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Installation Guidelines for FAST® into IM-1530 *Version 2.2*

Adapting a FAST® 0.5, 0.625 or 0.75 System for Use in an Infiltrator IM-1530 Tank

GENERAL INFORMATION

All FAST® products are ETL certified for safety (electrical, environmental, etc.). One or more of the following patents protects this process: 3,966,599; 3,966,608; 3,972,965; 5,156,742. Certified by NSF International, the MicroFAST® 0.5, 0.625, 0.75 systems meet NSF Standard 40, Class 1 and Standard 245 certifications for single-residence 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

Conditions:

A. Only persons approved by Bio-Microbics. Inc. may perform this work.
B. An approved Infiltrator person must perform the assembly of the tank. The "IM-1530 Tank Assembly Checklist & Assembler Authorization" MUST be filled out and submitted to Infiltrator Systems.
C. Once this modification is made it is NOT reversible. DO NOT perform this procedure, and then attempt to put the treatment liner back together so that it can hang from the tank lid.
D. This method is only to be used when mounting a FAST® treatment unit inside an Infiltrator IM-1530 single or two compartment tank.
E. TWO COMPARTMENT TANKS - Use of the Infiltrator baffle for creating a two compartment tank will yield ~841 gallons for settling and ~690 gallons in the treatment compartment. Baffle installation is to be completed using the Infiltrator IM-1530 Septic Tank Assembler's Resource Guide.
F. The FAST® Installation Manual and the Infiltrator IM-1530 Septic Tank Assembler's Resource Guide are to be used for any portions of their respective installation steps not covered within this manual.
G. The treatment liner is NOT designed to be a load bearing device for the tank. All of the tank's vertical supports MUST be used as designed.
H. All other installation instructions pertaining to the installation of the FAST® treatment system are to be used in combination with this manual. Refer to the Infiltrator IM-1530 Installation guide for installing guidelines for the tank.
I. When installing a MicroFAST® system inside the IM-1530 tank the tank arrangement MUST be reversed. The tank inlet will become the tank outlet and the tank outlet will become the new tank inlet. This arrangement does not affect the superior treatment of the MicroFAST® system nor does it disturb the integrity of the tank.

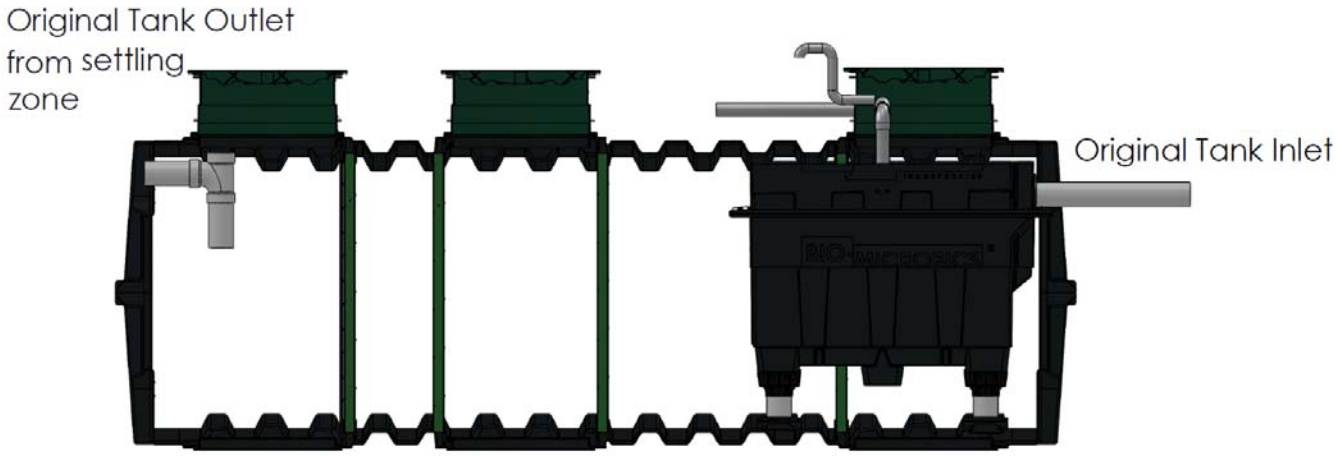


Figure 1.1

Tools & Materials Needed:

