flotender™

Installation, Service & Troubleshooting Manual

GXL Series Greywater Irrigation Systems

www.flotender.com

Step

0

GETTING STARTED

INTRODUCTION

Thank you for purchasing a Flotender™ Greywater Irrigation System. This installation manual will guide you through a Flotender™ GXL Series installation. Additional instructions are also included with individual kits and accessories. If you have any questions feel free to contact us at support@filtrific.com, or call (425) 643-2312.

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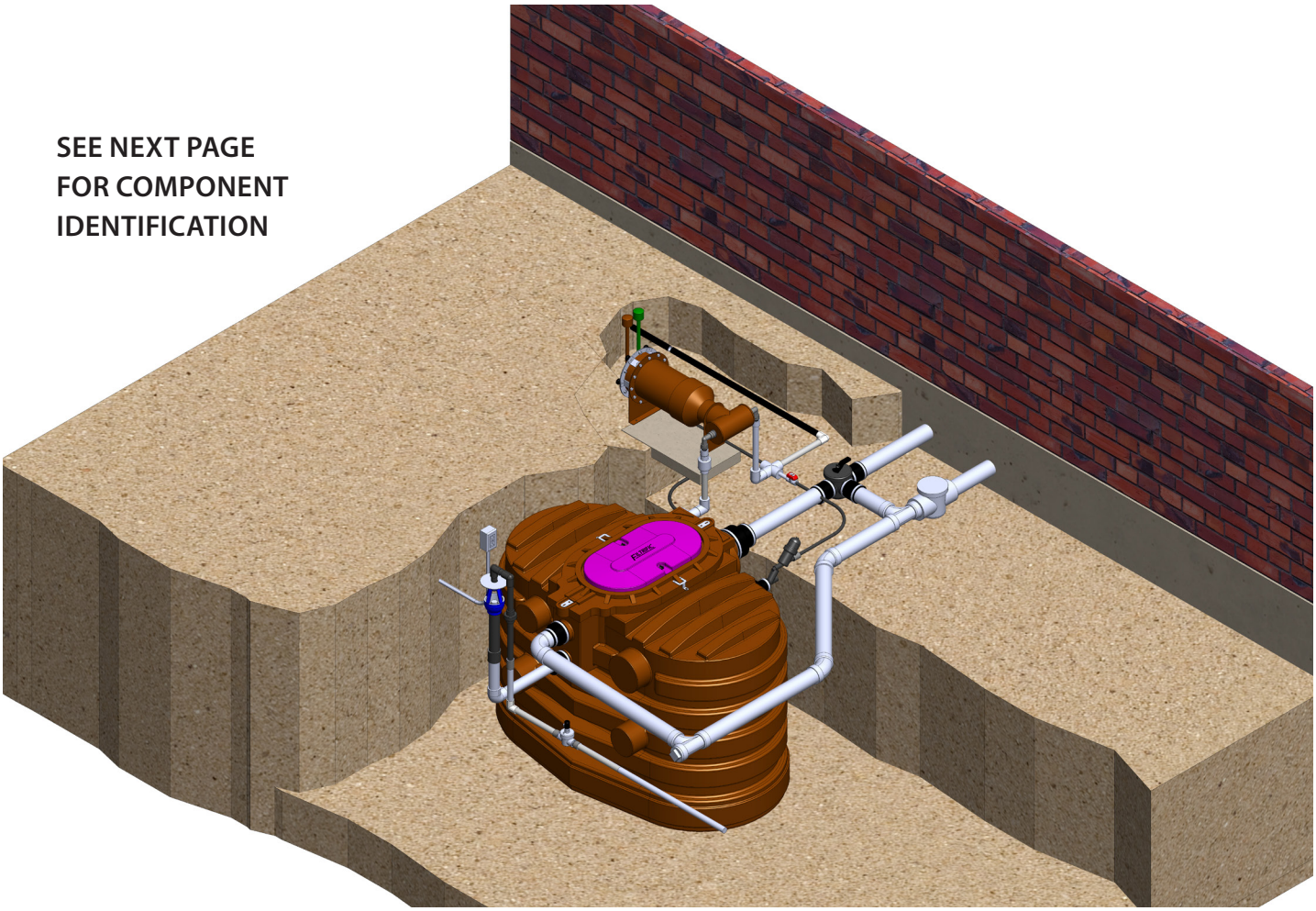
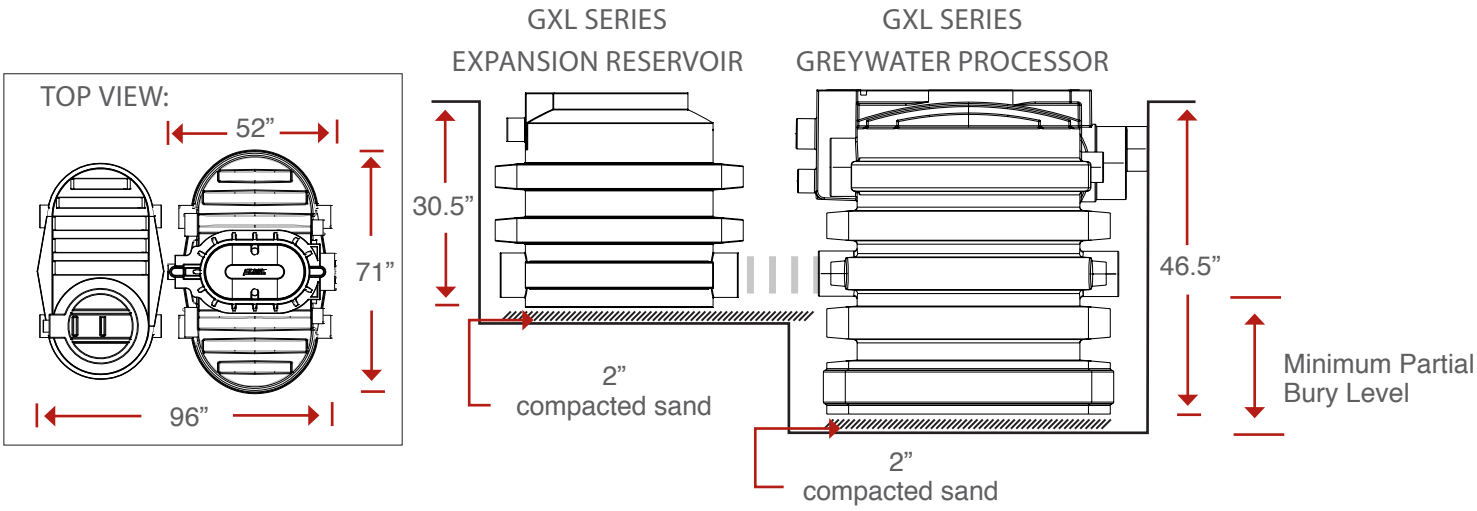
SYSTEM OVERVIEW

