



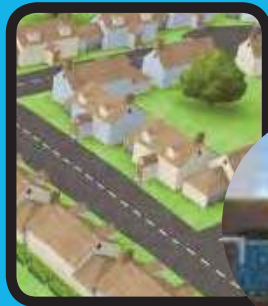
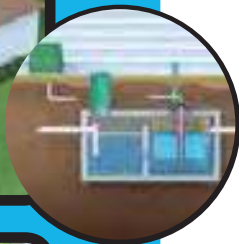
FAST wastewater
treatment
systems
with SFR.



Residential • Community • Commercial

BIO **MICROBICS**[®]

BETTER WATER. BETTER WORLD.[®]



Single-Family & Residential Systems

RetroFAST® & MicroFAST®: Unobtrusive and dependable, the FAST® system causes no harm to the environment. Ideal for new construction and remediation, most residential systems are shipped completely assembled and ready to install. The clean effluent prevents biomat formation and leachfield clogging. Septic technology is very compatible with shallow drip, direct discharge, pressure distribution, spray irrigation, and conventional leachfield.

Multi-Family & Community Systems

MicroFAST® & MyFAST®: Exceeding typical treatment effluent requirements of the local regulations, our multi-family FAST® systems provide small communities, sub-divisions, apartment dwellings, and other residential developments with highly treated effluent to provide opportunities for wastewater recycling. An increase in property value is guaranteed with less aesthetic disturbance of property value due to a very large leach field or system components.

Small & Large Commercial Systems

MicroFAST®, HighStrengthFAST® & MyFAST®: Offering versatility and consistent high performance for commercial properties with kitchens and cafeterias, the FAST® larger commercial systems produces high-quality effluent specifically designed for water reuse applications.

Small & Large Marine Sanitation Units

MarineFAST® LX-, M&MX-, & DV-Series: Offering versatility and consistent high performance for Marine vessels of all types to produce high-quality effluent specifically designed for extreme environments.



*Mighty Tough
on Cleaning!*

Use Mighty Mike® environmentally-friendly Tablets & Cleaners to effectively clean without damage or leaving residues! Call 1-866-652-4539 or email solutions@sciencofast.com



FAST[®] wastewater treatment systems

with SFR[®]

Fixed Integrated Treatment Technology



Bio-Microbics FAST[®] wastewater treatment systems provide alternative options for properties residing outside the reach of municipal (public) treatment plants. FAST[®] systems can be used for new construction or retrofit in existing tanks; including those in nitrogen sensitive areas or limitations with distance to groundwater and/or smaller dispersal field size requirements. Engineered to fit most typical residential and commercial applications.

Innovative Ideas, Proven Products

- Exceptional microbial growth during low/average/peak usage
- Increases sludge 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 the treatment into consideration

RESIDENTIAL

- Single-family homes
- Multi-Family Properties
- Clustered Subdivisions
- Housing Developments
- Recreational Facilities
- Apartment Complexes
- Military Facilities
- Communities/Villages
- Small Municipalities

COMMERCIAL

- Restaurants
- Schools/Universities
- RV & Mobile Home Parks
- Office Parks
- Resort Areas/Hotels
- Highway Rest Areas
- Country Club/Golf Courses
- Shopping Centers
- Grocery stores
- Food/Beverage Facilities

MARINE/OFFSHORE

- Tug & Work Boats
- Luxury Yachts
- Commercial Vessels
- School/Research Boats
- Offshore Vessels
- Tankers
- Container Ships
- Aircraft Carriers
- Cruise Ships
- Offshore Oil Platforms

...and more!

