

**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY
NOTICE OF INTENT
INDIVIDUAL TREATMENT FACILITIES
NPDES GENERAL PERMIT ARG550000**

Application Type: New Renewal (Permit # ARG55 _____)

I. PERMITTEE/OPERATOR INFORMATION

Permittee (Legal Name): Rickey & Kelli Whitaker Operator Type:
Permittee Mailing Address: 694 Grant 65 State Partnership
Permittee City: Sheridan Federal Corporation*
Permittee State: Arkansas Zip: 72150 Sole Proprietorship/Private
Permittee Telephone Number: 870-941-1720 *State of Incorporation: _____
Permittee Fax Number: NA The legal name of the Permittee must be
Permittee E-mail Address: Kwhit0@gmail.com identical to the name listed with the
Arkansas Secretary of State.

II. INVOICE MAILING INFORMATION (Home owners are exempt.)

Invoice Contact Person: N/A City: _____
Invoice Mailing Company: _____ State: _____ Zip: _____
Invoice Mailing Address: _____ Telephone: _____

III. FACILITY INFORMATION

Facility Name: Whitaker Residence Facility Contact Person: Kelli Whitaker
Facility Address: 694 Grant 65 Telephone Number: 870-941-1720
Facility County: Grant Facility City, State & Zip: Sheridan, AR 72150
Facility Latitude: 34 Deg 17 Min 9.05 Sec Facility Longitude: 92 Deg 23 Min 20.87 Sec
Datum
Accuracy: _____ Method: _____ : _____ Scale: _____ Description: _____

IV. DISCHARGE INFORMATION

Outfall Number: 001 Flow: 450 gpd (Gallons per Day)
Stream Segment: 2C Hydrologic Basin Code: 802 04 01
Outfall Latitude: 34 Deg 17 Min 12.51 Sec Outfall Longitude: 92 Deg 23 Min 20.35 Sec
Datum
Accuracy: _____ Method: _____ : _____ Scale: _____ Description: _____
Type of Treatment: Bio Microbics Microfast 0.5 with UV and Post Aeration
Receiving Stream: Ouachita

V. FACILITY PERMIT INFORMATION

NPDES Individual Permit Number (If Applicable): AR00
NPDES General Permit Number (If Applicable): ARG
State Construction Permit Number: _____
NPDES General Construction Stormwater Permit Number (If Applicable): ARR15

VI. OTHER INFORMATION:

Operator Name: David Meints
Operator License Number: 009055 License Class: III

Consultant Contact Name: David Meints
Consultant Email Address: david@meincowastewater.com
Consultant Address: PO Box 1001 City: Bryant State: AR Zip: 72089
Consultant Phone Number: 501-804-0837 Consultant Fax Number: 501-821-4048

Has this treatment system been approved by AHD? Yes No

Disclosure Statements:

Arkansas Code Annotated Section 8-1-106 requires that all applicants for the issuance or transfer of any permit, license, certification or operational authority issued by the Arkansas Department of Environmental Quality (ADEQ) file a disclosure statement with their applications. The filing of a disclosure statement is mandatory. No application can be considered complete without one. You must submit a new disclosure statement even if you have one on file with the Department. The form may be obtained from ADEQ web site at: http://www.adeq.state.ar.us/disclosure_stmt.pdf.

VII. CERTIFICATION OF OPERATOR

KW (Initial) "I certify that, if this facility is a corporation, it is registered with the Secretary of the State of Arkansas."
KW (Initial) "I certify that the cognizant official designated in this Application is qualified to act as a duly authorized representative under the provisions of 40 CFR 122.22(b). If no cognizant official has been designated, I understand that the Department will accept reports signed only by the Applicant."
KW (Initial) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Responsible Official Printed Name: Kelli Whitaker Title: Owner
Responsible Official Signature: Kelli Whitaker Date: 05/22/2023
Responsible Official Email: kwhit0@gmail.com
Cognizant Official Printed Name: David Meints Title: Class III Operator
Cognizant Official Signature: David Meints Telephone: 501-804-0837
Cognizant Official Email: david@meincowastewater.com

X. PERMIT REQUIREMENT VERIFICATION


Please check the following to verify completion of permit requirements.

Yes No * If No is answered for any of the questions, then a permit can not be issued!
Submittal of Complete NOI?
Submittal of Required Permit Fee? Check Number: _____
Submittal of AHD Form EHP-19?
Submittal of Site Map?

Rickey & Kelli Whitaker


694 Grant 65
Sheridan, AR

Legend

 Feature 1

 POD

Google Earth

34.28638, -92.38915 



200 ft

 POE

Grant 65

65



Arkansas Department of Health
Environmental Health Protection

AUG 01 2022

ATU - Surface Discharge

Receipt Number
25302242

Individual Onsite Wastewater System Permit Application

Permit Type New Installation
 Alteration / Repair

DR Environmental ID #

7 6 0 2 1 3 2 0 9 0

Fee Schedule for Structures		√
Structures 1500 sq ft or less	\$ 30.00	<input type="checkbox"/>
Structures more than 1500 sq ft and up to 2000 sq ft	\$ 45.00	<input type="checkbox"/>
Structures more than 2000 sq ft and up to 3000 sq ft	\$ 90.00	<input checked="" type="checkbox"/>
Structures more than 3000 sq ft and up to 4000 sq ft	\$120.00	<input type="checkbox"/>
Structures more than 4000 sq ft	\$150.00	<input type="checkbox"/>
Alteration and Repair	\$ 30.00	<input type="checkbox"/>

Part 1 Application

Treatment Type (check one)

Disposal Method (check one)

STD = Standard Septic Tank ATU = Aerobic Treatment Plant STD = Standard Absorption Field LPD = Low Pressure Distribution
 ISF = Intermittent Sand Filter RSF = Re-circulating Sand Filter SUR = Surface Discharge HLD = Holding Tank
 PMF = Proprietary Media Filter RGF = Re-circulating Gravel Filter CPF = Capping Fill SRL = Serial Distribution
 OTH = Other (Describe) HLD = Holding Tank OTH = Other DRP = Drip Irrigation

1. Owner's/Applicant's Name: Rickey + Kelli Whitaker 2. Phone Number: Brody: 870-941-1720

3. Mailing Address: 694 Grant 05 Sheridan, AR 72150 4. County: Grant

5. Address of Proposed System (If a 911 address is not available, attach detailed directions or map):
Same As Above

6. Subdivision Name: Bella Acres 7. Approval Date: 2019 8. Date Recorded: 2019 9. Lot Number: 2

10. Lot Dimensions: See legal 11. Total Area (Acres): ≈ 4.71 12. # Bedrooms # People: 4 13. Daily Flow (GPD): 450

14. Brief Legal Description of Property (Attach a separate sheet of paper, if necessary):
S-14 T-5-S R-13 W

15. Water Supply (Specify supplier, if Public Water): South Sheridan 16. GPS Coordinates: 34.28638° N, 92.38915° W

17. Loading Rates (gpd/ft²)	18. System Specifications	
Primary Area: <u>N/A</u>	a. Size of Septic Tank: <u>ATU</u> gal	f. Trench Depth: <u>\</u> inches
Secondary Area: <u>N/A</u>	b. Size of Dose Tank: <u>850</u> gal	g. Trench Spacing: <u>\</u> feet
Percolation Test (min/in):	c. Absorption Area: <u>\</u> ft²	h. Trench Media (List Below):
Primary Area Avg: <u>N/A</u>	d. Number of Field Lines: <u>\</u>	i. Trench Width: <u>\</u> in
Secondary Area: <u>N/A</u>	e. Length of Field Lines: <u>\</u> ft	

TO THE OWNER
The permit for construction may be deemed invalid by the local Environmental Health Specialist before the start of construction, if the site and/or soil conditions have changed after approval of this permit, or if the information within this permit is inaccurate or has been found to be misrepresented. Approval for operation does not constitute a guarantee that the system will function properly. The approval states that the system was designed and installed according to the Arkansas Department of Health, Rules and Regulations Pertaining to Onsite Wastewater Systems, unless there are exceptions or deviations noted in the comments. A Permit for Construction is valid for one (1) year from the date of approval. The authorized agent must revalidate a permit more than one (1) year old prior to the start of any construction.

19. Utilization Verification
I hereby attest that item 12, the number of bedrooms (number of persons for commercial) and square footage of the structure that will utilize the designed individual onsite wastewater system in this permit application, is accurate. I have reviewed the permit application and understand the layout, installation, maintenance, operation and expense(s) that may be associated with this system.

Owner/Applicant Signature: See Above Date: _____

20. I certify that I have conducted the above tests and that the above listed information is in accordance with the latest requirements of the Arkansas Department of Health Rules and Regulations Pertaining to Onsite Wastewater Systems.

