

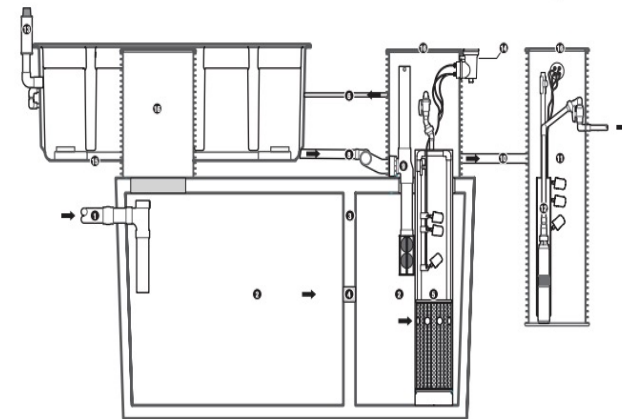
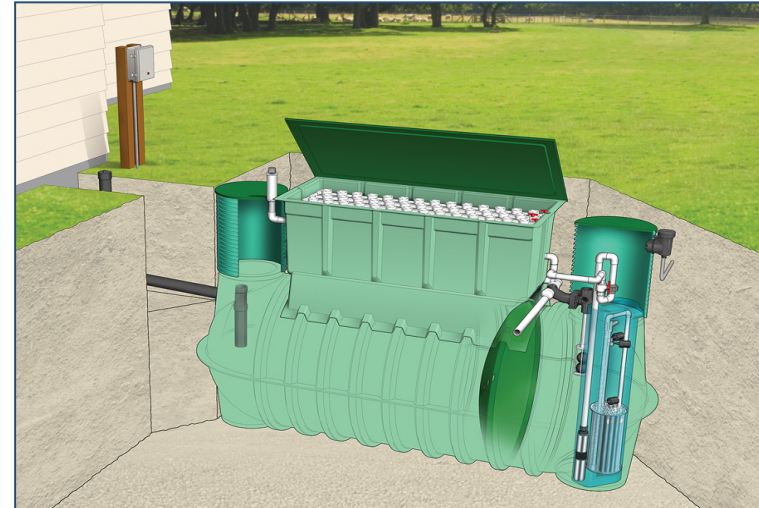
# Installation

## *Residential Applications*

# AdvanTex<sup>®</sup> Overview

## Main Components

- Control panel
- AdvanTex filter with vent
- Recirculating splitter valve
- Biotube<sup>®</sup> pump package
- Processing tank



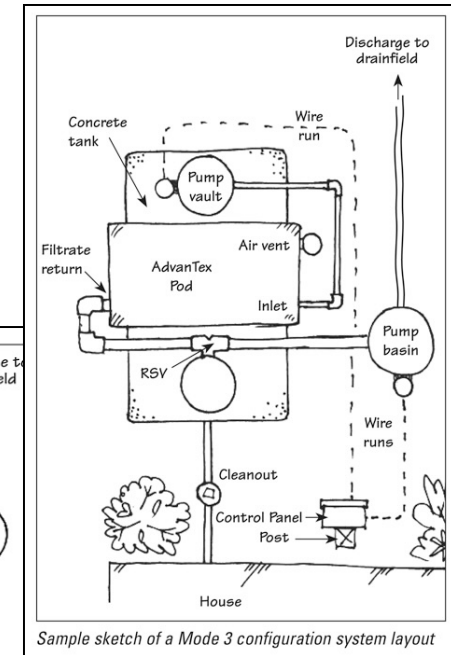
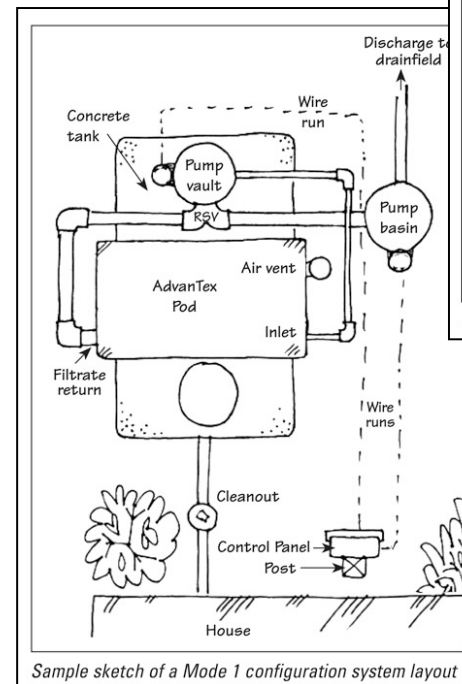
Side view, Mode 1 AX20 system with unit, concrete tank, and discharge pump basin

# Before Installing the System

- Installer schedules preconstruction visit with Service Provider and Homeowner to discuss ...
  - System location, including buried conduits
  - System operation/Mode
  - System maintenance
  - Preventive maintenance and Homeowner's Manual
- **Installer checks to make sure that water softener Brine is not, and will not be plumbed into the processing tank**

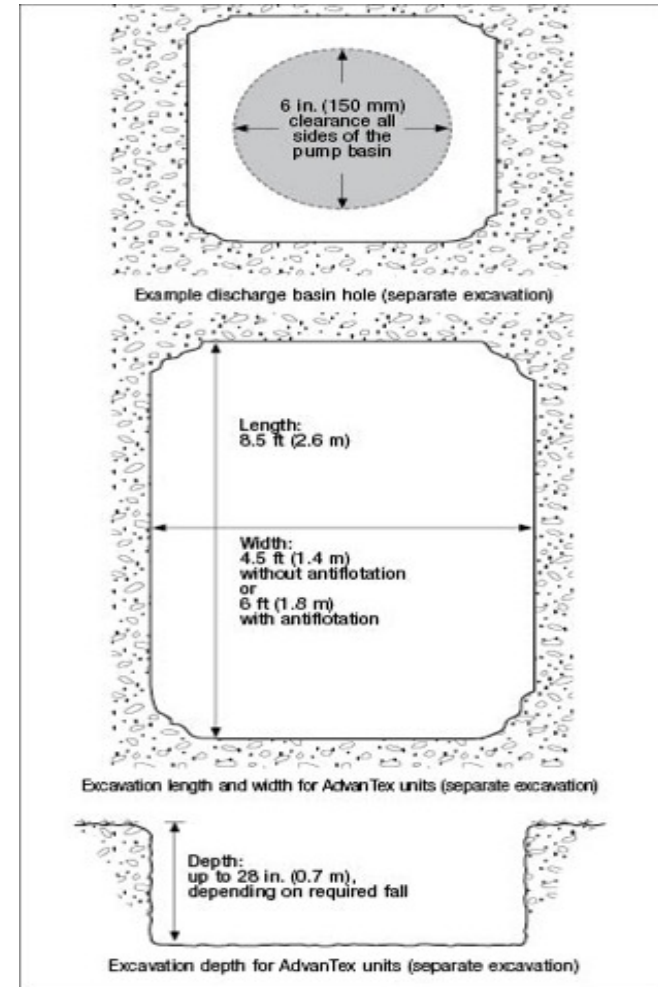
# Step 1: Determine Tank and Pod Position

- Decide how to orient filter
- Identify position of the system
- Filter often sits on, or immediately adjacent to, tank
- Consider filtrate return line for best filter orientation
- Include electrical conduits and drain lines
- Possible landscaping?