MicroFAST[®] wastewater treatment systems

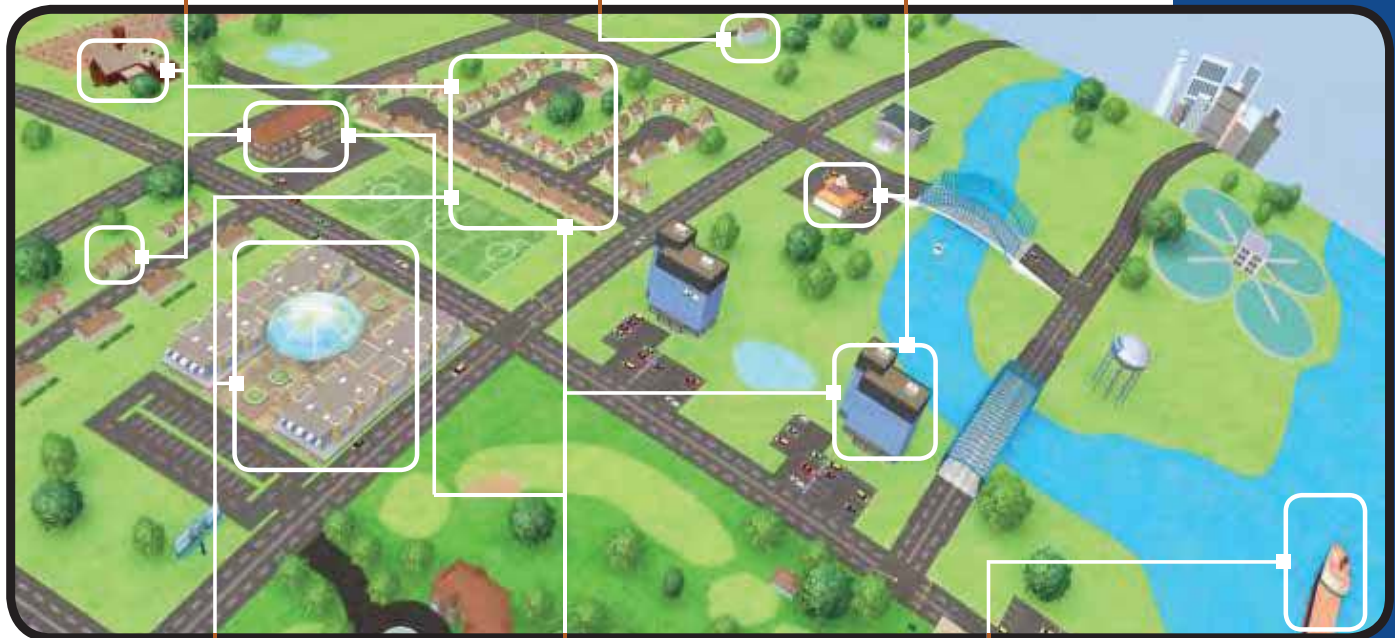
Versatile and robust, these systems are designed for individual homes, clustered subdivisions, and other domestic-strength flow applications.

RetroFAST[®] wastewater treatment systems

A simple upgrade to deliver high levels of treatment to enhance/renovate a septic system; see our S.O.S.-Save Our Septic[®] Warranty Program.

HighStrengthFAST[®] wastewater treatment systems

Meeting the unique challenges of high-strength commercial applications or properties with a higher loading with robust, low-maintenance treatment systems.



Mg FAST[®] wastewater treatment systems

Ideal for small communities or commercial properties, the MyFAST[®] maintains consistent high performance, low maintenance, and sludge management all in one tank.

NitriFAST[®] wastewater treatment systems

For use with a MicroFAST[®] system to provide second stage nitrification to achieve even higher levels of nitrogen reduction.

Marine FAST[®] WASTEWATER TREATMENT SYSTEM

Certified Type II Marine Sanitation Devices (MSDs) for virtually every type of vessel or offshore structure.

GENERAL FAST® PRODUCT INFORMATION

RetroFAST	Maximum Treatment Capacity*		Module Dimensions*** (L x W x H) [-18" (45.7cm) dia. opening required]	Weight***	
	Volume/Module**	People per Module**		Pounds	Metric
RetroFAST® 0.150	150 GPD (567 LPD)	1 to 3	22" (55 cm) x 24" (61 cm) x 32" (81 cm)	74 lbs	34 kg
RetroFAST® 0.250	250 GPD (947 LPD)	1 to 4	27" (67 cm) x 30" (76 cm) x 34" (85 cm)	125 lbs	57 kg
RetroFAST® 0.375	375 GPD (1420 LPD)	1 to 5	39" (98 cm) x 30" (76 cm) x 34" (85 cm)	156 lbs	71 kg

