

Preliminary Field Check For Drip Systems



COMAL COUNTY

ENGINEER'S OFFICE

195 David Jonas Dr, New Braunfels, Texas 78132 (830)608-2090

Address: _____

Legal Description: _____

Dear Property Owner & Agent,

Thank you for your submission. We have reviewed the planning materials for the referenced permit application, and unfortunately, they are insufficient. To proceed with processing this permit, we require the following:

118998.pdf Markup Summary 10-9-2025

Brandon Mark Olvera (3)



Subject: Group
Page Label: 3
Checkmark: Unchecked
Author: Brandon Mark Olvera
Date: 10/8/2025 3:13:01 PM

Our office will be conducting a site visit.



Subject: Line
Page Label: 5
Checkmark: Unchecked
Author: Brandon Mark Olvera
Date: 10/8/2025 3:20:51 PM

285.7(d)(1)(F): indicate the business physical address...



Subject: Group
Page Label: 7
Checkmark: Unchecked
Author: Brandon Mark Olvera
Date: 10/8/2025 3:22:01 PM

285.7(d)(1)(F): indicate the business physical address...

RECEIVED

By Kathy Griffin at 2:23 pm, Sep 02, 2025



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

--	--

Date Received

Initials

118998

Permit Number

Instructions:

Place a check mark next to all items that apply. For items that do not apply, place "N/A". This OSSF Development Application Checklist **must** accompany the completed application.

OSSF Permit

- ☒ Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate
- ☒ Site/Soil Evaluation Completed by a Certified Site Evaluator or a Professional Engineer
- ☒ Planning Materials of the OSSF as Required by the TCEQ Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications.
- ☒ Required Permit Fee - See Attached Fee Schedule
- ☒ Copy of Recorded Deed
- ☒ Surface Application/Aerobic Treatment System
 - ☒ Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public
 - ☒ Signed Maintenance Contract with Effective Date as Issuance of License to Operate

I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application.

Signature of Applicant

08/29/2025

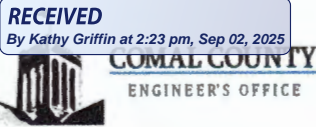
Date

____ COMPLETE APPLICATION

Check No. _____ Receipt No. _____

INCOMPLETE APPLICATION

____ (Missing Items Circled, Application Refused)



ON-SITE SEWAGE FACILITY APPLICATION

195 DAVID JONAS DR
NEW BRAUNFELS, TX 78132
(830) 608-2090
WWW.CCEQ.ORG

Date 08-27-25

Permit Number 118998

1. APPLICANT / AGENT INFORMATION

Owner Name JUAN ANTONIO GARZA GONZALEZ
Mailing Address 121 PECAN CIR
City, State, Zip SPRING BRANCH TX 78070
Phone # 254-542-4303
Email LINEMANN.L@ATT.NET

Agent Name THALIA RIVAS
Agent Address PO BOX 768
City, State, Zip SPRING BRANCH TX 78070
Phone # 726-348-0132
Email RS.TR@OSSFDESIGNS.COM

2. LOCATION

Subdivision Name REBECCA CREEK PARK, THIRD FILING Unit _____ Lot 14 Block 61
Survey Name / Abstract Number _____ Acreage _____
Address 121 PECAN CIR City SPRING BRANCH State TX Zip 78070

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) HOUSE

Number of Bedrooms 2

Indicate Sq Ft of Living Area <1500SF

☐ Non-Single Family Residential

(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)

Type of Facility _____

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____

Restaurants, Lounges, Theaters - Indicate Number of Seats _____

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____

Travel Trailer/RV Parks - Indicate Number of Spaces _____

Miscellaneous _____

Estimated Cost of Construction: \$ 100,000 (Structure Only)

Is any portion of the proposed OSSF located in the United States Army Corps of Engineers (USACE) flowage easement?

☐ Yes ☒ No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)

Source of Water ☒ Public ☐ Private Well ☐ Rainwater

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Signature of Owner 

Date 08/29/2025



Planning Materials & Site Evaluation as Required Completed By THALIA RIVAS RS 5067

System Description AEROBIC TREATMENT UNIT WITH DRIP IRRIGATION

Our office will be conducting a site visit.

Size of Septic System Required Based on Planning Materials & Soil Evaluation

Tank Size(s) (Gallons) 600GPD ATU

Absorption/Application Area (Sq Ft) 1200SF/ 600LNFT

Gallons Per Day (As Per TCEQ Table III) 180GPD

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)

Is the property located over the Edwards Recharge Zone? ☐ Yes ☒ No

(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)

Is there at least one acre per single family dwelling as per 285.40(c)(1)? ☐ Yes ☒ No

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? ☒ Yes ☐ No

Is there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No

(If yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to Construct will not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)

Is this property within an incorporated city? ☐ Yes ☒ No

If yes, indicate the city: _____

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Signature of Designer

08-27-25

Date

1/BC



202506028093 09/02/2025 01:03:24 PM 1/1

AFFIDAVIT TO THE PUBLIC

THE COUNTY OF COMAL
STATE OF TEXAS

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

According to Texas Commission on Environmental Quality Rules for On-Site Sewage Facilities, this document is filed in the Deed Records of Comal County, Texas.

I

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (TCEQ) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), 5.012 and 5.013, gives the TCEQ primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The TCEQ, under the authority of the TWC and the Texas Health and Safety Code, requires owners to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the TCEQ requires a deed recording. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This deed certification is not a representation or warranty by the TCEQ of the suitability of this OSSF, nor does it constitute any guarantee by the TCEQ that the appropriate OSSF was installed.

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code 285.91(12) will be installed on the property described as (insert legal description):

Lot 14 Block 61 Subdivision REBECCA CREEK PARK THIRD FILING Unit/Phase/Section _____

If not in Subdivision: _____ Acres _____ Survey _____

The property is owned by (insert owner's full name): JUAN ANTONIO GARZA GONZALEZ

This OSSF must be covered by a continuous maintenance contract for the first two years. After the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days or maintain the system personally.

Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office.

Juan Antonio Garza Gonzalez
Owner Name

[Signature]
Owner Signature

Owner Name

This instrument was acknowledged before me on: 29 Day of August, 2025.