Step 0

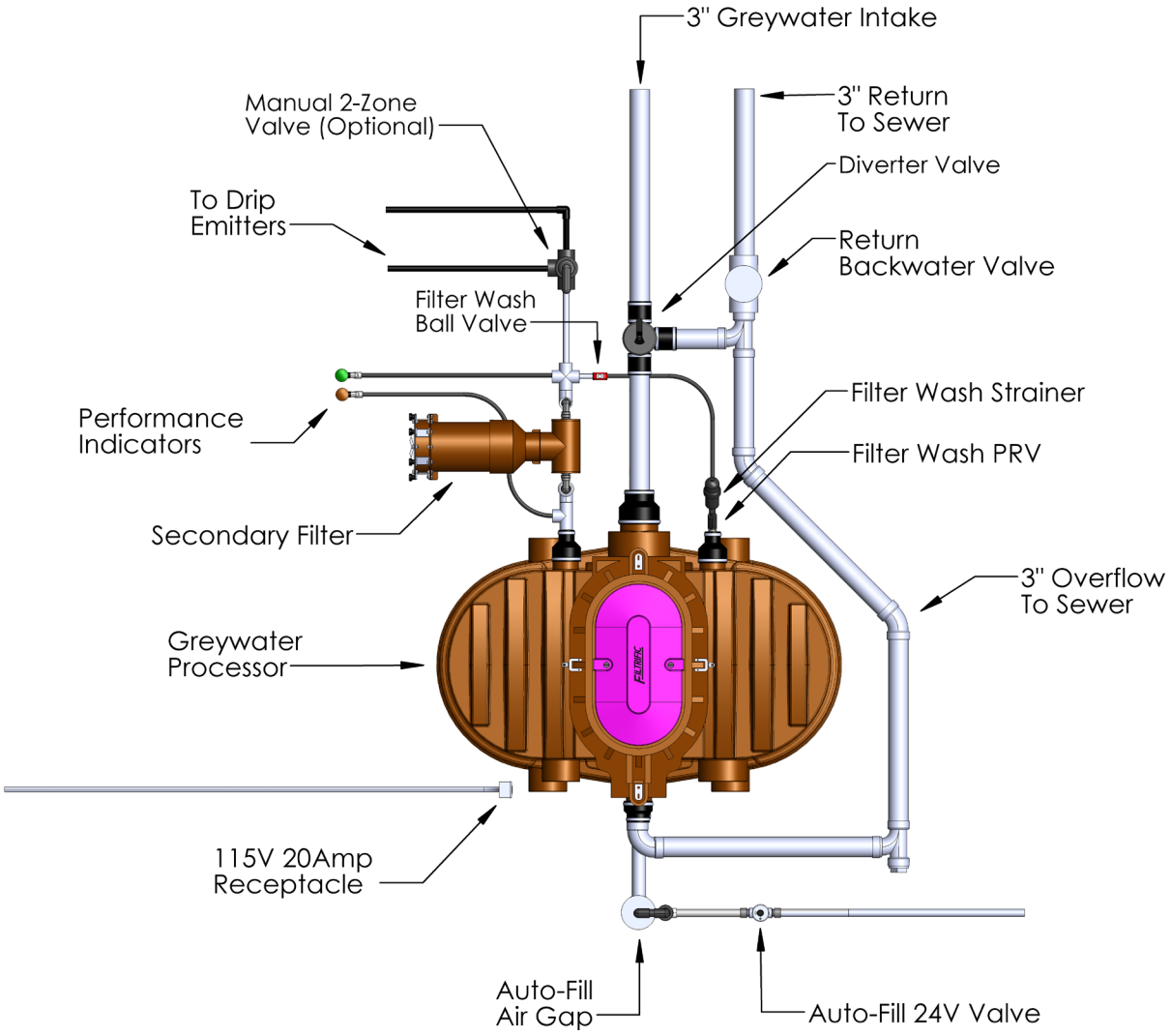
SEE NEXT PAGE FOR COMPONENT IDENTIFICATION



FLOTENDER™ GXL SERIES DIMENSIONS (WITH OPTIONAL EXPANSION RESERVOIR)



Flotender GXL Greywater System



PROCESSOR PLACEMENT

Step 1

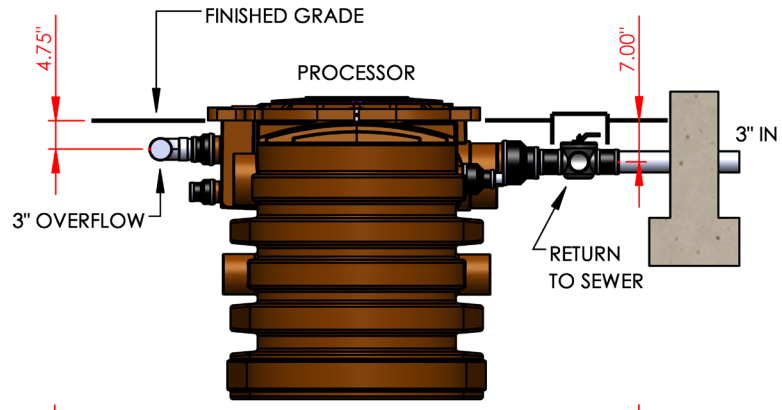
The first step in the Flotender system installation is to determine the location of the greywater processor. In-flowing greywater must be either gravity-fed from the building's greywater stub-out or pumped into the greywater processor using an external transfer station. (sold separately)

ABOVE-GROUND GREYWATER PROCESSOR INSTALLATIONS:

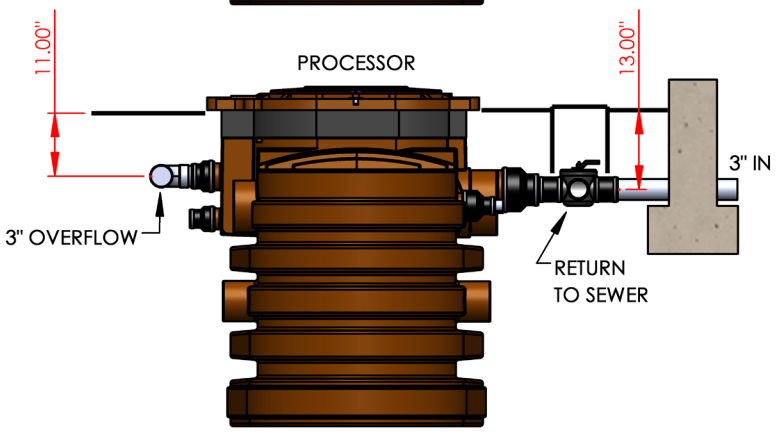
Ensure that the greywater processor is placed at an elevation which can be gravity-fed from the stub-out in the building. It is recommended that the processor and external components are placed on a level surface with at least 29" of clearance above the top of the processor's lid for filter removal.

FOR IN-GROUND GREYWATER PROCESSOR INSTALLATIONS:

For in-ground installations, excavate and place the Greywater Processor on 1 inch of compact sand. Sand will protect the bottom of the processor from sharp objects and help in leveling. Refer to the following diagrams when placing the greywater processor in the ground. Ensure that the incoming greywater is able to gravity-flow from the building stub-out.



STANDARD STUB-OUT DEPTH

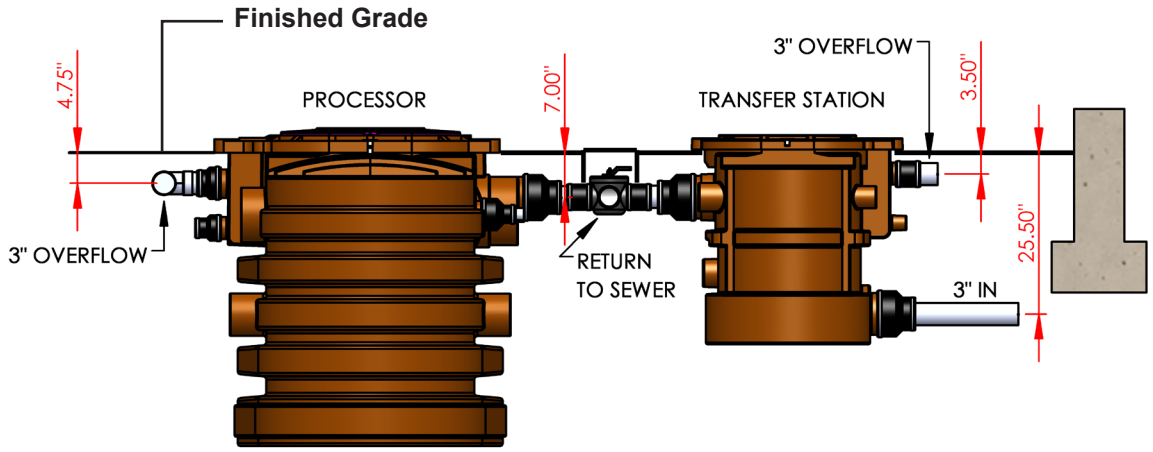


LOW GREYWATER STUB-OUT SHOWN WITH OPTIONAL PROCESSOR LID EXTENSION

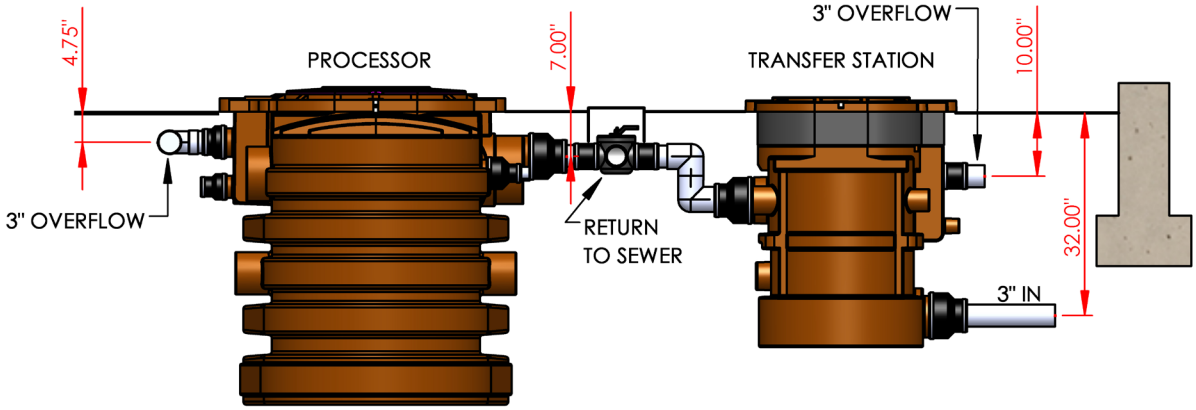
LOW GREYWATER STUB-OUTS

For installations where the greywater stub-out is below the intake of the greywater processor, a transfer station may be installed. The transfer station features a built-in pump, and activation float switch which pumps the incoming greywater up and into the greywater processor intake port.

