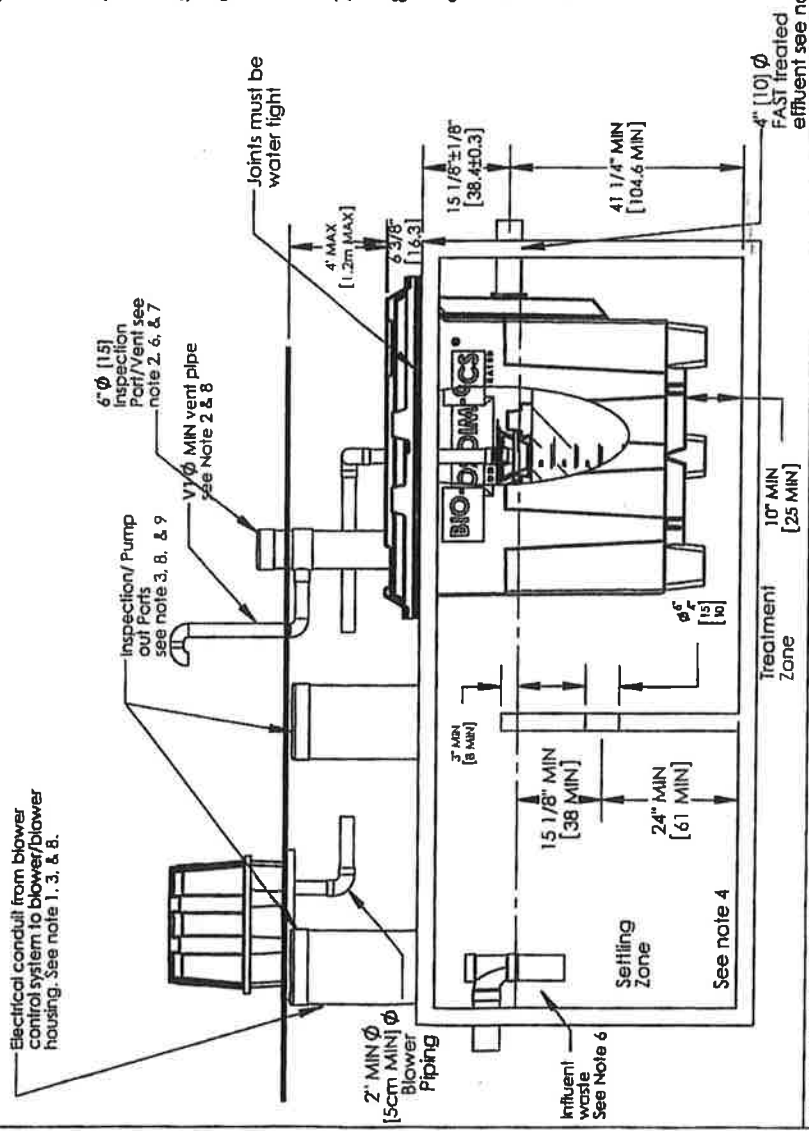
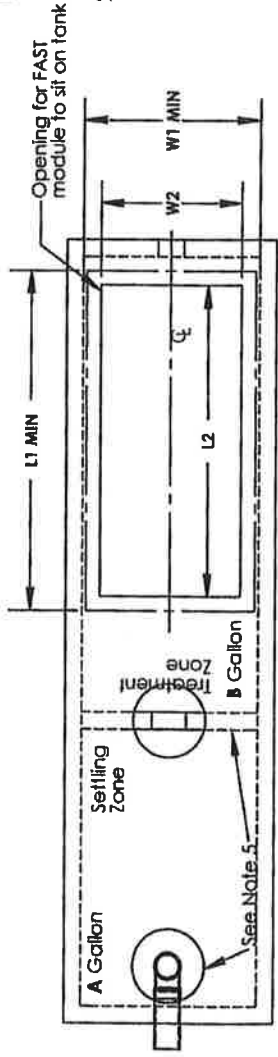


**NOTES**

- Blower piping to FAST® may not exceed 100 FT [30.5m] total length and use 4 elbows maximum. For distances greater than 100 FT [30.5m] - consult factory. Blower must be located above flood/standing water levels on a concrete base.
- Vent to be located above finish grade or higher to avoid infiltration. Cap with vent grate with at least V2 sq in. of open surface area. Secure with stainless steel screws (see sheet 3 of 3 MicroFAST Details.)  
or  
Run vent to desired location and cover opening with vent grate with at least V2 sq in. of open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
- All appurtenances to FAST® (e.g. tank pump outs, etc.) must conform to all country, state, province, and local plumbing and electrical codes. The blower control system is provided by Bio-Microbics, Inc.
- Tank volume must be increased by 20% if U MIN is used between the unit and the base of the tank. Consult factory for approval.
- The primary compartment may be a separate tank.
- Either the influent pipe tee shall be fitted with a pipe cap or the baffle separating the two zones shall be extended to the top of the tank. If choosing to use the pipe cap, then the baffle shall be at least 3" [8] higher than the water level as shown on the drawing.
- All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access
- Tank, anchors, piping, conduit, blower housing pad and vents are provided by others.
- All piping and ancillary equipment installed after FAST® must not impede or restrict free flow of effluent.
- No more than 4 FT [1.2 m] of fill may be placed over unit lid. Refer to installation manual for more details.
- See sheet 2 of 3 for required dimensions.