## Step 2: Excavate Site and Set Tank

- Outline tank/filter excavation area
- Follow tank manufacturer's excavation instructions
- If filter pod will be installed in separate hole, make it 4.5' x 8.5'
- If pump basin will be used, determine location and excavate hole
- Determine required elevations
- Excavate to the proper depths
- Make sure the bottom of the excavation is free of debris

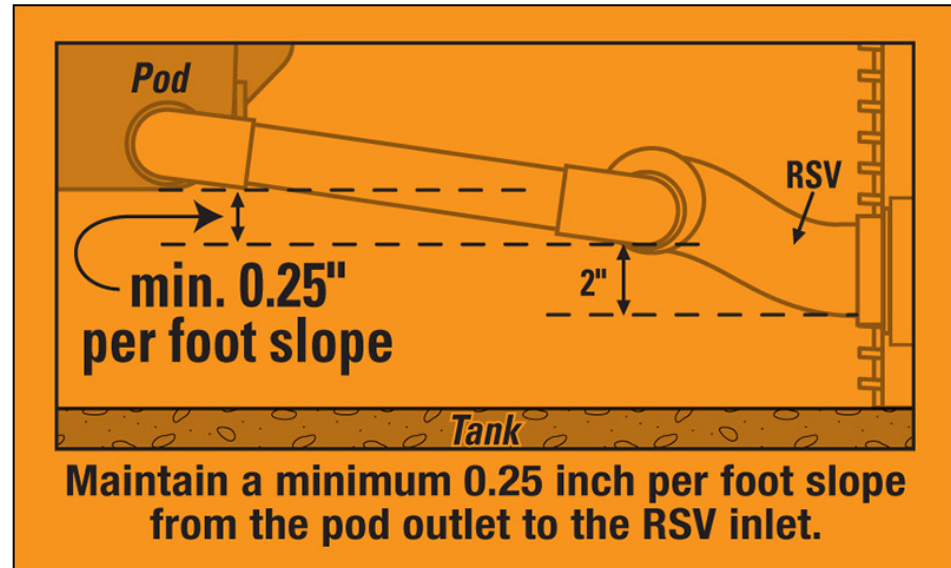


## Step 2: Excavate Site and Set Tank



## Step 2: Excavate Site and Set Tank

- Slope filtrate return line at least 1/4" per foot (minimum 1" drop if <4')



## Step 3: Prep and Set Tank

- Set tank per manufacturer's instructions
- If installation calls for a discharge pump basin, set the pump basin in the excavation next to the tank (if possible)





# Optional Step: Set Pump Basin

- Pump basin is used when dispersal requires pumping or dosing
  - Refer to Pump Basin Installation Instructions for details (NIN-PB-1)
  - Contains pump, flow inducer, splice box, and discharge assembly



## Steps 4-5: Riser Prep and Orientation Check

- External splice box (if used) and recirculating splitter valve bracket should be installed on riser before riser is mounted



## Steps 4-5: Install Risers and Water Test Tank

- Orient RSV riser to accept filtrate return line
- Orient electrical grommets to minimize bends
- Wipe surfaces to be bonded
- Apply adhesive to the outside and inside of the riser tank adapter
- Orient riser correctly
- Seal riser-adapter joint
- Water test tank and riser connections
- Pull Tank inlet plug to drain excess water



## Step 6: Set the AdvanTex<sup>®</sup> Pod Using a Concrete Tank

- Prepare bedding for filter
- Compact fill if placing filter on tank or in separate excavation
- Install anti-flotation flanges onto predrilled fiberglass tabs on bottom corners of filter
- Use backhoe, truck straps if necessary
- Set filter into place



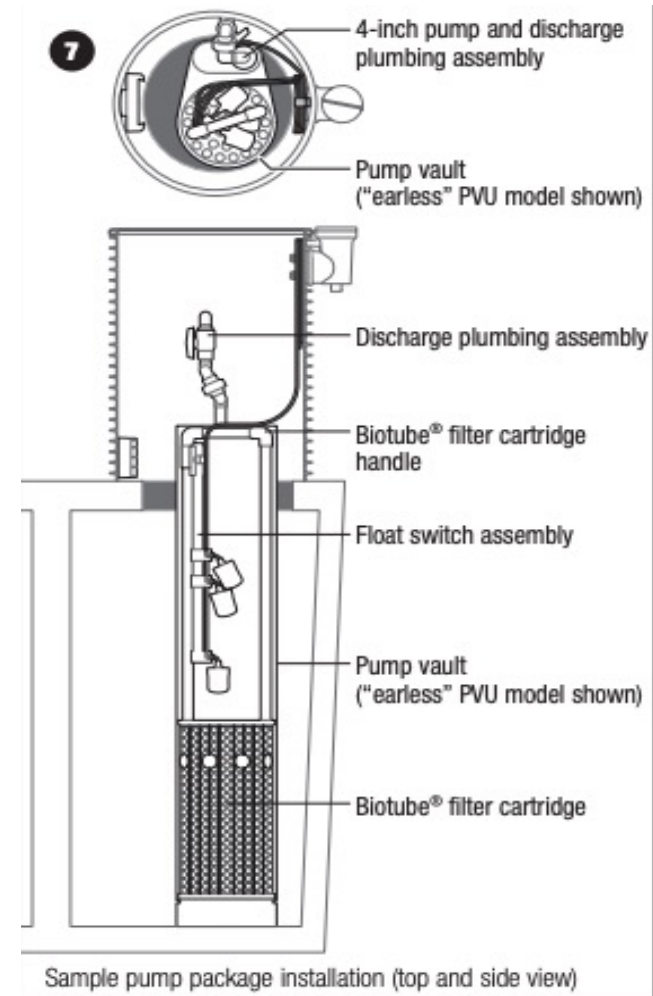
## Step 7: Install Biotube<sup>®</sup> Pump Package

- Can use internal or external splice box
- Attach external splice box before installing riser
  - See instructions