GREYWATER PROCESSOR WITH TRANSFER STATION



GREYWATER PROCESSOR WITH TRANSFER STATION AND LID EXTENSION

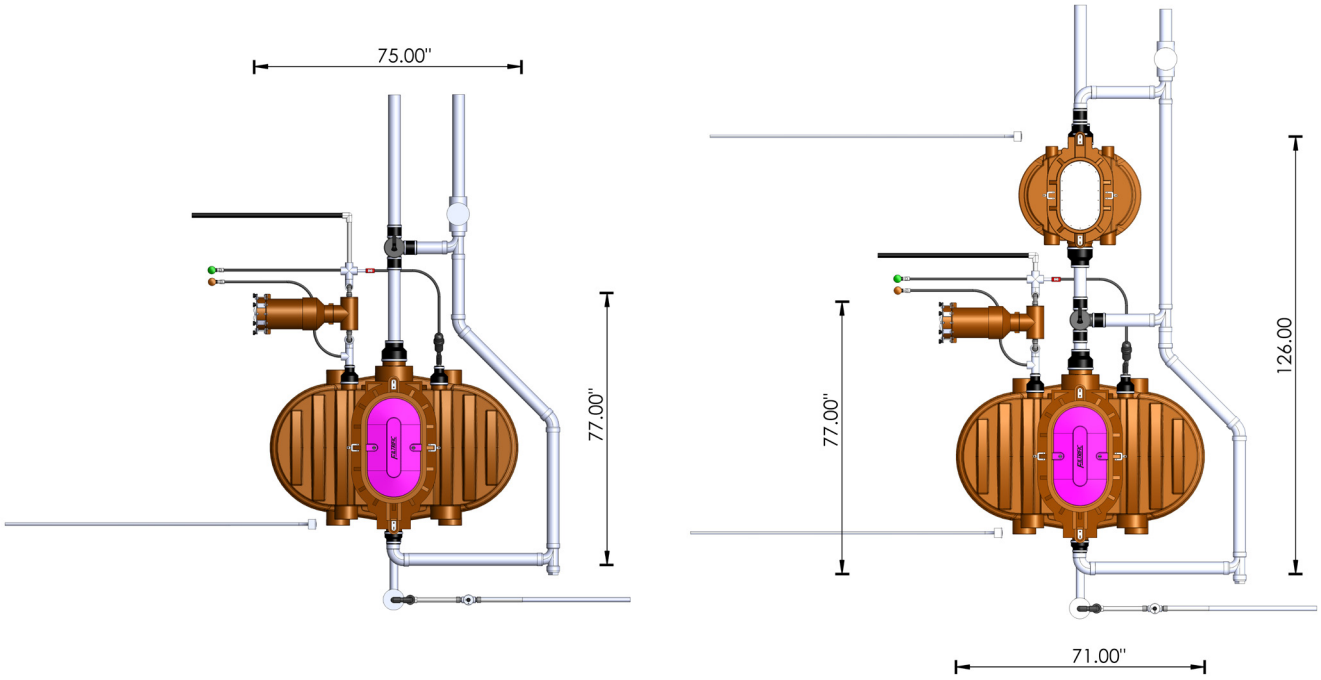


PROCESSOR PLACEMENT

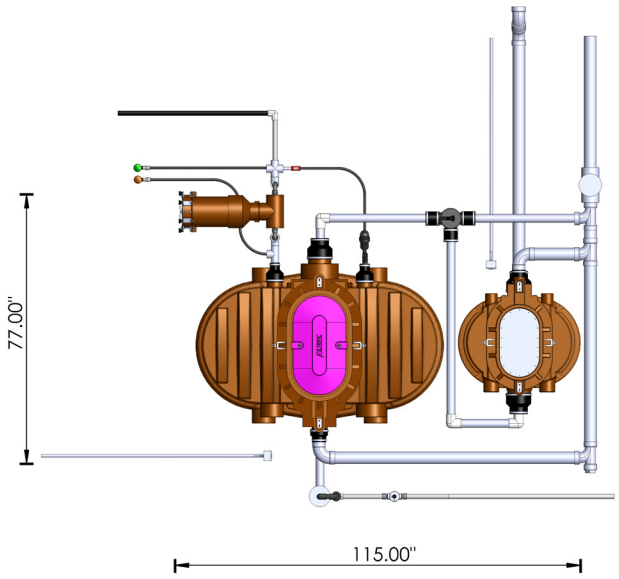
Step 1

CHOOSE A LOCATION FOR THE GREYWATER PROCESSOR & COMPONENTS

Refer to the schematics below and determine the orientation in which the greywater processor and components will be placed.



TOP LEFT: STANDARD GXL SYSTEM
TOP RIGHT: STANDARD GXL SYSTEM WITH A FRONT POSITIONED TRANSFER STATION



LEFT:
STANDARD GXL SYSTEM WITH A SIDE POSITIONED TRANSFER STATION

(3-WAY ACTUATOR RECALIBRATION REQUIRED FOR THIS CONFIGURATION)

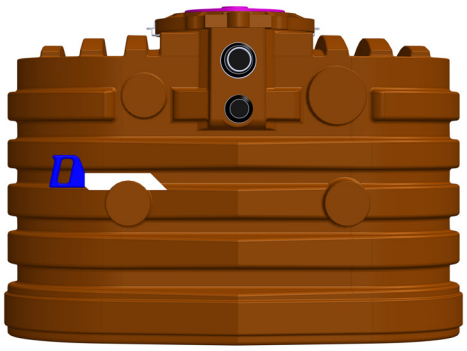
Step 2

RESERVOIR CONNECTION

SYSTEM INSTALLATION

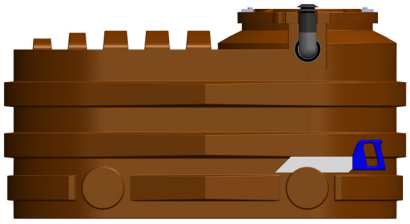
Once the greywater processor has been placed and the greywater stub-out connected, the expansion reservoirs can be connected.

STEP: 1



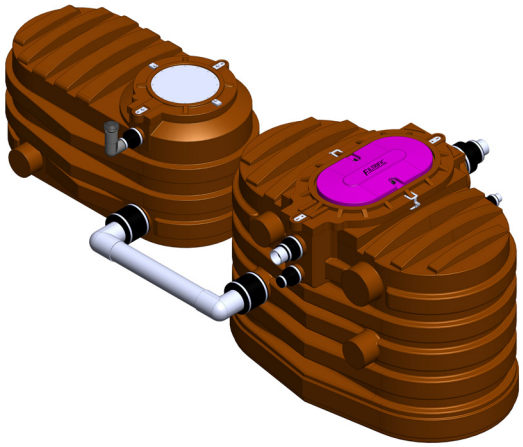
Cut 3/4" off of the end of the port labeled "More Capacity" on the Greywater Processor.

STEP: 2



A "More Capacity" port is located on both sides of the Expansion Reservoir. Cut off the port that will be on the same side as the Greywater Processor's "More Capacity" port when connected together.

