

BIO MICROBICS®



FITT® wastewater treatment systems with SFR®

Based on our most popular
wastewater treatment technology



EN12566-3 certified for residential
applications up to 50 people



With an energy-efficient air delivery
system and low maintenance



**AWARD-WINNING
INTEGRATED WATER
TECHNOLOGY**

**ADVANCED WASTEWATER TREATMENT PROCESS
RESIDENTIAL • LOW ENERGY REQUIREMENTS**

BETTER WATER. BETTER WORLD.®

www.biomicrobics.com

SIMPLE & LOW COST

FITT[®]-ee wastewater treatment systems with SFR[®]

Just like the BioMicrobics FAST[®] Systems, the FITT[®]-ee wastewater treatment systems create an optimized treatment environment by using a fixed block of media for microbial growth with an energy-efficient aeration system. The energy-efficient Fixed Integrated Treatment Technology (FITT[®]-ee) design produces a robust, biological treatment system that combines and integrates several proven wastewater treatment process in one.

The FAST[®] and FITT[®]-ee systems enable cost-effective treatment with less oversight and maintenance. These simple, low cost and robust systems are used for new construction or retrofit to existing tanks in standard remote properties. Ideal for environmentally sensitive areas, the FITT[®]-ee systems provide:

- Microbial growth in low/average/peak usage
- Increases settleability & 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

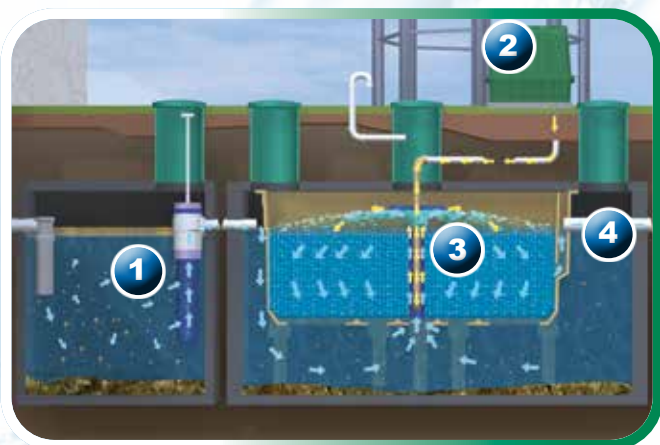


Install directly in locally-sourced, below or above ground, water-tight tanks.

With features to help manage the performance of the system, BioMicrobics has taken many initiatives for reducing the environmental impact of manufacturing wastewater treatment systems at every stage of their life cycle.

FITT[®]-for-the-purpose-intended, these systems use energy-efficient technology to lower operating costs. On the ecology front, the clean effluent prevents formation soil-clogging, leach field biomat and achieves better treatment with the most proven, effective process for removing pollutants from wastewater with long-term performance!

HOW IT WORKS!

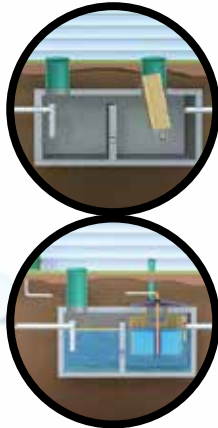


- 1 Settling Zone:** Separation processes occur (NOTE, the use of a SaniTEE[®] effluent screening device, shown, is optional and recommended) to prevent large solids from entering the treatment zone.
- 2 Aeration:** Above-ground, air compressor introduces oxygen into the tank to facilitate a robust circulation through the FITT[®] treatment media's channeled flow path.
- 3 Treatment Tank:** Water and air thoroughly mixes before splashing out of the airlift to evenly distribute over the media. Adsorption of organics, nutrients, and pathogens occurs by the abundant, self-regulating, healthy aerobic microbes attached to the media.
- 4 Discharge:** Treated water exits for dispersal or reuse.

COST EFFECTIVE ROBUST

RetroFIT^{ee} wastewater treatment systems

See also RetroFAST[®] with DC blower options, consult factory for more information.



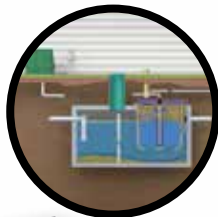
UNIT	MAXIMUM TREATMENT Volume/Module**	CAPACITY* People/Module**
0.150	150 GPD (567 LPD)	1 - 3
0.250	250 GPD (947 LPD)	1 - 4
0.375	375 GPD (1420 LPD)	1 - 5

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

- Meets & exceeds most treatment level requirements
- Affordable, energy efficient, and lower cost operation
- Minimal site impact (LID design) with existing tanks
- Designed to "FIT" your site constraints & regulatory requirements for Best Management Practices (BMPs)

MicroFIT^{ee} wastewater treatment systems

See also MicroFAST[®] with DC blower options, consult factory for more information.



