



BIO MICROBICS®

Established in 1996 to focus on water ecology and technology innovation through three companies, BioMicrobics, SeptiTech, and Scienco/FAST. At the forefront of sustainable design and with more than 80,000 installed systems in over 80 countries, these systems meet the highest performance standards for

treatment of water, greywater, wastewater, stormwater, and more! BioMicrobics has developed a number of innovative products dealing with the treatment of water – where infrastructure and drainage are not available. Our systems are designed and engineered with sustainability and user practicality in mind.

RetroFAST wastewater treatment systems
Ideal for existing tanks or upgrading the septic system to enhance/renovate a drain field; see our S.O.S.-Save Our Septic® Warranty Program.

MicroFAST wastewater treatment systems
Versatile and robust, these systems are designed for individual homes, clustered subdivisions, commercial properties and other domestic-strength flow applications.

NitriFAST wastewater treatment systems
For use as a second-stage treatment train with a MicroFAST® system to provide additional nitrification to achieve even higher levels of nitrogen reduction.

HighStrengthFAST wastewater treatment systems
Meets the challenges of high-strength applications and properties with higher strength loading and dealing with FOG (grease) issues to provide simple, robust, low-maintenance treatment systems.

MyFAST wastewater treatment systems
Ideal for small communities or large commercial properties to maintain consistent high performance, low maintenance, and sludge management all in one tank.

MarineFAST
For use on inspected vessels and offshore platforms to keep in compliance with total blackwater and greywater treatment and reliable wastewater treatment performance on vessels of all types.



INNOVATIVE ONSITE WASTEWATER PRODUCTS

FAST[®] wastewater treatment systems

with SFR[®]

Most Popular Onsite, Decentralized Wastewater Treatment System



NSF/ANSI 245 Certified for Nitrogen Reduction



Reliable, Proven, Long-Term Performance with Low Maintenance



AWARD-WINNING
INTEGRATED WATER
TECHNOLOGY

ADVANCED WASTEWATER TREATMENT PROCESS
RESIDENTIAL • COMMERCIAL • COMMUNITY

BIO MICROBICS

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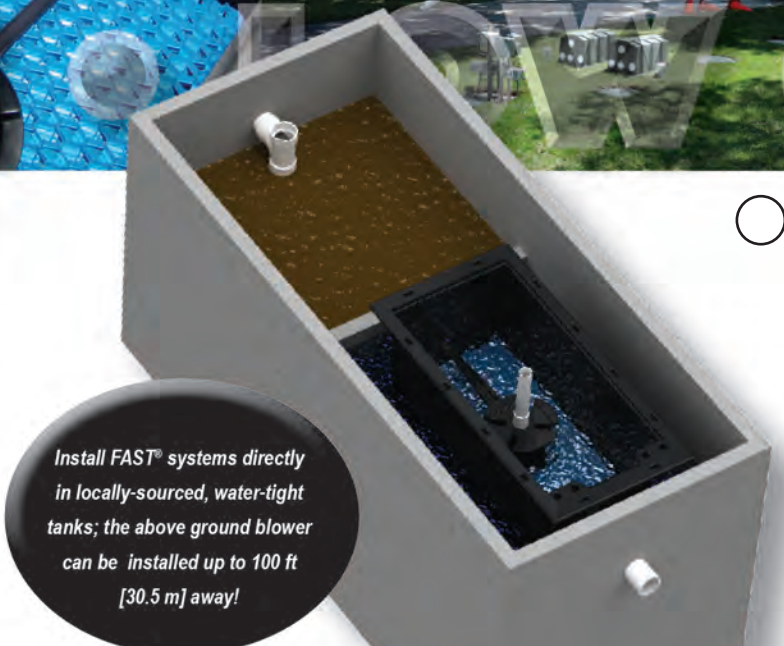
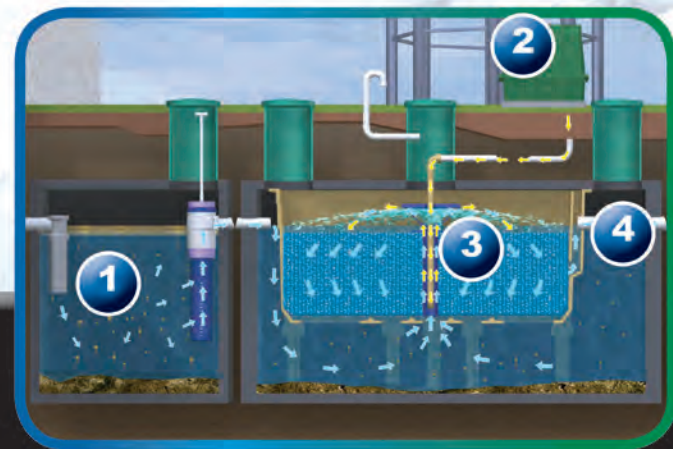
FAST[®] wastewater treatment systems with SFR[®]

BioMicrobics FAST[®] is the leading, Integrated Fixed-film Activated Sludge (IFAS) Treatment process with SFR[®] (sequencing fixed reactor) to provide significant improvement over traditional systems. Ideal in high nitrification/denitrification performance for environmental sensitive areas, the FAST treatment process exceeds effluent quality requirements for possible drainfield reduction or water reuse opportunities.

Removes 90+% of total suspended solids (TSS) and reduces the biochemical oxygen demand (BOD) to enable cost-effective treatment with less maintenance. Helps meet water quality goals with total Nitrogen removal (TKN) requirements.