STEP: 3

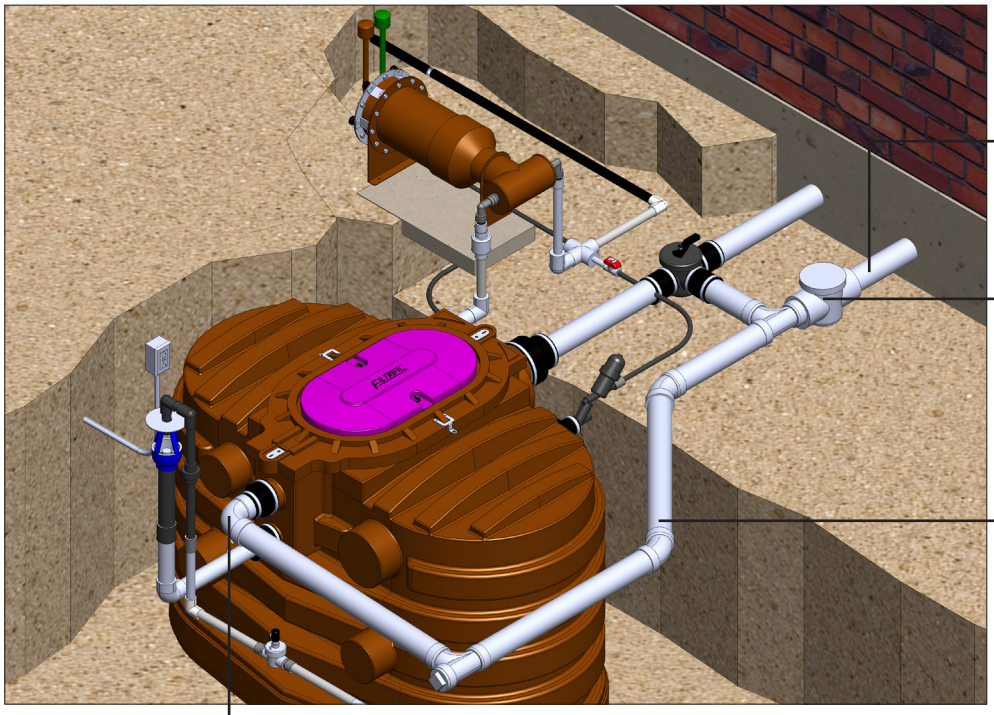


Connect expansion reservoirs to the processor as shown.

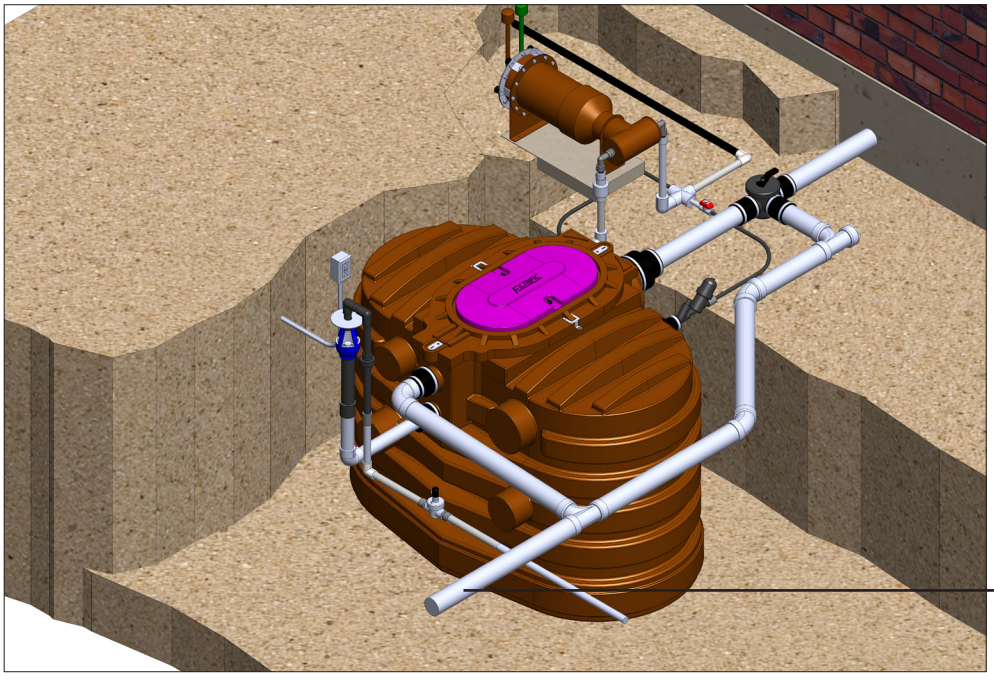
OVERFLOW CONNECTION

Step 3

OVERFLOW TO SEWER



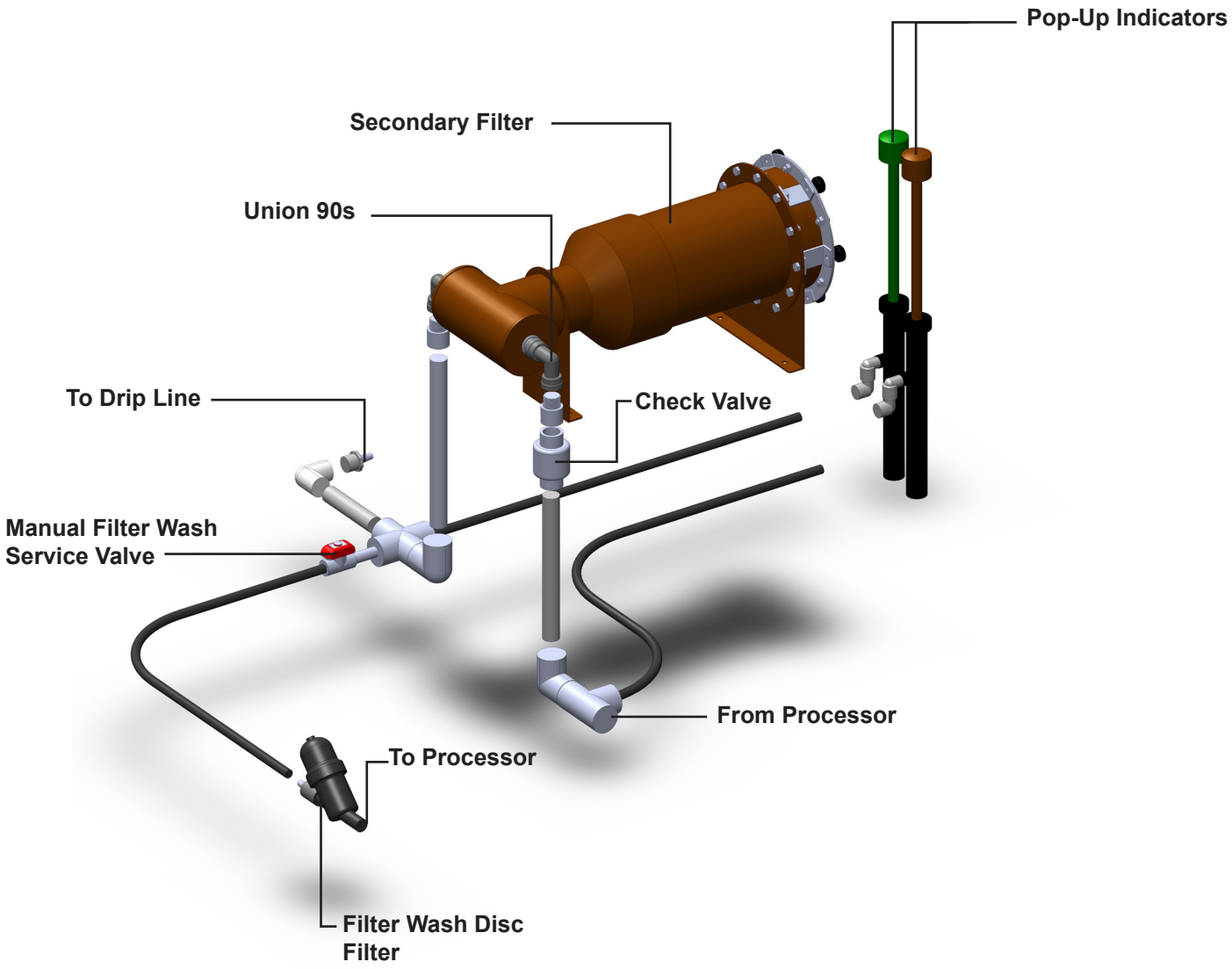
OVERFLOW TO SEPTIC



Step 4

SECONDARY FILTER & MISC. CONNECTIONS

Connect the secondary filter and misc. external connections as pictured below.

