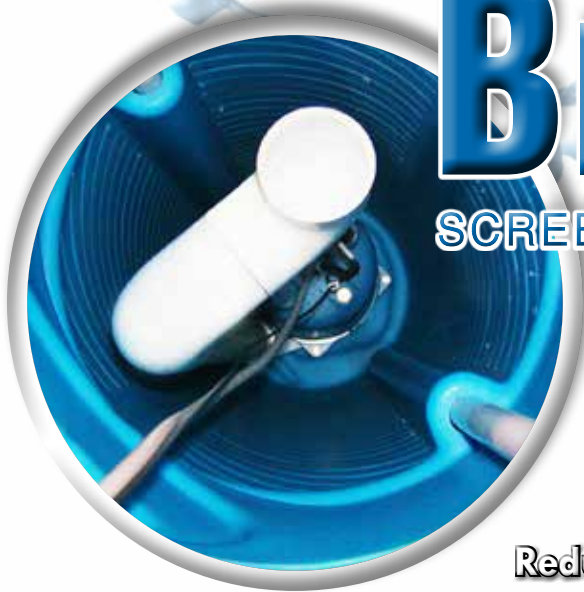


BIO **MICROBICS®**



BioSTEP®

SCREENED PUMPING SYSTEMS

Reduce excavation time, material requirements and construction costs



Provide innovative solutions for new and upgrades for community development



Overcome site limitations while maintaining a "sewer-like" feel



**AWARD-WINNING
INTEGRATED WATER
TECHNOLOGY**

**SEPTIC TANK EFFLUENT PUMPING SYSTEM
RESIDENTIAL • COMMERCIAL • COMMUNITY**

BETTER WATER. BETTER WORLD.®

www.biomicrobics.com

BIOSTEP®

SCREENED PUMPING SYSTEMS

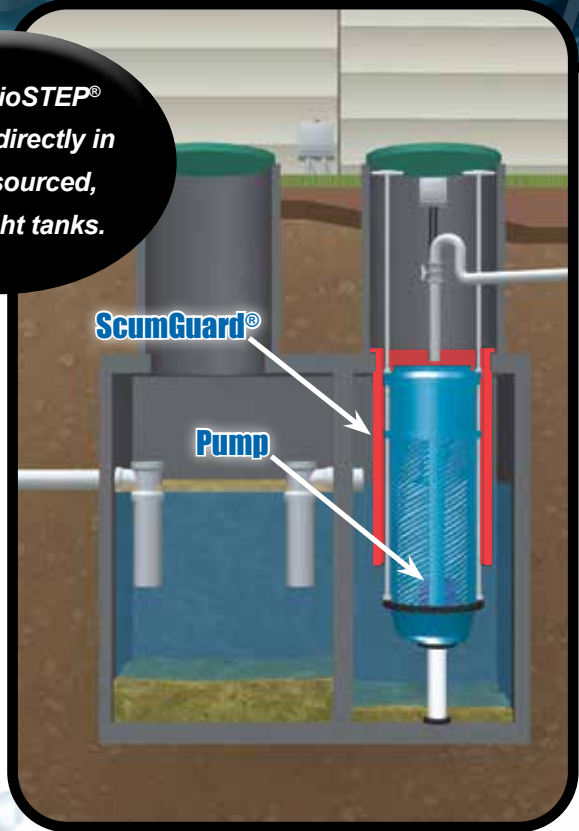
BioSTEP® Filtered Pump Vault for Distributed Systems

Sewage is conveyed by gravity to the STEP tank through the building's plumbing line. The versatile, prescreening/pretreatment BioSTEP® system filters the solids down to 1/8" [3 mm] and transfers the screened liquids under pressure to the wastewater treatment system, such as a MicroFAST®, STAAR®, BioBarrier®, RollsAIR®, or MyFAST® System.

Each pre-packaged BioSTEP® combines proven, low-maintenance components with unique, engineered features to create an innovative solution in numerous small-diameter, decentralized collection applications. All BioSTEP® Systems are available as individual components or preassembled in ready-to-install System Packages.

Our Filtered Pump Vault incorporates our patented, slotted filter screen with swabbing handles and integral ScumGuard® to provide your submersible pump with critical protection from large solids and laden scum, allowing for an easy clean-in-place maintenance and quick servicing.

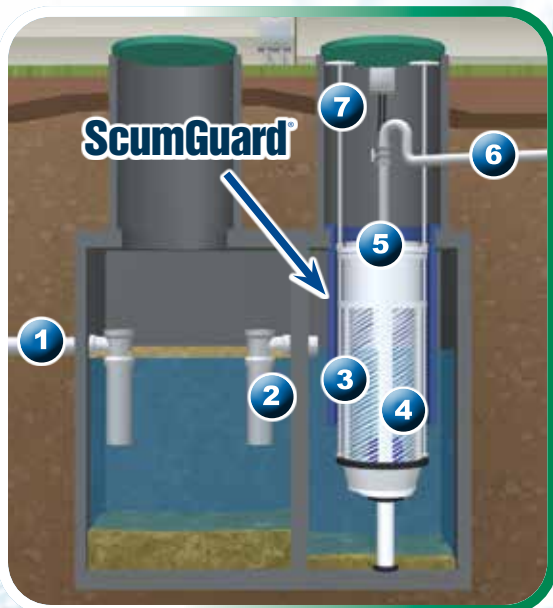
Install BioSTEP® systems directly in locally-sourced, water-tight tanks.