Designated Representative Signature: Kevin Castleberry D.R. Title: _____
Soil Certified Yes No
Print Name: KEVIN CASTLEBERRY Date: 7/27/22 Phone Number: 870-692-5742

21. Approval of Health Authority
The information and specifications in the application has been reviewed and found to meet the requirements of the Arkansas Department of Health Rules and Regulations Pertaining To Onsite Wastewater Systems. A PERMIT FOR CONSTRUCTION is hereby issued.
Environmental Specialist Signature: Janet Kish, RS EHS Number: 836 Date: 8-9-2022

IMPORTANT NOTICE TO PROPERTY OWNER

The Arkansas Department of Health's approval of a discharging sewage system does not relieve the property owner of any other local, state, or federal requirement regarding sewage discharging systems. Please be advised that all wastewater systems that discharge sewage to the surface are required to notify:

Arkansas Department of Environmental Quality

ATTN: Permits Branch

5301 North Shore Drive

North Little Rock, AR 72118

Phone Number: 501-682-0623

Web Site: www.adeq.state.ar.us

Arkansas Department of Health Individual Onsite Wastewater System Permit Application

Receipt Number

Continue Part 1

22. Soil Criteria (Primary Area)								Indicate the depth to items a-f, if observed in the soil (designate in inches)	
a. Bedrock	b. BSWT	c. MSWT	d. LSWT	e. Adj. MSWT	f. Adj. LSWT	g. H.C./Depth	h. Loading Rate (gpd/ft ²)		
\	0"	0"	30"	N/A	N/A	\	N/A		
23. Soil Criteria (Secondary Area)								Indicate the depth to items a-f, if observed in the soil (designate inches)	
a. Bedrock	b. BSWT	c. MSWT	d. LSWT	e. Adj. MSWT	f. Adj. LSWT	g. H.C./Depth	h. Loading Rate (gpd/ft ²)		
\	0"	0"	30"	N/A	N/A	\	N/A		
24. Seasonal Water Table (SWT) Classes Detail									
Primary Area			List Redoximorphic Features and/or Clay Content Restrictions						
Brief	0'	in	2.5 YR 5/8						
Moderate	0'	in	10 YR 6/2						
Long		in							
Secondary Area			List Redoximorphic Features and/or Clay Content Restrictions						
Brief	0'	in	2.5 YR 5/8						
Moderate	0'	in	10 YR 6/2						
Long		in							
Comments									

Part 2 Installation Inspection

Septic tank manufacturer	Pump information
Septic tank material	Trench media and width
Dose tank manufacturer	Depth of interceptor drain
Dose tank material	Depth of settled fill
Name of installer	License Number
Installation inspected by <input type="checkbox"/> Environmental Health Specialist <input type="checkbox"/> Designated Representative (check one or installer signs System Installation Verification below)	
Signature	EHS / License Number Date
System Installation Verification I have installed this system as designed and in compliance with all Rules and Regulations Pertaining to Onsite Wastewater Systems.	
Installer Signature	License Number Date

Part 3 Permit for Operation

The information contained in Part 1 and 2 of this form has been reviewed and found to meet the requirements of the Arkansas Department of Health. THE PERMIT FOR OPERATION of this system is hereby issued.

Environmental Health Specialist	Signature	EHS Number	Date
Comments			
Site Revalidation conducted by <input type="checkbox"/> Environmental Health Specialist <input type="checkbox"/> Designated Representative (check one)			
Signature	EHS / License Number	Date	

* Optional System Utilization Verification Form



Arkansas Department of Health
Environmental Health Protection

Receipt Number

Individual Onsite Wastewater System Permit Application

Permit Type New Installation
 Alteration / Repair

DR Environmental ID #

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Homeowner

Builder/Developer

Fee Schedule for Structures	√
Structures 1500 sq ft or less \$ 30.00	<input type="checkbox"/>
Structures more than 1500 sq ft and up to 2000 sq ft \$ 45.00	<input type="checkbox"/>
Structures more than 2000 sq ft and up to 3000 sq ft \$ 90.00	<input type="checkbox"/>
Structures more than 3000 sq ft and up to 4000 sq ft \$ 120.00	<input type="checkbox"/>
Structures more than 4000 sq ft \$ 150.00	<input type="checkbox"/>
Alteration and Repair \$ 30.00	<input type="checkbox"/>

TO THE PROPERTY OWNER

Onsite Wastewater System Utilization Verification

Property location: 694 Grant 65, Sheridan, AR 72150
(Address of Proposed System, City, State, Zip)

I hereby attest there are ___ bedrooms (___ number of persons for commercial) and the square footage of the structure that will utilize the designed onsite wastewater system in this permit application is accurate. I have reviewed the permit application and understand the layout, installation, maintenance, operation and expense(s) that may be associated with this system.

As Developer/Builder, I hereby attest that the above information is correct and prior to the sale of the property, I will convey, to the buyer, all information associated with this system.

Owner/Applicant Signature Kelli Whitaker

Date 7/18/2022

This document must be submitted with the permit application, if the Owner/Applicant Signature Section (number 19 on the EHP-19) is not signed.



Arkansas Department of Health
4815 West Markham, Slot 46
Little Rock, Arkansas 72205-3867

MEMORANDUM OF AGREEMENT

SUBJECT: ONSITE WASTEWATER SYSTEM APPLICATION

This is an agreement that the onsite wastewater system installed on this property has been permitted under authority of Act 402 of 1977 and by the Arkansas Department of Health with the understanding that the following provisions are met:

1. Onsite Wastewater Systems requiring a Monitoring Contract with a Certified Monitoring Personnel are Holding Tanks, Experimental Systems (i.e. Reduced Absorption Areas, *ABGs), and Drip Dispersal Systems. *Aerobic Biological Generators – Commercial applications only, residential applications must follow manufacturers' service contract requirements.
2. The property owner assumes all responsibility for the proper operation of the onsite wastewater system.
3. The property owner must maintain a monitoring contract with a licensed Certified Monitoring Personnel for the life of the system and retain Onsite Wastewater System Assessments (EHP-71), on file, for at least five (5) years.
4. The Arkansas Department of Health has no responsibility in the operation and maintenance of such systems.
5. That the Arkansas Department of Health may monitor the system as to its operation capabilities.
6. That the Arkansas Department of Health is granted permission to make such inspections as deemed necessary.
7. Subsurface systems with flows ≥ 3000 gpd and all surface discharging systems require the owner to file an additional permit application with the Arkansas Department of Environmental Quality (ADEQ).
8. **That, on the sale of the property, the owner of the property must disclose to the perspective buyer notice of this agreement and any permit requirements. The buyer is to sign memoranda, contracts or permit name change forms and submit these documents to the appropriate regulatory agency.**

SIGNED: Kelli Whitaker
(Property Owner)

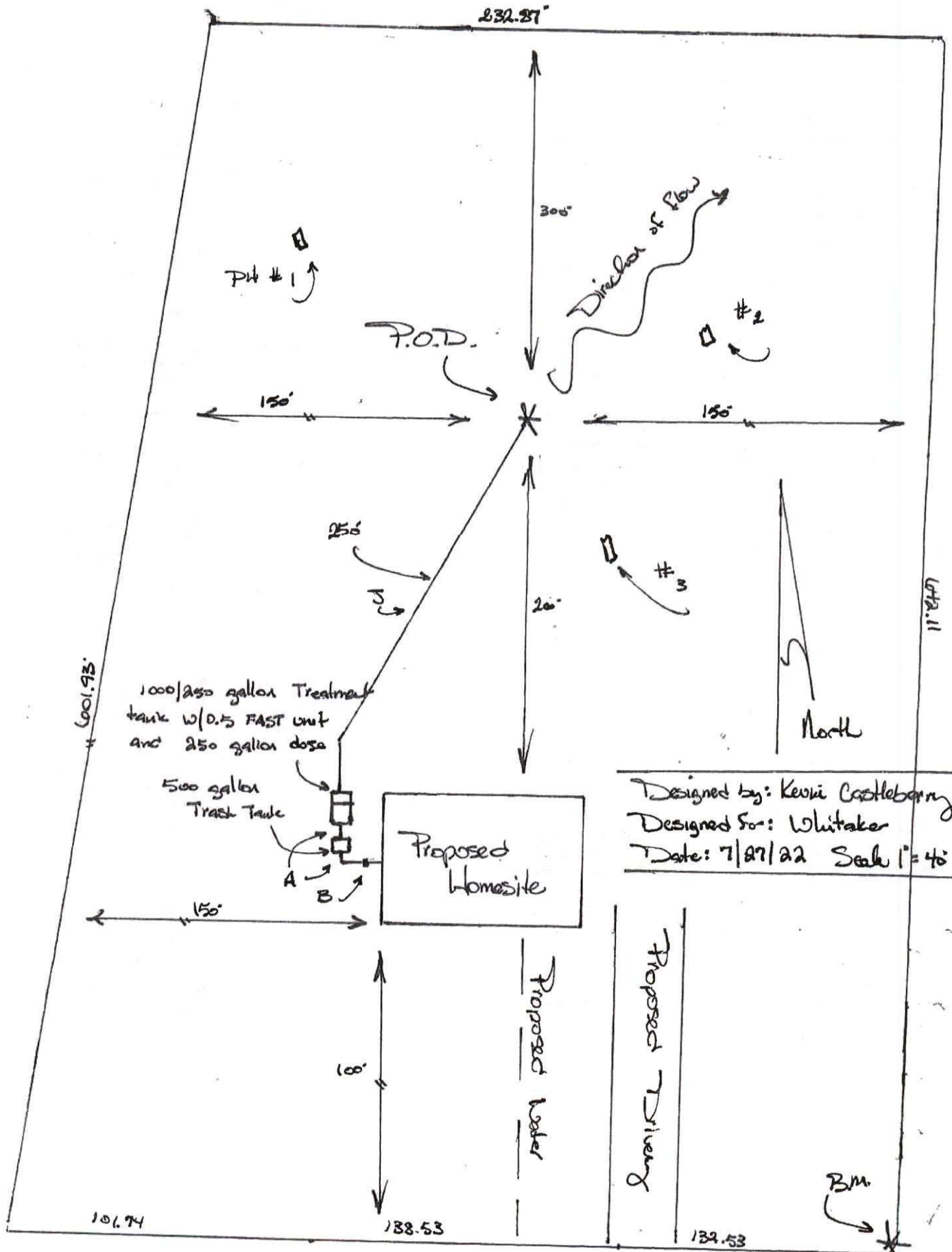
SIGNED: Jamie Kwon, RS
(Health Department)

