



**FAST** wastewater treatment systems  
with **SFR**™

**Single Family Dwellings**



**Clustered Subdivisions**



**High Strength Commercial**



**Failed System Renovation**

## Dependable, Affordable FAST®

FAST® is simply great technology. Ideally suited for use in single family dwellings, clustered residential developments and subdivisions, restaurants or other high strength commercial applications, a versatile FAST system is ready to serve your needs. FAST can even be used to retrofit a failed conventional septic system, giving homeowners and small communities the innovative solutions they seek. Dependable, affordable...FAST.



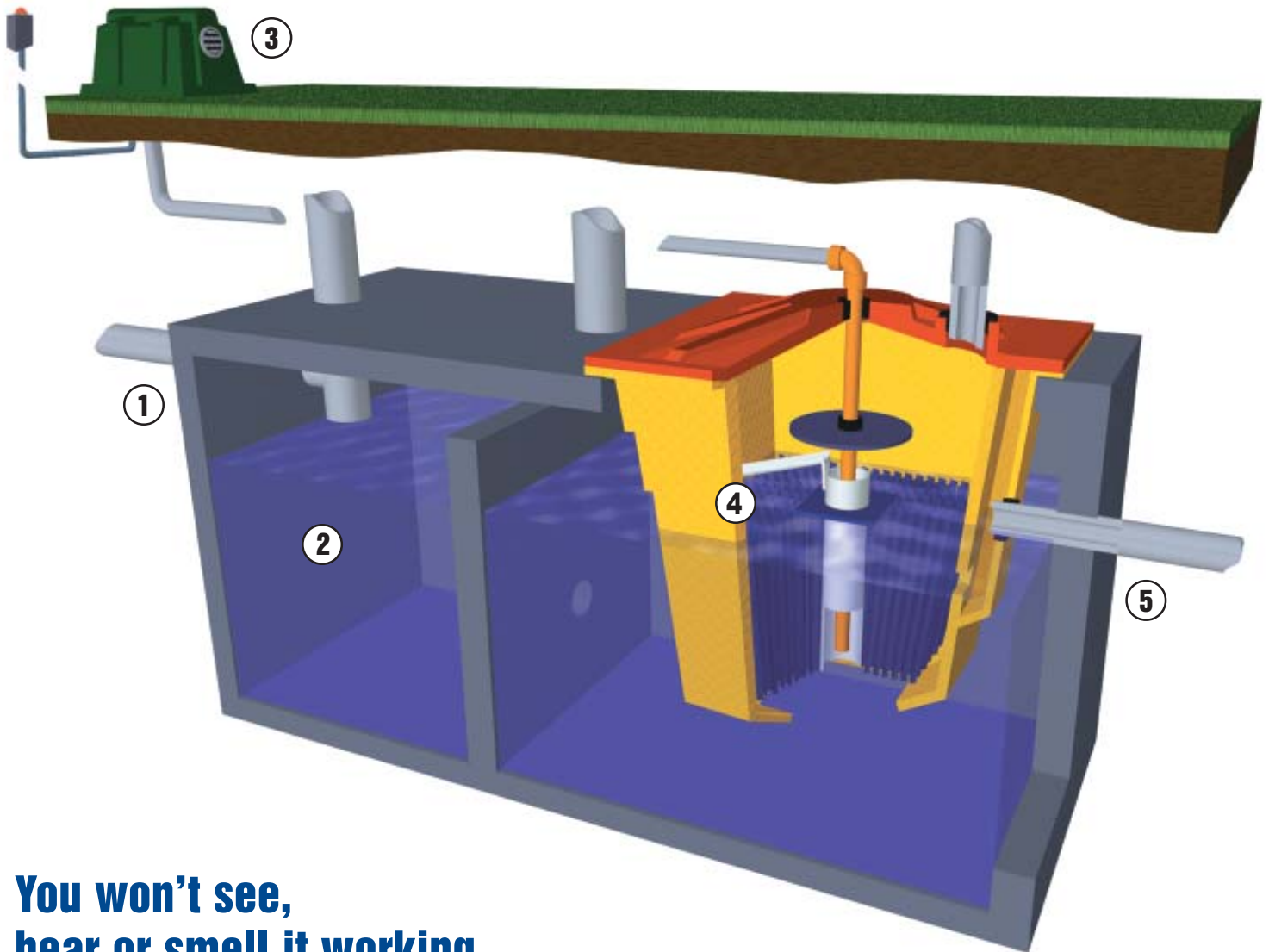
## Nothing to disturb your view.

You'll like the view your FAST wastewater treatment system affords—because you can't see it. Everything is tucked neatly underground, except for an unobtrusive blower housing that can be located up to 100 feet away. For years to come you won't notice a thing about your FAST system except how well it's working. And the beautiful view.



**FAST**® wastewater  
treatment  
systems  
with **SFR**™

# Introducing **FAST** Wastewater Treatment Systems



**You won't see,  
hear or smell it working.**

- 1** FAST® wastewater treatment systems process all the wastewater from single family homes, clusters of homes, small communities or even the high strength wastes from restaurants or commercial facilities.
- 2** Natural separation and settling processes occur in the first compartment of the underground tank.
- 3** Remote blower (the system's only moving part) delivers large volumes of air into the heart of the system, creating vigorous water movement. FAST is oxygen-rich and self-cleaning.
- 4** The proven, reliable FAST treatment module provides the perfect environment for "friendly bacteria" to grow and multiply. FAST consistently processes and removes more than 95% of common impurities. Special patented technology allows exceptional Total Nitrogen reductions (including nitrates) of more than 70%.
- 5** Clear, odorless treated water is ready for standard or innovative dispersal.