FAST[®] systems can be used for new construction or retrofit in existing tanks; including environmentally sensitive areas or limitations with distance to groundwater and/or smaller dispersal field size requirements:

- Microbial growth in low/average/peak usage
- Increases settleability and eliminates sludge bulking
- Easy to maintain and extraordinarily reliable
- Exceeds minimum Nitrogen Reduction Standards
- Lessen the impact of harmful bacteria and viruses
- Takes all aspects of treatment into consideration



Install FAST[®] systems directly in locally-sourced, water-tight tanks; the above ground blower can be installed up to 100 ft [30.5 m] away!

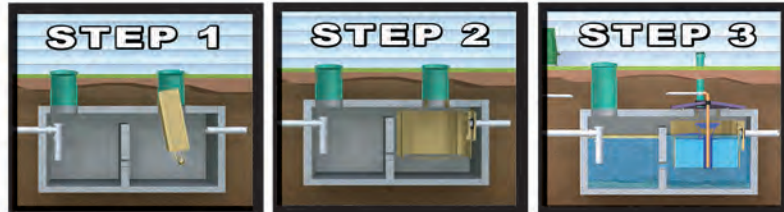
- With standard and optional features to help manage the expected goals of the system:
- Cost effective for retrofits and upgrades and reduce operation and maintenance costs.
 - Complete new builds or expansions of WWTPs
 - No replacement filters or cleaning of the media required.
 - For alternative energy sources, see the FITT[®]-ee "energy-efficient" wastewater treatment systems.
 - Larger FAST[®] systems are/can be installed with a sludge manifold for better BioSolids Management built right in!

FITT[®]-for-the-purpose-intended, the FAST[®] systems are engineered to fit most residential and commercial applications. These pre-engineered, package plants utilizing the FAST[®] "integrated fixed-film activated sludge" technology easily scales up into larger flows to small municipalities (see MacroFITT[®]) and will achieve better treatment - by far the most effective and natural process for removing pollutants from the wastewater!

HOW IT WORKS!

- 1 Settling Zone:** Separation processes occur (a SaniTEE[®] effluent screening device is required for commercial systems) to prevent large solids from entering the treatment zone.
- 2 Aeration:** Above-ground, regenerative blower introduces oxygen into the tank to facilitate a robust circulation through the FAST[®] treatment media's channeled flow path.
- 3 Submerged Filter Media Tank:** Adsorption of organics, nutrients, and pathogenic organisms by the abundant, self-regulating, healthy microbes attached to the media.
- 4 Discharge:** Treated water exits for dispersal or reuse.

RetroFAST[®] wastewater treatment systems See also RetroFITT[®]-ee available. Consult factory for more information



UNIT	MAXIMUM TREATMENT Volume/Module**	CAPACITY* People/Module**
0.150	150 GPD (567 LPD)	1 - 3
0.250	250 GPD (947 LPD)	1 - 4
0.375	375 GPD (1420 LPD)	1 - 5

For remediation applications, please see the S.O.S.-Save Our Septic[®] Program and a "S.O.S. Site Evaluation/Registration" Report.

MicroFAST[®] wastewater treatment systems NitriFAST[®] See also MicroFITT[®]-ee available. Consult factory for more information



UNIT	MAXIMUM TREATMENT Volume/Module**	CAPACITY* People/Module**
NSF 0.5	500 GPD (1893 LPD)	1 - 8
NSF 0.625	625 GPD (2366 LPD)	1 - 10
NSF 0.75	750 GPD (2839 LPD)	1 - 11
NSF 0.9	900 GPD (3407 LPD)	1 - 14
NSF 1.5	1500 GPD (5678 LPD)	6 - 21
3.0	3000 GPD (11356 LPD)	10 - 42
4.5	4500 GPD (17034 LPD)	18 - 63
9.0	9000 GPD (34068 LPD)	30 - 126

Applications >9000 GPD [34 m³/d]: Multiple FAST[®] treatment modules can be used in parallel and/or series for additional flow or desired treatment levels; also consider MyFAST[®] & MacroFITT[®] Wastewater Treatment Systems.

HighStrengthFAST[®] wastewater treatment systems Used with SaniTEE[®] & FOGHOG[®] Consult factory for more information



UNIT	MAXIMUM TREATMENT Volume/Module**	CAPACITY* People/Module**
1.0	900 GPD (3407 LPD)	CONSULT FACTORY
1.5	1500 GPD (5678 LPD)	CONSULT FACTORY
3.0	3000 GPD (11356 LPD)	CONSULT FACTORY
4.5	4500 GPD (17034 LPD)	CONSULT FACTORY
9.0	9000 GPD (34068 LPD)	CONSULT FACTORY

Applications >9000 GPD [34 m³/d]: Multiple FAST[®] treatment modules can be used in parallel and/or series for additional flow or desired treatment levels; also consider MyFAST[®] & MacroFITT[®] (HS-STP[®]) Wastewater Treatment Systems.

*Treatment capacity: As a "guideline" for suggested use, the individual FAST[®] module capacities are rated based on biological oxygen demand (BOD), hydraulic and other project-specific considerations. Actual capacity may vary with local conditions and performance goals.

**Volume/People per module: Please note, only residential domestic strength applications may be designed as total number of people per module. Actual capacity may vary with local requirements, conditions and performance goals.

Electrical Options: Electrical components are available to meet all worldwide electrical specifications (volt/phase/frequency). See product drawing(s) for options and more information.



BioMicrobics FAST[®] Systems are a popular alternative for the rural/urban environment. Award-winning "integrated water strategy" and innovative environmental technology, the FAST[®] technology have passed the most rigorous domestic and international 3rd-party certification programs. The simple, robust design allows long-term operational performance with easy and low-cost operation and maintenance.