

Installation Instructions for EZflow Systems in Alabama



In accordance with and subject to the provisions of the Alabama Public Health Laws of Alabama and Chapter 420-3-1, Onsite Sewage Disposal and Subdivision-Onsite Sewage Systems, Water Supplies and Solid Waste Management, and subject to terms and conditions of permit ALM0000033, Infiltrator Systems Inc. is authorized to distribute the products described in these instructions.

Prior to installation, Infiltrator Systems Inc. must certify installers in writing 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
- Laser, Transit, or Level

Installation Instructions

The **EZflow** systems may be installed on conventional sites (5 to 60 minutes per inch percolation rates) that meet all other criteria of the Onsite Sewage Disposal Rules, Chapter 420-3-1. These systems may be sized at Infiltrator Systems Inc. or their representative's discretion, from a one to one basis (equivalent to a two (2) feet wide gravel trench) down to 66 percent sizing (equivalent to a three (3) feet wide trench).

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. 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.

3. When installed in a trench, the trench should be dug to a minimum width of about 12 inches up to a maximum of 36 inches. This not only saves labor in excavation, but also provides better load-bearing capacity after backfilling is complete.

4. As with any system intended to transport fluid by gravity, the bed for the system should be at a maximum permissible downward grade in the direction of intended flow. Where runs are short, such as between weep holes in a retaining wall, the bed may be constructed level. The bottom of the trench must be on grade.

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

6. 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 contain-

ing 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.

7. 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.

8. For the **EZflow** configurations that contain a preinserted geotextile between the netting and aggregate, the installer shall make sure that the fabric is positioned on top before backfilling. The span of fabric at each sidewall shall not exceed 180 degree reach (i.e. 9 o'clock to 3 o'clock) The fabric is inserted to prevent soil intrusion.

9. The **EZflow** Drainfield Systems should be installed in a level trench in all directions (both across and along the trench bottom) and should follow the contour of the ground surface elevation (uniform depth), with all continuous adjoining 10-foot cylindrical bundles placed end to end, with central bundle distribution pipe interconnected, without any dams, stepdowns or other water stops.

10. When surface slopes are greater than two percent, the bottom of the nitrification trenches shall follow the contour of the ground. An engineer's level or equivalent shall be used for installation and inspection.

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 building paper or other approved cover material. Past experience with stone aggregate systems in this soil type should be used as a guide.

13. The soil cover over the nitrification field should be to a depth of at least twelve inches.

14. The finished grade over nitrification field should be landscaped to prevent ponding of surface water.

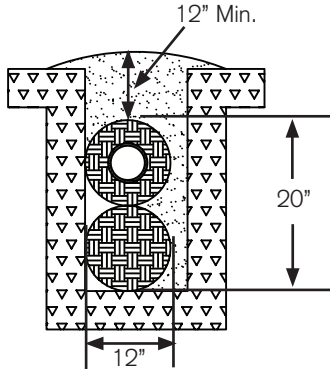
15. Soil cover above the original grade should be placed at a uniform depth over the entire nitrification field, except as required to prevent the ponding of surface water.

16. Soil cover should be placed over nitrification field after proper preparation of original ground surface.

Repeat steps 1 thru 16 for each required trench.

Approved EZflow Products

EZflow 1002V/1002V-GEO

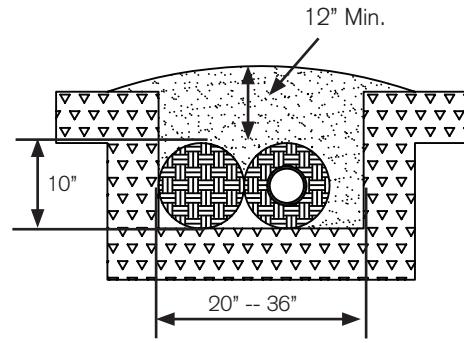


SIZING EXAMPLE: 300 sq ft. required
 $300 \times 0.25 = 75$ ft. required

Properties & Specifications

Overall System Height	20"
Invert Height	13"
Trench Width	12"-36"
Trench Depth	26"
Trench Modification	25%

EZflow 1002H/1002H-GEO

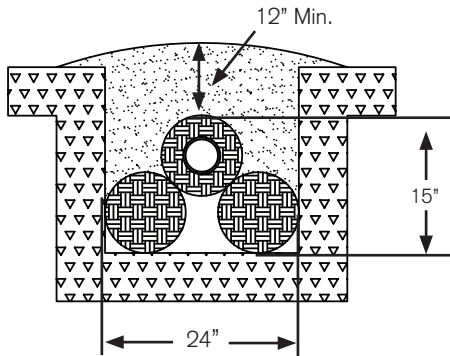


SIZING EXAMPLE: 300 sq ft. required
 $300 \times 0.30 = 90$ ft. required

Properties & Specifications

Overall System Height	10"
Invert Height	3"
Trench Width	20"-36"
Trench Depth	22"
Trench Modification	10%