# The real beauty of this remarkable system is how well it works.

The science behind a FAST® wastewater treatment system is environmentally sound and simple. FAST is an acronym for Fixed Activated Sludge Treatment. Here's why this technology is so effective:

A FAST wastewater treatment system is a pre-engineered modular apparatus designed to treat wastewater from residential, commercial, high strength and small community applications.

FAST is a fixed film, aerated system utilizing a unique combination of attached and suspended growth, capable of nitrification and denitrification in a single tank. This innovative combination includes the stability of fixed film media and the effectiveness of proven activated sludge treatment, making FAST technologically-advanced and extraordinarily reliable.

A FAST system provides an ideal home for large volumes of friendly organisms in the inner aerated media chamber to digest the wastewater and turn it into a clear, odorless, high-quality effluent. The attached growth system assures that more organisms remain inside the system instead of being flushed out, even during times of peak hydraulic flows (for example, during large social gatherings). During times of low usage, the large volumes of thriving organisms

prevent a dying-off of the system, making FAST equally well suited to intermittent use applications.





Sufficient conditions are present which allows nitrification and denitrification to occur in the same tank—without any system modifications. Special patented technology allows FAST to consistently reduce nitrogen levels—including nitrates and all other nitrogen species—by an average of 70%.

Installation of the lightweight and durable FAST system is easy. It simply mounts into a septic tank. FAST is designed to be efficient, dependable, and user-friendly.

Once installed, the FAST system requires very little maintenance. Tastefully located below ground level, the clean odorless system blends beautifully into any landscaping design. The only moving part is the quiet aerating blower, placed above ground level in the most convenient location. FAST needs no other filters or pumps.

FAST is ideally suited for residential developments, high strength waste, light commercial applications and renovation of failing systems on marginal or severely limited sites.

## FAST® wastewater treatment systems share many advantages:

Single Family Dwellings	Clustered Subdivisions	High Strength Commercial	Failed System Renovation
<p>Hidden, installs underground</p> <p>Quiet, automatic operation</p> <p>Garbage disposal and dishwasher compatible</p> <p>Affordable options</p>	<p>Makes marginal sites buildable</p> <p>Flexible development and landscape planning</p> <p>Saves money versus centralized systems</p>	<p>Robust process handles even the toughest applications</p> <p>Requires very little maintenance—less mess</p> <p>Pretreatment or complete treatment</p>	<p>Simple, dependable retrofit</p> <p>Minimal disruption</p> <p>Low cost, long-lasting solution</p> <p>Renovates soil and leach field</p>
			

## Single Family Dwellings

- Environmentally safe treatment allows full use of property by homeowners, children and pets.
- Proven high performance levels could mean reductions in lot size, separation distances and other limiting factors.
- Possible innovative re-use of precious water resources for irrigation.
- Advanced wastewater treatment system ready for next generation requirements.



## Clustered Subdivisions

- FAST may make previously-unbuildable land useful and profitable
- Modular design of FAST system allows project planners maximum flexibility
- Builders and developers are able to purchase and install only when and where needed, saving large capital expenditures of a costly centralized system.



## High Strength Commercial

- Restaurants and other difficult high strength waste applications are effortlessly treated with FAST's robust aerobic process.
- Clubhouses, schools, trailer parks, office buildings and other commercial properties are natural fits for a FAST wastewater treatment system.
- With FAST's reliable process engineering design, operation is simple and requires very little maintenance.



## Failed System Renovation

- Failing septic systems can easily be retrofitted and upgraded with the simple, affordable design of FAST.
- Small communities now have a practical, proven alternative to cost prohibitive centralized sewer systems.
- Modernizing the wastewater treatment system with FAST increases value and usefulness of the property.



# Proven, safe, reliable.

The advanced technology behind FAST® was originally developed by Smith & Loveless, Inc., a worldwide leader in the design and manufacture of wastewater treatment equipment since 1946. FAST has been used successfully for many years in municipal, industrial, marine, commercial and residential applications. Known globally for superior engineering and manufacturing, the Smith & Loveless companies are one of the most recognized water and wastewater transfer and treatment groups in the world. This innovative group of companies is known for high standards, proven technology, engineering expertise and manufacturing quality.

## Environmental Protection

FAST systems greatly reduce groundwater contamination and help protect the delicate ecosystem. Potentially harmful nitrates and all other forms of nitrogen are removed at unparalleled rates (average of 70%) through the patented FAST process. FAST is made with post-consumer recycled materials. Use of this remarkable system allows for responsible new development and the renovation of failed conventional systems.

## FAST Certifications

U.S. Coast Guard  
Canadian Great Lakes  
UK Department of Trade  
NSF Standard 40, Class I  
International Maritime Organization



## Technical Specifications

Power required: Normal household current (120v, 60Hz). Other options (220v and international requirements) are available.

Materials of construction: Made with 100% corrosion-resistant materials and contains post-consumer recycled materials.

Underground housing: FAST systems can be housed in concrete, fiberglass, steel or plastic tanks. Always check local regulations before installing or altering a wastewater system. Contact Bio-Microbics or a dealer near you for more information on the availability of proper tankage in your area.

Dispersal Options: Check your local regulations. The extraordinarily high treatment levels may allow reductions in drain field areas, use of treated water for irrigation or other innovative discharge methods.

Capacity: Available in several convenient, affordable sizes and configurations. Please contact Bio-Microbics or a dealer near you for more information on the FAST system that's right for your application.

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