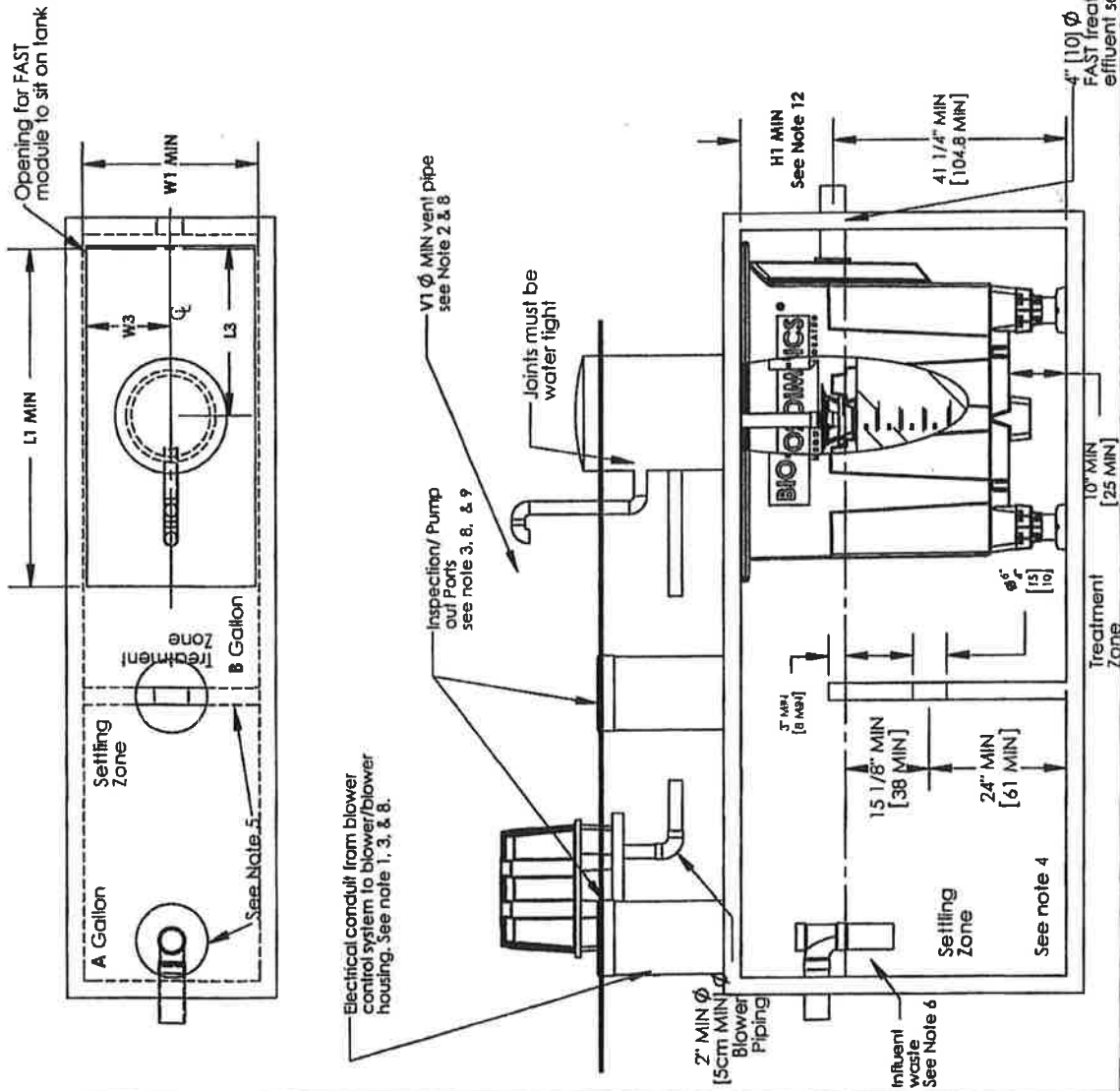


		DO NOT SCALE	WEIGHT	DATE	DRAWING NUMBER
		UNLESS NOTED DIMENSIONS ARE IN INCHES (CENTIMETERS) TOLERANCES ± 0.02 IN/IN ± 0.05 CM/CM		12/18/2008	MICROFAST® with lid
State 0.5-1.5 FAST Units		CHECKED	PF	4/20/2012	REV. INF-04-V
					SHEET 1 OF 4