# Step 7: Install Biotube<sup>®</sup> Pump Package

- “Earless” vault rests on bottom of tank
- Secure lifting rope to splice box



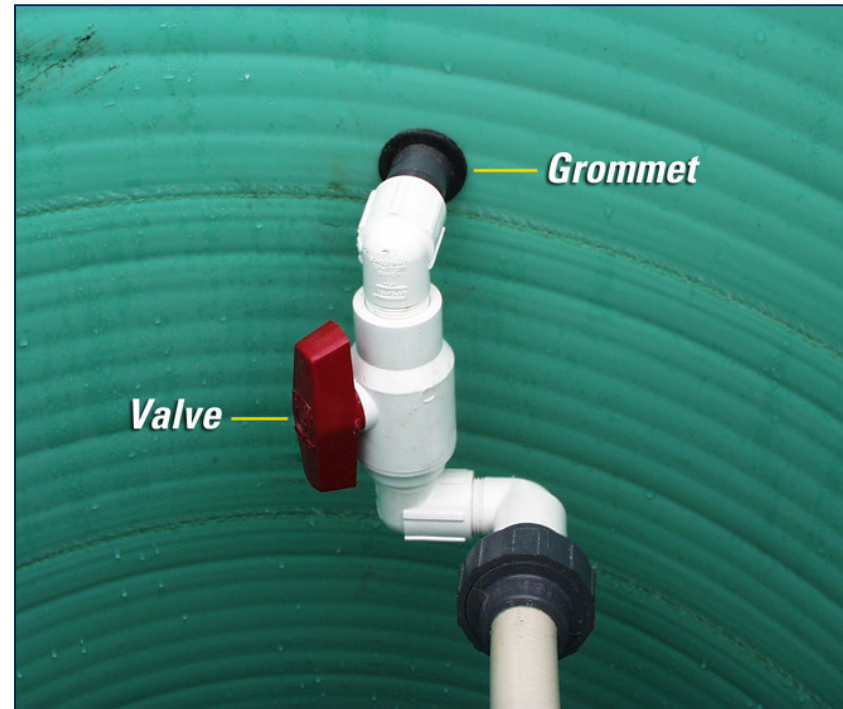
## Step 7: Install Biotube® Pump Package

- Attach discharge assembly to pump
- Lower pump and discharge assembly into flow inducer



# Step 7: Install Biotube<sup>®</sup> Pump Package

- Install Grommet with sealant to ensure its watertight
- Lube access riser discharge grommet with non petroleum based product
- Lube discharge nipple and push through grommet





## Step 7: Install Biotube<sup>®</sup> Pump Package

- Refer to the document NIN-ATX-DA-1 to calculate float levels
- Verify float elevations
- Snap in float bracket



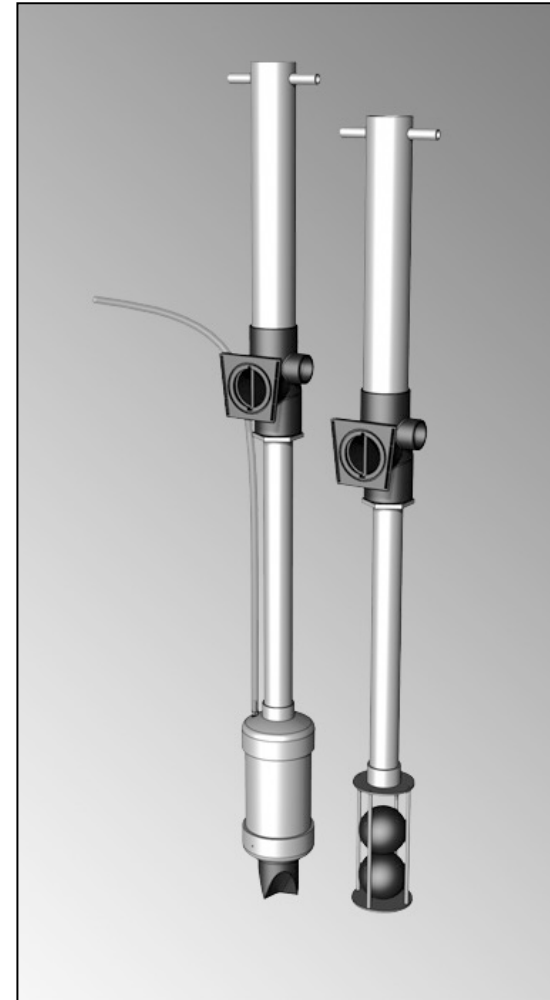
# Step 8: Install Basin Pump Package

- Install the pump and discharge assembly
- Install the float switch assembly
- Watertight test the basin
- Connect the components and wiring

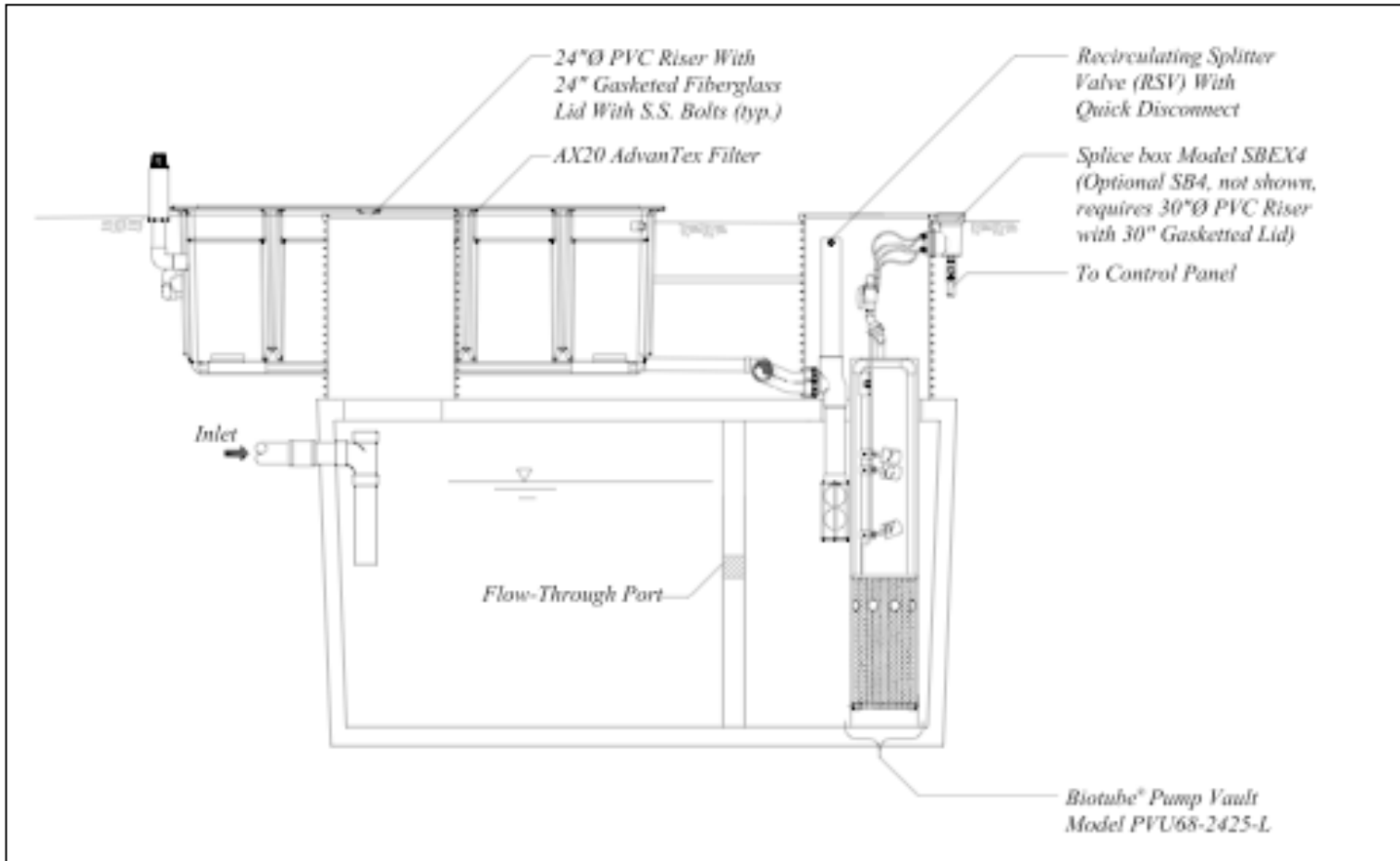


## Step 9: Install Recirculating Splitter Valve

- Understand how the RSV works
- Determine if bracket requires installation
- Note quick disconnect