DATE: 7/22/22

DATE: 8-9-2022

SERVICE AND MAINTENANCE CONTRACT

1. **Parties.** This contract ("Agreement" or "Contract") is between Meinco Septic Systems, Inc., ("Meinco") and Customer Name, ("Client"), referred to individually as a "Party" and collectively as the "Parties."
2. **Service Location.** This is a Contract for septic system service and maintenance services provided by Meinco for Client located at 911 Address of Site hereinafter referred to as the "Service Site."
3. **Service Fees.** Client agrees to pay Meinco One hundred thirty (\$130.00) for septic system service and maintenance specifically work performed every Three Months (Quarterly) and described more specifically below (hereinafter referred to as "Service Work"). Meinco and Client agree that the invoiced amount is good consideration for this Contract and the services set forth below and reflects the bargained for terms of this agreement.
4. **Materials Charges.** During regular maintenance Meinco will replace materials necessary to keep the septic system operating efficiently (chlorine tablets, UV light bulbs, floats, filters, etc.). Meinco and Client agree that Meinco shall submit to client the costs of maintenance parts and materials and Client will promptly pay the same.
5. **Laboratory Fees.**
 - A) This paragraph is inapplicable.
 - B) Client agrees that Meinco will use a third party laboratory, Environmental Services, Inc., for any sampling that is required under this Contract. In such event, Meinco shall submit to Client a laboratory fee of \$ 150.00 and Client will promptly pay the same.
6. **Services Provided.** Meinco agrees to provide the following Service Work to the Client and the Service Site:
 - A) Maintenance requirements, including review of system components and their working condition, monitoring of solid levels to determine system efficiency, and periodic cleaning of system filters or media.
 - B) I. This paragraph is inapplicable.
II. Necessary sampling and submission of paperwork every month(s) or as required to comply with the Arkansas Department of Health Onsite Maintenance Program.
 - C) Necessary paperwork every 6 month(s) as required to comply with the Arkansas Department of Health and/or the Arkansas Department of Environmental Quality.
 - D) I. This paragraph is inapplicable.
II. Sampling of discharge every 6 month(s) in coordination with a 3rd party laboratory for required laboratory tests.
7. **Contract Duration.** This contract shall be for a period of 24 month(s) from the date this Contract is executed by the parties on page 2
8. **Flow Requirements.** This contract shall be null and void if septic system flow exceeds 500 gallons per day.
9. **Modification to System.** If the septic system is modified, abused, mis-used, or altered, then Meinco's responsibility to service or maintain the septic system is terminated. Meinco may remedy such conditions by replacing parts or correcting defects. If Meinco makes such changes to the septic system, then it may charge to client the costs of repairs, modifications, parts, and labor. Meinco may, at its discretion, seek payment in advance of making any repairs or modifications to the septic system. In such event, Meinco shall not be responsible for any damage or adverse effects for its delay in making repairs or modifications to the septic system.
10. **Access to System.** Client agrees to provide Meinco access to the septic system as well as its parts and components.
11. **Termination by Client.** Client may terminate this contract by providing thirty (30) days written notice to Meinco.
12. **Termination by Meinco.** Notwithstanding, and in addition to, any other provision or term in this Contract, **MEINCO MAY TERMINATE THIS CONTRACT AT ANY TIME AND WITHOUT PREVIOUS NOTICE TO CLIENT.**
13. **Solid Removal.** Solid removal is not a covered service and shall incur an additional fee. If Meinco removes solids from the septic system, then it may charge to client the costs of solid removal. In any event, Meinco shall not be responsible for any damage or adverse effects for any delay in removing solids.
14. **Indemnity.** To the fullest extent permitted by law, Client shall indemnify, hold harmless, and defend Meinco and any agent or employees of Meinco from and against all injuries, claims, damages, losses, and expenses, including, but not limited to, attorneys' fees, arising directly or indirectly out of the obligations herein undertaken or resulting out of operations related to the Service Work or Service Site conducted by Meinco, Meinco's agents, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such injury, claim damage, losses, or expenses is caused in part by a party indemnified. Such obligation shall not negate, abridge, or otherwise reduce the rights or obligations of indemnity which would otherwise exist to a party or person described in this paragraph.



Designed by: Kevin Castleberry
 Designed for: Whitaker
 Date: 7/27/22 Scale 1" = 40'

694 Grant 65

- 15. **Assignment.** Client agrees that even though this is a contract for services, Meinco may assign this Contract to any third party without written notice to Client.
- 16. **Bilateral Contract.** Meinco and client specifically agree that Client is seeking Meinco's promise to perform and not its performance.
- 17. **Claims Against Meinco.** Client shall give Meinco written notice of all claims within five (5) days of Client's knowledge of facts giving rise to the event for which claim is made. Otherwise, such claims shall be deemed waived by Client. All unresolved claims, disputes, and other matters in question between Meinco and Client shall be resolved in the manner provided for in this Agreement.
- 18. **Rights Upon Breach.** If Client breaches this Agreement with Meinco, Meinco may stop all work, including all Service Work. Additionally, Client will be liable to Meinco for consequential, incidental, and reliance damages as well as attorneys' fees and court costs. Such liability upon Client shall extend to petitions for and orders of contempt as well as any attempts by Meinco to collect upon any debt or damages owed to it by Client, including those entered by court of law or other dispute resolution proceeding.
- 19. **Direct Discussion.** If a dispute arises out of or relates to this Agreement, the Parties shall endeavor to settle the dispute through direct discussion before advancing to any dispute resolution proceeding.
- 20. **Joint Drafting.** The Parties expressly agree that this Agreement was jointly drafted and that this Agreement shall be construed neither against nor in favor of either Party. Instead, this Agreement shall be construed in a neutral manner.
- 21. **Choice of Law.** The Parties expressly agree that any dispute or claim filed or heard in any jurisdiction concerning or relating to this Agreement or work performed as a result of this Agreement shall be governed by the laws of the State of Arkansas.
- 22. **Forum Selection and Choice of Venue.** The Parties expressly agree that any dispute or claim arising from, filed, or heard concerning or relating to this Agreement or work performed as a result of this Agreement shall be heard in Saline County, Arkansas, and no other forum. If this clause is penetrated and the hearing concerning the dispute removed to the United States federal court system, then the Parties expressly agree that the dispute shall be heard in the United States District Court for the Eastern District of Arkansas, Western Division, at the Richard Sheppard Arnold United States Courthouse in Little Rock, Arkansas.
- 23. **Waiver of Agreement Terms.** Meinco, at its sole discretion and leisure, may waive any term in this Agreement. Such waiver shall not, under any conditions or circumstances, constitute a modification of this Agreement. Additionally, such waiver shall not, under any conditions or circumstances, constitute a course of performance, course of dealings, or trade usage between Meinco and Client. Any waiver by Meinco shall be limited to a single incident or event. No waiver of any term of this Agreement is valid unless it is in writing, signed by Meinco, and attached to this Agreement as an addendum. It is the responsibility and duty of Client to draft any written waiver and to present it to Meinco for Meinco's approval and signature.
- 24. **Force Majeure.** Neither Party shall be in breach of its obligations under this Agreement (other than payment obligations) or incur any liability to the other Party for any losses or damages of any nature whatsoever incurred or suffered if and to the extent that the other party is prevented from carrying out its obligations by, or such losses or damages are caused by, a *force majeure* event. For purposes of this paragraph, the failure of the state of Arkansas or the United States of America to act according to current practices, procedure, or law at the time of the making of this Contract shall be considered a *force majeure* event. Such event by the government shall be in addition to any current or commonly accepted definition of *force majeure* event.
- 25. **Merger and Integration.** Meinco and Client agree that this Agreement represents a full, final, and complete memorial of their Agreement for the Service Work and that this Agreement does not rely upon any term or promise not otherwise specified within the four corners of this Agreement.
- 26. **No Oral Modification.** Meinco and Client agree that this Agreement shall not be subject to oral modification. The Parties agree that any modification made or agreed to by the Parties shall be in writing, signed by both Parties, and attached to this Agreement as an Addendum.

By signing this Agreement below, I indicate that I have read this Agreement and its terms, consisting of two (2) pages, excluding any Addendum or Addenda, and that these express terms are both acceptable and agreeable to me. I further declare that these terms do not represent an undue hardship, are not illusory, and are not unconscionable as I have expressly bargained for these terms in consideration of entering into this Contract for the value specified in paragraph three (3).

Daniel N. [Signature]
 Meinco Septic Systems, Inc.

Enter the date

 Date

Kelli [Signature]
 Client

8/2/2002
 Date

Elevations:

B.M. 7.9"

	<u>G.E.</u>	<u>F.L.</u>
Stub Out:	5.0"	6.5"
Clean Out:	5.0"	6.5"
Tank In:	5.0"	6.7"
Tank Out:	5.2"	6.10"
Discharge Pt.:	4.7"	4.7"

Notes:

- Install a 500 gallon Trautz tank.
- Install a 1000/250 gallon tank w/ a Biomicrobics OF FAST unit in the 1000 gallon treatment zone.
- Install a Salcor U.V. disinfection unit model 3 G inside the 250 gallon pump chamber.
- Install a Zoeller BN 53 dose pump along with a Zoeller 10-0623 outdoor highwater alarm. Pump and alarm must be on separate breakers.
- Pump treated effluent to storm discharge point.



CLARUS ENVIRONMENTAL

Zoeller Family of Water Solutions

Zoeller Company

System Head Curve and Pump Selection Tool



ZOELLER PUMP COMPANY

Zoeller Family of Water Solutions

Static Head Information	
Static Head - elevation difference from low water to outfall	5.0 feet
System high point above outfall?	No

Friction Head Information	
Pipe	
How many different pipes in the system (not courting laterals)?	1
Pipe 1 Length	250 feet
Pipe 1 Size	1 1/2 inches
Pipe 1 Class	SCH 40
Pipe 2 Length	
Pipe 2 Size	
Pipe 2 Class	
Pipe 3 Length	
Pipe 3 Size	
Pipe 3 Class	

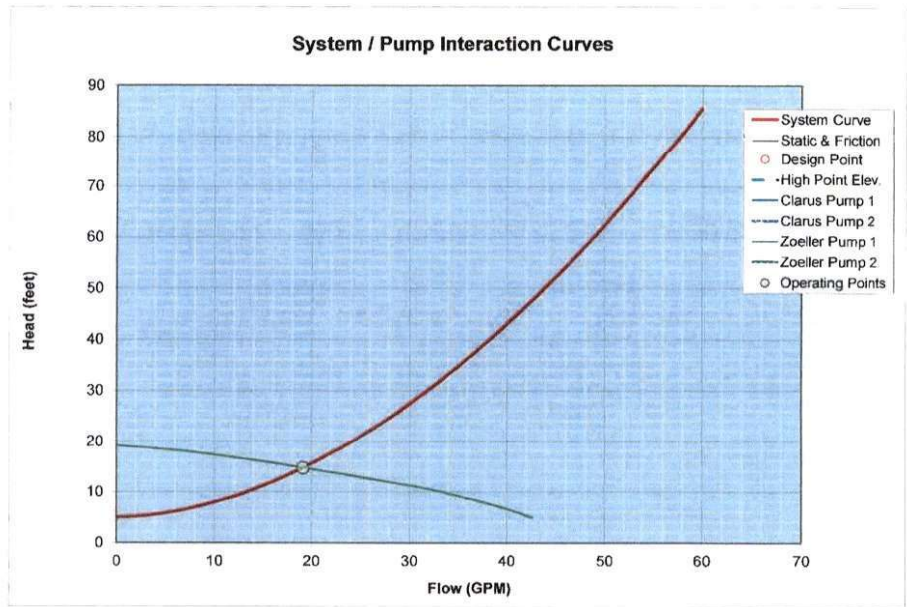
Pressurized Laterals?	
How many are dished at once?	No
Length of one lateral	
Size of lateral	
Class of lateral	