Jesse Desmond
Notary's Printed Name

[Signature]
Notary Public, State of Texas

Commission Expires: 5/28/29



Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
09/02/2025 01:03:24 PM
PRISCILLA 1 Page(s)
202506028093



Bobbie Koepf

Affix Notary Stamp Above

BEAN ENVIRONMENTAL

WASTEWATER TREATMENT SYSTEM MONITORING AGREEMENT

CUSTOMER	RESIDENTIAL	INITIAL CONTRACT
JUAN GARZA GONZALEZ	YES	YES
SITE ADDRESS	AGENCY	
121 PECAN SIR SPRING BRANCH TX 78070	COMAL	
EMAIL	PHONE	PERMIT NUMBER
LINEMANN.L@ATT.NET	254-541-4303	
SYSTEM DETAILS	DATE ISSUED CONTRACT	
AEROBIC TREATMENT UNIT WITH DRIP IRR.	08-27-25	

AGREEMENT

285.7(d)(1)(F): indicate the business physical address...

I. General:

This work for hire agreement (hereinafter referred to as "Agreement") is entered into by and between the Client and Bean Environmental (hereinafter referred to as "Contractor"), located at **P.O. Box 768 Spring Branch, Texas 78070**. By this agreement, Contractor agrees to render services, as described herein, and Client agrees to fulfill his/her/their responsibilities under the agreement as described herein.

II. Dates:

This agreement is for an initial 2-year maintenance contract and begin once the License to Operate (LTO) has been issued.

III. Services by Contractor:

1. Inspect and perform routine upkeep on the On-Site Sewage Facility ("OSSF") in compliance with code, regulations, and/or rules of the Texas Commission on Environmental Quality ("TCEQ") and county in which the OSSF is located and the manufacturer's requirements, at a frequency of approximately once every four (4) months (3 visits per year). (Residential)
2. Inspection, adjustment, and servicing of the mechanical, electrical, and other components to ensure proper functioning. This includes inspecting control panels, air pumps, air filters, diffusers, floats, and spray heads.
3. Effluent Inspection will include the following: effluent quality (color, overflow, and odor), testing effluent chlorine and pH levels, when necessary, alarm function, filters, operation of effluent pump and chlorinator. Unless otherwise agreed to, Contractor does not provide chlorine.
4. Notify Client of any repairs needed to keep OSSF in proper working condition and up to regulatory standards. Items under warranty may be repaired while the technician is on-site. Additional charges may apply for labor and service calls. Repair quotes of non-warranty items must be approved by Client before work is performed.

5. Report to the appropriate regulatory authority and to Client, as required by the State of Texas' on-site rules and, if required, TCEQ or County rules. All findings must be reported to the appropriate regulatory authority within 14 days.
6. Visit site within 48 hours of a service request.
7. Provide Customer Support line at 210-385-3487.

IV. Client Responsibilities:

1. Maintain Chlorinator and proper chlorine supply, unless otherwise specified.
2. Provide all necessary lawn or yard maintenance and remove all obstructions, including dogs and other animals as needed to allow the OSSF to function properly and the Contractor easy and safe access to all parts of system.
3. Immediately notify Contractor of any alarms or system problems.
4. Have tanks pumped out as directed by manufacturer, typically every 3 years.
5. Be available by text, phone, or in person when the Contractor is on site in case of required repair approvals or questions.
6. Maintain site drainage to prevent adverse effects on OSSF.
7. Promptly pay Contractor's bills, fees, and invoices in full.

V. Access By Contractor:

Access By Contractor: The contractor or anyone authorized by the contractor may enter the property at reasonable times without prior notice for the purpose of repairs and services described herein.

VI. Termination of This Agreement:

Either party may terminate this agreement with 30 days' written notice in the event of the other party's substantive failure to perform in accordance with this agreement without fault of the terminating party. If this agreement is terminated, the Contractor will notify the appropriate regulatory authority.

VII. Limitation of Liability:

In no event shall the Contractor be liable for indirect, consequential, incidental, or punitive damages, whether in contract, tort, or any other theory of liability. In no event shall the Contractor's liability for the direct damages exceed payments by the Client under this agreement.

VIII. Payment Terms:

The fee for this agreement only covers the services described herein. This fee does not cover equipment or labor for non-warranty repairs, labor for warranty repairs, or service charges resulting from unscheduled inspection, Client requested trips to the Client's OSSF. Payments not received within 30 days from the date of invoicing will be subject to a \$30.00 late penalty and or a 1.5% monthly carrying charge, whichever is greater. By signing this contract, the Client authorizes the Contractor to remove any parts which were installed but not paid for at the end of 30 days. The

Client is still responsible for any labor costs associated with the installation and removal of said parts. All invoices are due upon receipt by Client. If the owner defaults in payment the contract will be terminated. **Monitoring Agreement initial fee is a non-refundable fee.**

Price Schedule for common (not covered) services: \$100.00

- Customer requested site visit (Calls Outs)
 - Site evaluation for existing OSSF (N/A is a service contract is initiated)
 - Samples necessary for Regularoty authority compliance, not required by the STATE
- For all other services/ repairs, the contractor will provide a cost estimate to the customer.

Should an additional trip be required due to restricted access to the septic system due to locked gates, dogs, etc. An additional service call charge of \$75 will be required.

IX. Severability:

If any provision of this agreement shall be held to be invalid or unenforceable for any reason the remaining provisions shall continue to be held valid and enforceable. If a court finds that any provision of this agreement is invalid or unenforceable, by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

JUAN GARZA GONZALEZ

Customer Name

JUAN GONZALEZ

Customer Signature

BEAN ENVIRONMENTAL / THALIA RIVAS

Maintenance Provider Name

TR

Maintenance Provider Signature

License # MP0002659

Service Provider

Name: Bean Environmental
Address: P.O. Box 768 Spring Branch,
Tx 78070
Phone: 210-385-3487
Email: Maintenance@beanenvirometal.com

285.7(d)(1)(F): indicate the business physical address...

OSSE SOIL EVALUATION REPORT INFORMATION

DATE: 08-25-25

APPLICANT INFORMATION:

Name: JUAN ANTONIO GARZA GONZALEZ
Address: 121 PECAN CIR
City: SPRING BRANCH
Zip Code: 78070 Phone: 254-541-4303

PROPERTY LOCATION:

Lot 14 Unit: Block: 61
Street Address: 121 PECAN CIR
City: SPRING BRANCH Zip: 78070
Subdivision: REBECCA CREEK PARK

THIRD FILING

SITE EVALUATOR INFORMATION:

Name: THALIA RIVAS
Address: PO BOX 768
City: SPRING BRANCH State: TX
Zip Code: 78070 Phone: 726-348-0132
Email: RS.TR@OSSFDESIGNS.COM
License #: 0S0036382

Depth	Texture Class	Soil Texture	Structure	Drainage	Restrictive Horizon	Observation
Soil Boring #1 0-6" 6"	IV LIMESTONE @6"	CLAY LIMESTONE @6"		<30% GRAVEL	LIMESTONE @6"	LIMESTONE @ 6"
Soil Boring #2	SAME AS ABOVE					

TOPOGRAPHY: Slope within proposed disposal area: 3-5 %

TOPOGRAPHY: Flat ☐ Gently sloping ☐ Steep slope ☐ Rolling hills ☐

EROSION RISK: Low ☐ Moderate ☐ High ☐

Presence of 100yr. Flood Zone

YES NO X

Existing or proposed water well in nearby area.