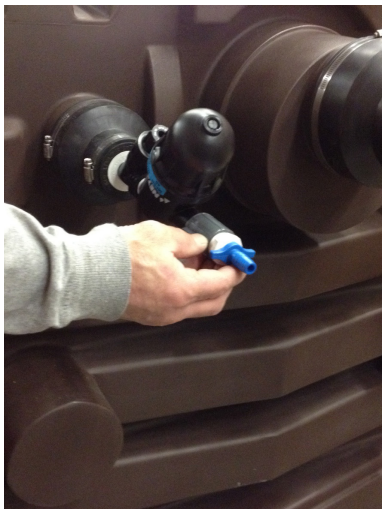


SECONDARY FILTER & MISC. CONNECTIONS

Step 4

FILTER WASH CONNECTION

Connect the filter wash disc filter to the pressure regulator on the processor. Connect the 1/2" poly pipe to the barb on the tee filter.

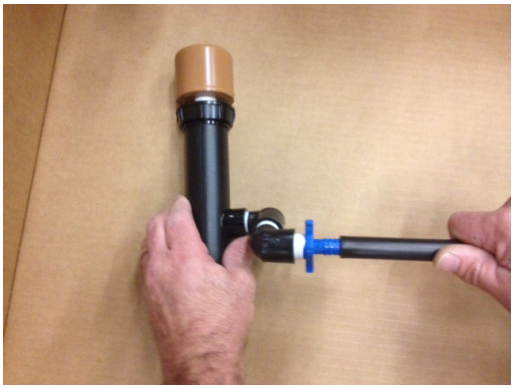


(1/2 HP models will not have a pressure regulator)

POP-UP INDICATOR CONNECTION

Connect the pop-up indicators to the poly pipe

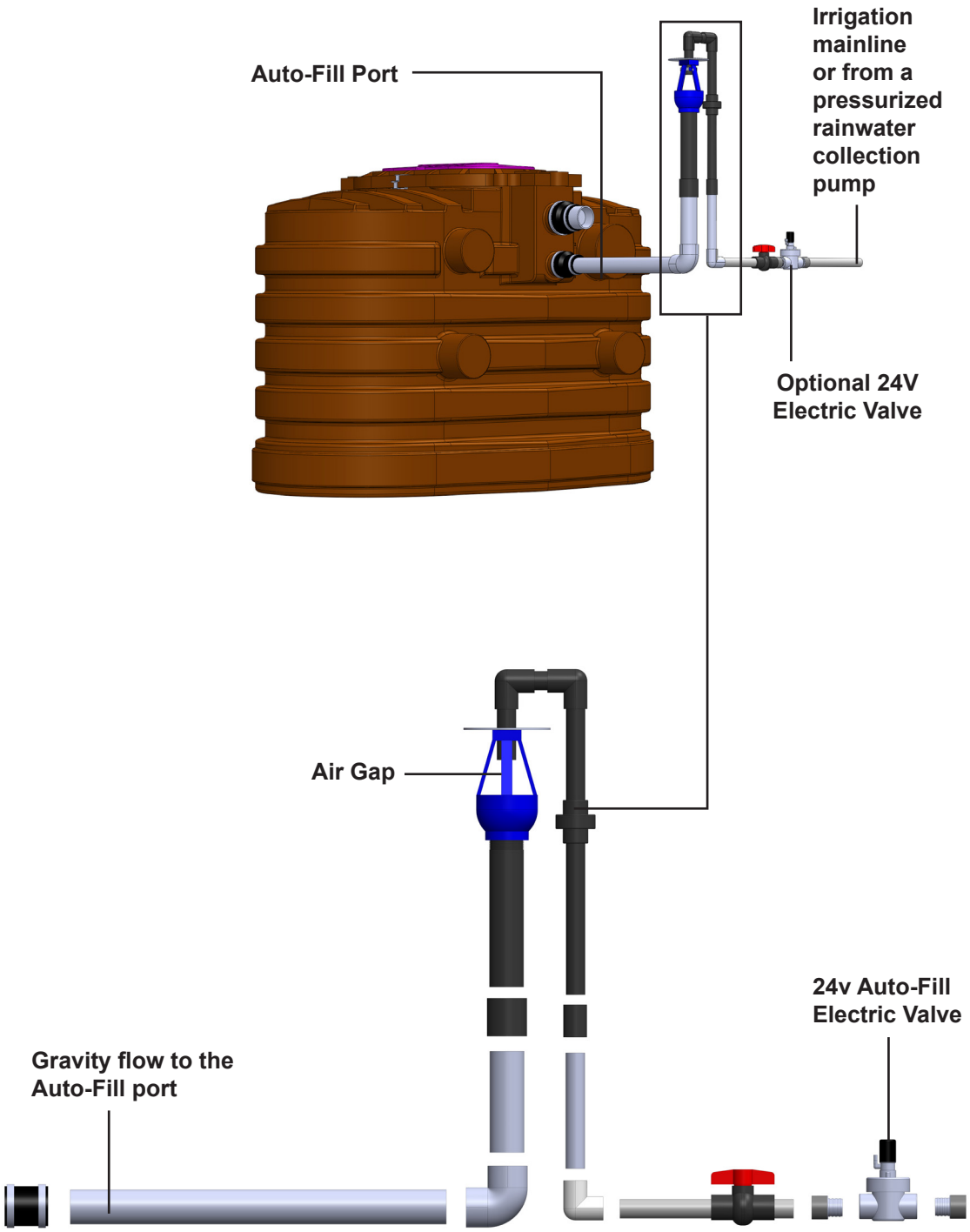
Green connects to the poly pipe leading from the discharge side of the secondary filter.



Brown connects to the poly pipe leading from the supply side of the secondary filter.

AUTO-FILL CONNECTION

Connect the auto-fill assembly to the port labeled “auto-fill” as pictured below. Reduce the flow as needed to avoid excessive water flow.



SERVICE GUIDELINES

The Flotender GXL System requires periodic maintenance. The following are recommendations based on average usage as detailed below:

Service Guidelines for Systems **with** a Washing Machine Connected	
Primary Filter:	6 months (recommended)*
Secondary Filter:	6 months (required)

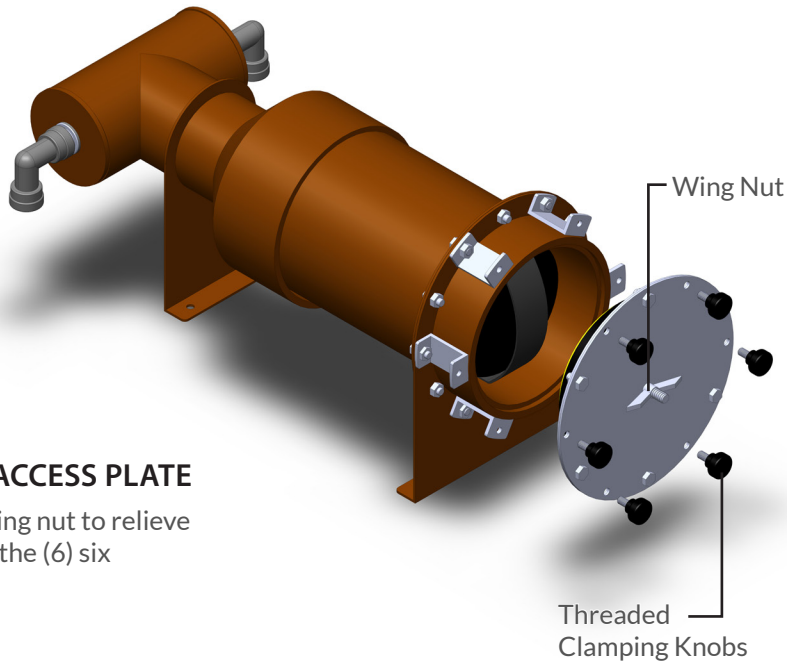
Service Guidelines for Systems **without** a Washing Machine Connected	
Primary Filter:	1 year (recommended)*
Secondary Filter:	1 year (required)

The Flotender primary filter is self-cleaning however for maximum water conservation it is recommended that the primary filter is manually cleaned per the intervals detailed above or more frequently for heavy use.

NOTE:
When using the overflow flush tubes, excessive collected debris is removed from the bottom of the basket when filter draining becomes impaired. For maximum water conservation, clean the filters in shorter intervals before the filter baskets reach the point of self-flushing.