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**NOTES**

- Blower piping to FAST® may not exceed 100 FT [30.5m] total length and use 4 elbows maximum. For distances greater than 100 FT [30.5m] - consult factory. Blower must be located above flood/standing water levels on a concrete base.
- Vent to be located above finish grade or higher to avoid infiltration. Cap with vent grate with at least V2 sq in. of open surface area. Secure with stainless steel screws [see sheet 3 of 3 MicroFAST Details.]  
or  
Run vent to desired location and cover opening with vent grate with at least V2 sq in. of open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
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- Tank volume must be increased by 20% if U MIN is used between the unit and the base of the tank. Consult factory for approval.
- The primary compartment may be a separate tank.
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- All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access
- Tank, anchors, piping, conduit, blower housing pad and vents are provided by others.
- All piping and ancillary equipment installed after FAST® must not impede or restrict free flow of effluent.
- No more than 4 FT [1.2 m] of fill may be placed over unit lid. Refer to installation manual for more details.
- See sheet 2 of 3 for required dimensions.
- H1 Min Height may be reduced, consult factory and reference "Short-FASTModule-Procedure.pdf."



DO NOT SCALE UNLESS NOTED DIMENSIONS ARE IN INCHES (CENTIMETERS) TOLERANCES ± 0.02 IN/IN [± 0.05 CM/CM]		SIZE	DRAWING NUMBER
		ID	A
WEIGHT	DATE	NAME	MicroFAST® with feet
	CHECKED	DRAWN	REV. IN-04-V
			REVISED: 4/20/2012

State 0.5-1.5 FAST Units

4" [10] Ø FAST treated effluent see note 9

10" MIN [25 MIN] Treatment Zone

15 1/8" MIN [38 MIN]

24" MIN [61 MIN]

41 1/4" MIN [104.8 MIN]

H1 MIN See Note 12

2" MIN [5 cm] MIN Blower Piping

Influent waste See Note 6

Electrical conduit from blower control system to blower/blower housing. See note 1, 3, & 8.

Inspection/ Pump out Ports see note 3, 8, & 9

V1 Ø MIN vent pipe see Note 2 & 8

Joints must be water tight

See Note 5

See Note 4

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Unit Size	A MIN	B MIN	V1 Dia. MIN	V2 MIN	L1	L2	L3	W1 MIN	W2	W3	H1 MIN
0.50	Refer to State tank requirements for minimum volumes.		3"	7.1 in sq	59.5"	54"	29.75"	31.25"	25"	15.125"	16.375"
0.625			3"	7.1 in sq	60"	54"	31.5"	44.25"	37"	21.5"	16.375"
0.75			3"	7.1 in sq	60"	54"	31.5"	44.25"	37"	21.5"	16.375"
0.90			3"	7.1 in sq	59"	54"	31.25"	54.5"	49"	26.625"	16.375"
1.50			4"	9 in sq	83.5"	75.75"	42.875"	55.75"	49"	27.625"	16.25"

A MIN	Settling Zone (MIN Liquid Capacity)
B MIN	FAST@ Chamber (MIN Liquid Capacity)
V1 MIN	Vent Diameter (MIN)
V2 MIN	Vent grate open area (MIN).
L1	FAST@ Length and MIN Tank Length
L2	Length of tank opening for hanging FAST@
L3	FAST@ Length from edge of liner to center of airline.
W1 MIN	FAST@ MIN Tank Width.
W2	Width of tank opening for hanging FAST@.
W3	FAST@ Width from edge of liner to center of airline.
H1 MIN	Clearance from center of outlet to (inside) top of tank.

DO NOT SCALE  
UNLESS NOTED  
DIMENSIONS  
ARE IN INCHES  
(CENTIMETERS)  
TOLERANCES  
± 0.02 IN/IN  
(± 0.005 CM/CM)



State 0.5-1.5 FAST Units

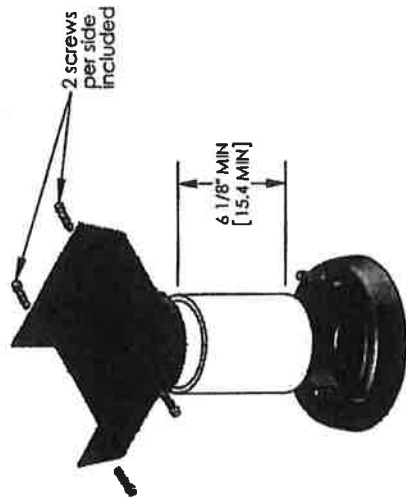
WEIGHT	ID	DATE	SIZE	DRAWING NUMBER	SHEET 3 OF 4
DRAWN BY	DATE	DATE	SIZE	DRAWING NUMBER	
CHECKED BY	1/16/2012	12/18/2004	A	Chart	REV. IN-04-V