Fittings & Discharge Assemblies			
Type	Size	Quantity	Flow
90 Elbow	1 1/2 inches	5	100 %
Check Valve	1 1/2 inches	1	100 %
Gate Valve (full open)	1 1/2 inches	1	100 %

Special Friction Considerations	
Weep Hole	Yes 1/8"
Add-In Friction	15 % of Pipe Loss
Automatic Multizone Valve?	No
Pressure Filter?	No

Operating Head Information		Specify Flow Requirement?
System Type	Non-Pressurized	No
Required Pressure		
Number of Orifices		
Size of Orifices		
Spider Valve Orifice Sizes (Data originates from Spider Valve Sizing Tool)		

Factors and Coefficients	
Hazen-Williams C Factor	130
Discharge Coefficient (Cd)	0.61
Lateral Design Mode	Off

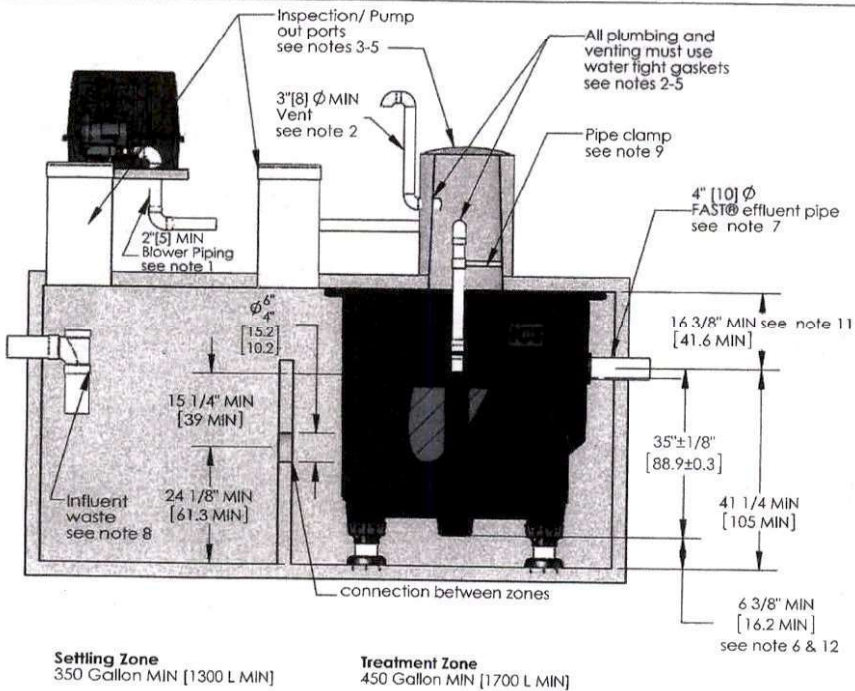


NOTE: THE DISPLAYED PUMP CURVES HAVE BEEN ADJUSTED TO ACCOUNT FOR THE EFFECT OF THE WEEP HOLE

Pump Selection	60 Hz	Frequency
Clarus Environmental Pumps		
Clarus Pump 1		Operating Points
Clarus Pump 2		
Zoeller Pump Company Pumps		
Zoeller Pump 1	53/55/57/59 0.3hp, 60Hz	19.2 GPM @ 14.7'
Zoeller Pump 2		

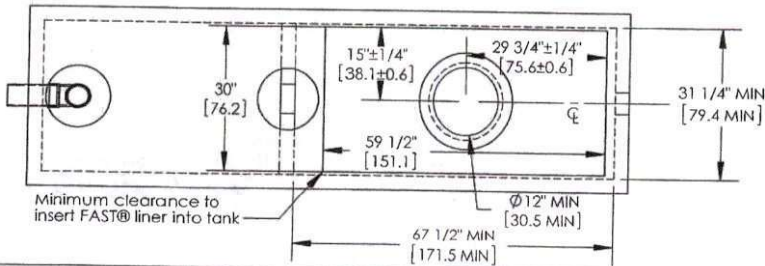
Curve Zoom Range 60 GPM

Project Data		Notes
Project Name:	WHITAKER	
Project Address:		
Contact Info:		



Settling Zone
350 Gallon MIN [1300 L MIN]

Treatment Zone
450 Gallon MIN [1700 L MIN]



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 24" X 20" X 2" [65 X 50 X 5cm] min.
2. Vent to desired location and cover opening with a vent grate with at least 7 sq in. [45 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 4 of 4.
10. Specialized treatment levels may require specific features to be incorporated into the design. Consult factory for guidance.
11. Min. height may be reduced, consult factory and reference "Low Profile Module Procedure.pdf"
12. Refer to sheet 4 of 4 for leg extensions requirements.

DO NOT SCALE		<p>BETTER WATER. BETTER WORLD.™</p> <p>MicroFAST 0.50 FAST Unit</p>	
UNLESS NOTED DIMENSIONS ARE IN INCHES [CENTIMETERS] TOLERANCES ± 0.02 IN/IN [± 0.05 CM/CM]			
WEIGHT	lb	SIZE	DRAWING NUMBER
		A	MicroFAST® 0.50 with feet
DRAWN	CTC	DATE	12/18/2006
CHECKED	PF	REVISED	9/18/2013
		REV	INI-05-V

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SHEET 2 OF 4

Specifications for MicroFAST 0.50 Wastewater Treatment System

1. GENERAL

The contractor shall furnish and install (1) MicroFAST@0.50 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 the FAST@ system insert, blower assembly, blower controls and leg extensions or lid. All other items will be provided by others. The MicroFAST 0.50 unit shall be situated within a 450 Gallon [1700L] minimum compartment as shown on the drawings. Suggested maximum settling zone is (1) X the daily flow. Tank must provide adequate pump out access and conform to local, state, and all other applicable codes. The contractor shall coordinate the proper fabrication of the tank 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 MicroFAST 0.50 treatment system shall be capable of treating the wastewater produced by typical family activities (bath, laundry, kitchen, etc.) ranging from (1) one to (8) eight people and not to exceed 500 US Gallons per day (1800 LPD) provided the waste contains nothing that will interfere with biological treatment. The FAST system is a biological treatment system not meant for non-biodegradable or industrial wastewater.

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 MicroFAST 0.50 unit shall come equipped with a regenerative type blower capable of delivering 17-25 CFM [31-46 m3/hr]. The blower assembly shall include an inlet filter with metal filter element. The blower shall be mounted outside the tank on a contractor supplied concrete base. Blower piping to the tank shall use non-corrosive material (PVC, 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 placed on a contractor supplied concrete base. The blower must not sit in standing water and its elevation must be higher than the tank and normal flood level. A two-piece, rectangular housing shall be provided. 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 meters] of the blower consult local codes for longer wiring distances. All wiring must conform to all applicable codes (IEC, NEC, etc.). Wiring distances must prevent significant voltage loss. Input power on 60Hz electrical systems 110/220VAC, 1Ø, 3.5/1.7 FLA, on 50 Hz electrical systems 220VAC, 1Ø, 1.9 FLA. Other voltages and phase are also available. Actual power consumption varies with site conditions. All conduit and wiring shall be supplied by contractor.

7. CONTROLS

The control panel provides power to the blower and contains an alarm system consisting of a visual and audible alarm capable of signaling blower circuit failure and high water conditions. The control panel is equipped with SFR@ (Sequencing Fixed Reactor) timed control feature. A manual alarm silence button is included.

8. INSTALLATION AND OPERATING INSTRUCTIONS

All work must be done in accordance with local codes and regulations. Installation of the FAST 0.50 shall be done in accordance with the written instructions provided by the manufacturer. Manuals shall be furnished, which will include a description of system installation, operation, and maintenance procedures.

9. FLOW AND DOSING

FAST@ systems have been successfully designed, tested and certified receiving gravity, 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. The flow rate shall not exceed 5 gpm (19 Lpm) with a maximum hourly flow not to exceed 10% of the design daily flow (50 gph [190 LPH]).

10. WARRANTY


Bio-Microbics, Inc. warrants all new residential FAST@ models [MicroFAST@ 0.50, 0.625, 0.75, 0.90, and 1.5] against defects in materials and workmanship for a period of two years after installation or three years from date of shipment which ever occurs first. All other FAST@ system models are warranted for a period of one year after installation or eighteen months from date of shipment, whichever occurs first. All are subject to the following terms and conditions below:

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.