MicroFAST	Maximum Treatment Capacity*		Module Dimensions*** (L x W x H)	Weight***	
	Volume/Module**	People per Module**		Pounds	Metric
MicroFAST® 0.5	500 GPD (1893 LPD)	1 to 8	59" (150 cm) x 30" (76 cm) x 56" (130 cm)	165 lbs	75 kg
MicroFAST® 0.625	625 GPD (2366 LPD)	1 to 10	60" (152 cm) x 43" (109 cm) x 55" (130 cm)	185 lbs	84 kg
MicroFAST® 0.75	750 GPD (2839 LPD)	1 to 11	60" (152 cm) x 43" (109 cm) x 55" (130 cm)	200 lbs	91 kg
MicroFAST® 0.9	900 GPD (3407 LPD)	1 to 14	59" (150 cm) x 48" (122 cm) x 57" (145 cm)	215 lbs	98 kg
MicroFAST® 1.5	1500 GPD (5678 LPD)	6 to 21	82" (208 cm) x 55" (140 cm) x 58" (147 cm)	456 lbs	207 kg
MicroFAST® 3.0	3000 GPD (11356 LPD)	10 to 42	71" (180 cm) x 59" (150 cm) x 81" (206 cm)	725 lbs	329 kg
MicroFAST® 4.5	4500 GPD (17034 LPD)	18 to 63	145" (368 cm) x 73" (185 cm) x 51" (130 cm)	1600 lbs	726 kg
MicroFAST® 9.0	9000 GPD (34068 LPD)	30 to 126	145" (368 cm) x 73" (185 cm) x 76" (193 cm)	2300 lbs	1044 kg

Larger Applications >9000 GPD Multiple FAST® treatment modules can be used in parallel and/or series for additional flow or desired treatment levels.

HighStrengthFAST	Maximum Treatment Capacity*		Module Dimensions*** (L x W x H)	Weight***	
	Volume/Module**	People per Module**		Pounds	Metric
HighStrengthFAST® 1.0	~900 GPD (3407 LPD)	Consult Factory	59" (150 cm) x 48" (135 cm) x 57" (130 cm)	227 lbs	103 kg
HighStrengthFAST® 1.5	~1500 GPD (5678 LPD)		82" (208 cm) x 55" (140 cm) x 58" (147 cm)	456 lbs	207 kg
HighStrengthFAST® 3.0	~3000 GPD (11356 LPD)		71" (180 cm) x 59" (150 cm) x 81" (206 cm)	725 lbs	329 kg
HighStrengthFAST® 4.5	~4500 GPD (17034 LPD)		145" (368 cm) x 73" (185 cm) x 51" (130 cm)	1600 lbs	726 kg
HighStrengthFAST® 9.0	~9000 GPD (34068 LPD)		145" (368 cm) x 73" (185 cm) x 76" (193 cm)	2300 lbs	1044 kg

Larger Applications >9000 GPD Multiple FAST® treatment modules can be used in parallel and/or series for additional flow or desired treatment levels.

MyFAST	Maximum Treatment Capacity*		AMS ZONE	BMS ZONE	OPTIONAL MyTEE® SCREENING DEVICE	
	Volume	People Served	Optional Lixor® system	Optional Package	Minimum Tank Volume	Units
MyFAST® 2.0	20000 GPD (75.7 m³/d)	up to 400+	4.0XD	Lixor® 2.0	5000 gallon [19 m³]	2
MyFAST® 4.0	40000 GPD (150 m³/d)	up to 600+	4.0XD	Lixor® 2.0	5000 gallon [19 m³]	2
MyFAST® 6.0	60000 GPD (225 m³/d)	up to 900+	6.0XD	Lixor® 3.0	7500 gallon [28 m³]	3
MyFAST® 8.0	180000 GPD (300 m³/d)	up to 1200+	(2) 4.0XD	Lixor® 4.0	10000 gallon [38 m³]	4
MyFAST® 12.0*	120000 GPD (450 m³/d)	up to 1900+	(2) 6.0XD	Lixor® 6.0	(2) 7500 gallon [28 m³]	6
MyFAST® 16.0*	160000 GPD (600 m³/d)	up to 2500+	(4) 4.0XD	Lixor® 8.0	(2) 10000 gallon [38 m³]	8

Larger Applications >160000 GPD, consult factory. Multiple FAST® treatment modules can be used in parallel and/or series for additional flow or desired treatment levels.