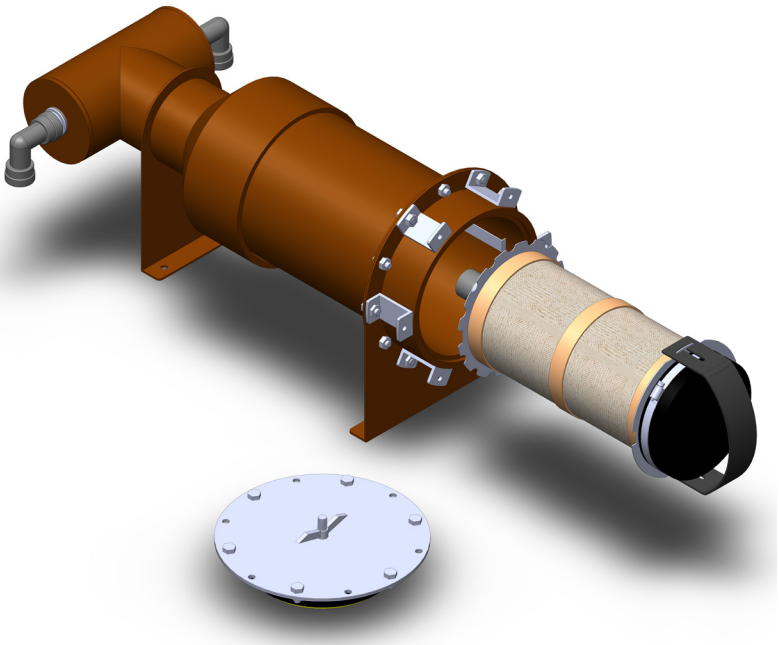
CLEANING SECONDARY FILTER

NOTE:
Disconnect the power from the pump before servicing the filter.



STEP 1:
REMOVE THE FRONT ACCESS PLATE

Slightly loosen the front wing nut to relieve pressure before removing the (6) six clamping knobs.

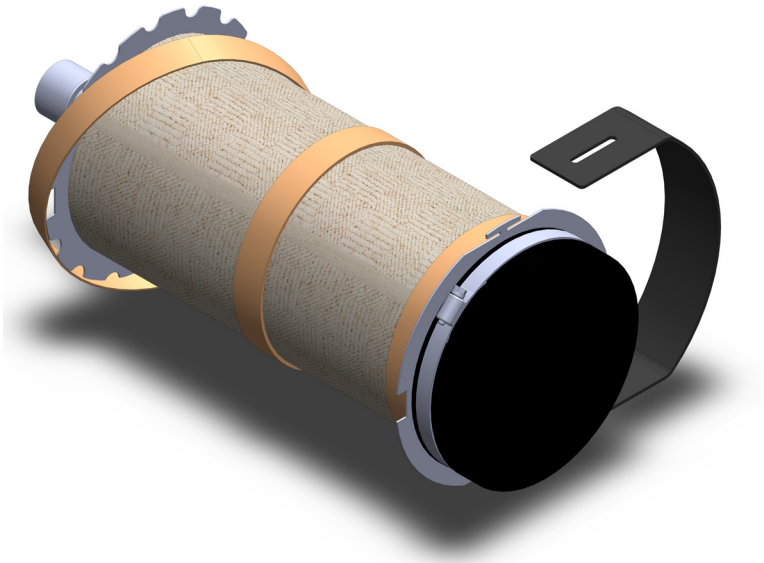


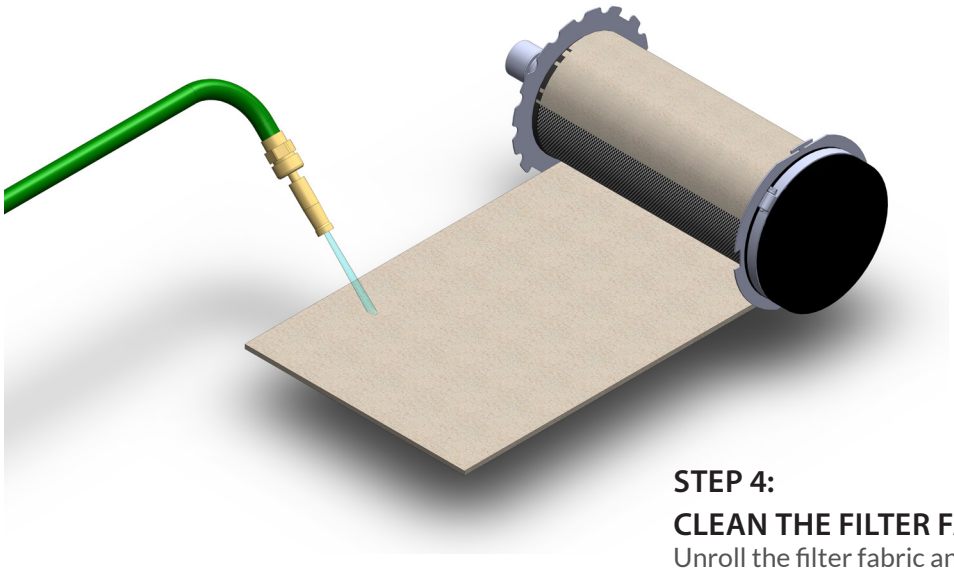
STEP 2:
REMOVE THE FILTER ELEMENT

Pull straight back on the filter handle to remove the filter element.

CLEANING SECONDARY FILTER

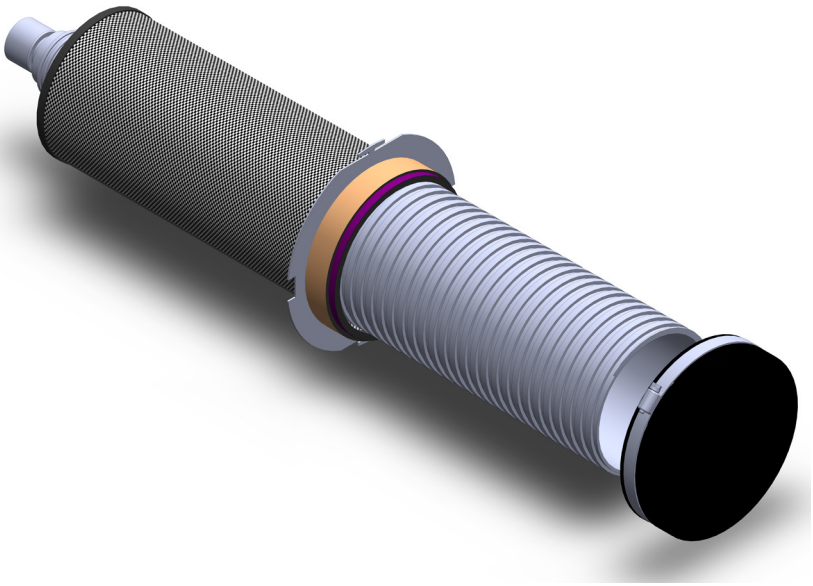
STEP 3:
REMOVE THE HANDLE AND SILICONE STRETCH BANDS



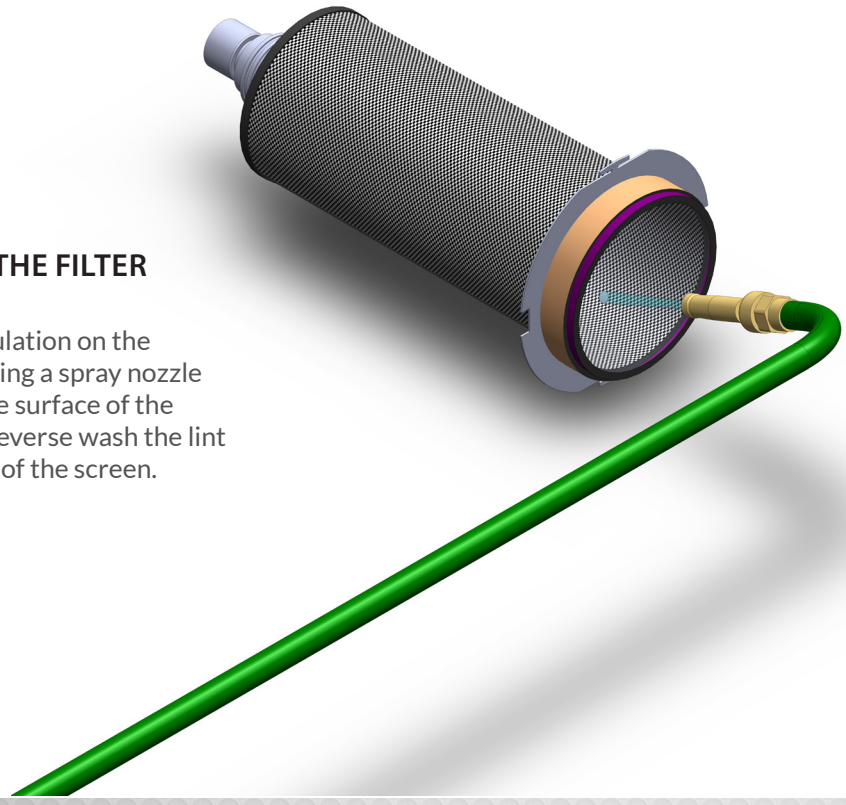


STEP 4:
CLEAN THE FILTER FABRIC
Unroll the filter fabric and spray off the collected lint.