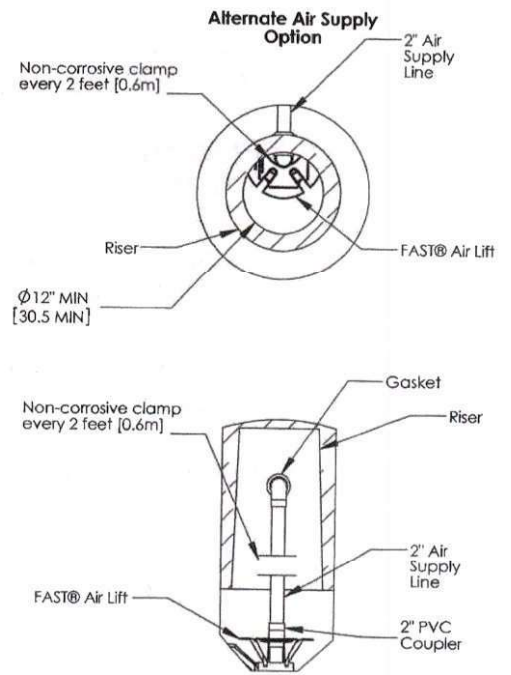
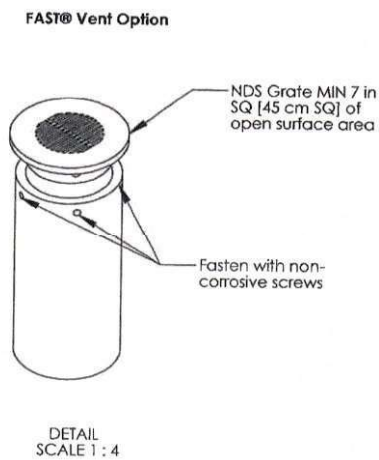
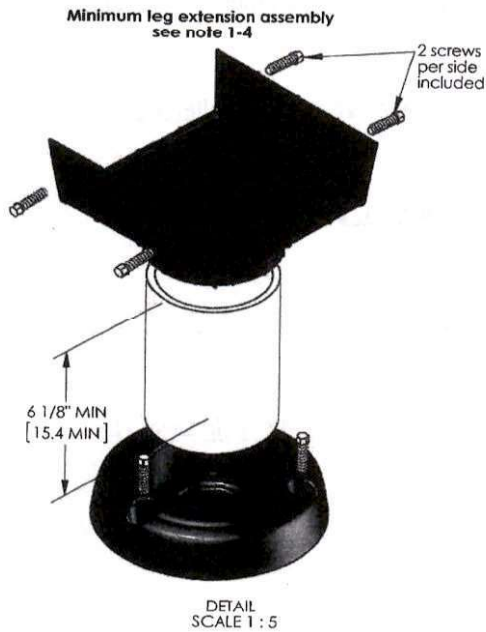
THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. BIO-MICROBICS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO REPRESENTATIVE OR PERSON IS AUTHORIZED TO GIVE ANY OTHER WARRANTY OR TO ASSUME FOR BIO-MICROBICS, INC., ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF ITS PRODUCTS. Contact your local distributor for parts and service.

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DO NOT SCALE		 BETTER WATER. BETTER WORLD. [®]	
UNLESS NOTED DIMENSIONS ARE IN INCHES [CENTIMETERS] TOLERANCES ± 0.02 IN/IN [± 0.05 CM/CM]			
WEIGHT	lb	SIZE	DRAWING NUMBER
		A	MicroFAST@ 0.50 Specifications
DRAWN	CTC	12/18/2006	
CHECKED	PF	9/18/2013	REVISED 9/18/2013
			REV. IN-05-V

SHEET 3 OF 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. Cut 4" schd. 40 PVC pipe (not included) to obtain the desired height. Minimum pipe length of 6 1/8" [15.56cm] will provide minimum clearance of 10". For heights greater than 18" [45.7cm] use schd. 80 PVC pipe (not included). Consult factory for extending leg beyond 36" [90 cm].
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 to prevent vibration induced damage. The air supply line should be secured with a non-corrosive clamp every 2ft [0.6m] minimum.
6. Tank, anchors, piping conduit, blower, housing pad and vents are provided by others.

DO NOT SCALE

UNLESS NOTED DIMENSIONS ARE IN INCHES [CENTIMETERS] TOLERANCES ± 0.02 IN/IN [± 0.05 CM/CM]

BIO MICROBICS

BETTER WATER. BETTER WORLD™

MicroFAST 0.50 FAST Unit

WEIGHT	lb	SIZE	DRAWING NUMBER	SHEET 4 OF 4
		A	MicroFAST@ 0.50 Details	
NAME	DATE			
DRAWN CTC	12/18/2006			
CHECKED PF	9/18/2013	REVISED 9/18/2013	REV. INI-05-V	

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ARKANSAS DEPARTMENT OF

Health

Keeping Your Hometown Healthy

Basic Electrical Information for Septic Systems Using Pumps, Floats, and Warning Alarms or Control Panels

ALL Aspects of the wiring and electrical system must meet the current National Electrical Code.

- All components of a pumped septic system including: pump vaults, pump chambers, tank draw-downs, pumps, floats and alarms, controls, wiring, conduit, all electrical connections and breakers must be specified with examples included in the design by Designated Representative.
- All septic system electrical work must be performed by an Arkansas licensed Septic System Installer, or an Arkansas licensed Master Electrician.
- Any electrical work inside a building must be performed by the property owner, or an Arkansas licensed Master Electrician.
- All enclosures, panels, breaker boxes or other housings must be NEMA-4X rated with gas-proof and waterproof gaskets and seal offs.
- No exposed plug-in electrical cords are allowed, they must be entirely sealed in a NEMA-4X enclosure to be both gas resistant and water resistant.
- All wire splices and connections must be made with heat shrink-butt connectors, or silicone encapsulated wire nuts.
- All conduit opening s into control boxes, splice boxes, or alarm and breaker boxes must have gel-filled seal off kits or plugs.
- All power cable or wire must be UF (underground rated) and of correct gauge for the total amperage and total length of run.
- Any power cable or wire buried 12-inches or less deep must be entirely inside UF (underground rated) conduit of correct size to allow for heat dispersal of the wire.
- The pump must have an individual breaker of correct amperage in line of site to its location.
- The float/alarm set up must have an individual breaker of correct amperage in line of site to its location.
- The main breaker for the entire septic system set up must have amperage at least equal to pump, alarm, or control breakers coming to the main breaker. This main breaker must be labeled and its location noted on the septic system permit/design.
- No deviations from the approved design may be made without prior approval of Designated Representative and Environmental Health Specialist.



Health
Keeping Your Hometown Healthy

Wire Gauge Calculation Chart

- Indicates wire is insufficient to carry load

*Information provided by
 Whelen Engineering, Inc.

Maximum Current Draw

	5 Amps	10 Amps	15 Amps	20 Amps	25 Amps	30 Amps	35 Amps	40 Amps	45 Amps	50 Amps
22 AWG	6	3								
20 AWG	9.5	5	3							
18 AWG	15	7.5	5	4	3					
16 AWG	24.5	12	8	6	5	4	3.5	3		
14 AWG	39	19.5	13	9.5	8	6.5	5.5	5	4.5	4
12 AWG	62	31	20.5	15.5	12.5	10.5	9	7.5	7	6
10 AWG	98	49	32.5	24.5	19.5	16.5	14	12.5	11	10
8 AWG	158	78	52	39	31	28	22.5	19.5	17.5	15.5
6 AWG	248.5	124	82.5	62	49.5	41.5	36.5	31	27.5	25
4 AWG	395	197.5	131	98.5	78	68	58.5	49.5	44	39.5
2 AWG	628	314	209	157	125.5	104.5	88.5	78.5	69.5	63

Maximum wire length - measured in feet.

	55 Amps	60 Amps	65 Amps	70 Amps	75 Amps	80 Amps	85 Amps	90 Amps	95 Amps	100 Amps
22 AWG										
20 AWG										
18 AWG										
16 AWG										
14 AWG	3.5	3	3	3						
12 AWG	5.5	5	5	4.5	4	4	3.5	3.5	3.5	3
10 AWG	9	8	7.5	7	6.5	6	5.5	5.5	5	5
8 AWG	14	13	12	11	10.5	10	9	8.5	8	8
6 AWG	22.5	20.5	19	17.5	16.5	15.5	14.5	14	13	12.5
4 AWG	38	33	30.5	28	26.5	24.5	23	22	21	19.5
2 AWG	67	62.5	48.5	46	42	39	37	35	33	31.5

American Wire Gauge (AWG) - diameter in inches

Gauge	Diameter
000000	0.5800
00000	0.5185
0000	0.4600
000	0.4096
00	0.3648
0	0.3249
1	0.2893

Gauge	Diameter
7	0.1443
8	0.1285
9	0.1144
10	0.1019
11	0.0907
12	0.0808
13	0.0719

Gauge	Diameter
19	0.0369
20	0.0319
21	0.0285
22	0.0253
23	0.0226
24	0.0201
25	0.0179

Gauge	Diameter
31	0.0089
32	0.0079
33	0.0071
34	0.0063
35	0.0056
36	0.0050
37	0.0045