YES NO X

Presence of adjacent ponds, streams, water impoundments

YES NO X

Presence of upper water shed

YES NO X

Organized sewage service available to lot

YES NO X

I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL SANITARIAN AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 29, 2016).

TR
Thalia Rivas R.S 5067 – S.E. 36382

08-25-25
Date



Drip Tubing System

DESIGNED FOR: JUAN ANTONIO GARZA GONZALEZ
121 PECAN CIR
SPRING BRANCH TX 78070

SITE DESCRIPTION

Located in Lot 14, Block 61, Rebecca Creek Park, Third Filing at . This septic will serve a two bedroom residence (<1500 sqft) in area with Type IV soil and limestone as described in the Soil Evaluation Report. Property has cedar on site and native grass. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM

A 3inch or 4inch SCH-40 pipe discharges from the residence into a Nu-Water B550 600GPD aerobic treatment plant containing a 353gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains 0.5 HP FPS submersible well pump. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a ten minute run time. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal Disc filter then through a 1" SCH-40 manifold to a 1200sqft drip tubing field, with Netifim Bioline drip lines set approximately two feet apart with 0.61 gps emitters set every two feet, as per the attached schematic. A pressure regulator Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 25psi to 40psi. A 1" SCH-40 return line is installed to continuously flush the system by cycling a 1" ball valve into the pump tank. Solids caught in the disk filter are flushed each cycle back to the trash tank. 1" PVC vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Prior to trenching the site must be scarified and built up with 12" of Type II or Type III soil. Drip tubing will be laid ad the entire field area will be capped with 6" of sandy loam (Type II – NOT SAND). The field area will be sodded with a hearty grass such as Bermuda, St. Augustine, etc. prior to system startup. **Inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.**

DESIGN SPECIFICATIONS:

Q = 180 gallons per day – 2 bedroom residence (<1500sf) (Table III)
Pretreatment tank size: 353 Gal
Plant Size: Nu-Water B550 600gpd (TCEQ Approved)
Pump tank size: 768 Gal

Reserve capacity after High Level: 80 gal. (>1/3 day usage)

Application Rate: $R_a = 0.2$ gal/sqft

Total absorption area: $Q/R_a = 180\text{gpd}/0.20 = 900\text{sqft}$ (Actual 1200sqft).

Total linear feet drip tubing: Actual 600' Minimum 450' = $900/2$ Netifim Bioline drip tubing .61 GPH

Total number of emitters: 300 emitters

Pump: 0.5 HP FPS E- Series 20FE05P4-2W115 submersible pump or equivalent.

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be schedule 40 PVC. All joints shall be sealed with approved solvent- type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission On Environmental Quality. (Effective December 29, 2016)



08-27-25

Thalia Rivas, R.S. No. 5067

P.O. BOX 768

Spring Branch, Texas 78070

Rs.tr@ossfdesigns.com



OWNER: JUAN ANTONIO GARZA GONZALEZ
 LEGAL DESCRIPTION: LOT 14, BLOCK 61, REBECCA CREEK PARK,
 THIRD FILING
 ADDRESS: 121 PECAN CIR SPRING BRANCH TX 78070
 PREPARED BY: THALIA RIVAS RS 5067 SCALE: 1" = 25'

INSTALL 1200SF OF FIELD TUBING
 USING 600LNF OF DRIP TUBING .
 THERE SHALL BE NO PARKING,
 DRIVING, OR STORAGE ON THE
 SEPTIC FIELD AT ANY TIME FOR
 ANY REASON.

THE SLOPE OF THE PIPE FROM THE
 BUILDING TO THE TREATMENT
 SYSTEM SHALL BE NO LESS THAN
 1/8" FALL PER FOOT OF PIPE.

USE TWO WAY CLEAN OUT SCH
 40 OR SDR 26 FROM BUILDING
 TO TREATMENT UNIT.

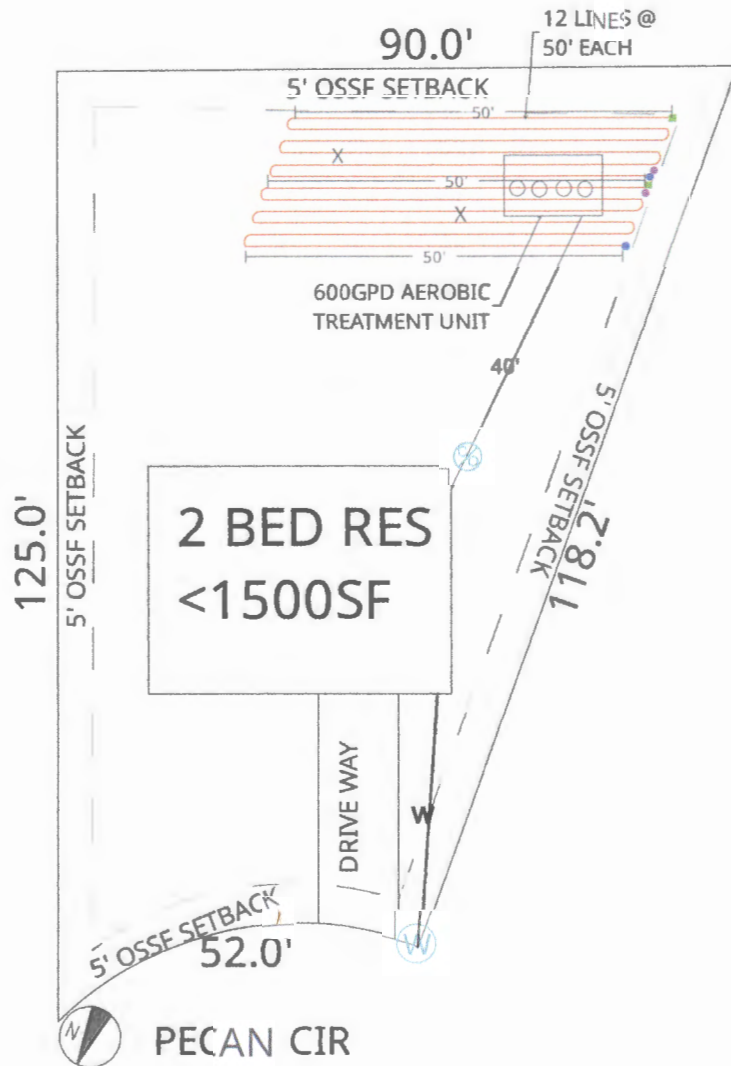
INSTALL VACUUM BREAKERS AT
 HIGHEST POINT OF SUPPLY AND
 RETURN LINE.