*Treatment capacity: Individual FAST® module capacities are rated based on biological (BOD), hydraulic and other project-specific considerations. All rated capacities are given as guidelines for suggested use. Actual capacity may vary with local conditions and performance goals.

**Volume/People per module: Please note that only residential applications or those applications requiring treatment for only sanitary wastewater may be designed from the volume and number of people per module. Actual capacity may vary with local conditions and performance goals.

***Module dimensions/weight provided only for shipping specifications. Please see design specifications for recommended exterior tankage sizing. Treatment modules shall be installed inside tanks that are locally approved and manufactured using watertight materials.

Electrical Options: Electrical components are available to meet all worldwide electrical specifications (volt/phase/frequency).



FAST[®] wastewater treatment systems



How Does the FAST[®] System Work?

- 1 Wastewater enters the treatment system
- 2 Natural separation and settling processes occur in the primary settling zone.
- 3 In the primary settling zone for most large residential and commercial applications, a SaniTEE[®] device is used to prevent large solids from entering the treatment zone.
- 4 A remote, above-ground blower introduces air (oxygen) into the treatment module to facilitate a robust circulation of wastewater through the media's channeled flow path.
- 5 Bacteria in the aeration zone become "fixed" or attached to the stationary media. This is where the abundant, diverse, self-regulating population of microbes consistently metabolize the incoming waste.
- 6 Clear, odorless, treated water is ready for standard or innovative dispersal.



Other Systems and Products available to suit your particular needs:

FAST[®] Wastewater Treatment Systems

- NitriFAST

Horizontal Trickling Filter Technology

- SeptiTech[®] STAAR[™] Residential
- SeptiTech[®] STAAR[™] Commercial

Membrane BioReactors (MBRs)

- BioBarrier[®] MBR
- BioBarrier[®] HSMBR[®]

Stormwater Treatment Solutions

- BioSTORM[®] System
- StormTEE[®] Litter Control

Marine Sanitation Technology

- MarineFAST[®] LX-Series
- MarineFAST[®] M-&MX-Series
- MarineFAST[®] DV-Series

Influent/Effluent Screening Solutions

- BioSTEP[®] Screened Pumping Systems
- MyTEE[®] Grit Control Screen
- SaniTEE[®] Wastewater Screen

Other Management Solutions

- Lixor[®] Submerged Aeration Systems
- FOGHog[®] Traps & Tablets
- ABC[®]-N Clarifiers & Devices

Water Treatment Solutions

- SciCHLOR[®] Hypochlorite Generators
- SciBRINE[®] BrineMakers
- Mighty Mike[®] CPT Tablets

Environmentally-Friendly Cleaning Solutions

- Mighty Mike[®] All Purpose Cleaner
- Mighty Mike[®] Laundry Detergent
- Mighty Mike[®] Marine Multi-Purpose Cleaner
- Mighty Mike[®] Marine Liquid Descaler
- Mighty Mike[®] Industrial Descaler

With over 45,000 installations in more than 60 countries, our Fixed Integrated Treatment Technologies (FITT®) are the result of decades of experience, research & development, and real world operating history.

