

#### NOTES

1. Airline piping to FAST® may not exceed 100 FT [30m] total length and have a maximum of 4 elbows in the piping system. For distances greater than 100 FT [30m] consult factory. Blower must be located above flood levels on a concrete base 58" X 36" X 2.5" [150 X 90 X 7cm] minimum.
2. Vent to desired location and cover opening with a vent grate with at least 39 sq in. [252 sq. cm] open surface area. Secure with stainless steel screws. Vent piping must not allow condensate build up or create back pressure. Vent must be above finished grade or higher (see sheet 4 of 4).
3. All appurtenances to FAST® (e.g. tanks, access ports, electrical, etc.) must conform to all applicable country, state, province, and local plumbing and electrical codes. Pump out access shall be adequate to thoroughly clean out both zones.
4. All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access.
5. Tank, piping, conduit, etc. are provided by others. Blower control system by Bio-Microbics, Inc. See Installation Manual.
6. If less than the specified minimums are considered necessary, consult factory for guidance.
7. All piping and ancillary equipment installed after FAST must not impede or restrict free flow of effluent.
8. The tank(s) shall be designed to prevent air passage between the settling zone/tank and the treatment zone and preventing an air lock. Examples include a baffle wall sealed to the lid or treatment zone inlet line with a pipe cap. Consult factory for guidance.
9. The air supply line into the FAST® unit must be secured to prevent vibration induced damage. The air supply line should be secured with a non-corrosive clamp every 2' min [60 cm]. See alternate air supply option on sheet 3 of 3.
10. Specialized treatment levels may require specific features to be incorporated into the design. Consult factory for guidance.
11. Refer to sheet 3 of 3 for leg extensions requirements.
12. The supplied liner braces must be installed so as to connect the liner to the side of the tank at each end of the tank as shown, thereby preventing lateral movement of the liner. Use only non-corrosive anchor bolts (provided by others).

DO NOT SCALE  
UNLESS NOTED  
DIMENSIONS  
ARE IN INCHES  
[CENTIMETERS]  
TOLERANCES  
 $\pm 0.02$  IN/IN  
[ $\pm 0.05$  CM/CM]

**BIO MICROBICS**  
BETTER WATER. BETTER WORLD.®

MyFAST 1.0

WEIGHT		lb	SIZE  A	DRAWING NUMBER  Layout		SHEET 1 OF 3
NAME	DATE					
DRAWN CTC	3/27/2009					
CHECKED PF	3/10/2014	REVISED 3/10/2014		REV. INI-11-C		

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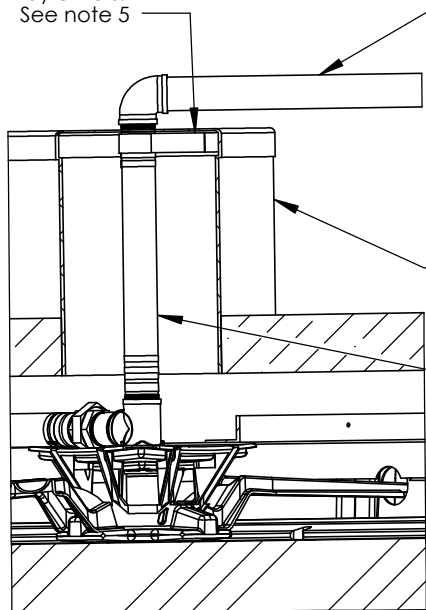
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Non-corrosive  
clamp provided  
by others.  
See note 5

3"[7.6cm] MIN  $\varnothing$  air supply line  
inside of the treatment  
tank must be made of  
Stainless steel material.

Water tight  
gasket

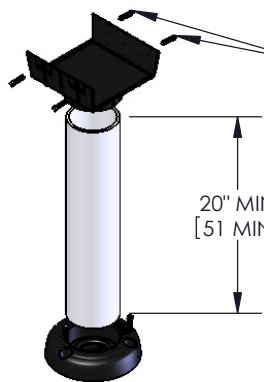
Semi flexible air line  
connections with 3"  
 $\varnothing$  stainless steel MPT  
fittings provided by  
Bio-Microbics®