SITE MUST BE SCARIFIED AND BUILT
 UP WITH 12" OF TYPE II OR III SOIL.
 DRIP TUBING WILL BE CAPPED WITH
 6" OF SANDY LOAM (TYPE II NOT
 SAND)

AEROBIC UNIT MUST BE INSTALLED
 A MINIMUM OF 18" DEEP TO ALLOW
 A MINIMUM OF 12" OF SOIL BETWEEN
 TOP OF TANK AND DRIP TUBING LINE.

INSTALL / USE: 1200SF
 12 ROWS @ 50' EACH

600' OF DRIP TUBING SPACED 2' APART.



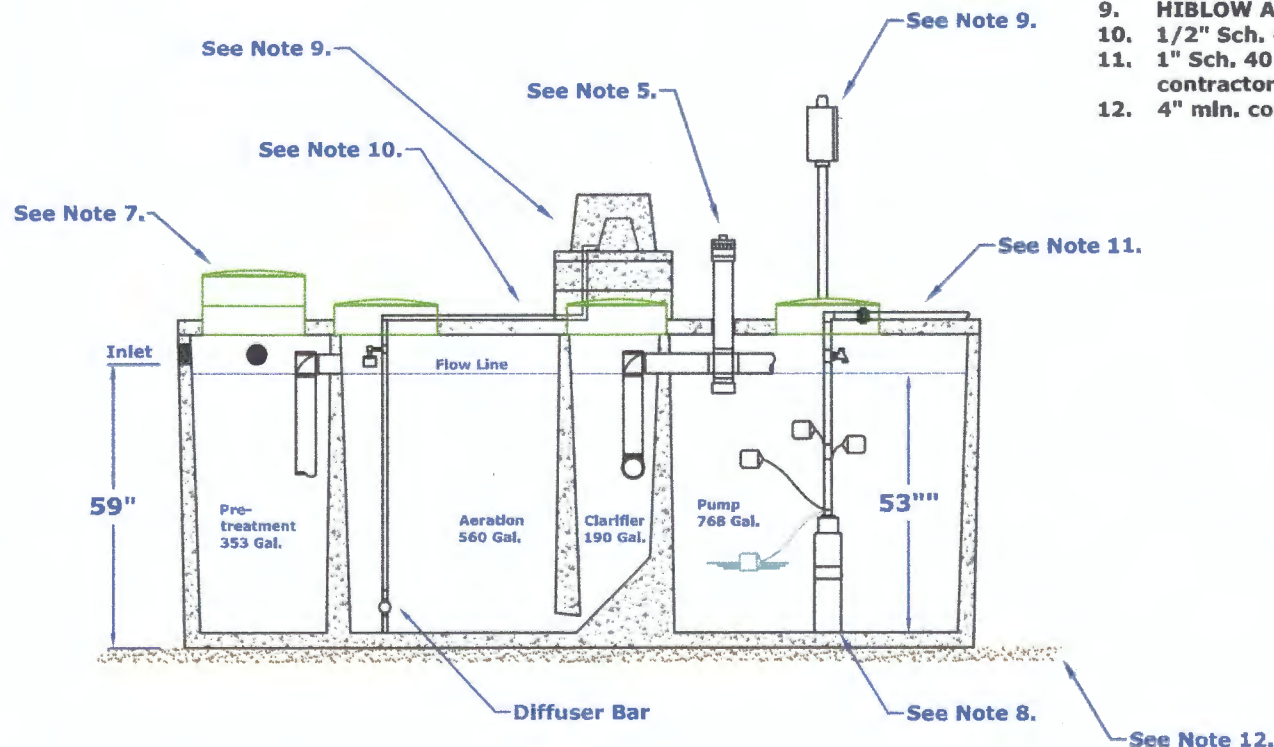
TR

Assembly Details

OSSF

GENERAL NOTES:

1. Plant structure material to be precast concrete and steel.
2. Maximum burial depth is 30" from slab top to grade.
3. Weight = 14,900 lbs.
4. Treatment capacity is 600 GPD. Pump compartment set-up for a 360 GPD Flow Rate (4 bedroom, < 4,000 sq/ft living area). Please specify for additional set-up requirements. BOD Loading = 1.62 lbs. per day.
5. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
6. Bio-Robix B-550 Control Center w/ Timer for night spray application. Optional Micro Dose (min/sec) timer available for drip applications. Electrical Requirement to be 115 Volts, 60 Hz, Single Phase, 30 AMP, Grounded Receptacle.
7. 20" Ø access riser w/ lid (Typical 4). Optional extension risers available.
8. 20 GPM 1/2 HP, high head effluent pump.
9. HIBLOW Air Compressor w/ concrete housing.
10. 1/2" Sch. 40 PVC Air Line (Max. 50 Lft from Plant).
11. 1" Sch. 40 PVC pipe to distribution system provided by contractor.
12. 4" min. compacted sand or gravel pad by Contractor



DIMENSIONS:

Outside Height: 67"
Outside Width: 63"
Outside Length: 164"

MINIMUM EXCAVATION DIMENSIONS:

Width: 76"
Length: 176"

**NuWater B-550 (600 GPD)
Aerobic Treatment Plant (Assembled)**

Model: B-550-PC-400PT

March, 2012 - Rev 1
By: A.S.

Scale:

* All Dimensions subject to allowable specification tolerances.

