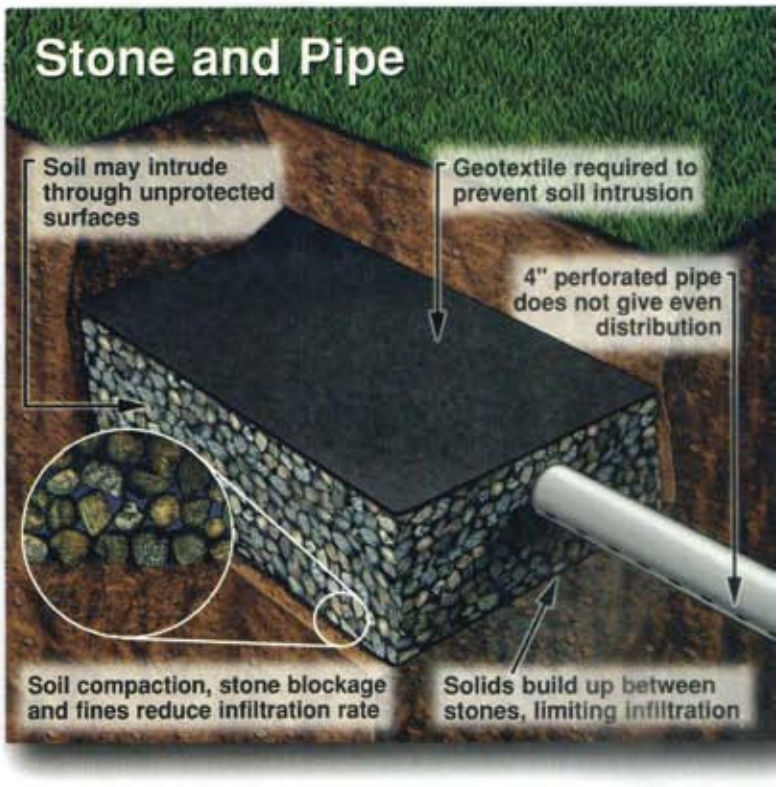
Superior Technology

A Natural Process

When household grey water and septic effluent travel from a dwelling to a septic tank belowground, the process of onsite wastewater recovery begins. Solids settle to the bottom of the septic tank before the partially clarified effluent moves on to the leachfield, where it receives additional biological treatment as it passes through the soil. Hydraulic head pressure, soil permeability, wastewater quality and climate all have a role in determining the infiltrative capacity and treatment performance of every onsite soil absorption system.

Engineered for Optimal Performance

Effective wastewater treatment relies on a careful balance between loading rates, the leachfield's temporary storage capacity and soil permeability. If wastewater exfiltrates too slowly, hydraulic failure can eventually result. Conversely, if effluent passes too quickly through the system due to high loading rates or excessively permeable soil, wastewater may not receive adequate treatment. Infiltrator chambers provide the maximum effective permeable area per linear foot and, promote a natural biomat formation that assists in the organic process of wastewater treatment.



Because Infiltrator chambers have an open interior, compared to stone which occupies roughly two-thirds the space in a leachfield trench, they can be sized with up to half the footprint for equal or superior performance. With the Infiltrator chamber system, fines in the biomat are reduced because, with the absence of stone, there is no dirt or ground-up stone particles introduced to the trench bottom during installation. The chambers' patented SideWinder® sidewalls are designed to offer the maximum infiltrative surface area and limit the intrusion of soil fines which can become embedded in the larger pores of the underlying soil and also in the biomat. The chambers'

Science Proves the Advantage

The Science of Onsite Wastewater Management

The laws of physics govern wastewater disposal and treatment. Darcy's Law is the law of physics that predicts the saturated flow of water through a permeable medium, such as the biomat, and is expressed as Q=KiA.

Darcy's Law: Q = KiA
Q = flow rate
K = hydraulic conductivity of the media
i = hydraulic gradient
A = area