- REQUIRED Infiltrator kit purchased from Bio-Microbics Part Number 730-TANKINFILTRATOR.
- Saw with blade suitable for cutting plastic – reciprocating, jig,
- Powered screw driver with Philips (cross) bit and 3/8" & 5/16" hex head drivers
- Short (3-6" long) Philips (cross) screwdriver
- Measuring tape
- Pen for marking plastic – paint, grease, chalk, etc.
- Straight edge – min 4 foot long
- 3" hole saw bit
- Lifting device capable of the physical demands detailed in the Infiltrator IM-1530 Septic Tank Assembler's Resource Guide
- PVC Sched 40 pipe
    - 4" diameter – min. 80"
    - 2" diameter – min. 24"
- PVC primer & glue

ADAPTOR KIT PARTS LIST FOR IM-1060 & IM-1530

Bio-Microbics Part Number **730-TANKINFILTRATOR**

ITEM	Qty in kit	Qty used on 1530
Inlet end foot	2	2
Outlet end foot	2	2
2" x 2" x 23" FRP angle cross brace	2	1
2" x 2" x 3" FRP angle	4	2
1/4-20 x 3.5" SS bolt	4	2
1/4-20 SS nut	4	2
1/4-20 SS lock washer	4	2
#12 x 3" SS self tapping screw	10	0
#12 x 1" SS self tapping screw	8	4
2" PVC pipe with elbow	1	0
2" SS clamp	1	1 or 2
#14 x 1.5" SS self tapping screw	26	26
#10 x 3/4" SS screw	30	30
MicroFAST® Feet Tops	4	4

MODIFY THE FAST® UNIT – The following steps are used to eliminate the air space at the top of a FAST® liner.

WARNING *Only properly trained personnel should perform the work described here. Use proper safety measures and only use tools as intended and instructed by the manufacturer.*

WARNING *The FAST® liner may move and make your cutting device kick back. Use maximum caution when cutting and stabilize the FAST® liner to prevent movement.*

1. On the outside of the 0.5 treatment liner, measure from the bottom of the 0.5 treatment liner lip down 9.5". Mark your cutting location with a grease pencil or similar instrument.
2. On the outside of the 0.625 & 0.75 treatment liner, measure from the bottom of the 0.625 & 0.75 treatment liner lip down 11.5". Mark your cutting location with a grease pencil or similar instrument.
3. Measure and mark your cutting location several times at different locations on the outside of the liner.
4. Draw a straight line connecting all the marks you have made on the outside of the liner.
5. This procedure is irreversible; before cutting, make sure to double check your measurements and markings.
6. Use a reciprocating, coping saw or other appropriate device to cut along your pre-marked straight line on the outside of the treatment liner as shown in *Figure 2.1.*
7. Remove the baffle plate piece from the cut section as shown in *Figure 2.3*
8. Place the cut portion of the liner on the ground; pull this cut piece from the bottom of the liner until the skirt is 11.5" from the new top as shown in *Figure 2.2.* The liner's outlet hole must not be obstructed.
9. Using the 30 provided stainless steel screws (3/4" long), secure the top piece into place as shown in *Figure 2.2.* The screws should be put in from the outside of the liner to the inside to ensure that all exposed surfaces are free from rough or sharp edges that may cause injury to persons

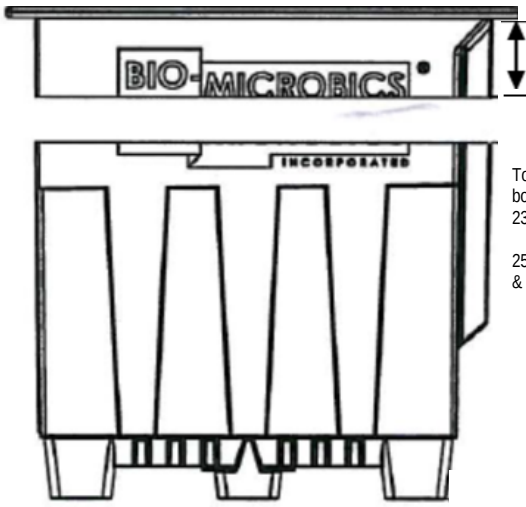


Figure 2.1

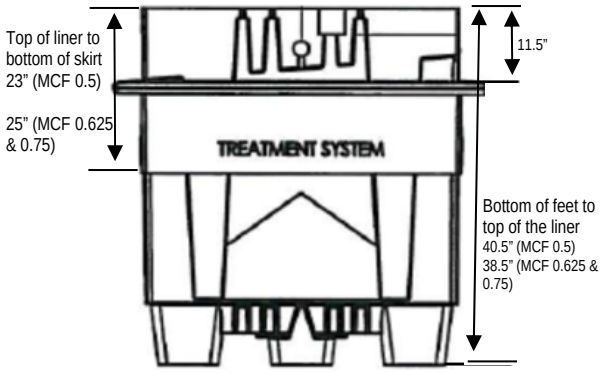


Figure 2.2

Figure 2.3

10. Make a 4" long cut on every corner joint of MicroFAST® liner as shown in *Figure 3.1a.*
11. For FAST® 0.625 & 0.75
    Cut a 8.5" diagonal on the corners as shown in *Figures 3.1b & 3.1c*.