2 screws per  
side included

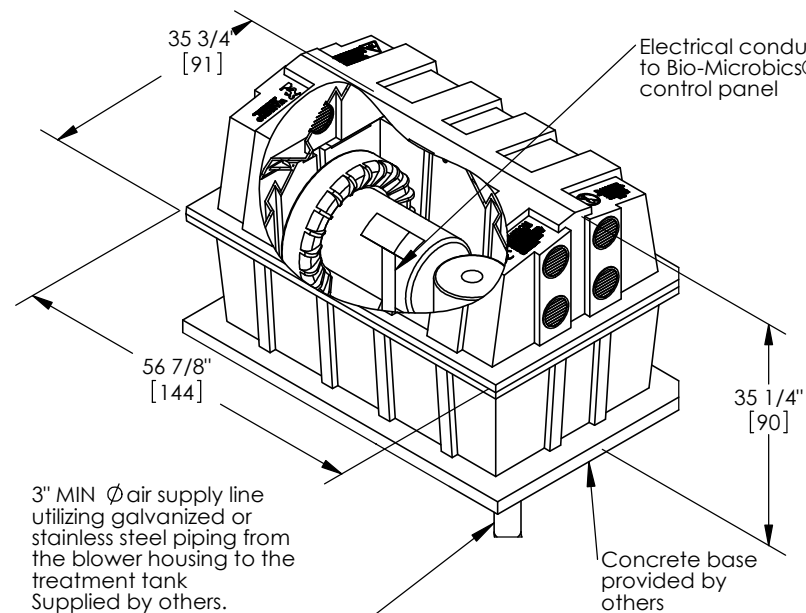
20" MIN  
[51 MIN]

Minimum leg extension  
assembly  
see note 4



#### Notes:

1. Secure leg extension to the FAST® unit by placing two screws on each side of the leg extension (4 screws per foot are included).
2. To obtain the desired height cut 4" schd. 80 PVC pipe (not included) to length. Minimum pipe length of 19" [48cm]. Consult factory for extending leg beyond 36" [91cm].
3. Anchor the leg extensions to the tank with non-corrosive hardware (not included) at the provided mounting points.
4. If less than the specified minimums are considered necessary, consult factory for guidance.
5. The air supply line into the FAST® unit must be secured so as to prevent damage from pipe vibration. See all notes on MYFAST® 1.0 drawing. The air supply line into the FAST® unit must be secured to prevent vibration induced damage by securing the rigid pipe at a minimum of every 24 inches. Unit is supplied with 3"  $\varnothing$  semi-flexible airline connections with stainless steel MPT fittings and sample U-shape pipe clamp.
6. Tank, anchors, liner brace, piping conduit, blower, housing pad and vents are provided by others.



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[CENTIMETERS]  
TOLERANCES  
± 0.02 IN/IN  
[± 0.05 CM/CM]

**BIO MICROBICS®**  
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MyFAST 1.0

WEIGHT		lb	SIZE	DRAWING NUMBER		SHEET 2 OF 3
NAME	DATE	A		MYFAST 1.0 Details		
DRAWN	CTC		3/27/2009			
CHECKED	PF		3/10/2014	REVISED 3/10/2014	REV. INI-01-M	

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## Specifications for MyFAST 1.0 Wastewater Treatment System

### 1. GENERAL

The contractor shall furnish and install (1) MyFAST 1.0 treatment system as manufactured by Bio-Microbics, Inc. The treatment system shall be complete with all needed equipment as shown on the drawings and specified herein.

The principal items of equipment shall include FAST System insert, leg extensions, blower assembly, blower controls and alarms. The MyFAST 1.0 unit shall be situated within a 10,000 Gallon (38m<sup>3</sup>) minimum tank, as shown on the plans. Settling tank(s) equaling ½ to 1 x daily flow must be used prior to FAST. Tank(s) must conform to local, state, and all other applicable codes. The contractor shall provide coordination between the FAST system and tank supplier with regard to fabrication of the tank, installation of the FAST unit and delivery to the job site.

### 2. OPERATING CONDITIONS

The MyFAST 1.0 treatment system shall be capable of treating the wastewater produced by typical family activities (bath, laundry, kitchen, etc.) ranging from (100) one hundred to (160) one hundred sixty persons as well as non-residential and commercial facilities provided the waste contains nothing that will interfere with biological treatment and not to exceed 10,000 US Gallons per day (38000 LPD).

### 3. MEDIA

The FAST media shall be manufactured of rigid PVC, polyethylene, or polypropylene and it shall be supported by the polyethylene insert. The media shall be fixed in position and contain no moving or wearing parts and shall not corrode. The media shall be designed and installed to ensure that sloughed solids descend through the media to the bottom of the septic tank.