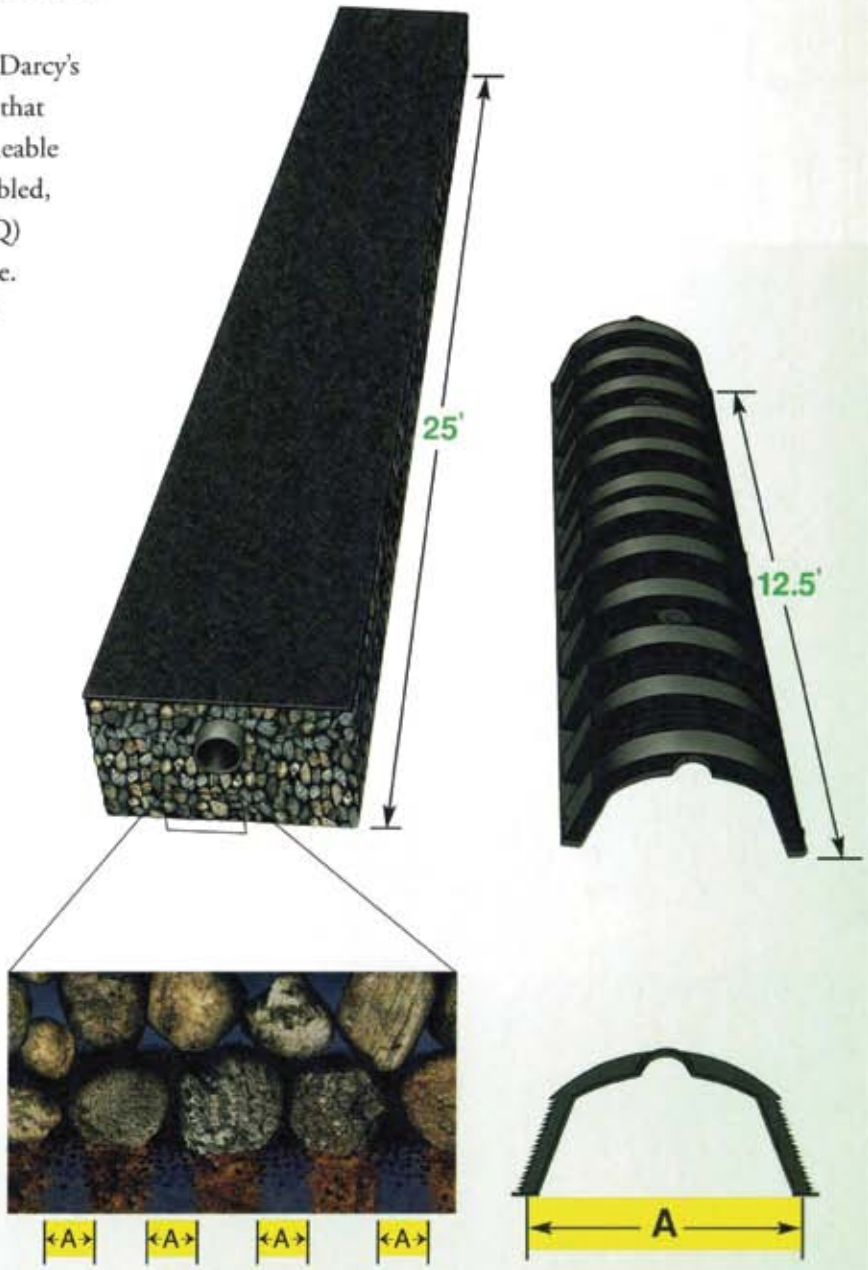
Simply stated, Darcy's Law illustrates that when the permeable area (A) is doubled, the flow rate (Q) is also doubled. (K) and (i) remain constant for a given site. This universally accepted principle explains how Infiltrator chambers offer long-term performance that is equal or superior to stone and pipe in a footprint that is up to 50%* smaller.

Once the mature biomat forms in the leachfield, chamber systems have more than twice the permeable area of stone and pipe leachfields. This is because the soil pores in direct contact with the stones are blocked, leaving only the area between the stones to absorb the effluent, while the entire trench bottom is unobstructed with chamber systems.

A third-party study verifies that stone with a 5% silt content and the combined effects of stone compaction and smearing can reduce infiltration rates by as much as 57%. Excessive fines can limit the longevity of stone and pipe septic systems.

Reduced Sizing – Equivalent Performance and Treatment

The key to Infiltrator chambers' superior performance is their maximum effective infiltrative area and efficient sidewall design. A recent third-party university study concluded that Infiltrator chamber systems sized at 50% of the infiltrative area of stone systems provided comparable hydraulic and treatment performance. To receive copies of the scientific studies that document the performance of leaching



Stone and pipe systems – Less than 50% efficiency
In the stone and pipe system, the infiltrative area (A) is reduced due to the presence of stone.

Infiltrator chambers – 100% efficiency
With Infiltrator chamber systems, the entire area (A) at the bottom of the trench is unobstructed by stone, which means total infiltrative effectiveness.

Side-by-Side Comparison

A 12.5-foot length of Infiltrator chamber trench has more effective infiltrative area than a 25-foot length of stone and pipe trench.*