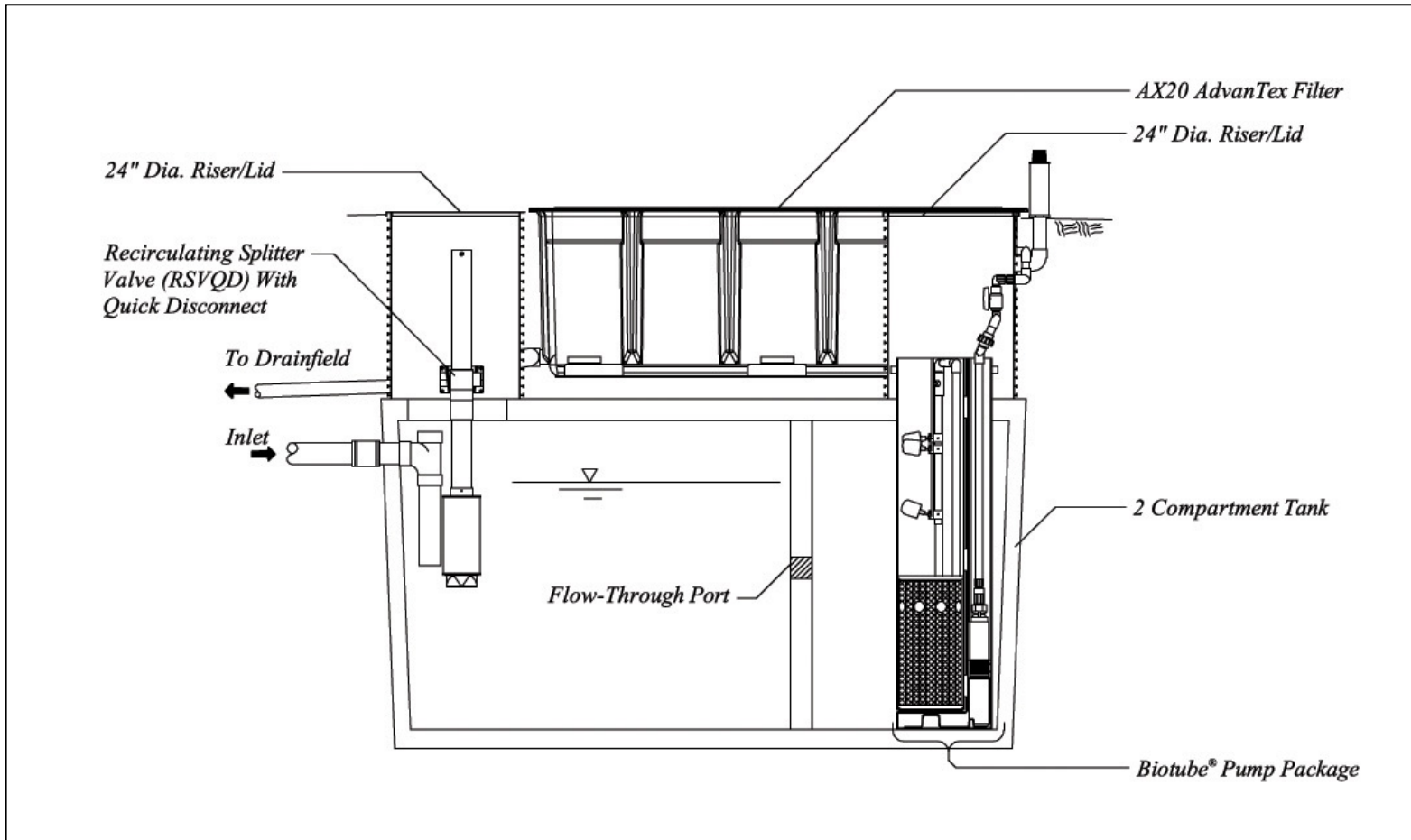


# Mode 1 RSV Placement



With Mode 1, RSV is placed in second compartment.

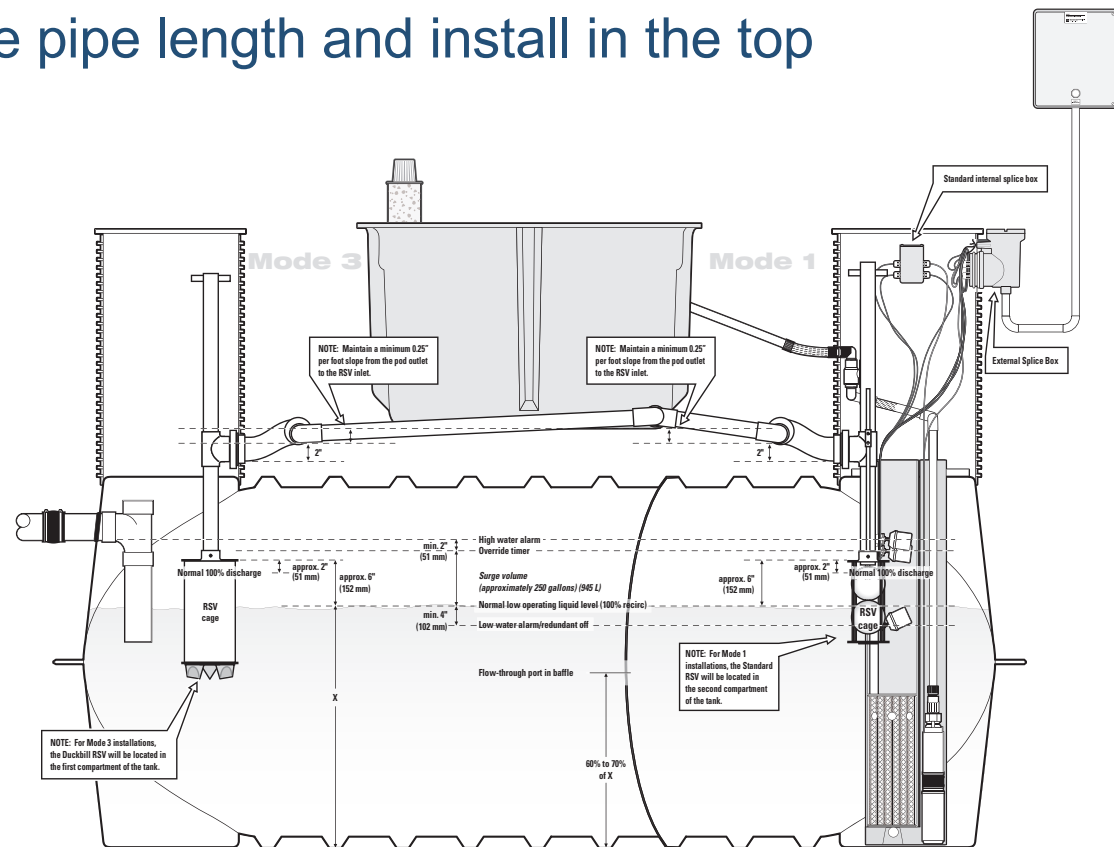
# Mode 3 RSV Placement



*With Mode 3, RSV is placed in first compartment*

# Step 9: Install RSV

- Refer to the document NIN-ATX-DA-1 to calculate stinger length
- Determine the handle pipe length and install in the top of the RSV body