EZflow 1003T/1003T-GEO

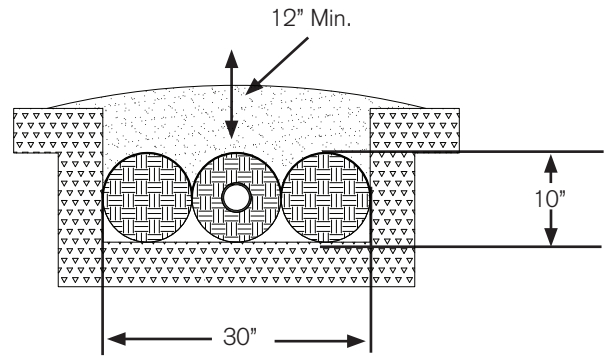


SIZING EXAMPLE: 300 sq ft. required
 $300 \times 0.20 = 60$ ft. required

Properties & Specifications

Overall System Height	15"
Invert Height	8"
Trench Width	24"
Trench Depth	27"
Trench Modification	40%

EZflow 1003H-GEO/1003H

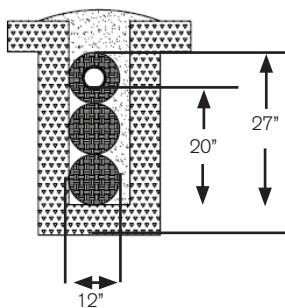


SIZING EXAMPLE: 300 sq ft. required
 $300 \times 0.24 = 72$ ft. required

Properties & Specifications

Overall System Height	10"
Invert Height	3"
Trench Width	30"-36"
Trench Depth	22"
Trench Modification	25%

EZflow 1003V/1003V-GEO



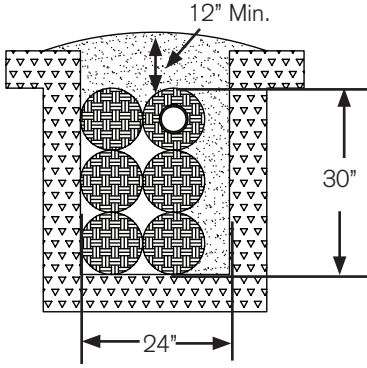
SIZING EXAMPLE: 300 sq ft. required
 $300 \times 0.16 = 48$ ft. required

Properties & Specifications

Overall System Height	30"
Invert Height	23"
Trench Width	12"-36"
Trench Depth	36"
Trench Modification	52%

Approved EZflow Products

EZflow 1006V/1006V-GEO

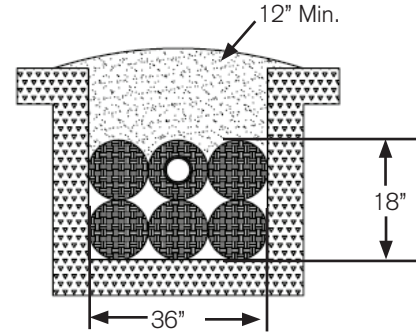


SIZING EXAMPLE: 300 sq ft. required
 $300 \times 0.10 = 30$ lft. required

Properties & Specifications

Overall System Height	30"
Invert Height	23"
Trench Width	24"
Trench Depth	42"
Trench Modification	70%

EZflow 1006H/1006H-GEO

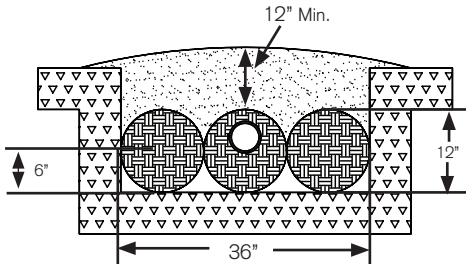


SIZING EXAMPLE: 300 sq ft. required
 $300 \times 0.17 = 51$ lft. required

Properties & Specifications

Overall System Height	18"
Invert Height	11"
Trench Width	30" -- 36"
Trench Depth	30"
Trench Modification	49%