Dwg. #: ADV-B550-3



Advantage Wastewater Solutions Inc.
444 A Old Hwy No 9
Comfort, TX 78013
830-995-3189
fax 830-995-4051

TANK NOTES:

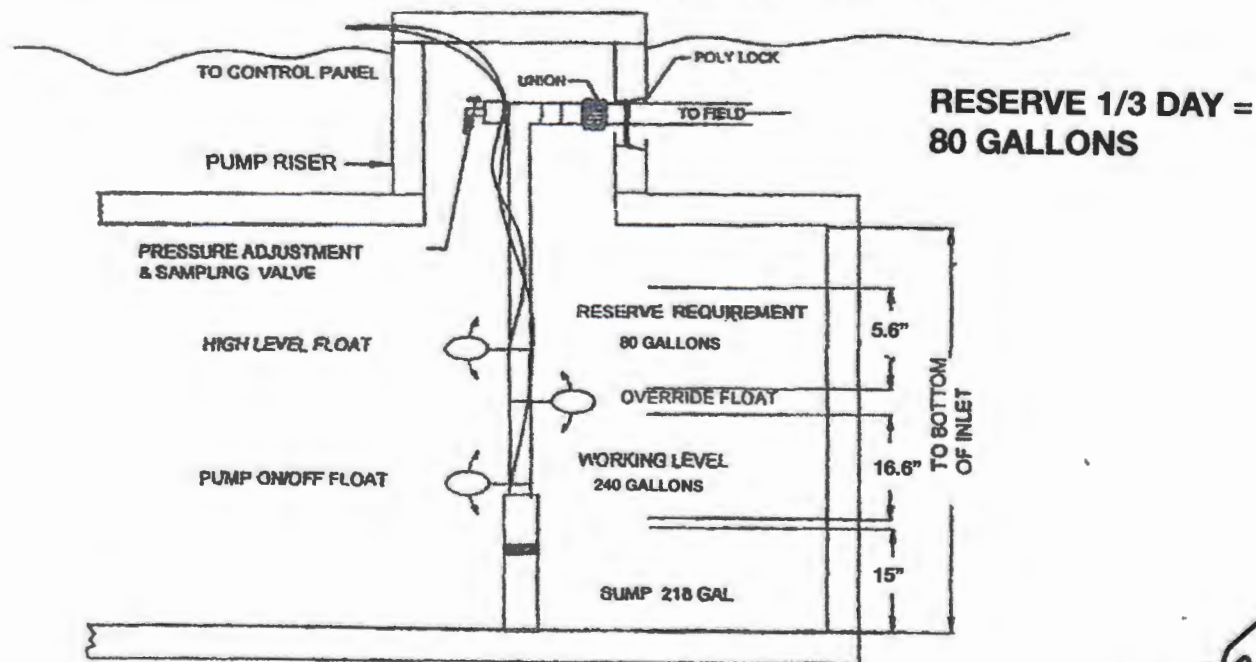
Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

A two way _____ is required between residence and tank.

A minimum of 4" of sand, sandy loam, clay loam free of rock shall be placed under and around tanks

ALL WIRING MUST BE IN COMPLIANCE WITH
THE MOST RECENT NATIONAL ELECTRIC CODE



TYPICAL PUMP TANK CONFIGURATION
NU-WATER 550



STA-RITE® ST.E.P Plus D Series

4" multi-stage submersible effluent pumps



The ST.E.P Plus D Series 4" submersible pump in 10, 20 and 30 GPM models dominate with superior "draw-down" capability.

The ST.E.P Plus D Series 4" submersible pump dominates with reduced amp draw.

The ST.E.P Plus D Series 4" submersible pump dominates with cooler and quieter operation.

APPLICATIONS

Clean and Gray Water... for residential, commercial, and agricultural use.

SPECIFICATIONS

Motor – Available in 115 or 230 volt versions. Dry-wound, double ball-bearing, double-seal and thermal overload protected, UL and CSA approved.

Shell – Stainless steel (300 grade)

Discharge – 1-1/4" Fiberglass-reinforced thermoplastic

Discharge Bearing – Nylatron®

Impellers – Acetel

Diffusers – Polycarbonate

Suction Caps – Polycarbonate with stainless steel wear ring

Thrust Pads – Proprietary spec.

Shaft and Coupling – Stainless steel 300 grade

Intake – Fiberglass-reinforced thermoplastic

Intake Screen – Stainless steel

Jacketed Cord – 600 Volt "SJOW" jacketed 10' leads, 2-wire with ground

Agency Listing – CSA

FEATURES

ST.E.P. Plus DOMINATES with a...

Proven Stage System – The proven SignaSeal staging system utilizes a patented ceramic wear surface. When incorporated with STA-RITE's "true" independent floating impellers, dominates with 1st-in-class performance, superior sand handling, and a thrust management staging system with industry exclusive "dry-run" capabilities.

Superior "draw-down" capability – The ST.E.P. Plus Dominates in this class with the lowest draw-down of 4-1/2" (a standard 4" NEMA submersible only draws-down to 13-1/2").

Reduced amp draw – The ST.E.P. Plus Dominates in this class with less energy consumption – over 25% less amp draw (9.5 amps vs. 12.7 amps, 115 volt) than a 4" NEMA submersible, reducing operating costs and extending the service life of float switch contacts.

Cooler and quieter operation – The ST.E.P. Plus Dominates by using the pumped liquid to cool the motor as it passes over the motor. The water passing over the motor dampens the motor noise, eliminating expensive "flow-inducer sleeves" required when using a standard 4" NEMA submersible.

Impellers – Precision molded for perfect balance... ultra smooth for the highest performance and efficiency. Allows for .080" solids.

Shaft – Positive drive, hexagonal 7/16" – 300-grade stainless steel shaft offers generous impeller drive surfaces.

Shaft bearing – Exclusive self-lubricating Nylatron® bearing resists wear surface from sand and abrasives.

Shell – Corrosion resistant 300-grade stainless steel.

ORDERING INFORMATION

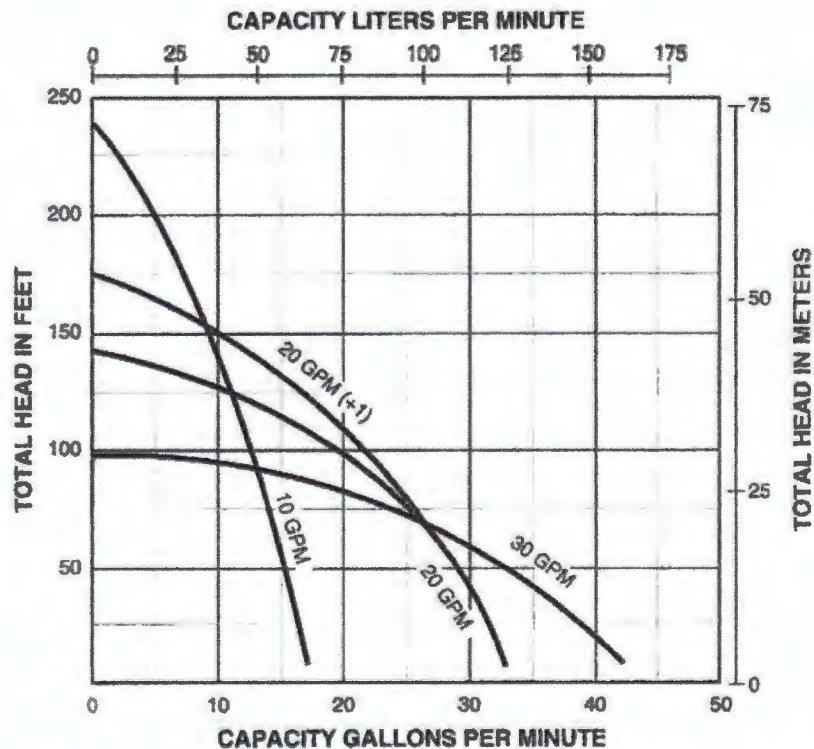
CATALOG NUMBER	HP	MAX. LOAD AMPS	VOLTS	PHASE/ CYCLES	CORD LENGTH	PALLET QUANTITY	WEIGHT (LBS.)
10DOM05221	1/2	5.5	230	1/60	10'	80	16
10DOM05121	1/2	11.0	115	1/60	10'	80	16
20DOM05221	1/2	4.6	230	1/60	10'	80	16
20DOM05121	1/2	9.5	115	1/60	10'	80	16
30DOM05221	1/2	4.6	230	1/60	10'	80	16
30DOM05121	1/2	9.5	115	1/60	10'	80	16
20DOM05221+1	1/2	5.3	230	1/60	10'	80	16
20DOM05121+1	1/2	10.6	115	1/60	10'	80	16