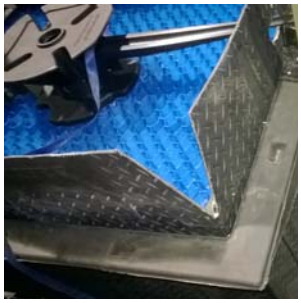


Figure 3.1a

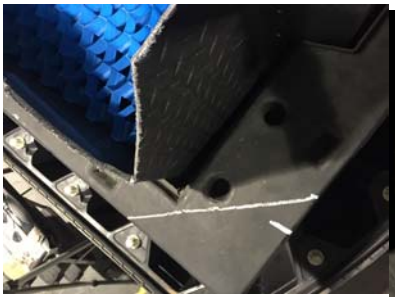
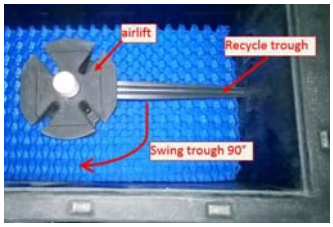


Figure 3.1b

Figure 3.1c

12. Move the recycle trough 90°–
    a. Unscrew the recycle trough from its location. KEEP the screws. Using the appropriate saw, cut the recycle trough to a length of 12" as shown in *Figure 3.2b.*
    b. Turn the airlift 90° (either direction) as shown in *Figure 3.2a.*

    Determine the new exit point for the recycle trough by lining it up between the liner and airlift. Using a 3" hole saw bit, drill a hole in the FAST® liner.
    c. Insert recycle trough through the new hole in the liner and re-attach it to the airlift using the original screws.



Top Left- Top view airlift: Figure 3.2a
Top Right – Recycle trough side view. Figure 3.2b
Bottom Left: new airlift location Figure 3.2c
Bottom Right- top view of new airlift location and the FRP installed Figure 3.2d

MOUNT THE FEET

13. Fasten the supplied Foot Top (crown) to the FAST® liner using the supplied stainless steel screws (#14, self tapping 1.5" hex head screw). Four screws/ Foot Top.
14. Cut four equal pieces of Schd. 40 PVC 4" pipe, precisely 8" long.
15. Weld each pipe piece from step 11 to the foot top using PVC solvent and glue.
16. Fasten the supplied foot bottom to the pipe piece.
    a. Drill a pilot hole for each screw using a 3/16" bit. Failure to do so will likely result in a cracked pipe piece.
    b. Fasten the pipe piece to the foot bottom using the supplied stainless steel screws (#14 x 1.5", self-tapping stainless steel hex head screw). Two screws/ foot bottom shown in Figure 3.3.

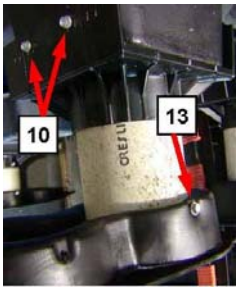


Figure 3.3

NOTE: The MicroFAST® 0.5 attaches at a different location on the foot bottom than the MicroFAST® 0.625 & 0.75. Additionally the inlet and outlet end foot bottoms differ and must be used at their respective ends of the liner. Reference Figures 3.4 & 3.5 below.

Figure 3.4

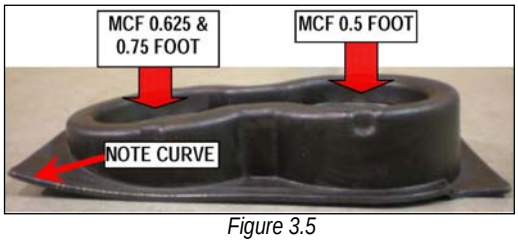


Figure 3.5

Perform these next steps carefully, you only get one attempt.