SALCOR INC

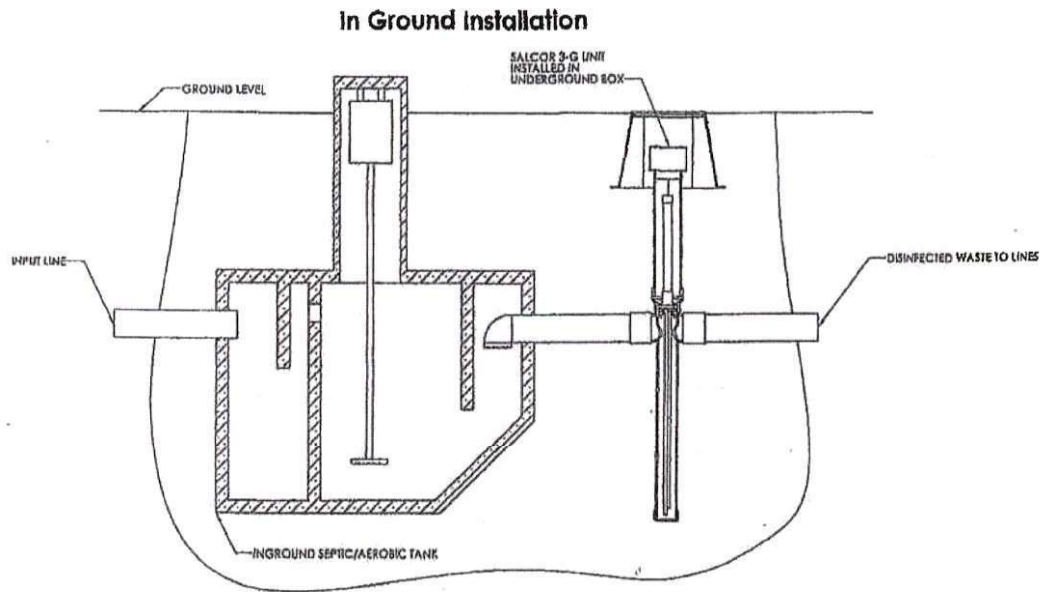


Figure 2

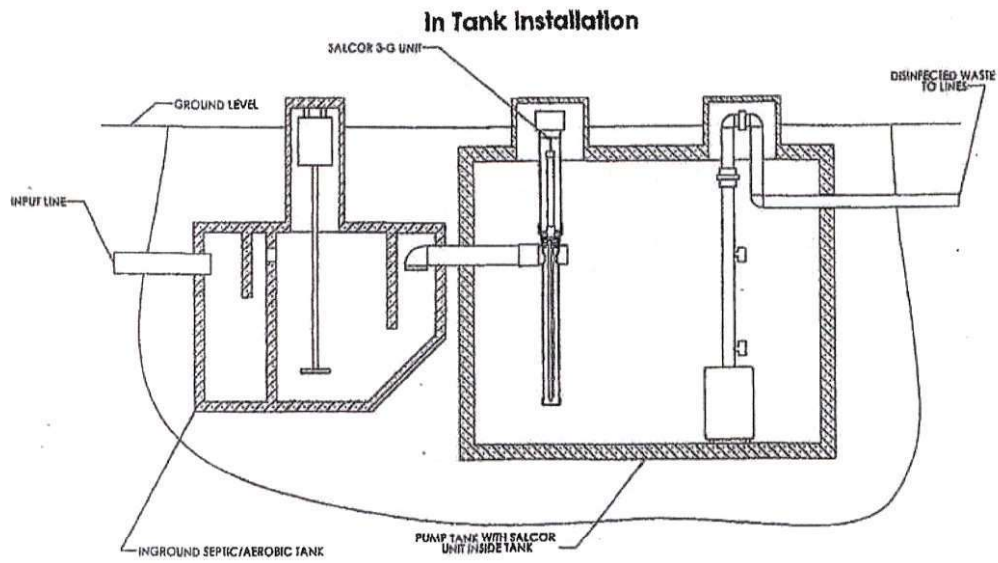
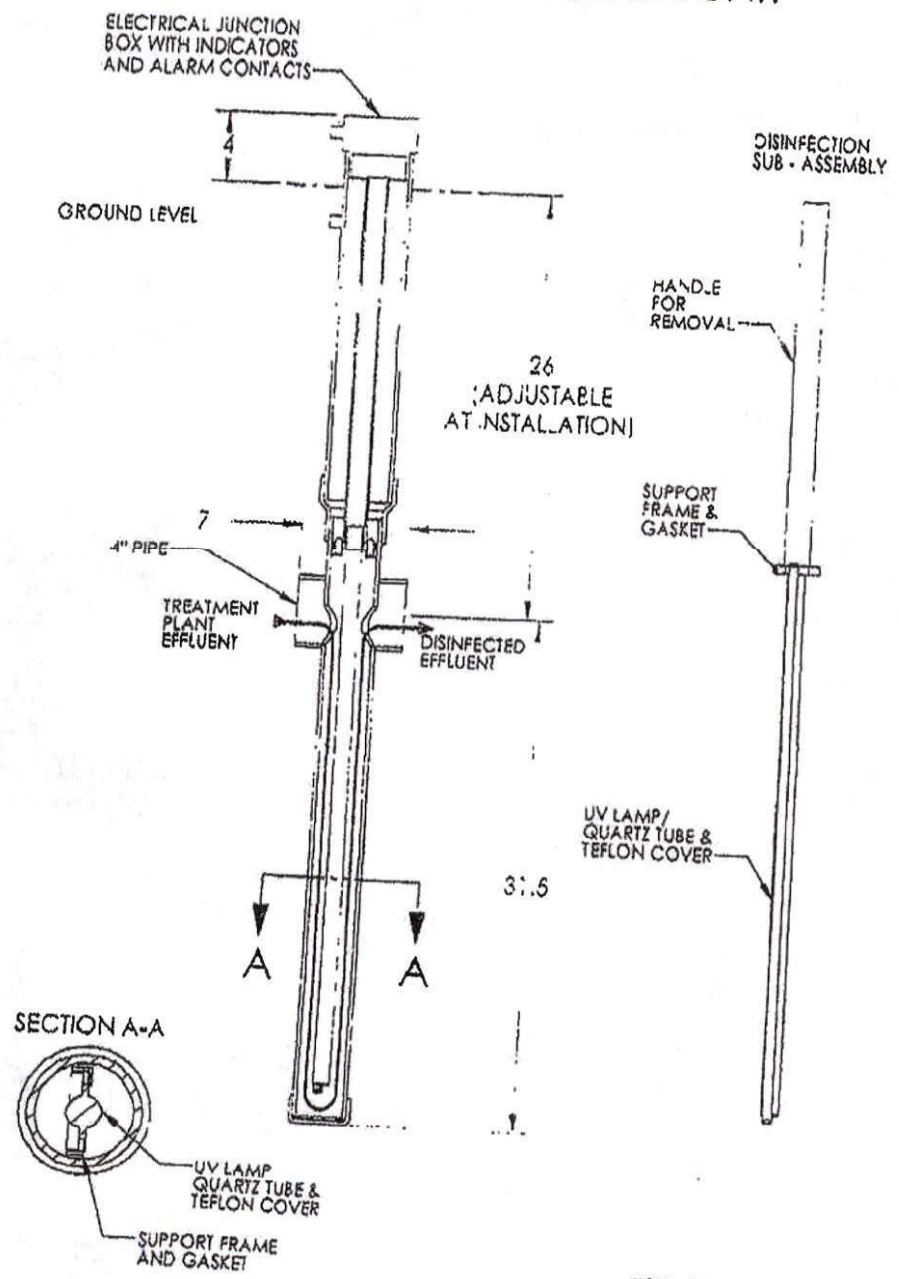


Figure 3

SALCOR UV DISINFECTION UNIT



NOTE: NOT ALL DIMENSIONS TO SCALE

"QUALITY PUMPS SINCE 1939"

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

ZOELLER

PUMP CO.



SECTION: 4.10.110

FM0732

0706

Supersedes

0705

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A-PAK - ALARM SYSTEMS

INDOOR/OUTDOOR ALARM SYSTEM FEATURES

- Indoor & Outdoor use per UL 864.
- UL Listed and CSA Certified.
- Alarm system (horn & light) operates to warn of a high water condition.
- Horn is rated 82 decibels at 10'.
- Alarm Test and Horn Silence Switch with auto reset.
- Terminal connections for a pump & float switch.

Standard Model (P/N 10-0623) Includes:

- 15 ft. float switch.

Deluxe Model (P/N 10-0682) Includes:

- 20 ft. float switch.
- 6 ft. power cord plugs into 115V outlet.
- Watertight cord connectors.

"A-PAK" ALARM SYSTEM FEATURES

10-1494 (115V/1Ph/9V DC)

- Auto reset solid state alarm.
- 9 Volt battery back-up (battery not included).
- NEMA 1 non-corrosive enclosure for indoor use.
- Manual shut off.
- Float operates on 12 VAC.
- Float switch with 15' cable included.
- 6 ft. power cord plugs into 115V outlet.
- Horn is rated at 86 decibels at 10'.

"A-PAK II" ALARM SYSTEM FEATURES

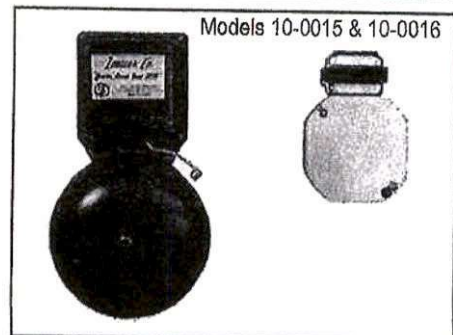
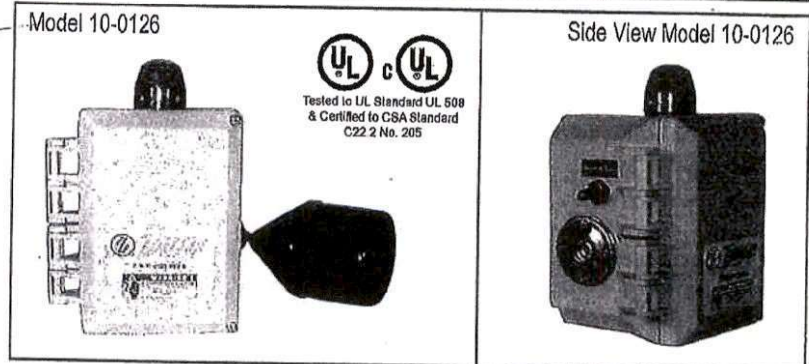
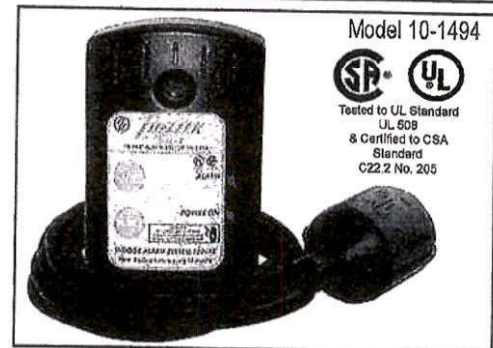
10-0126 (115V/1Ph)

- NEMA 4X thermoplastic alarm panel.
- Horn & light warn of high liquid levels.
- Test and silence switch.
- Auxiliary dry high level alarm contacts - 5 amps.
- Operates on separate circuit from pump 115 VAC.
- UL Listed for US & Canada.
- Float switch with 15 ft. cable included.
- Can be used with liquids to 140°F (60°C).
- Horn is rated at 88 decibels at 10'.

10-0015 (115V) / 10-0016 (230V)

- Non-enclosed model.
- 6" magnetic bell with transformer.
- Mount on standard utility box (not included).
- Operates with 10-0743 float switch or mechanical alternator (not included).

Note: All variable level float switches in this section are mechanically activated and do not contain mercury.



**PUMPS THE
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Technical Briefs by Zoeller Professionals



The Do's and Don'ts of Submersible Pump Applications . . .