In order to provide the best products possible, specifications are subject to change.

STA-RITE® ST.E.P Plus D Series

4" multi-stage submersible effluent pumps

PUMP PERFORMANCE



PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE)													
PUMP MODEL	FLOW RATE (GPM)	PSI											
		0	10	20	30	40	50	60	70	80	90	100	110
10DOM05221	10			15.0	13.7	12.7	11.5	10.2	8.4	6.5	4.3	1.0	
10DOM05121	10			15.0	13.7	12.7	11.5	10.2	8.4	6.5	4.3	1.0	
20DOM05221	20			30.0	26.0	21.5	14.2	4.4					
20DOM05121	20			30.0	26.0	21.5	14.2	4.4					
30DOM05221	30		38.5	33.3	25.8	16							
30DOM05121	30		38.5	33.3	25.8	16							
20DOM05221+1	20 + 1			30	27.5	24	20	13.5	6				
20DOM05121+1	20 + 1			30	27.5	24	20	13.5	6				

PUMP PERFORMANCE (CAPACITY IN LITERS PER MINUTE)													
PUMP MODEL	FLOW RATE (LPM)	BAR											
		.69	1.38	2.07	2.76	3.45	4.13	4.82	5.51	6.20	6.89	7.58	110
10DOM05221	37.85			56.8	51.9	48.1	43.5	38.6	31.8	24.6	16.3	3.8	
10DOM05121	37.85			56.8	51.9	48.1	43.5	38.6	31.8	24.6	16.3	3.8	
20DOM05221	75.7			113.6	98.4	81.4	53.7	16.7					
20DOM05121	75.7			113.6	98.4	81.4	53.7	16.7					
30DOM05221	113.55		145.7	126.0	97.7	60.6							
30DOM05121	113.55		145.7	126.0	97.7	60.6							
20DOM05221+1	75.7 + 1			113.4	103.9	90.7	75.6	51.0	22.6				
20DOM05121+1	75.7 + 1			113.4	103.9	90.7	75.6	51.0	22.6				

Arkal 1" Super Filter

Catalog No. 1102 0 _ _ _

Features

- ♦ A "T" shaped filter with two 1" male threads.
- ♦ A "T" volume filter for in-line installation on 1" pipelines.
- ♦ The filter prevents clogging due to its enlarged filtering area that collects sediments and particles.
- ♦ Manufactured entirely from fiber reinforced plastic.
- ♦ A cylindrical column of grooved discs constitutes the filter element.
- ♦ Spring keeps the discs compressed.
- ♦ Screw-on filter cover.
- ♦ Filter discs are available in various filtration grades.



Technical Data

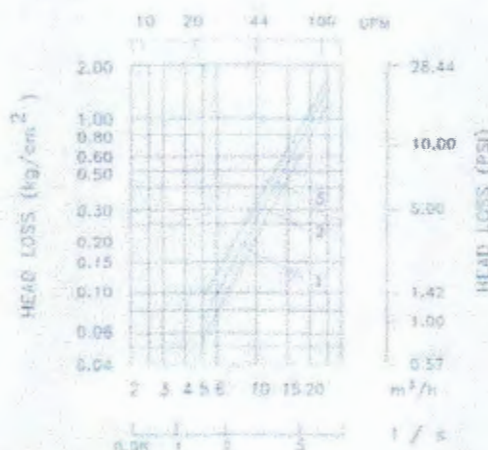
Inlet/outlet diameter	1" BSPT (male)	1" NPT (male)
	25.0 mm – nominal diameter 33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	6 m ³ /h (1.7 l/sec)	35 gpm
General filtration area	500 cm ²	77.5 in ²
Filtration volume	600 cm ³	37 in ³
Filter length L	340 mm	13 13/32"
Filter width W	130 mm	5 3/32"
Distance between end connections A	158 mm	6 7/32"
Weight	1.420 kg	3 13 lbs.
Maximum temperature	70° C	158 °F
pH	5-11	5-11



Filtration Grades

- Blue (400 micron / 40 mesh)
- Yellow (200 micron / 80 mesh)
- Red (130 micron / 120 mesh)
- Black (100 micron / 140 mesh)
- Green (55 micron)

