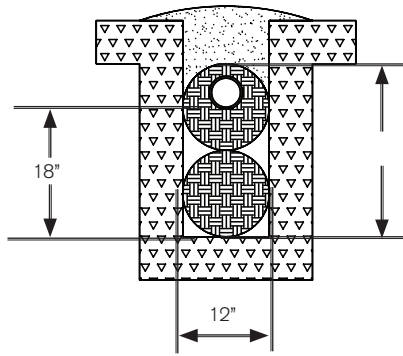
The minimum area (SF) necessary for a given site shall be determined by the results of the stie evaluation per 15.100-15.107 based on daily sewage flow (gpd) per 15.203 and the Effluent Loading Rates per 15.242. The total length of the trench required shall be determined by dividing the total absorption area (SF) required by the approved SF/FT of the product configuration being installed. **EZflow** systems, when used in trench configuration shall be sized as follows:

Unit	Dimensions W x H (in.)	Trench Width	Invert Height	Leaching Area (SF/LF)	*Increase or Decrease %
1202V	12 x 18	12"	18"	4.0	0%
1203H	36 x 6	36"	6"	4.0	0%
1203T	30 x 14	30"	14"	4.83	18%
1402V	14 x 22	14"	22"	4.83	18%

*Length increase or reduction for **EZflow** products are compared to a conventional 36" wide by 12" deep (6" stone depth beneath the distribution pipe) gravel trench.

Approved EZflow Products

EZflow 1202V

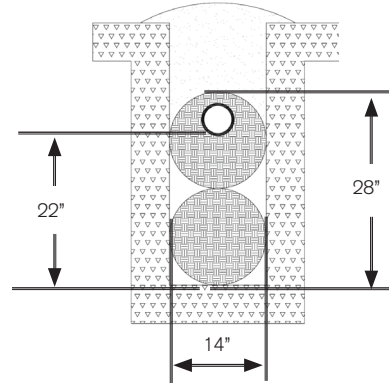


SIZING EXAMPLE: - 300 sq ft. required
300 sf X 4.0 sf/ft = 75 lf required

Properties & Specifications

Overall System Height	24"
Invert Height	18"
Trench Width	12"
Trench Depth	30"
Trench Sizing	4.0 sf/ft

EZflow 1402V

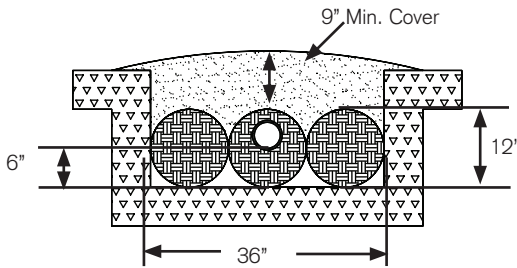


SIZING EXAMPLE: - 300 sq ft. required
300 sf X 4.83 sf/ft = 100 lf required

Properties & Specifications

Overall System Height	28"
Invert Height	22"
Trench Width	14"
Trench Depth	34"
Trench Sizing	4.83 sf/ft

EZflow 1203H

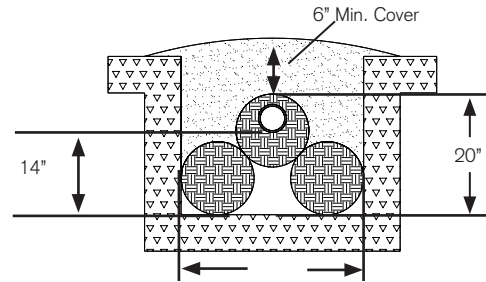


SIZING EXAMPLE: - 300 sq ft. required
300 sf X 4.0 sf/ft = 75 lf required

Properties & Specifications

Overall System Height	12"
Invert Height	6"
Trench Width	36"
Trench Depth	18"
Trench Sizing	4.0 sf/ft

EZflow 1203T

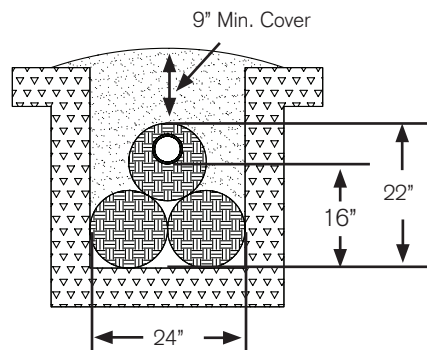


SIZING EXAMPLE: - 300 sq ft. required
300 sf X 4.83 sf/ft = 62 lf required

Properties & Specifications

Overall System Height	24"
Invert Height	14"
Trench Width	30"
Trench Depth	26"
Trench Sizing	4.83 sf/ft

EZflow 1203T-24

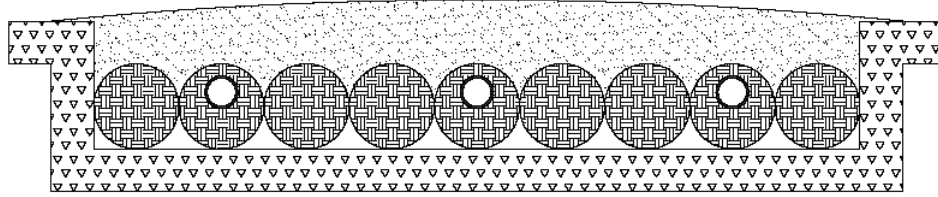


Properties & Specifications

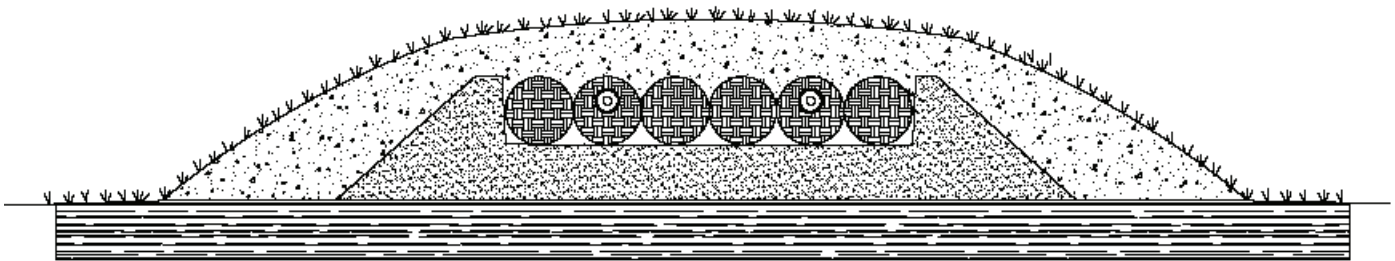
Overall System Height	22"
Invert Height	16"
Trench Width	24"
Trench Depth	31"
Trench Sizing	4.83 sf/ft

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EZ_{flow} Bed System



EZ_{flow} Mound System



The **EZ_{flow}** System may be installed in a bed or field configuration, without gravel aggregate, as defined in 310 CMR 15.252.

1. Maximum distance between connected distribution pipes -- 6 feet.
2. Maximum distance between bed side and connected distribution pipe -- 4 feet.
3. Maximum bed length -- 100 feet.
4. Minimum number of distribution lines -- 2 lines.
5. Distribution lines -- refer to 310 CMR 15.251 (5) through (10).
6. Pipe containing bundles may function as distribution line if connected or as aggregate if not connected.
7. Effective leaching area shall be calculated using bottom area only.

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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.

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.

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INFILTRATOR[®]
systems inc.

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