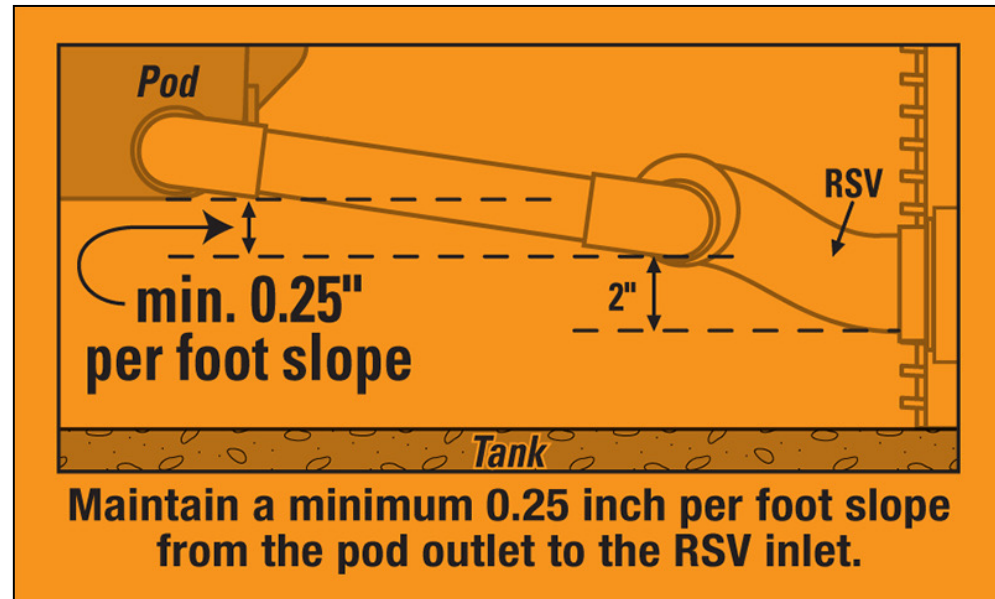
## Step 9: Install RSV

- Carefully lower RSV body into bracket
  - Push down until it is fully seated



## Step 10: Install Filtrate Return Line

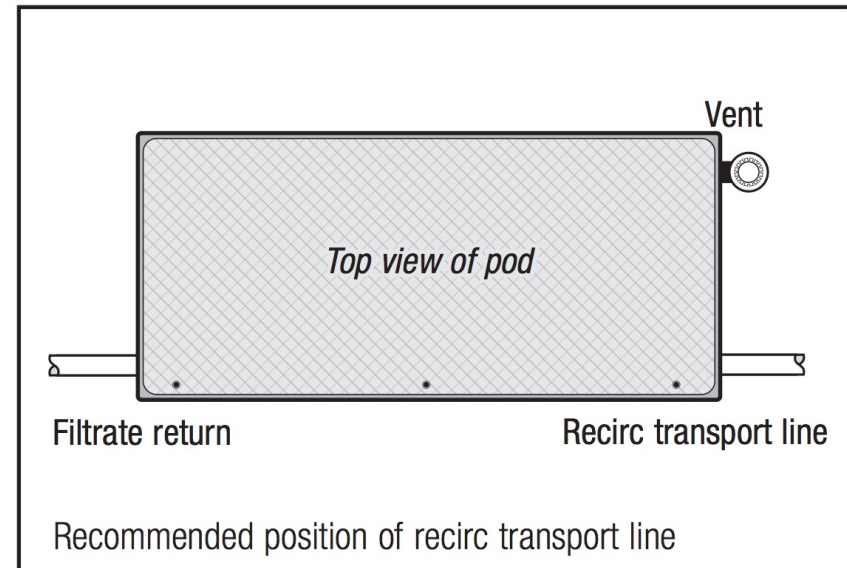
- Slope filtrate return line at least 1/4" per foot (minimum 1" drop if <4')
- Connect Filtrate return line to one end of tee





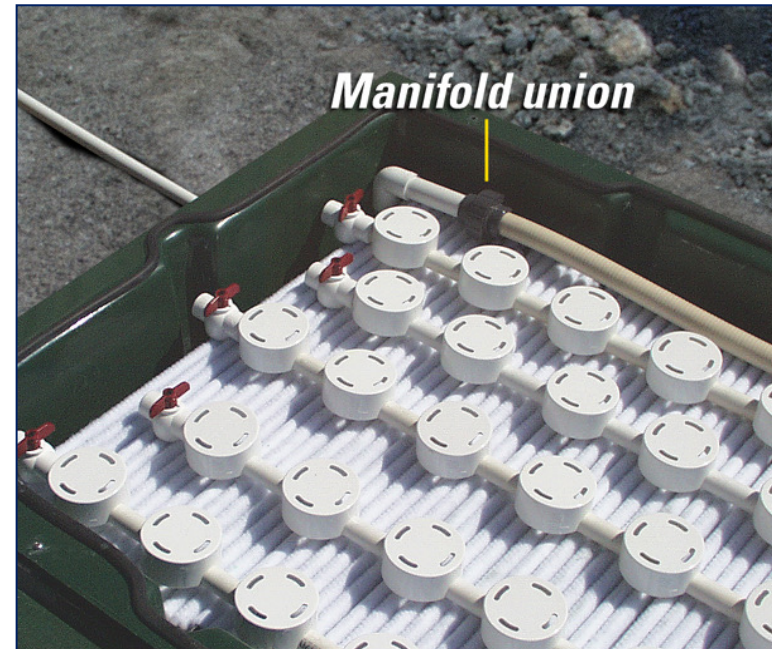
# Step 11: Connect Transport Line to Pod

- Use 1" PVC pipe
- Determine inlet position on pod; two inlet options available
- Drill 1 3/4" hole
- Install 1 1/4" grommet
- Lube grommet and push 1" elbow through grommet
- Slope Transport line if necessary for cold weather applications



# Step 11: Connect Transport Line to Pod

- Temporarily disassemble manifold union so that, when the pump first comes on during start-up, debris in the transport line will not be pumped into the manifold



## Step 12: Install Discharge Line

- Slope discharge line at least 1/4" per foot (minimum 1" drop if <4')
- Connect discharge pipe to other end of tee



# Step 13: Install Passive Air Vent

- 2" vent line: 20' or less
- Consider locating near protective wall or under shrubbery
- Do not allow “low” points in vent piping
- Ensure top of vent is 3” above final grade
- Make sure vent is sloped back  $\frac{1}{4}$ ” per foot so that it can drain properly.