CLEANING SECONDARY FILTER



STEP 5:
REMOVE THE FILTER TUBE



STEP 6:
WASH LINT FROM THE FILTER SCREEN

Wash away lint accumulation on the filter element by directing a spray nozzle against the inside of the surface of the filter screen. This will reverse wash the lint from the outer surface of the screen.

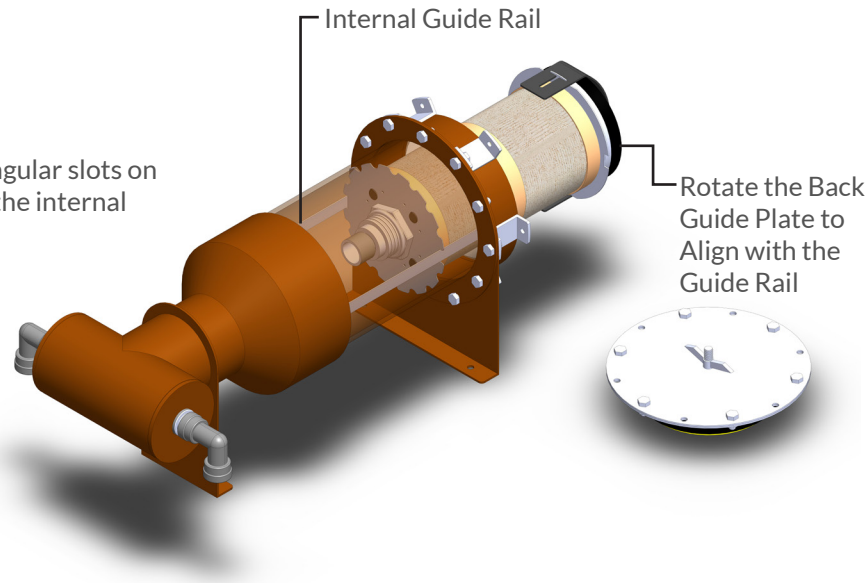
SECONDARY FILTER RE-ASSEMBLY

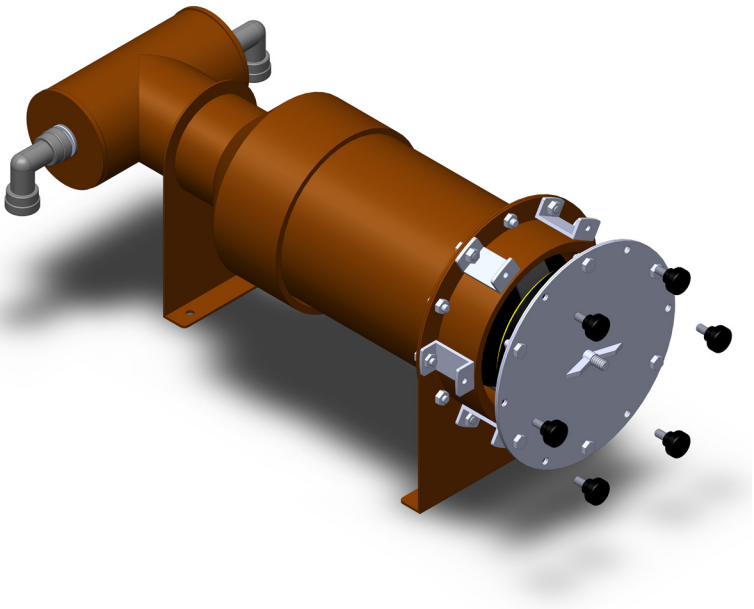
Follow the steps below to re-assemble the secondary filter after cleaning.

STEP 1:

INSERT THE FILTER

Insert the filter so the rectangular slots on the front guide plate match the internal guide rails.





STEP 2:

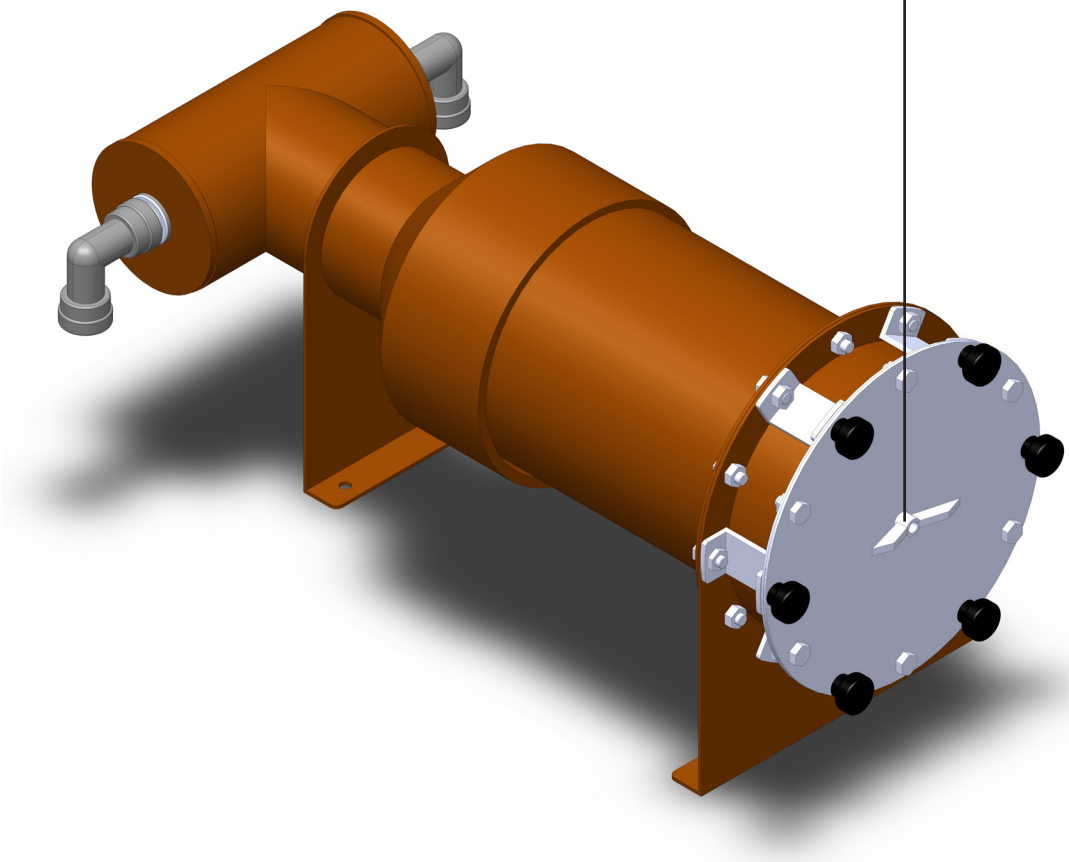
ATTACH THE FACE PLATE

Position the compression face plate against the filter opening and hand tighten the clamping knobs.

STEP 4:

TIGHTEN THE WING NUT

After the clamping knobs have been tightened, firmly tighten the front wing nut.



CLEANING PRIMARY FILTER

Although the primary filter is self-cleaning, it is recommended that the filter is periodically cleaned to retain optimum system efficiency and functionality.

REMOVE ACCESS CAP

Turn the knobs on each side of the cap so they are parallel and past the dot as shown.

