ENARIO LAYOUT

1. Bower and Blower
2. Control Panel
3. Air Line Piping
4. Ventil./Observation Port
5. Access
6. Fast®
7. Tank
8. Outlet/Drain/Feeder

SUPPLIED EQUIPMENT

- Blower housing
- Blower
- Inlet/Outlet Filter, Airline Filter
- Metal Filter Element
- Liner
- Recirculation Tank
- Air Lift
- 110 Outlet Feeder
- 121 Outlet Basket
- 121 Outlet Basket

OPTIONAL EQUIPMENT

- Fast Top
- Foot Feeder

NOTES

- FAST®: The FAST® (Fast Activated Sludge Treatment) system uses naturally occurring bacteria (biomass) to treat sewage for disposal into the environment. This continues process provides the biomass with food and air in a suitable environment. Dead bacteria and non-biodegradable waste settle and accumulate in the bottom of the tank for periodic removal.

- The FAST® system consists of the treatment module and blower. The blower provides air to the system via the air supply pipe. The air supply pipe and draft tube create an air lift. The air lift removes oxygen and waste through the media inside the tank. Bacteria grows on the media and digests the waste. A vent pipe expels nonvolatile vapors created by the process.

- GENERAL LAYOUT

- LOCATION

- MATERIALS REQUIRED FOR INSTALLATION

- CAUTION

- INSTALLATION MANUAI

- SYSTEM COMPONENTS

- FAST® Installation Manual

- GENERAL INFORMATION

- All FAST® products are ETL certified for safety (electrical, environmental, etc.). One or more of the following standards applies to this product: 1900900 (5.966-026), 527-356, 5105942. Certified by NSF International, the MicroFAST® (0.6, 0.75, 0.9, 1.5) Systems meets NSF Standard 40. Class 1 and Standard 497 certifications for wastewater treatment devices. If you have questions regarding any Bio-MicroBics products, please contact us.

- 800-753-FAST (3278) or (913) 422-0707

e-mail: onsite@biomicrobics.com

- About FAST®:

- FAST® Installation Manual 2026 Bio-Microbics, Inc. Revised 05/2022

- FAST® Installation Manual

- MICROFAST®

- HI-FLOW®

- HIGH-STRENGTH FAST®

- MicroFAST® 0.6, 0.75, 0.9, 1.5

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- HI-FLOW® 0.6, 0.75, 0.9, 1.5

- HIGH-STRENGTH FAST® 1.0, 1.5, 3.0, 4.5, 9.0

- MODULE INSTALLATION

- There are two options available for mounting the FAST® module into a tank.

- OPTION A: Use FAST®'s plastic lid and hang the module from the concrete tank.

- OPTION B: Use secure fasteners to secure the module to the tank. Use all lifting equipment and follow instructions as power lines and trees.

- MODULE WEIGHTS

- MODULE SIZE

- MCF

- MCF

- MCF

- MCF

- MCF

- MCF

- MCF

- MCF

- MCF

- WEIGHT

- 156

- 220

- 600

- 1000

- 1500

- 2000

- SEALS

- Use anti-bacterial tape to seal module in tank. Use all lifting equipment and follow instructions as power lines and trees.

- OPTION A: Lid Installation

- 1. Hang module liner from the opening in top of tank.

- 2. Carefully line up the air line hole in the lid with coupon at top of air lift inside tank. Make sure the air line pipe is not leaning and stands perpendicular to the lid.

- 3. Use hammer drill to drill holes for anchoring module to the tank using pre-drilled holes in the module lid as guides.

- 4. Apply sealant to surface between liner and tank, and module lid.

- 5. Place module lid on top of liner and secure using holes drilled in step 2 and non-corrosive 3/8" anchor bolts.

- AIR LINE

- Insert length of air supply pipe (see AIR LINE SIZING table) through factory provided air line gasket in module lid. Use 6" hole in the lid for access to connect and plug air supply to air lift coupling. Run the air line to the desired location using required piping. Be sure airlines is properly bedded when installing. Air lines going to FAST® must not exceed 100 ft [30.5 m] total length with 4 elbows.