# Step 14: Install Control Panel

- Use Properly Credentialed electrician for wiring
  - Float connections
  - Incoming power to panel
  - Power from panel to recirc pump
  - Power to discharge pump, if applicable
  - Conduit sealoffs outside riser

**NOTE: Do not install control panel against the house. Use a 4" X 4" post.**

- Recommend:
  - 5' height
  - Within view of system
  - Accessible/Unobstructed

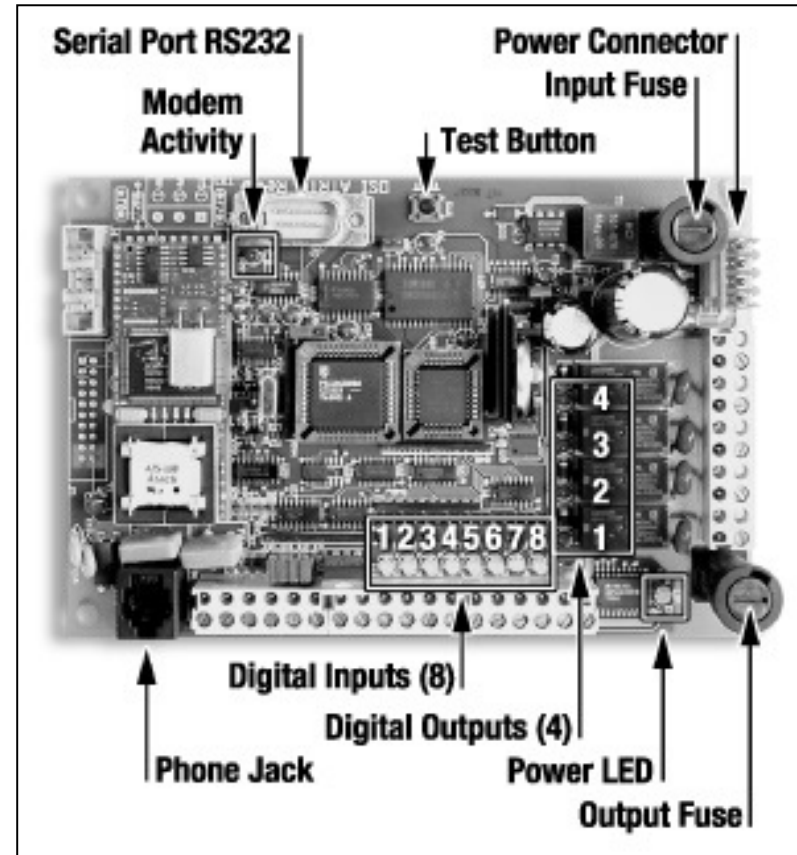


# Step 15: System Functional Test

- Verify ...
  - Pump operation
  - Filter operation
- First installation by each contractor should be overseen by Dealer

# Step 15: Functional Test for VeriComm<sup>®</sup> Panel

1. Verify system status
2. Enable test mode
3. Perform manual pump test
4. Perform float test signal
5. Perform communication test
6. Disable test mode (optional)



*For detailed procedures specific to each VeriComm model, refer to the documentation that comes with the panel.*

# Step 15: System Functional Test

- Verify pump operation
  - First, ensure proper water level per installation guide
  - Switch is spring loaded
  - Test pump operation in “manual”
  - Pump for 5-10 seconds to flush any debris out of the transport line





# Functional Test for MVP Panel

- Perform manual pump test
- Perform float test
- Set Timers per Design Criteria



# Step 15: System Functional Test

- Verify filter operation
  - Reconnect and hand-tighten the manifold union
  - Open each lateral individually to flush debris
  - Switch to “manual” position, flush lateral, then close ball valves
  - Remove several orifice shields
  - Check squirt height: 3' to 5' typical
  - Record residual head measurement



# Step 15: System Functional Test

- Verify proper liquid flow and drainage
- Verify no leaks at plumbing joints

# Step 16: Backfill Installation

- Backfill tank per manufacturer's guidelines
- Backfill filter in max. 12" lifts
- Bedding under pipes should be packed well and as tight to pod to prevent settling
- Ensure bottom of lid is a min. of 2" to 3" above grade
- Slope ground away from filter