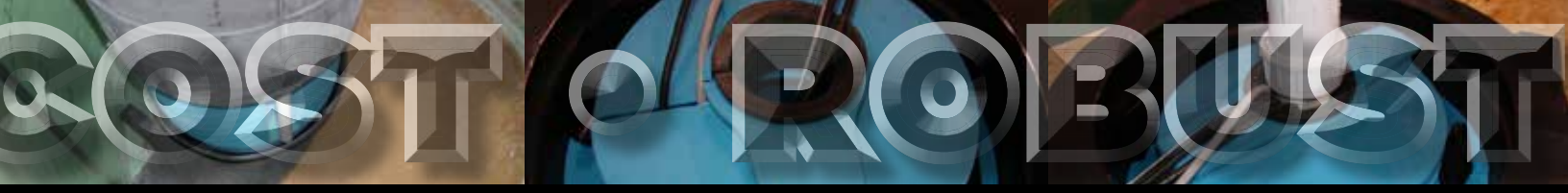
FEATURES

- **Easy, "Slip-in" Installation** and come standard with swabbing feature for Clean-in-Place (CIP) maintenance make it the easiest screening device to maintain on the market!
- **Angled Slots** resists blinding and prevents clogs inside the filter housing better than mesh-type screens.

HOW IT WORKS!



- 1 Untreated wastewater enters the primary settling tank.
- 2 Water from the septic tank's clear zone flows into the pump chamber and through the angled slots of the BioSTEP pump vault.
- 3 Water flows through a 1/8" [3 mm] slots. BioSTEP® ScumGuard® prevents floating scum from clogging internal components.
- 4 A high head 3/4" [19 mm] solids pump is inside the screen. BioSTEP's exterior screen protects internal components by deflecting nuisance solids.
- 5 The smart float pipe with floats controls pumping. There is a low water alarm/redundant "off" float and highwater grey alarm/redundant "on" float. The external cleaning swab allows for clean-in-place maintenance.
- 6 The water is pumped out of the tank.
- 7 The BioSTEP's swabbing for CIP maintenance.



Low-Maintenance Wastewater Transfer Screen with Pump Options

BioSTEP® Specifications

MODEL SIZE	SCREEN DIAMETER	SCREENING LEVEL
BST1618	16" [40.6 cm]	1/8" [0.3 cm]

**Pump Selection for BioSTEP® System ranges from 1/3HP to 2HP*

Each pre-packaged BioSTEP® combines proven, low-maintenance components with unique, engineered

features including the ScumGuard® protector, to create an innovative solution for a wide variety of design needs.

A robust pump transfers the screened effluent to the desired location. The system also incorporates easy installation features for both new and existing sites.

TECHNICAL SPECIFICATIONS

Made with corrosion resistant materials

BioSTEP® Installation: mounted inside above-ground or below-ground Tanks (concrete, fiberglass, steel or plastic). Please consult product specifications for specific tank recommendations. 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.

- Solids handling capabilities: 3/4" [1.9 cm] maximum
- Discharge Size: 2" [5.1 cm] NPT.
- Capacities: up to 140 GPM [31 m³/hr]
- Total Heads: up to 128 feet [39.0 m] TDH
- Temperature: 104°F [40°C] continuous, 140°F [60°C] intermittent