Head Loss Chart



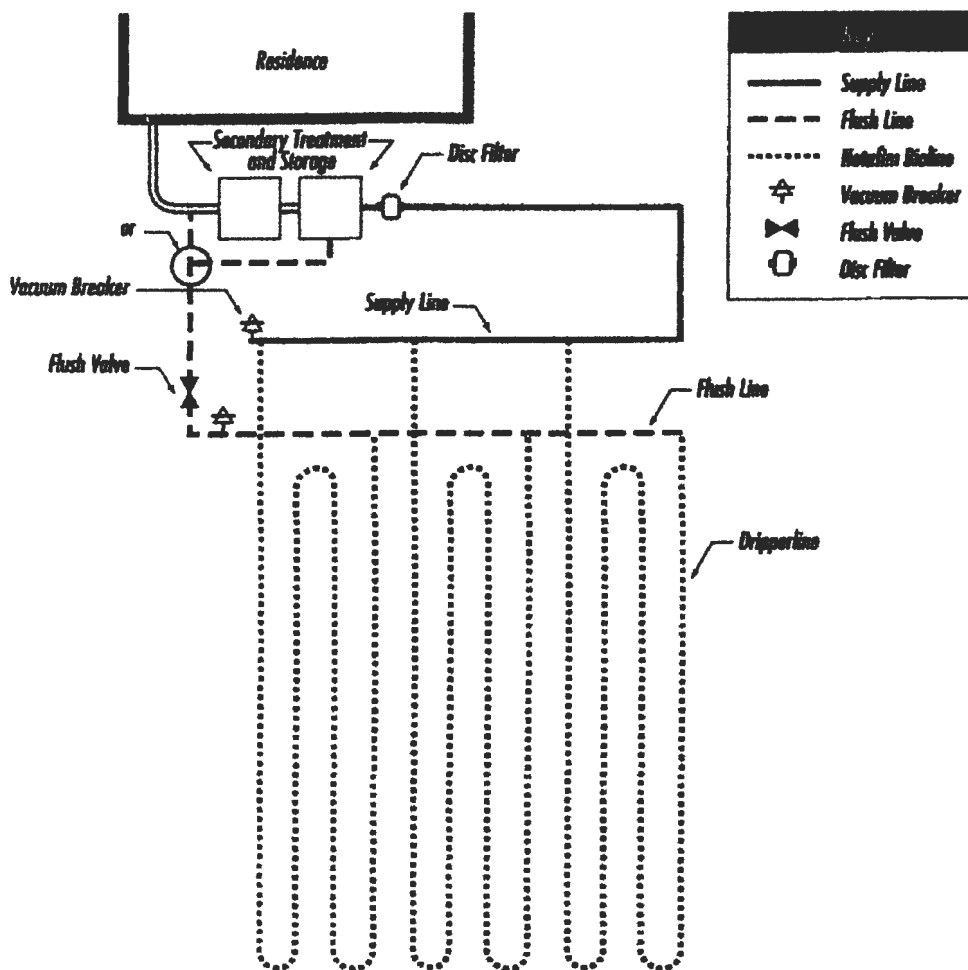
NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

Rectangular field with supply and flush manifold on same side and in same trench;

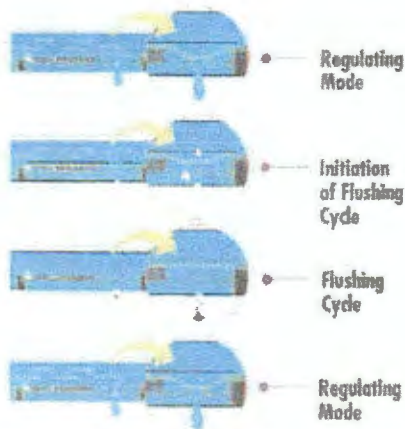
- Locate supply and flush manifold in same trench
- Dripperlines are looped at the end opposite the supply and flush manifolds
- The longest Bioline length should not exceed 400 ft. Drip fields 200 ft. in length might loop the Bioline once; drip dispersed fields under 100 ft. might be looped twice, as illustrated





Bioline Dripperline

Pressure Compensating Dripperline for Wastewater



Bioline's Self-Cleaning, Pressure Compensating Dripper is a fully self-contained unit molded to the interior wall of the dripper tubing.

As shown at left, Bioline is continuously self-cleaning during operation, not just at the beginning and end of a cycle. The result is dependable, clog free operation, year after year.



Product Advantages

The Proven Performer

- Tens of millions of feet used in wastewater today.
- Bioline is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for many years of hard use in wastewater applications.

Quality Manufacturing with Specifications Designed to Meet Your Needs

- Pressure compensating drippers assure the highest application uniformity - even on sloped or rolling terrain.
- Excellent uniformity with runs of 400 feet or more - reducing installation costs.
- Highest quality-control standards in the industry: C_v of 0.25 (coefficient of manufacturer's variation).
- A selection of flows and spacings to satisfy the designer's demand for almost any application rate.

Long-Term Reliability

- Protection against plugging:
 - Dripper inlet raised 0.27" above wall of tubing to prevent sediment from entering dripper.
 - Drippers impregnated with Vinyzene to prevent buildup of microbial slime.
 - Unique self-flushing mechanism passes small particles before they can build up.



Root Safe

- A physical barrier on each Bioline dripper helps prevent root intrusion.
- Protection never wears out - never depletes - releases nothing to the environment.
- Working reliably for up to 15 years in subsurface wastewater installations.
- Additional security of chemical root inhibition with Techfilter - supplies Trifluralin to the entire system, effectively inhibiting root growth to the dripper outlets.



Applications

- For domestic strength wastewater disposal.
- Installed following a treatment process.
- Can be successfully used on straight septic effluent with proper design, filtration and operation.
- Suitable for reuse applications using municipally treated effluent designated for irrigation water.

Specifications

Wall thickness (mil): .45*

Nominal flow rates (GPH): .4, .6, .9*

Common spacings: 12", 18", 24"*

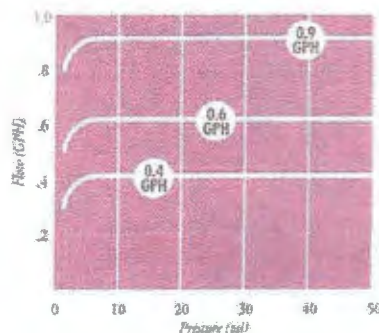
Recommended filtration: 120 mesh

Inside diameter: .570*

Color: Purple tubing indicates non-potable source

*Additional flows, spacings, and pipe sizes available by request. Please contact Netafim USA Customer Service for details.

BIOLINE Flow Rate vs. Pressure



NETAFIM USA

5470 E. Home Ave. • Fresno, CA 93727
888.638.2346 • 559.453.6800
FAX 800.695.4753
www.netafimusa.com



PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

Specifications

The pressure regulator shall be capable of operating at a constant, factory preset, non-adjustable outlet pressure of 6, 10, 12, 15, 20, 25, 30, 35, 40, 50, or 60 PSI (0.41, 0.69, 0.83, 1.03, 1.38, 1.72, 2.07, 2.41, 2.76, 3.45, or 4.14 bar) with a flow range between:

- 4 - 16 GPM (909 - 3634 L/hr) for 6 - 10 PSI models or
- 2 - 20 GPM (454 - 4542 L/hr) for 12 - 60 PSI models.

The pressure regulator shall maintain the nominal pressure at a minimum of 5 PSI (0.34 bar) above model inlet pressure and a maximum of 80 PSI (5.52 bar) above nominal model pressure*. Refer to the PRU performance curve to establish specific outlet pressures based on relative inlet pressure and flow rate. Always install downstream from all shut off valves. Recommended for outdoor use only. Not NSF certified.