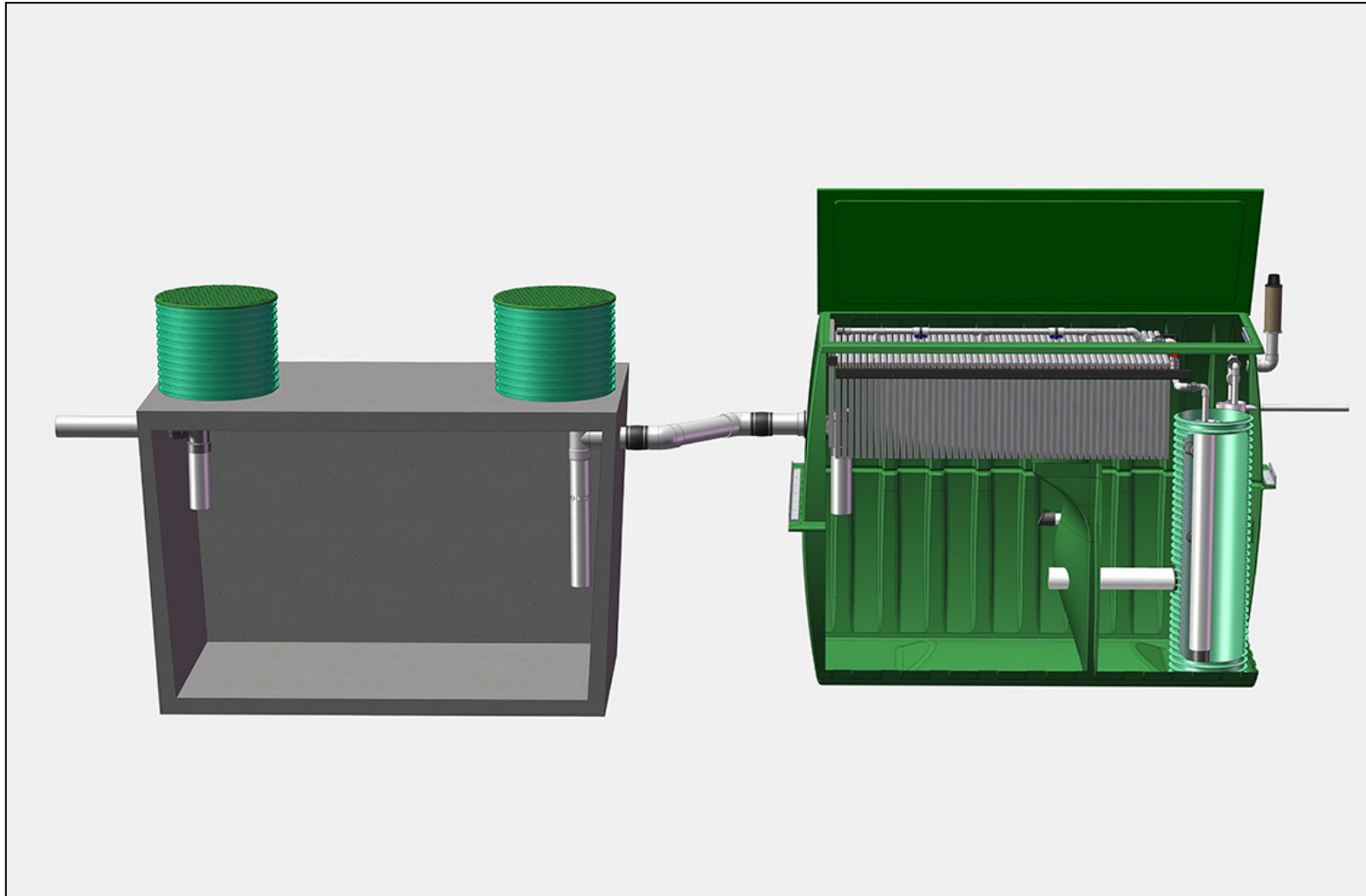
# Homeowner Documentation

- Dealer, Installer, or Service Provider fills out emergency contact information on back of Homeowner's Manual
- Homeowner is given Homeowner's Package, along with additional documentation, including ...
  - Copy of service contract
  - Copy of invoice with serialized pod #
  - Copy of equipment list, bill of materials, if available
  - Copy of as-built, if available

# AdvanTex RT

## *Installation*

# Overview



# Before You Begin

- Installer schedules preconstruction visit with Service Provider and Homeowner to discuss ...
  - System location, including buried conduits
  - System operation
  - System maintenance
  - Preventive maintenance and Homeowner's Manual



# Conditions for Using an AX20-RT to Repair an Existing System

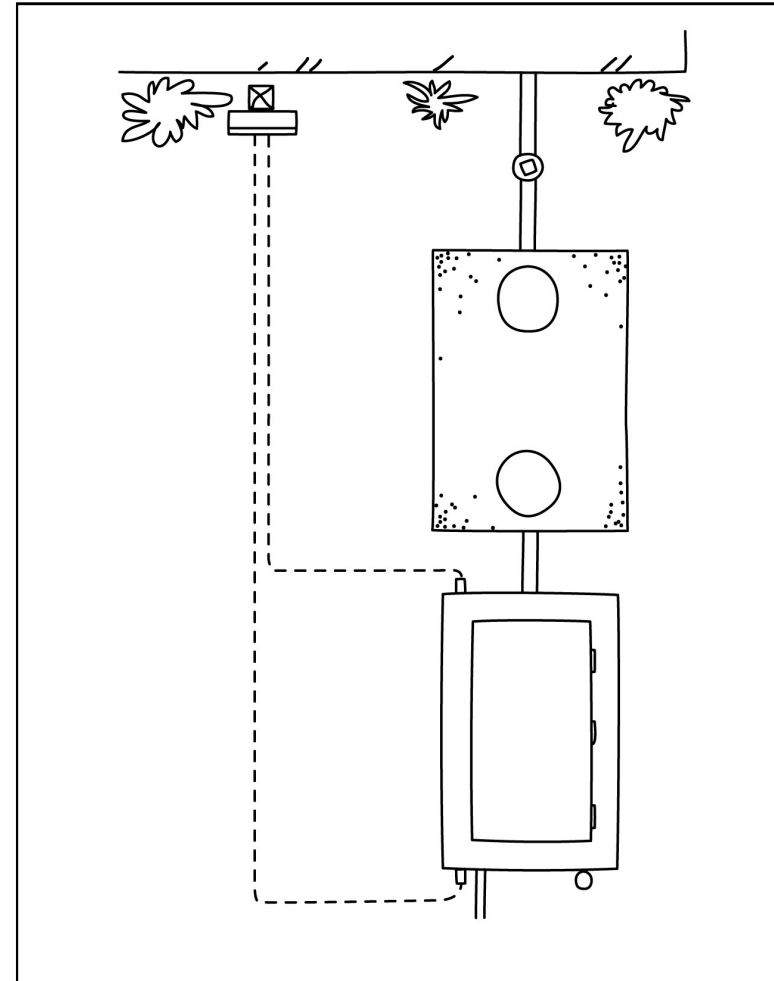
- Existing primary tank must be approved
  - Existing primary tank must be structurally sound
  - Existing primary tank must have at least 1000 gal capacity
  - Existing primary tank must have at grade access
- Primary tank must be watertight tested
- Orenco effluent filter must be installed in primary tank
- Existing primary tank must allow for a fall of at least 1/8 in. per foot from the outlet of to the inlet of the AX20-RT\*
- You must be a trained AdvanTex Installer before installing system

# Important Considerations

- All tanks must be prequalified
- Installer checks to make sure that water softener Brine is not plumbed into the processing tank
- All pipe diameters are given in US nominal IPS pipe sizes

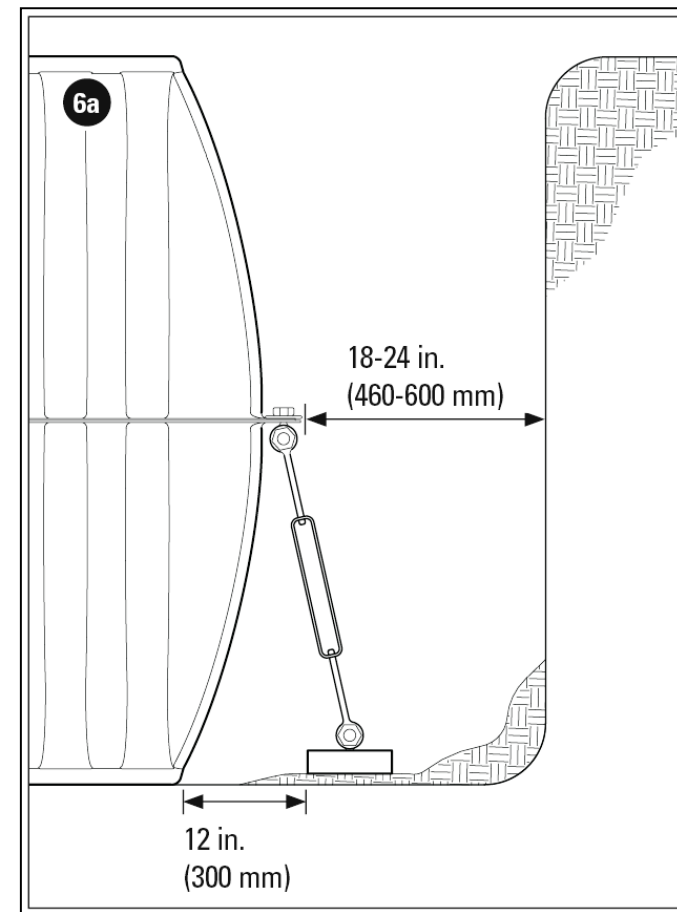
# Steps 1-4

- Review or Sketch Site Planes
- Excavate and Set Septic Tank
- Be sure that you will have 1/8" per ft. of fall from outlet of primary tank to the RT
- If RT is following the septic tank then it needs to have a minimum 2ft of separation between them
- If RT is installed parallel to the septic tank then it needs to be offset from the tank by 6ft if Anti-buoyancy beams are used