### 4. BLOWER

The MyFAST 1.0 unit shall come equipped with a regenerative type blower capable of delivering 155-225 CFM [264-382m<sup>3</sup>/hr]. The blower assembly shall include an inlet filter with metal filter element. Blower piping to the tank shall use non-corrosive material (Galvanized or Stainless Steel). Do not run galvanized pipe inside the treatment tank. Refer to Installation Manual for further details.

### 5. REMOTE MOUNTED BLOWER

The blower shall be mounted up to 100 feet [30.5 meters] away and no more than 4 elbows from the MyFAST unit on a contractor supplied concrete base. The blower elevation must be higher than the normal flood level. A two-piece, rectangular housing shall be provided with tamper-proof screws. The discharge air line from the blower to the MicroFAST System, shall be provided and installed by the contractor.

### 6. ELECTRICAL

The electrical source should be within 150 feet [45.7 meters] of the blower, consult local codes for longer wiring distances. All wiring must conform to code. Input power on 60Hz electrical system is 208/230/460 VAC, three phase, 10/23 Amps. Input power on 50Hz electrical systems 220/380 VAC, three phase 15-27 Amps. All conduit and wiring shall be supplied by contractor.

### 7. ALARMS

The alarm system shall consist of a visual and audible alarm to indicate loss of power to the blower. A manual silence switch is included.

### 8. INSTALLATION AND OPERATING INSTRUCTIONS

All work must be done in accordance with local codes and regulations. Installation of the MyFAST 1.0 shall be done in accordance with the written instructions provided by the manufacturer. An operation and maintenance manual shall be furnished, which will include a description of system installation, operation, and maintenance procedures.

Module weighs approximately 2500 pounds [1100 kg]. Four holes for lifting the FAST liner are supplied. Spreader bars are to be used in lifting the unit. Place spreader bars between lifting holes.

### 9. FLOW & PIPE SIZING

Each MyFAST® 1.0 has one (1) six (6) inch gasketed effluent connection. Each effluent connection has a maximum unrestricted flow of 250 US GPM (945 LPM with a 2.0 design safety factor. MyFAST® systems have been successfully designed and tested receiving gravity and demand-based influent flow. When influent flow is controlled by pump or other means to help with highly variable flow conditions, then multiple dosing events should be used to maximize performance. For residential strength waste the flow rate shall not exceed 35 gpm (132 Lpm) with a maximum hourly flow not to exceed 10% of the design daily flow (1000 gph (340 LPH)). For non-residential or mixed use applications, consult the factory for guidance.


### 10. WARRANTY

Bio-Microbics, Inc. warrants all new MyFAST® 1.0 against defects in materials and workmanship for a period of one year after installation or eighteen (18 months) from the date of shipment which ever occurs first, subject to the following terms and conditions:

During the warranty period, if any part is defective or fails to perform as specified when operating at design conditions, and if the equipment has been installed and is being operated and maintained in accordance with the written instructions provided by Bio-Microbics, Inc., Bio-Microbics, Inc. will repair or replace at its discretion such defective parts free of charge. Defective parts

must be returned by owner to Bio-Microbics, Inc.'s factory postage paid, if so requested. The cost of labor and all other expenses resulting from replacement of the defective parts and from installation of parts furnished under this warranty and regular maintenance items such as filters or bulbs shall be borne by the owner. This warranty does not cover general system misuse, aerator

components which have been damaged by flooding or any components that have been disassembled by unauthorized persons, improperly installed or damaged due to altered or improper wiring or overload protection. This warranty applies only to the treatment plant and does not include any of the structure wiring, plumbing, drainage, septic tank or disposal system. Bio-Microbics, Inc. reserves the right to revise, change or modify the construction and/or design of the FAST system, or any component part or parts thereof, without incurring any obligation to make such changes or modifications in present equipment. Bio-Microbics, Inc. is not responsible for consequential or incidental damages of any nature resulting from such things as, but not limited to, defect in design, material, or workmanship, or delays in delivery, replacements or repairs. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. BIO-MICROBICS 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 FOR BIO-MICROBICS, INC., ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF ITS PRODUCTS. Contact your local distributor for parts and service.

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WEIGHT lb		SIZE	DRAWING NUMBER	SHEET 3 OF 3
NAME DATE		A	MYFAST 1.0 Specifications	
DRAWN 3/27/2009				
CHECKED PF 3/10/2014		REVISED 3/10/2014	REV.	

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