1. Do thoroughly read all installation material provided with the pump.
2. Do inspect pump for any visible damage caused by shipping. Contact dealer if pump appears to be damaged.
3. Do clean all built up debris in sewage pit if debris can obstruct the pumps initial start up. Be sure that the pump will have a hard, flat surface beneath it.
4. Do be sure that the pit is large enough to allow proper clearance for the pumps float switch.
5. **Do Always Disconnect Pump From Power Source Before Handling.**
6. Do always connect to a separately protected and properly grounded circuit.
7. **Don't** ever cut, splice or damage the power cord.
8. **Don't** carry or lift the pump by its power cord.
9. **Don't** use an extension cord with a sewage pump.
10. Do install a check valve and a union in the discharge line.
11. **Don't** use a discharge pipe smaller than the pumps discharge size.
12. Do drill a 3/16" weep hole between the check valve and the pump housing.
13. Do review all applicable local and national codes and verify that the installation conforms to each of them.
14. Do consult manufacturer for clarifications or questions.
15. Do consider a Two Pump System with an alarm where an installation may become overloaded or primary pump failure would result in property damage.
16. **Don't** flush any items that are not biodegradable such as paper towels, feminine hygiene products, condoms, or other items that could jam the pump impeller. A moderate amount of tissue paper in a system is acceptable.
17. **Don't** pour chemicals into the pump system such as acid's, floor wax, paints, or any degreasing chemicals. Common household soaps and detergents are acceptable. Contact the manufacturer with any chemical questions.
18. Do keep all warranty information, installation instructions, and receipts for future use.
19. Do size the pump to the proper capacity of the home. In a two-pump system each pump should be sized to meet the homes pumping requirements.
20. Do verify that the sewage pit is gas tight and well vented to prevent odors.

"QUALITY PUMPS SINCE 1939"

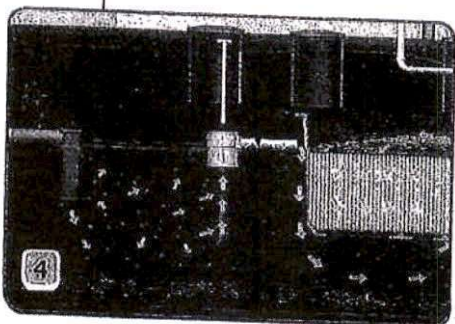
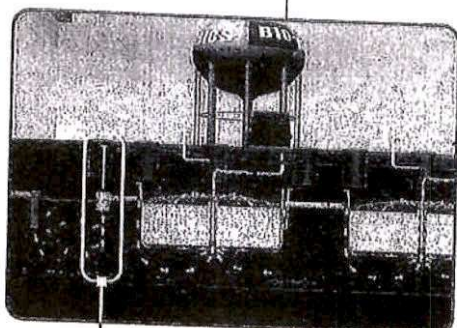
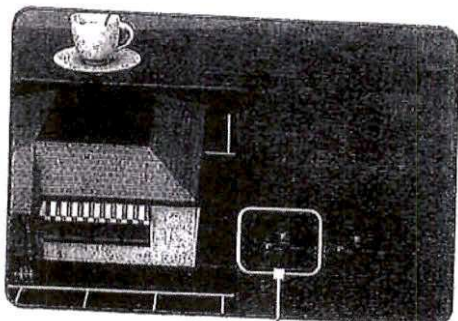
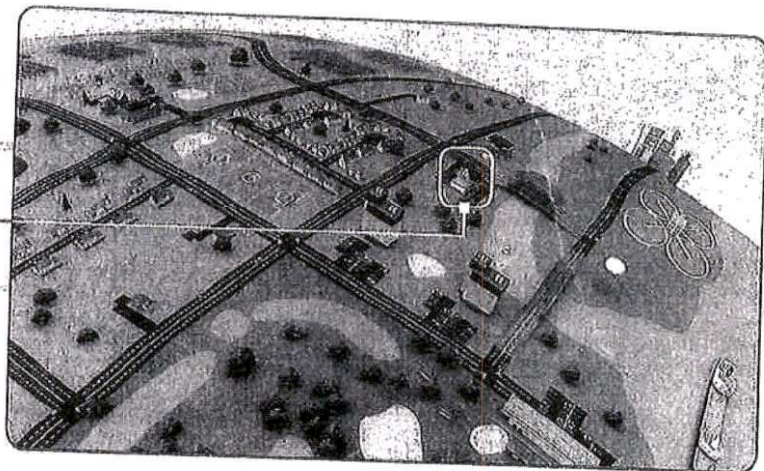
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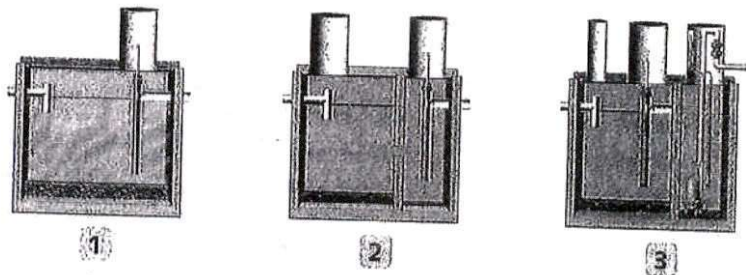
SanITEE

Wastewater screens



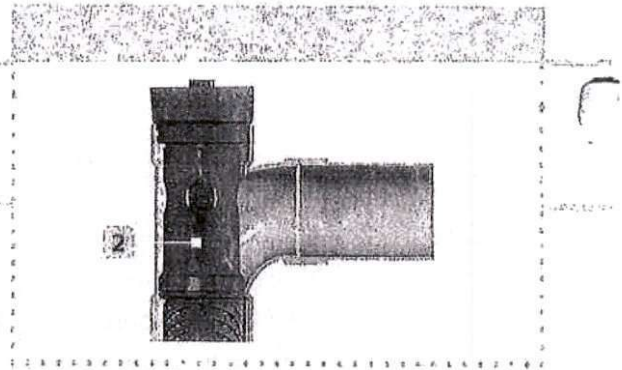
SanITEE® Wastewater Screens

SanITEE® self-cleaning wastewater deflection screens (commonly known as septic tank effluent filters) are designed to reduce suspended solids discharged in septic tank effluent by promoting natural sedimentation and excluding gas-lifted particles from entering the outlet pipe. Additionally, SanITEE's patented keyhole weirs help to attenuate surge flows, delivering a more consistent flow for further treatment or dispersal. These features help extend the lives of drain fields, reduce the clogging of orifices in effluent disposal systems and allow flexibility in the use of different types of effluent pumps. SanITEE wastewater screens are available in 4", 8" and 16" model sizes with flow capacities up to 20,000 GPD. Multiple screens can be used for flows higher than 20,000 GPD.



Applications

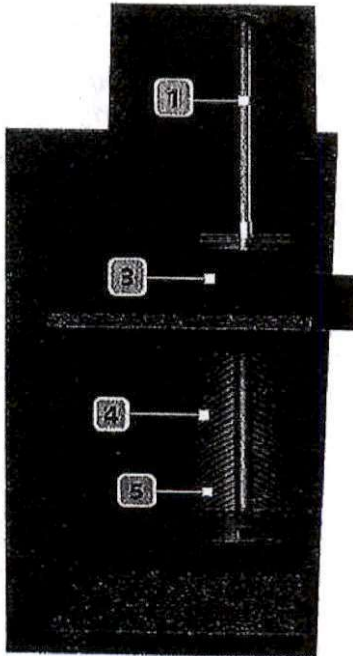
- 1 **Single Compartment Tank with Gravity Discharge** - SanITEE® is installed into the outlet tee of the tank. Its angled slots protect the drain field by retaining the suspended solids inside the tank.
- 2 **Dual Compartment Tank with Gravity Discharge** - This configuration utilizes the SanITEE in the outlet tee of the second compartment, and provides additional solids retention due to flow attenuation and the dual-compartment design.
- 3 **Dual Compartment Tank utilizing an effluent pump** - This configuration provides primary screening in the first compartment and allows flexibility in the use of different types of effluent pumps.
- 4 **Commercial Usage** (in any of the above configurations) - SanITEE can also be utilized at such decentralized commercial properties as restaurants, laundromats, gas stations, beauty shops or veterinary clinics. When used in these applications, SanITEE provides many benefits including prolonged drain field life and ease of maintenance.



In the interest of technological progress, all products are subject to design change without notice.

Unique Design Characteristics

- 1) **Self-Cleaning Screen and Swab Feature** - The smooth exterior surface of the SaniTEE® promotes the deflection of solids back into the septic tank. Any solids that become trapped in the angled slots can be easily dislodged with a simple swab of the screen.
- 2) **Keyhole Weirs** - Surge flows are common in normal residential applications due to simultaneous discharge from many fixtures in the home (i.e. laundry day). The patented keyhole weirs provide flow attenuation to dampen these surge flows that otherwise may scour solids out of the septic tank with the effluent.
- 3) **Custom Diverter** - Used in 8" and 16" SaniTEE applications, the diverter acts as a custom-engineered outlet tee to prevent scum and gas-lifted solids from being discharged into the drainfield. Once the custom diverter is secured to the tank wall and connected to the outlet pipe, the SaniTEE screen easily slips into the diverter like a sword in a sheath.
- 4) **Angled Slots** - Angled slots, similar to those used in industrial well screens, are used because they resist blinding (clogging) better than mesh-type screening devices. The appropriate slot width does not allow nuisance solids to be discharged. Additionally, it has been found that most solids suspended in a tank float horizontally, like a leaf at the water surface. Therefore, the angled orientation of the slots is most likely to block the entrance of most solids.
- 5) **Gas-lifted Solids Deflection** - It is well known that solids are lifted by various gasses present in septic tanks. These gas-lifted solids often rise into the end of the outlet tee and are discharged with the effluent. When SaniTEE is utilized, flow must enter from the side, not the bottom, so the escape of gas-lifted solids is virtually eliminated.



SaniTEE® Specifications

Model Sizes	Screen Diameter	Screening Level	Flow Range
SNT416	4 inch	1/16 inch	Up to 1000 GPD
SNT418	4 inch	1/8 inch	Up to 2000 GPD
SNT818	8 inch	1/8 inch	Up to 6000 GPD
SNT838	8 inch	3/8 inch	Up to 10,000 GPD
SNT1618	16 inch	1/8 inch	Up to 10,000 GPD
SNT1638	16 inch	3/8 inch	Up to 20,000 GPD

Simple Installation and Maintenance

The installation of SaniTEE consists of dropping it inside a standard septic tank outlet tee or custom diverter. When cleaning the SaniTEE, simply move the swab handles forcefully up and down to pass the swab through the center or exterior of the screen. This swabbing action will dislodge any debris that might be trapped in the angled slots. If inspection is required, SaniTEE can be removed easily by simply lifting the screen out of the outlet tee or diverter.