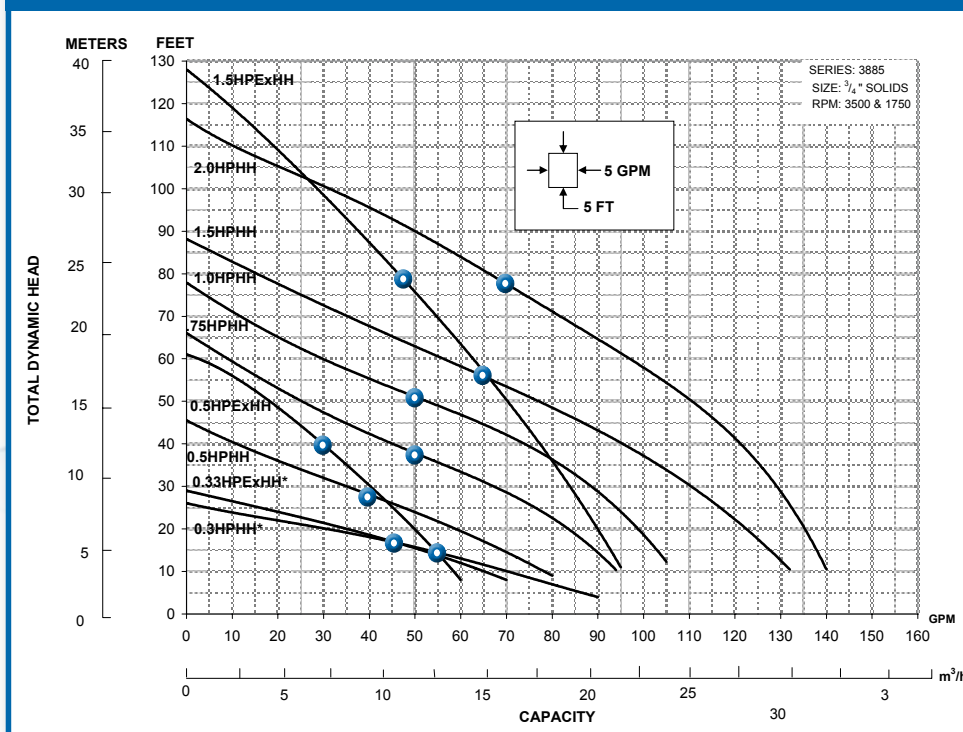
PUMP FLEXIBILITY

The submersible effluent pump used in the BioSTEP® System is specifically designed for continuous operation and typical residential and commercial applications. Pump ratings for recommended working limits, specific HP, voltage, phase, and RPM's are available.

Designed to accept a wide variety of submersible pumps, including high-head turbine pumps, effluent pumps and high-capacity sewage pumps.

The standard BioSTEP® package consists of a robust solids-handling effluent pump capable of passing 3/4" [1.9 cm] solids (most STEP systems only handle 1/8" [0.2 cm] solids). Various pump options will be available with a solids-handling range of 1/8" [0.2 cm] to 2" [5.1 cm].

BioSTEP® Screened Pumping System - Standard Pump Curve



(Source: Goulds Pumps)

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

"Single-Phase Only," HP = "Horsepower," HH = "High Head Pump," ExHH = "Extra High Head Pump"

● = The determined "Sweet Spot" of TOTAL DYNAMIC HEAD to CAPACITY

In the interest of technological progress, all BioSTEP® screened pumping systems are subject to design and/or materials change without notice.



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.

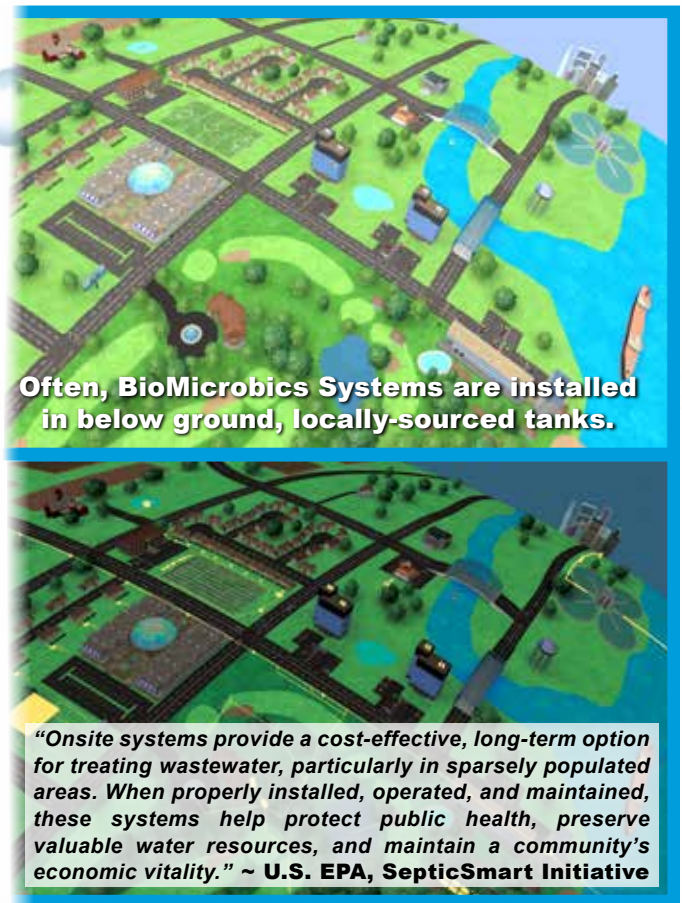
BioSTEP®

SCREENED PUMPING SYSTEMS

BioSTEP® packaged pump system with the engineered design of our effluent filter to transfer screened liquids for various small-diameter, collection system applications.

Standard design package incorporates a superior ¾" solids handling sewage pump and a comprehensive control system. Other pump options are available.

If you have a potential project requiring a STEP (Septic Tank Effluent Pumping) filtering pump vault to filter and transport wastewater, let us know how we can assist!



Often, BioMicrobics Systems are installed in below ground, locally-sourced tanks.

"Onsite systems provide a cost-effective, long-term option for treating wastewater, particularly in sparsely populated areas. When properly installed, operated, and maintained, these systems help protect public health, preserve valuable water resources, and maintain a community's economic vitality." ~ U.S. EPA, SepticSmart Initiative

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