All pressure regulator models shall be equipped with one of these inlet-x-outlet configurations:

Inlet	Outlet
¾-inch Female National Pipe Thread (FNPT)	¾-inch Female National Pipe Thread (FNPT)
1-inch Female National Pipe Thread (FNPT)	1-inch Female National Pipe Thread (FNPT)
1-inch Female British Standard Pipe Thread (FBSPT)	1-inch Female British Standard Pipe Thread (FBSPT)

The upper housing, lower housing, and internal molded parts shall be of engineering-grade thermoplastics with internal elastomeric seals and a reinforced elastomeric diaphragm. Regulation shall be accomplished by a fixed stainless steel compression spring, which shall be enclosed in a chamber isolated from the normal water passage.

Outlet pressure and flow shall be clearly marked on each regulator.

The pressure regulator shall carry a two-year manufacturer's warranty on materials, workmanship, and performance. Each pressure regulator shall be water tested for accuracy before departing the manufacturing facility.

The pressure regulator shall be manufactured by Senninger Irrigation in Clermont, Florida. Senninger is a Hunter Industries Company.

Physical

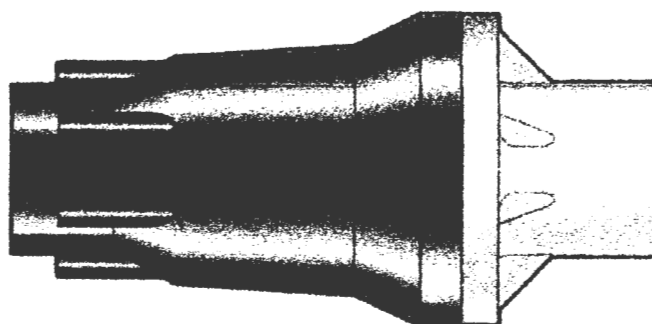
¾" FNPT x ¾" FNPT model (shown on right)

Overall Length	5.2 inches (13.1 cm)
Overall Width	2.5 inches (6.4 cm)

1" FNPT x 1" FNPT model

1" FBSPT x 1" FBSPT model

Overall Length	5.8 inches (14.6 cm)
Overall Width	2.5 inches (6.4 cm)



* Please consult factory for applications outside of recommended guidelines.



PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

Model Numbers

Model #	Flow Range	Preset Operating Pressure	Maximum Inlet Pressure
PMR-8 MF	4 - 16 GPM (909 - 3634 L/hr)	6 PSI (0.41 bar)	80 psi (5.51 bar)
PMR-10 MF	4 - 16 GPM (909 - 3634 L/hr)	10 PSI (0.69 bar)	90 psi (6.20 bar)
PMR-12 MF	2 - 20 GPM (454 - 4542 L/hr)	12 PSI (0.83 bar)	90 psi (6.20 bar)
PMR-15 MF	2 - 20 GPM (454 - 4542 L/hr)	15 PSI (1.03 bar)	95 psi (6.55 bar)
PMR-20 MF	2 - 20 GPM (454 - 4542 L/hr)	20 PSI (1.38 bar)	100 psi (6.89 bar)
PMR-25 MF	2 - 20 GPM (454 - 4542 L/hr)	25 PSI (1.72 bar)	105 psi (7.24 bar)
PMR-30 MF	2 - 20 GPM (454 - 4542 L/hr)	30 PSI (2.07 bar)	110 psi (7.58 bar)
PMR-35 MF	2 - 20 GPM (454 - 4542 L/hr)	35 PSI (2.41 bar)	115 psi (7.93 bar)
PMR-40 MF	2 - 20 GPM (454 - 4542 L/hr)	40 PSI (2.76 bar)	120 psi (8.27 bar)
PMR-50 MF	2 - 20 GPM (454 - 4542 L/hr)	50 PSI (3.45 bar)	130 psi (8.96 bar)
PMR-60 MF	2 - 20 GPM (454 - 4542 L/hr)	60 PSI (4.14 bar)	140 psi (9.65 bar)



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[If required by your jurisdiction, list above the name & address of: 1) where to return this form; 2) preparer; 3) party requesting recording.]

Warranty Deed

Date of this Document: 8-5-21

Reference Number of Related Documents: _____

Grantor(s):

Name Maureen Butler
Street Address 1172 Hackamore Pass
City/State/Zip Spring Branch, Texas 78070

Grantee(s):

Name Juan Antonio Garza Gonzalez
Street Address 239 S. Dalton, P.O. Box 104
City/State/Zip Bartlett, Texas 76511

Abbreviated Legal Description (i.e., lot, block, plat, or section, township, range, quarter/quarter or unit, building and condo name): Rebecca Creek Park, Third filing Block 61, Lot 14

121 Pecan Cir, Spring Branch, Texas 78070

Assessor's Property Tax Parcel/Account Number(s): Property ID # 47560

For good consideration, Maureen Butler
of Spring Branch, County of Comal
State of Texas hereby bargain, deed and convey to Juan Antonio Garza
Gonzalez of Bartlett, Texas
County of Williamson, State of Texas, the following described land in
County, free and clear with WARRANTY COVENANTS; to wit: 121 Pecan Circle,
Rebecca Creek Park, Third filing, Block 61, Lot 14
Geographical ID - 450400488500

Grantor, for itself and its heirs, hereby covenants with Grantee, its heirs, and assigns, that Grantor is lawfully seized in fee simple of the above-described premises; that it has a good right to convey; that the premises are free from all encumbrances; that Grantor and its heirs, and all persons acquiring any interest in the property granted, through or for Grantor, will, on demand of Grantee, or its heirs or assigns, and at the expense of Grantee, its heirs or assigns, execute any instrument necessary for the further assurance of the title to the premises that may be reasonably required; and that Grantor and its heirs will forever warrant and defend all of the property so granted to Grantee, its heirs, and assigns, against every person lawfully claiming the same or any part thereof.

Being the same property conveyed to the Grantor by deed of _____, dated _____, 20_____.

WITNESS the hands and seal of said Grantor this 5 day of August, 2021.

Maureen Butler
Grantor

N/A
Grantor

State of Texas

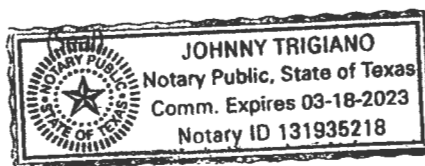
County of Comal

On Aug 5 2021, before me Johnny Trigliano, personally appeared Maureen E Butler, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature [Signature]

Affiant _____ Known _____ Unknown _____
ID Produced TX DL



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Official Public Records
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Comal County, Texas
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