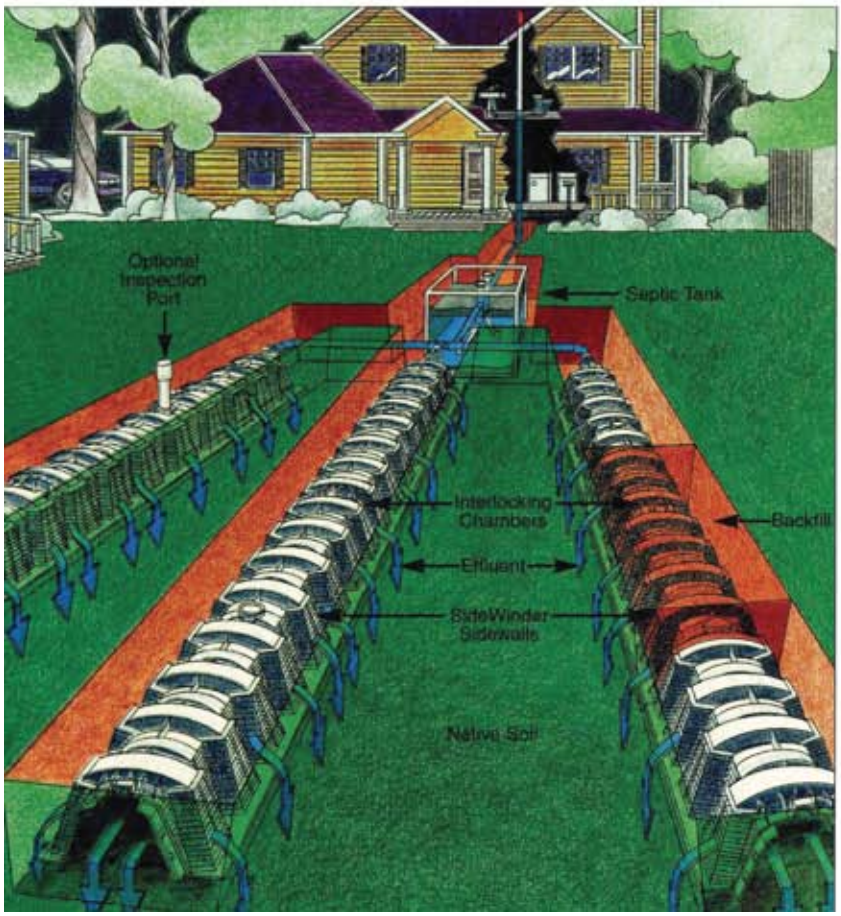
Equalizer 36 chambers are 38% more effective than a same-length 36" stone and pipe system.

The Equalizer 36 chamber is a direct replacement for old-fashioned stone and pipe leachfields installed in 3-foot wide trenches. You dig exactly the same length of trench as usual, then install Equalizer 36 chambers in less than half the time of a labor-intensive stone and pipe job. It's that simple.

System efficiency.
When you install the patented Equalizer 36 chambers, you actually get 38% more system in the same space! That's because the Equalizer 36 chamber has 38% more infiltrative capacity built in foot-per-foot than a conventional leachfield of the same size. That means more peace of mind for you, the homeowner, and the environment. The secret is in the engineered chamber design.

SideWinder® sidewall.
The Equalizer 36 chamber features the patented SideWinder sidewall. This unique design has over twice the leaching sidewall area below the invert than what exists in a same-length stone and pipe system. The chamber's louvers wind continuously around its sidewall, offering maximum infiltration.

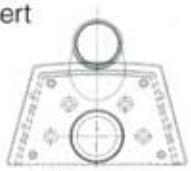
SideWinder Sidewall



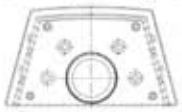
The Equalizer 36 chamber also features a completely open chamber bottom which provides over twice the effective downward infiltration of a conventional system, where stone restricts the movement of effluent into the soil. Leaching chambers are a tested and proven technology with over 400,000 systems installed over the past 20 years.

The SideWinder sidewall and the open-bottom chamber work together to provide a leaching system that is 38% more efficient than a 3-foot conventional installation of the same length.

End plate options.
There are two Equalizer 36 end plates available to meet different system inlet designs: the raised invert end plate and the standard invert end plate. The raised end plate is most often used. Its invert is located 10.15" up from the bottom of the trench (for a typical 4" SDR 35 pipe). The standard end plate's invert is 5.4" off the ground and is ideal when the depth of the trench is restricted due to a high water table, rock, or some other limiting factor. An internal splash plate is built into each end plate design.



Raised Invert



Standard Invert

Polyolefin construction.
Infiltrator chambers are molded of PolyTuff™, a proprietary blend of polyolefin plastic that includes recycled resins and is formulated for optimum strength and chemical resistance. It's impervious to wastewater constituents and is stabilized to resist ultraviolet rays. Infiltrator chambers are manufactured using an exclusive patented process to assure consistent high quality. These combined factors make Infiltrator chambers the toughest, most reliable chambers in the industry.

AASHTO H-10 load rating.
Equalizer 36 chambers have been structurally tested by a registered professional engineer. The chambers are available with an AASHTO rating of H-10 (16,000 lb/axle with 12" of compacted cover) for typical septic use.

Nominal chamber specifications.

Size (W x L x H)	22" x 100" x 12"
Weight	33 lb
Storage	63 gal/8.5 ft³

Compare the installation and operating advantages.

Conventional stone and pipe system

Equalizer 36 Chamber System

• Labor-intensive, lengthy installation.	• Easy assembly and installation by two people.
• Dump truck needed for stone delivery.	• Only a backhoe and pickup truck are required.
• Stone hauling adds expense and time, increases soil compaction in leachfield site.	• Lightweight chambers can be delivered in one pickup truck load and hand-carried into position.
• Stone in trench reduces infiltrative capacity of system.	• SideWinder sidewall provides over twice the effective sidewall infiltrative surface area in the same trench length.
• System lacks easy inspection and monitoring of leachfield without digging up the yard.	• Optional inspection port is provided for easy access to leachfield with no site disruption.
• Geotextile required on top of stone.	• Solid-topped chambers need no geotextile.
• Overall increased cost.	• Overall reduced cost.