- ALL CONNECTIONS MUST BE AIRWATER-TIGHT AND PERMANENT.

- MATERIALS REQUIRED FOR INSTALLATION

- Note: Other parts may be needed for complete installation.

- 1. Septic tank that meets all applicable requirements & standards

- 2. Safe lifting mechanism

- 3. Anchor bolts for securing FAST® unit to the tank and blower housing to the concrete base

- 4. Piping for overflow/vent port, air lines, and vent lines (check installation procedures, specs, and plans to determine the size and type of pipes needed)

- 5. PVC saw

- 6. Pipe lubricant/slip

- 7. PVC primer and glue (weather appropriate)

- 8. Concrete base for blower assembly

- 9. Mounting screws for control panel

- 10. Electrical conduit, fittings and specified wires

- 11. Hammer drill and masonry bits

- QV Port and Gasket
**OUTLET INSTALLATION**

Outlet: 3/4" Soft 40 PVC pipe for use as an effluent line. Insert through tank wall and into outlet gutter in the liner. Place piping toaffle stops.

Numerous options exist for proper venting. Three of the most common are mentioned here. The vent system must be sized properly to avoid excessive back pressure in the system (see table below). It also must not allow water to enter the system and must allow internal condensation to drain.

**DIRECT VENT:** The 6” pipe can only have hobs drilled in it for a drilled cap cut out. Any cap must be fastened with screws to prevent unauthorized access. The opening(s) for the cap must be on the face of the outlet manifold from the exterior of the liner.

**REMOTE VENT:** Shrink off of the 6” pipe or mandrel below grade. Run vent pipe to the desired location and terminate above grade. Grade pipe opening with 25 mesh screen or similar. Water accumulating in the vent piping must be drained to prevent back pressure. NOTE: The vent should not exceed 100 ft [30.5 m] in total length.

**BIODIFFERENTIATOR:** Please contact Bio-Microbes for guidance on how to build this bitted vent. Note: A significant amount of moisture back into the treatment system.

**BLOWER INSTALLATION**

The blower and blower housing must be mounted on a solid base such as concrete to avoid settling. All conduits piping should pass through the concrete slab from below.

**ELECTRICAL WIRING DIAGRAMS**

Only the MicroFAST® 0.6, 0.9, 0.7, and 0.9 systems diagrams are displayed here. Information for larger FAST® systems accommodates those units and can be obtained from Bio-Microbes.

**LIMITED WARRANTY**

Bio-Microbes, Inc. warrants every new residential FAST® system against defects in materials and workmanship for a period of two years after installation or installation from date of shipment, subject to the following terms and conditions. (Commercial FAST® systems is a system of one or more installation facilities in a building or outdoor area, not a system installation in or on a property owned by another party.)

During the warranty period, if any part has been defective or is not performing as specified when operated at design conditions, and the equipment has been installed and is being operated and maintained in accordance with the winter installation provided by Bio-Microbes, Inc., Bio-Microbes, Inc. will repair or replace the defective part at no charge to the owner, provided that the cause of the alleged defect is determined by Bio-Microbes, Inc. to be a warranty problem. The owner must provide proof of purchase and installation, as well as a written description of the problem. In the event of a warranty claim, the owner must return the equipment to Bio-Microbes, Inc., or an authorized dealer, for inspection and testing. If the equipment is returned, the owner must pay all shipping and handling charges. If the equipment is determined to be defective, Bio-Microbes, Inc. will repair or replace the defective part at no charge to the owner, provided that the cause of the alleged defect is determined by Bio-Microbes, Inc. to be a warranty problem.

This warranty is in lieu of all other warranties EXPRESS OR IMPLIED. Bio-Microbes SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO REPRESENTATIVE OR PERSON IS AUTHORIZED TO GIVE ANY OTHER WARRANTY OR TO ASSUME ANY LIABILITY IN CONJUNCTION WITH THE SALE OF ITS PRODUCTS.

Contact your local distributor for parts and services.