Awards, Technology Approvals, and Certifications

- **2012 President's "E" Award** for Excellence in Exports, granted by the President of the United States, presented by the U.S. Department of Commerce
- **2011 Technology Innovation Award** (Decentralized Commercial Outlets) – Frost & Sullivan – FAST® Technology
- **2011 New Product of the Year Award** – Recycling Category. Environmental Protection Magazine (EPonline.com) "The financial, environmental and social benefits of 'recycling' are indisputable." – BioBarrier® MBR Technology
- **2011 Kansas Governor's Exporter of the Year** – presented by the Governor of KS, KS Dept. of Commerce
- **2010 North American Technology Innovation Award** (Water/Wastewater) – Frost & Sullivan – FAST® Technology
- **2009 Technology Merit Business Achievement Award**, Water/Wastewater – Environmental Business Journal (EBJ) – BioBarrier® MBR Technology
- **2002 U.S. Export Achievement Certificate**, US Dept. of Commerce, US & Foreign Commercial Service
- **2000 U.S. EPA Environmental Technology Innovator Award** – U.S. EPA, Region 1 – SeptiTech® Technology
- Australian Dept of Transportation & Royal Australian Navy - Technology Approval
- Canadian Great Lakes (CGL) Maritime Certification – Canadian Coast Guard
- Canadian Standards Association (CSA) International Electrical Certification
- CE – European Electrical Systems (including a "Tropical Certification Rating")
- China Classification Society (CCS) 中国船级社 – FAST® Technology Approval
- EN 12566-3, Packaged and/or site assembled domestic wastewater treatment plants for up to 50 People, PIA GmbH tested - BioBarrier® MBR 0.5, 1.0, & 1.5
- GreenSpec® (BuildingGreen.com Product Directory) listed...Provides accurate, unbiased...information [to]...improve the environmental performance, and reduce the adverse impacts of buildings
- IAPMO (International Association of Plumbing & Mechanical Officials) Listed – Fat Oil & Grease Interceptors/Traps R&T File #2586 – FOGHog® FH-20 & FH-50
- IMO (International Maritime Organization) MARPOL Annex IV (2010) – provides guidance for the Navigation and Vessel Inspection Circular (NVIC) No. 1-09, US EPA and other effluent standards as may be required – FAST® Technology
- Massachusetts Title 5 Innovative/Alternative System - Technologies Listed under "General Use Permit for Nitrogen Reduction", "Provisional Use," & "Remedial Use"
- NSF/ANSI Std 40, class 1 Certified – MicroFAST®, BioBarrier® MBR and SeptiTech® Systems up to 1500 GPD – Recognized in domestic and international trade by regulatory agencies at the local, state/province, and federal levels.
- NSF/ANSI Std 245 (Nitrogen Reduction) Certified – MicroFAST®, BioBarrier®-N MBR, BioBarrier® MBR and SeptiTech® Systems up to 1500 GPD
- NSF/ANSI Std 350 class R (Water Reuse) Certified – BioBarrier® MBR 0.5, 1.0, & 1.5
- PDI (Plumbing & Drainage Institute) Certified – Standard PDI-WH201 and PDI-G101 grease interceptors – promotes the advancement of innovative plumbing products.
- Poland – Aprobata Techniczna (Technology Approval) ze Instytut Ochrony Srodowiska (Institute of Environmental Protection)
- România – Avizează Favorabil – Consiliul Tehnic Permanent Pentru Constructii – Ministerul Dezvoltării Regionale Si Turismului
- Russia – Technology Approval – Федеральная Служба По Надзору В Сфере Защиты Прав Потребителей И Благополучия Человка (Federal Service of Environmental Protection)
- Russia – CPT Свидетельство о Российских Стандартах (Certification of Russian Standards) – BioSTORM® – All sizes
- Russia – PMPC (Russian Maritime Register of Shipping) МЕЖДУНАРОДНОЕ СВИДЕТЕЛЬСТВО О ПРЕДОТВРАЩЕНИИ ЗАГРЯЗНЕНИЯ СТОЧНЫМИ ВОДАМИ - International Sewage Pollution Prevention Certificate
- SASO (Saudi Arabian Standards Organization) Certified
- ETL (UL) – Listed to US electrical certification requirements
- U.K. – United Kingdom Department of Trade – FAST® Technology Approval
- U.S. Coast Guard – 33CFR159, MEPC.159(55) – FAST® Technology Approval for Type II MSD (Marine Sanitation Devices)
- U.S. EPA–ETV (Environmental Technology Verification) – validates the performance of technology that may improve the protection of the environment. – RetroFAST®, Report No. 03/08/WQPC-SWP – SeptiTech®, Report No. 02/04/WQPC-SWP

...and MORE!



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