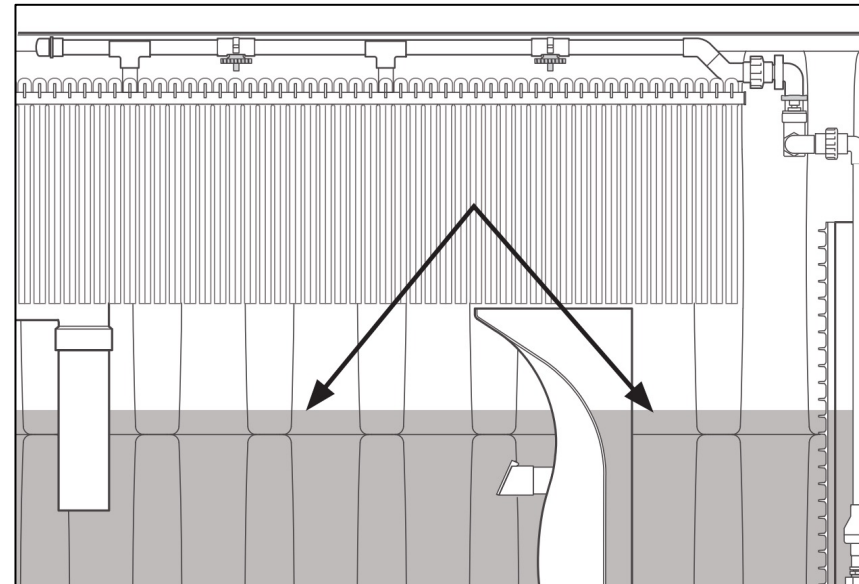
# Steps 5 & 6

- Excavate and Set AX-RT Unit
- Prep and Install Anti-buoyancy/deadmen if needed
- Partially backfill AX-RT Excavation



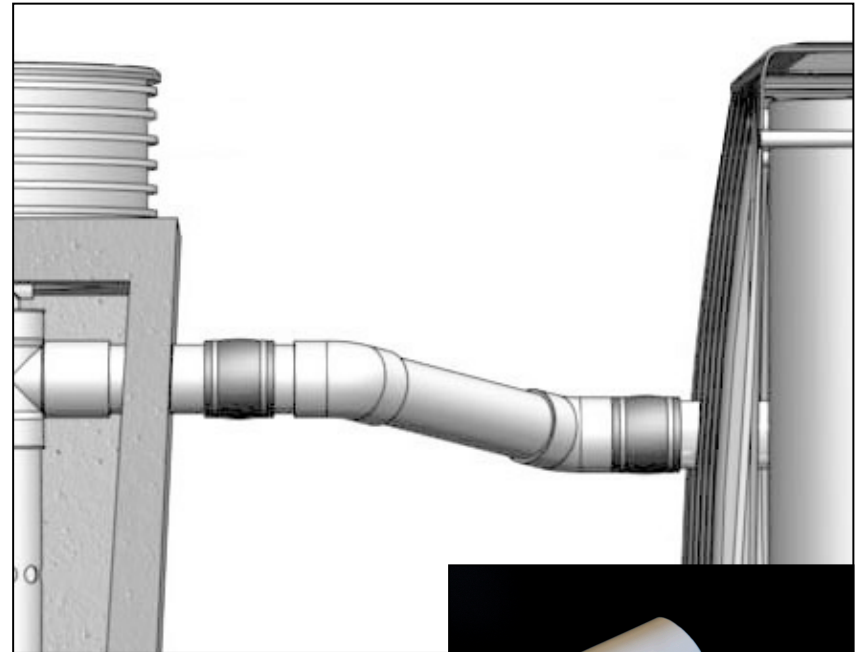
# Step 7-9

- Install Adapters and Risers (If needed)
- Test Tank and and Adapter seams
- Test Water tightness of AX20-RT Unit



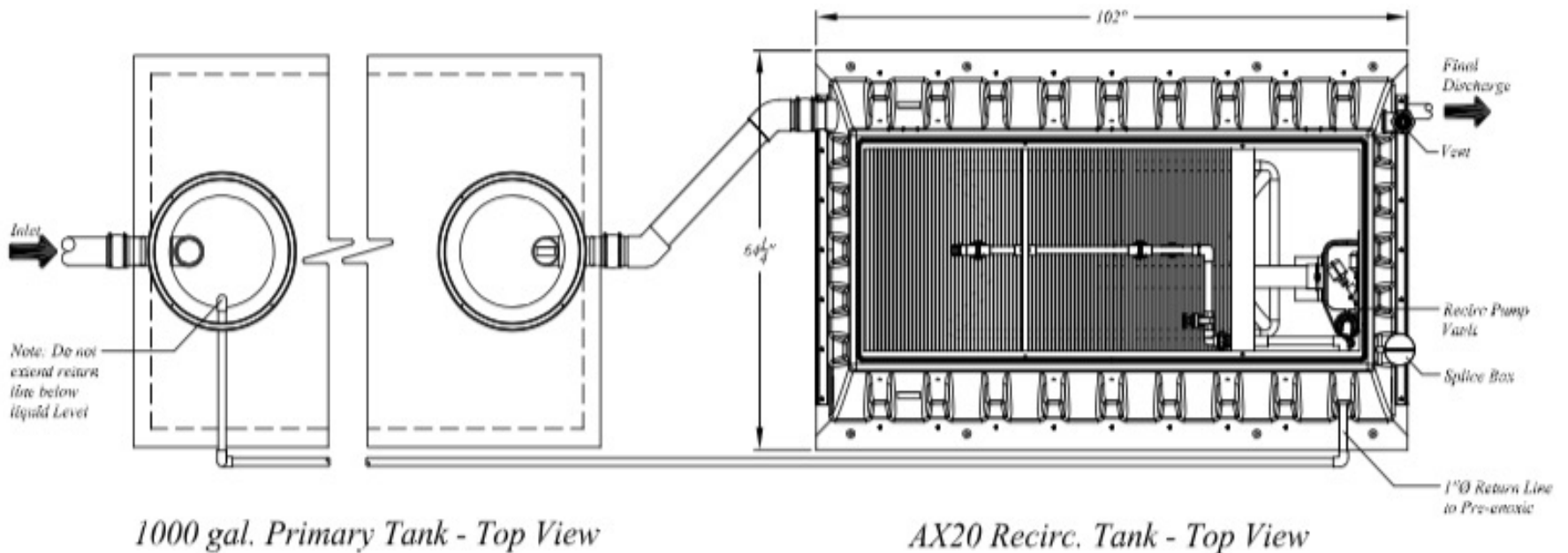
# Step 10 - 16

- Install effluent filter
- Connect Transport Line
- Connect Passive Air Vent
- Connect AX-RT discharge line
- Install and Test Control Panel
- Test System Function
- Complete Final Backfilling



# Return Line installation

- Mode 3 return line used for De-Nitrification



# Questions?