17. For FAST® 0.625 & 0.75 Remove ~6" of the outlet end rib on the underside of the liner as shown in *Figures 4.1 & 4.2* on page 4.
18. Carefully place the FAST® unit with attached feet into the bottom half of the tank and insert the support post into its proper location in the bottom of the tank on the new outlet (previously known as the inlet) of the tank.
19. Mark the location where the tanks support post will penetrate the FAST® media. This post should be placed up against the airlift exactly where the recycle trough was (approximately 4" away from the top of the airlift). See *figure 4.3* on page 4.
20. Using a safe stance and position, twist the support post until it is completely through the FAST® media block. The support post MUST REMAIN VERTICAL through the media. Perform this step carefully, you only get one attempt

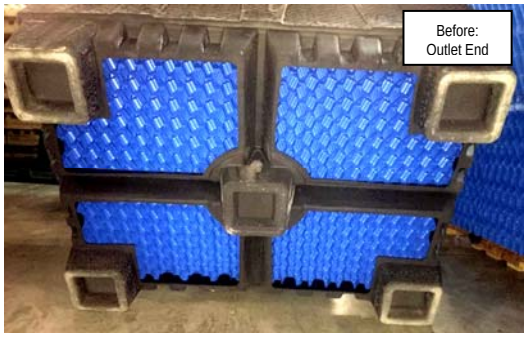


Figure 4.1

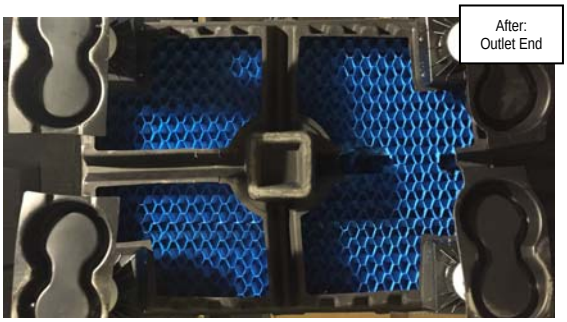


Figure 4.2

MOUNT THE UNIT IN THE TANK

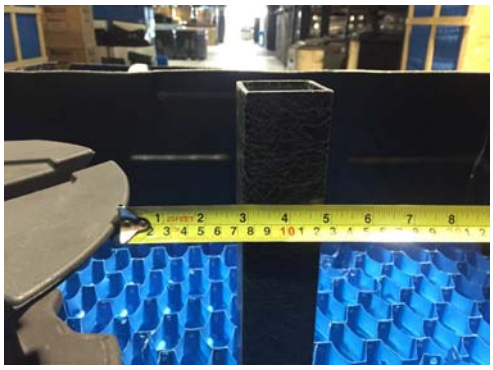


Figure 4.3

NOTE: installation of the tank support posts differs slightly from the IM-1530 Assembler's Resource Guide method.

21. Assemble the support post cross braces by fastening the (2) supplied 3" FRP angle pieces to the 23" FRP angle piece using a total of (4) supplied stainless steel screws (#12 x 1" self tapping stainless steel hex head screw). Use the support post to properly space the 3" FRP angle pieces the proper distance from each other and so that the support post will mount at the center of the cross brace assembly. DO NOT fasten the cross brace assembly to support post yet. See Figure 4.4.
22. Align the FAST® unit in the tank so that it is in the EXACT center from side to side. Use a level to be sure the support post is vertical.
23. Install the cross brace assembly from step 21 onto the support post. This brace MUST be tight so as to hold the FAST® unit in place. Locate the cross brace assembly on the inlet support post. Drill guide holes using a ¼" drill bit so as to install (2) supplied ¼-20 x 3.5" stainless steel bolts. Fasten each carriage bolt in place by using a supplied lock washer and nut.

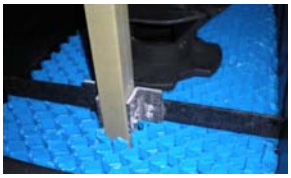


Figure 4.4

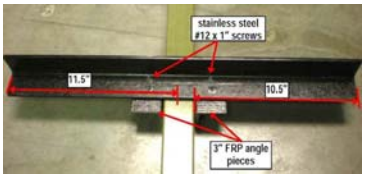


Figure 4.5

INSTALL PIPING & FINAL STEPS

24. The elbow downpipe in the Infiltrator kit is ONLY used for the IM-1060 installation. The FAST unit's straight coupling airline should be left in place.
25. Run the airline through the new outlet end (marked as inlet on the tank) manhole and to the blower. Use the supplied 2" clamp and stainless steel screws (#14, self tapping 1.5" hex head screw) to secure the airline to the riser. Failure to do so will result in a broken air line.
26. Drill the outlet hole in the tank and insert the Infiltrator supplied 4" gasket. This will require placing the outlet at the lowest place possible on the tank.
27. Complete the installation using the FAST® Installation Manual and the Infiltrator IM-1530 Septic Tank Assembler's Resource Guide.
28. Should the installation utilize the baffle wall installation; complete this using the Infiltrator IM-1530 Septic Tank Assembler's Resource Guide.

If you have any questions call Bio-Microbics at 800-753-FAST (3278) or Infiltrator Systems at 800-221-4436.