

## GRAVELLESS TRENCH SYSTEM GUIDANCE

**Description:** A gravelless trench system meets all the requirements of a standard trench system except that the drainrock is replaced by an approved gravelless trench component (see section 5.6 of the Idaho TGM for a list of approved components). Typical components include gravelless chambers, large diameter nylon fabric wrapped piping of varying dimensions, and drainrock substitution systems. Approved gravelless products are granted a reduction in disposal area square footage. Reduction is only allowed in trench designs up to 36 inches in width. **No reduction is allowed for installation widths greater than 36 inches, or for installation in sand mound or absorption bed designs.**

### General Requirements:

1. System must be installed according to manufacturer's requirements/recommendations.
2. Reduction in square footage cannot be in addition to other allowable disposal area reductions (i.e., drainfield reductions due to increased application rates for treatment).
3. Components must be approved for subsurface sewage disposal in Idaho.

### Installation:

1. The trench should follow the contour of the land.
2. Trench excavations should not be less than 8 inches wide and no more than 36 inches wide (3 feet). Width dimensions will depend on the manufacturer's installation instructions.
3. Pipe must be installed level. A transit, engineer's level, or surveying station is required.
4. Effluent piping entering gravelless chambers must be installed into **the highest inlet hole** available on the chamber end cap. (see diagrams below)
5. An inspection port should be installed at the end of each line.
6. Large diameter gravelless pipe products should be covered with geotextile fabric, untreated building paper, or a 3-inch layer of straw unless the product has a built-in filter fabric in the design. Gravelless chambers are not required to be covered with geotextile fabric, untreated building paper, or straw unless specifically required by the manufacturer.
7. Care must be taken not to over-excavate trench width wider than the product width. If over-excavation is unavoidable hand backfilling of trench should be performed up to the product height and fill should be walked in to ensure sidewall support of the product.
8. Make sure endcaps are rated to fit the gravelless components you are using. Do not mix and match components.

## Common Gravelless Drainfield Products



Infiltrator Quick4 Plus All-In-One Endcap



ARC 36 Endcap



Infiltrator Quick5 Multiport Endcap

## Installation Photos



*Not approvable*



*Not approvable*



*Approvable - can receive 25% reduction.*



*Approvable - can receive 25% reduction.*



*Can be approved, however, cannot receive 25% reduction. Would need to add more chambers to achieve full square footage.*