EZflow 1203H/1203H-GEO

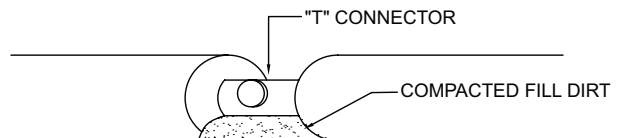
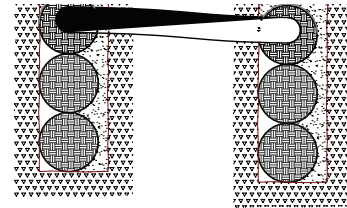
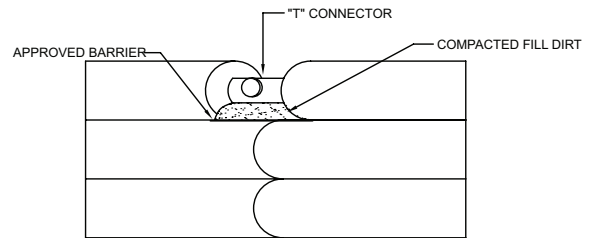


SIZING EXAMPLE: 300 sq ft. required
 $300 \times 0.25 = 75$ lft. required

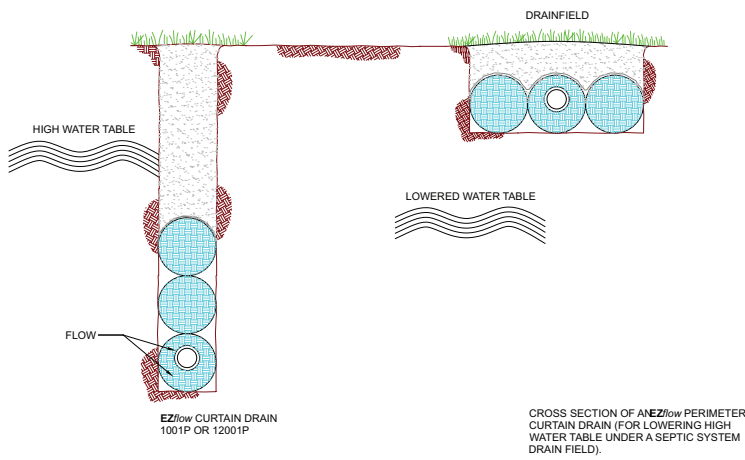
Properties & Specifications

Overall System Height	12"
Invert Height	6"
Trench Width	36"
Trench Depth	24"
Trench Modification	25%

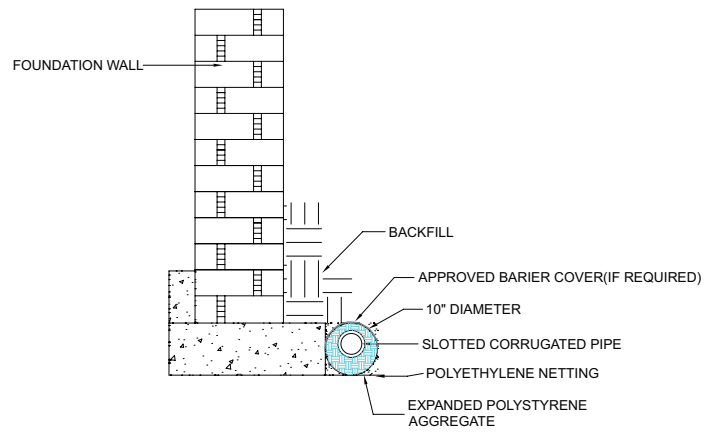
Tee and Crossover Installation



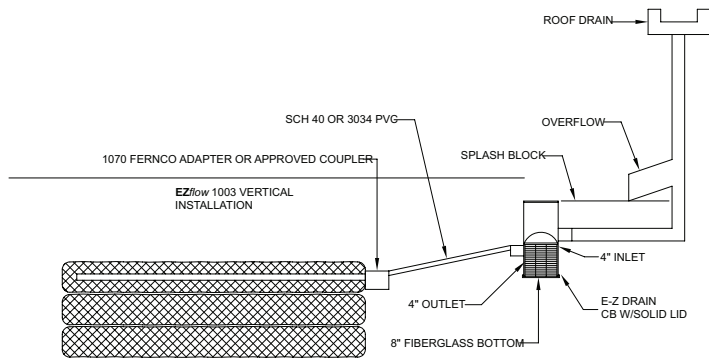
Perimeter Drain Detail



Foundation Drain Detail



EZflow Roof Drain Systems



NOTE:

The **EZflow** system requires only a 12" cover or cap in the state of Alabama. Contact local county inspector for specific requirements.

Analytical Methods for Sizing

Sizing is based on the conventional gravel system in each state. The Pankow formula calculates each **EZflow** configuration's equivalency and gives that configuration a factor number. The factor number is multiplied by the number of square feet required for the conventional system as permitted. Each configuration was developed for a limited condition on site (i.e. limited space, high water table, etc.). Be sure to review all configurations for the best system to meet the site conditions.

Formula for Sizing

$$\text{Conventional system's sq. footage on permit} \times \text{EZflow configuration number factor on sizing chart} = \text{EZflow linear footage for that configured system's length}$$



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