UNIT	MAXIMUM TREATMENT Volume/Module**	CAPACITY* People/Module**
0.5	500 GPD (1893 LPD)	1 - 8
0.625	625 GPD (2366 LPD)	1 - 10
0.75	750 GPD (2839 LPD)	2 - 11
0.9	900 GPD (3407 LPD)	3 - 14
1.5	1500 GPD (5678 LPD)	6 - 21

***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.

PIA Prüfinstitut für Abwassertechnik GmbH

PERFORMANCE RESULTS

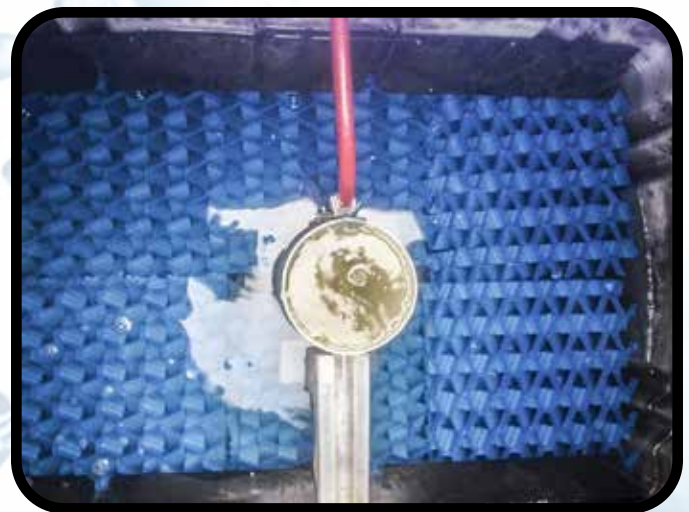
Bio-Microbics, Inc.
8450 Cole Parkway, Shawnee, KS 66227, United States of America
EN 12566-3
Small wastewater treatment systems for up to 50 PT
Small wastewater treatment system FITT-ee
Aerated Fixed Film Process
Test report PIA2015-222B28.01

	0.29 kg BOD ₅ /d 0.90 m ³ /d	Efficiency	Effluent
Nominal organic daily load*		90.3 %	66 mg/l
Nominal hydraulic daily load		94.8 %	16 mg/l
Treatment efficiency (nominal sequences)		95.9 %	16 mg/l
		73.9 %	9.7 mg/l
		90.8 %	31 mg/l
		43.2 %	4.2 mg/l
Electrical consumption	1.6 kWh/d		

Performance tested by
PIA - Prüfinstitut für Abwassertechnik
(PIA GmbH)
Hergenrather Weg 30
52074 Aachen, Germany

This document replaces neither the installation of performance nor the CE marking.

geprüft - tested - teste
PIA
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BioMicrobics Wastewater Systems are a popular alternative and ideal, award-winning "integrated water strategy" for the rural/urban environment. Simple, robust design allows long-term operational performance with easy and low-cost maintenance.



Established in 1996 to focus on water ecology and technology innovation through three companies, BioMicrobics, SeptiTech, and Scienco/FAST are at the forefront of sustainable design and with more than 80,000 installed systems in over 80 countries. Our 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 centralized infrastructure and drainage are not desired. Our systems are designed and engineered with sustainability and user practicality in mind.

RetroFAST wastewater treatment systems **RetroFITT^{ee}**

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 **MicroFITT^{ee}**

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 **MacroFITT**

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 ON-SITE WASTEWATER PRODUCTS

BIO MICROBICS
 BETTER WATER. BETTER WORLD.
 16002 West 110th St. • Lenexa, KS 66219 USA
 1-800-753-3278 • ph: 1-913-422-0707 • f: 1-913-422-0808
 www.biomicrobics.com • sales@biomicrobics.com

SCIENCO/FAST
 a subsidiary of BioMicrobics, Inc.
 12977 Maurer Indust'l Dr • Sunset Hills, MO 63127 USA
 1-800-652-4539 • p: +1(314)756-9300 • f: 1(314)756-9306
 www.sciencofast.com • solutions@sciencofast.com

SeptiTech
 a subsidiary of BioMicrobics, Inc.
 69 Holland Street • Lewiston, ME 04240 USA
 1-800-318-7967 • ph: 1-207-333-6940 • f: 1-207-333-6944
 www.septitech.com • info@septitech.com

SCIENCO/FAST
 Scienco[®] InTank[®] Division - Texas Office
 30525 First Street Suite A • Fulshear TX 77441 USA
 Mobile (24hr) : +1 (832) 640-9221 • f: +1 (314) 756-9306
 www.intankballast.com • intank@sciencofast.com

www.biomicrobics.com