Better Water. Better World.

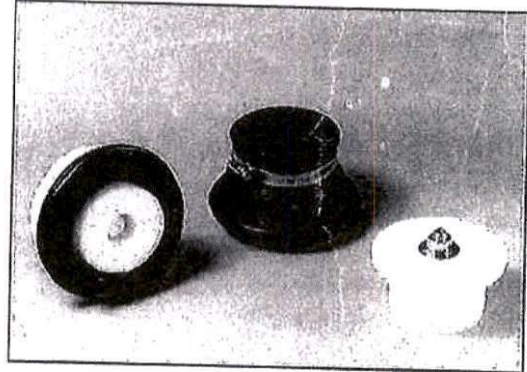


CAST-A-SEAL® 402/402F

CAST-IN BOOT-TYPE CONNECTOR
for 1-1/4" to 6" PVC Pipe
(32 mm - 150 mm)

What It Is

CAST-A-SEAL 402/402F is a watertight flexible connector that is cast into the structure when the concrete is poured. The connector is folded into the casting position and placed on the reusable heavy-duty solid plastic mandrel that is installed directly to the form. After the concrete is cured, the form is opened, removing the mandrel from the gasket, but leaving the **CAST-A-SEAL 402/402F** connector embedded in the concrete. The gasket is then simply unfolded at the jobsite and is tightened around the pipe using the supplied stainless steel take-up clamp.



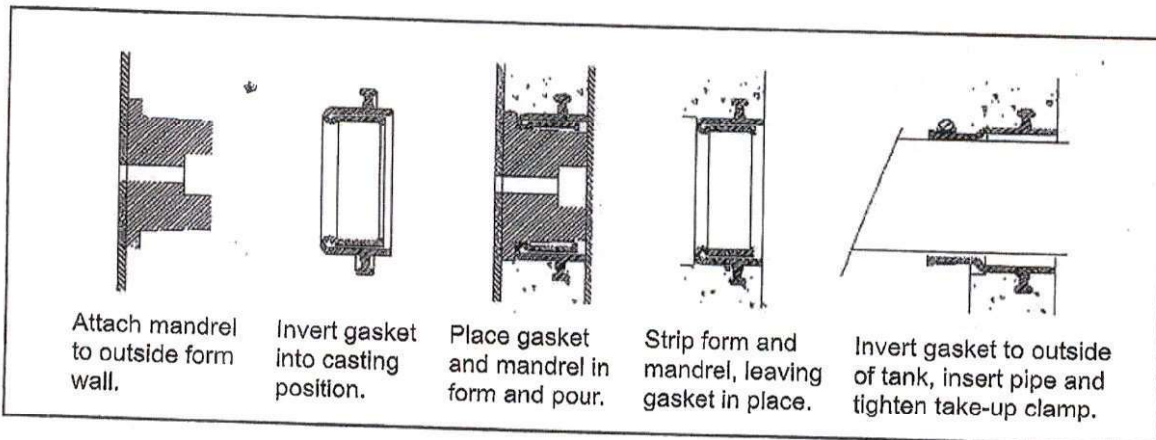
Why It's Better

- Simple cast-in design provides flexible watertight connection
- Eliminates infiltration and exfiltration
- Improves on-site system performance and minimizes maintenance
- Protects groundwater from unintended discharges
- Use in on-site treatment structures, grease interceptors, manholes, wet wells, pump and lift stations, stormwater structures, or any application requiring a flexible watertight connector

How It Performs

CAST-A-SEAL 402/402F meets or exceeds all requirements of the following Standards, Codes, Specifications and/or Test Methods:

- | | |
|--------------------|----------------------------|
| ASTM C 1227 | IAPMO Z1000 |
| ASTM C 1644 | IAPMO Z1001 |
| ASTM C 923 | NPCA Best Practices |
| ASTM C 1244 | NOWRA Model Code |
| ASTM C 1478 | |



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PRESS-SEAL GASKET CORPORATION

Protecting Our Planet's Clean Water Supply

Press-Seal Gasket is an ISO 9001:2008 Registered Company

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web: www.press-seal.com





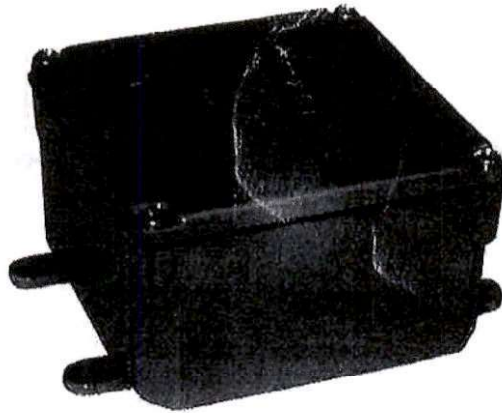
ENVIRONMENTAL

Zoeller Family of Water Solutions™

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CL0121
Updated 1111
Supersedes 0210

Junction Boxes

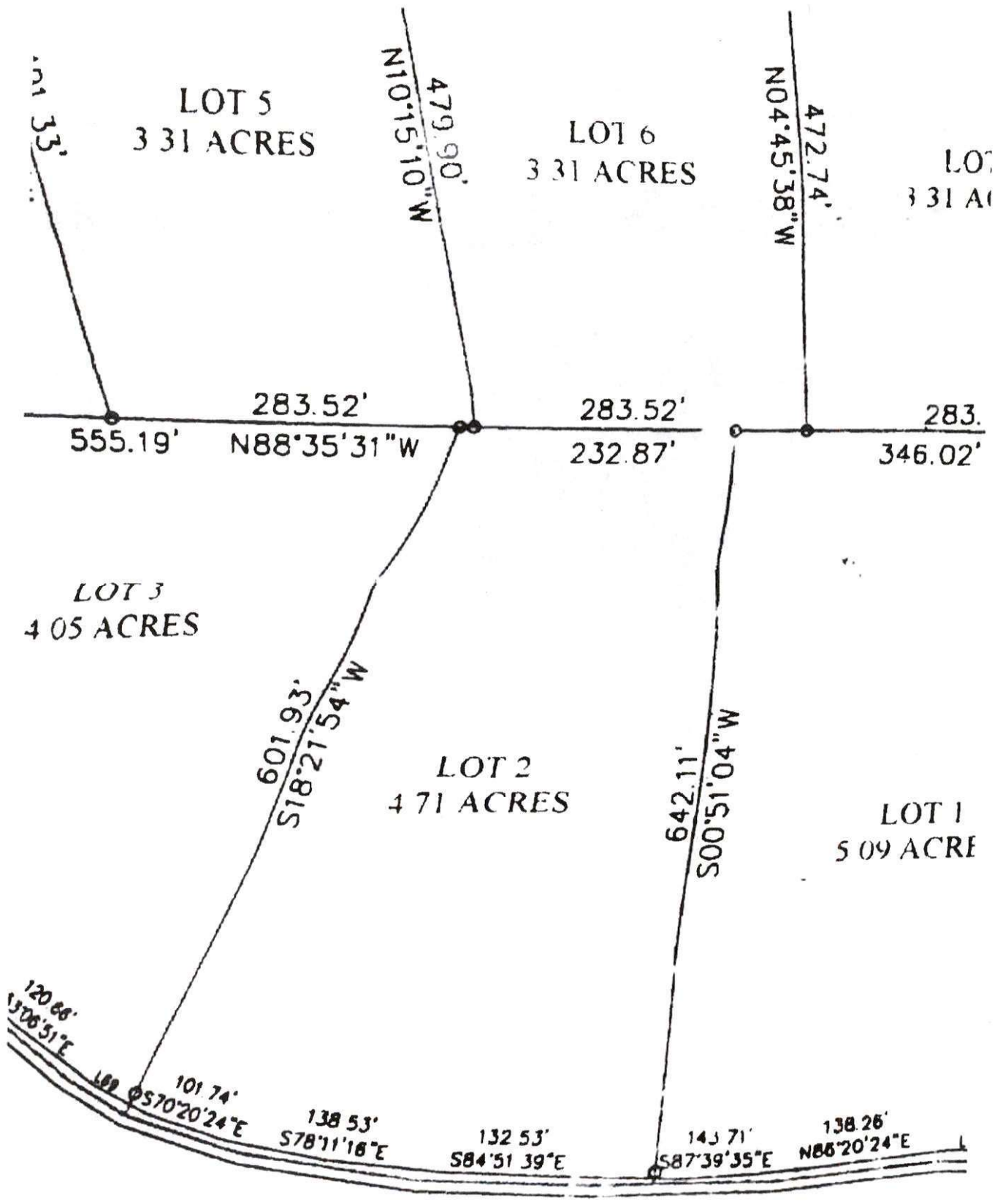


UL listed and CSA certified high impact, corrosion resistant, weatherproof thermoplastic enclosure with flexible PVC gasket and brass screws. Presassembled at the factory for convenience and ease of installation.



Junction Boxes CL0625

Part Number	Description
10-1398	4"x4"x4" J-Box w/ 0.75" hub, 4 small cord grips, 1 plug
10-1399	4"x4"x4" J-Box w/ 1.5" hub, 4 small cord grips, 1 plug
10-1402	6"x6"x4" J-Box w/ 1.5" hub, 4 small cord grips, 1 plug
10-1403	6"x6"x4" J-Box w/ 2.0" hub, 5 small cord grips, 1 plug
10-1710	6"x6"x4" J-Box w/ 2.0" hub, 6 small cord grips, 1 plug



LOT 5
3.31 ACRES

LOT 6
3.31 ACRES

LOT 4
3.31 ACRES

LOT 3
4.05 ACRES

LOT 2
4.71 ACRES

LOT 1
5.09 ACRES

555.19'

283.52'

283.52'

283.52'

555.19'

N88°35'31"W

232.87'

346.02'

479.90'
N10°15'10"W

472.74'
N04°45'38"W

601.93'
S18°21'54"W

642.11'
S00°51'04"W

120.86'
S70°51'E

101.74'
S70°20'24"E

138.53'
S78°11'18"E

132.53'
S84°51'39"E

143.71'
S87°39'35"E

138.26'
N88°20'24"E