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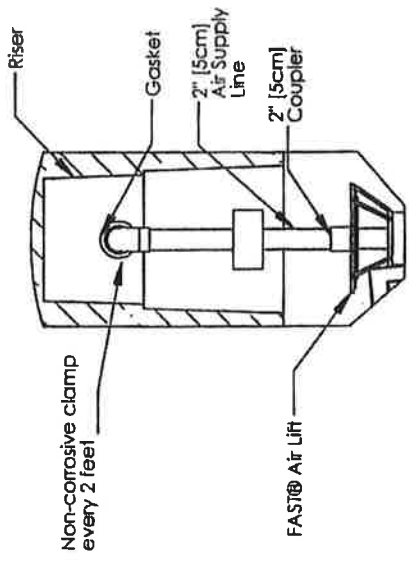
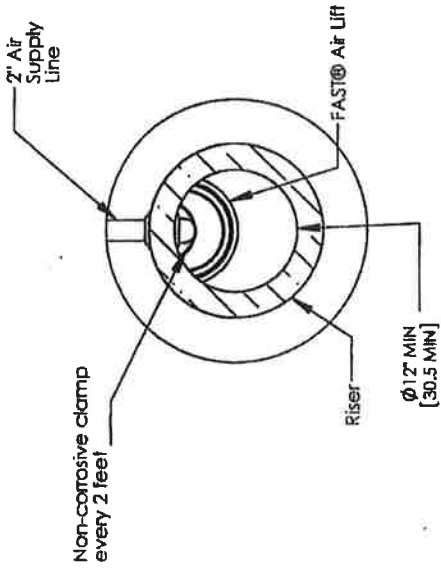
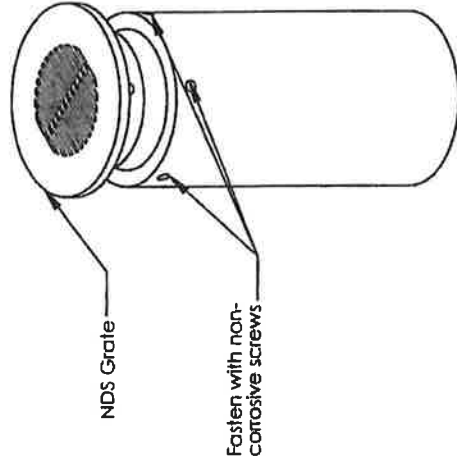
**Notes**

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. Cut 4" schd. 40 PVC pipe (not included) to obtain the desired height. Minimum pipe length of 6 1/8" [15.56cm]; Original leg extension height requires a pipe length of 11 1/8" [28.26cm]. For heights greater than 18" [45.7cm] use schd. 80 PVC pipe (not included). 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. The air supply line into the FAST@ unit must be secured so as to prevent damage from pipe vibration.
5. 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.
6. Tank, anchors, piping conduit, blower housing pad, and tank vents are provided by others.

**Minimum leg extension assembly  
see note 4**



**FAST@ Vent  
Option**



**Alternate Air Supply Option**

DO NOT SCALE  
UNLESS NOTED  
DIMENSIONS  
ARE IN INCHES  
(CENTIMETERS)  
TOLERANCES  
±0.02 IN/IN  
[± 0.05 CM/CM]

**BIO-MICROBICS**  
INCORPORATED

State 0.5-1.5 FAST Units

WEIGHT	ID	SIZE	DRAWING NUMBER
	NAME	A	MicroFAST@ Details
	DATE		
	DRAWN		REV. INH-04-V
	CHECKED		REV. INH-04-V
			REV. INH-04-V

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**Virginia Tank Sizes for Different Effluent Qualities**

MicroFAST Model Size	Maximum Flow GPD	GMP 147 (TL3)			Secondary Effluent (TL2)		
		Settling Zone Gallons	Treatment Zone Gallons	Total Tank Volume Gallons	Settling Zone Gallons	Treatment Zone Gallons	Total Tank Volume Gallons
0.50	500	500	750	1250	350	450	800
0.625	625	500	900	1400	375	540	915
0.75	750	500	1000	1500	375	625	1000
0.90	900	725	1250	1975	500	750	1250
1.50	1500	1075	1875	2950	750	1125	1875

See Note 1

**Notes:**

- For flows >900 gpd and ≤1,000 gpd, the 1.5 unit is to be used and is Generally Approved for both TL2 and TL3 effluent quality.
- All tank volumes listed above are minimum volumes of the liquid capacity of the tank. The tank volumes listed for the Settling and Treatment Zone may be two compartment tanks or two separate tanks if used for BOD/TSS reduction only. If total nitrogen reduction is required, then the tanks must be two compartment tanks.