REMOVING FILTER FLUSH TUBES (OPTIONAL)

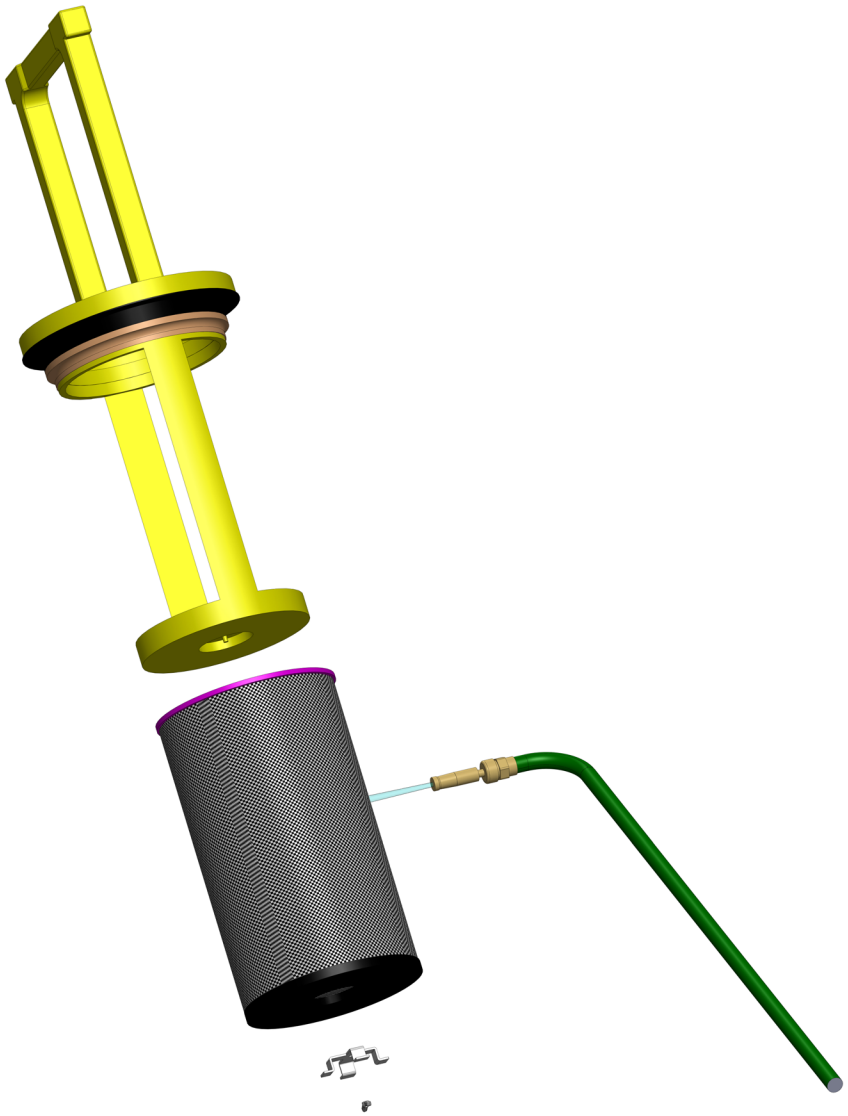
Occasionally, it is recommended that the primary filter is manually cleaned. In order to access the primary filters, the overflow flush tubes must be removed.

STEP 1:
Pull back on the Filter Flush Tube to disconnect pipe from the overflow port.

STEP 2:
Lift the Filter Flush Tube from the Filter Carriage. The Primary Filter Baskets can now be lifted out.

PRIMARY FILTER CLEANING

Remove the filter screen from the filter frame by loosening the wing nut on the bottom of the basket. Use a standard garden hose to spray debris from the basket. Once the debris is removed from the basket reconnect the screen, replace the basket in the processor and reconnect the overflow flush tubes.



ACCESSING GREYWATER PROCESSOR

Follow the steps below to access the internal components inside of the Greywater Processor.

STEP 1:
Remove front and back connection bolts.

STEP 2:
Remove side connection bolts.

STEP 3:
Remove poly-mat, overflow flush tubes and filter baskets.

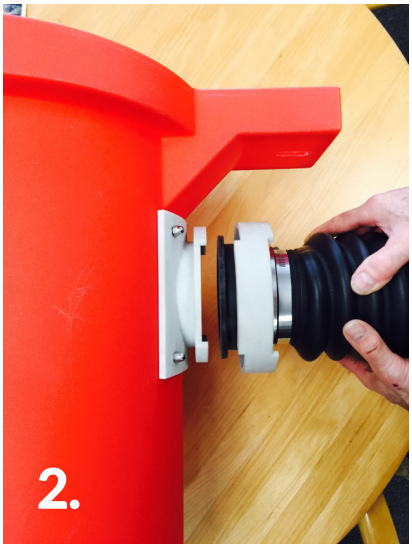
STEP 4:
Remove the bolt at the back of the filter carriage.

STEP 5:
Lift the back of the filter carriage to clear the metal wash assembly while pulling on the carriage then lift out.

DISCONNECTING OVERFLOW FROM CARRIAGE:

Overflow connected to carriage

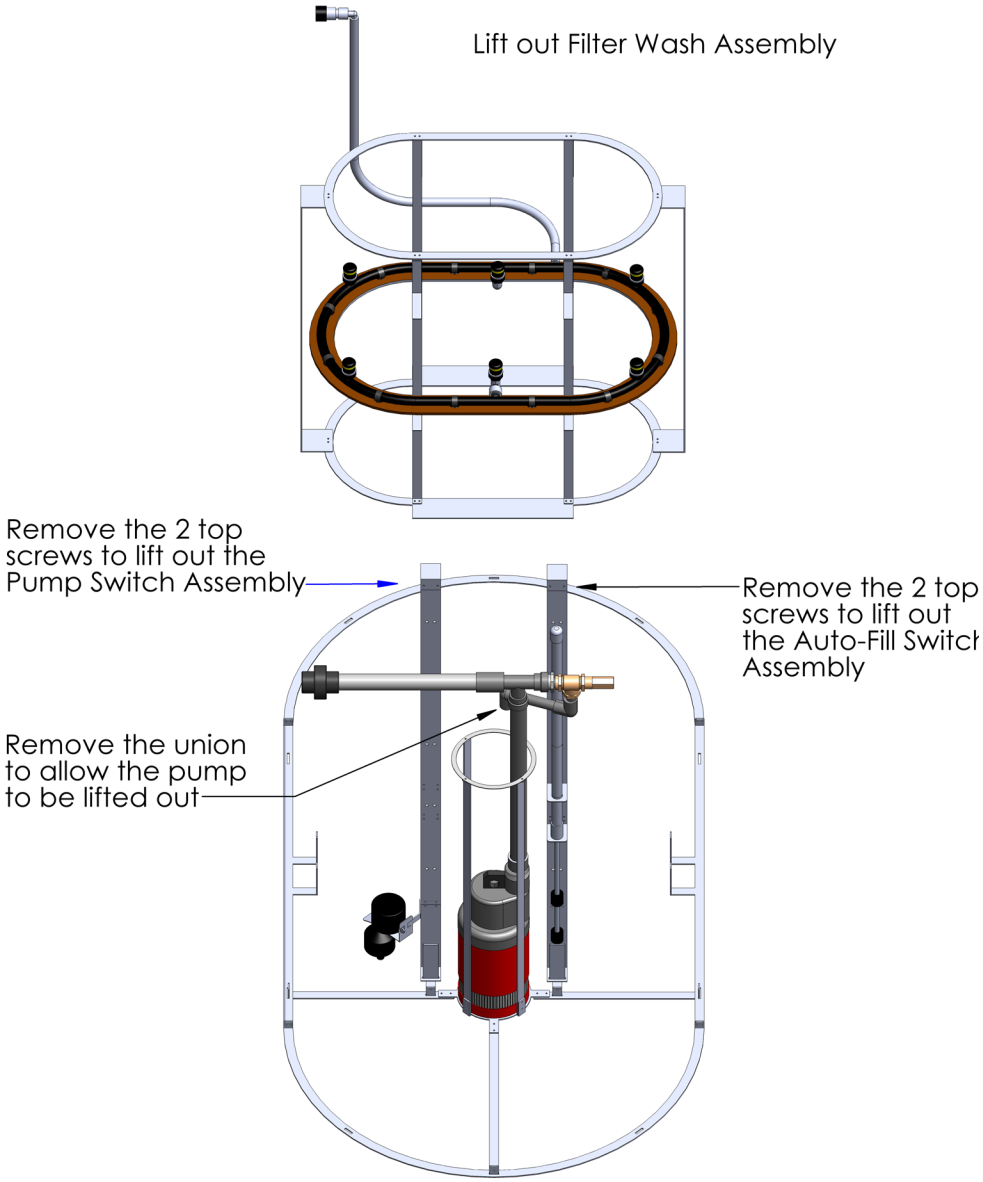
STEP 1:
Rotate the fastening nut left or right 90 degrees to free the collar from the carriage.



STEP 2:
Orient the fastening nut to the flange as shown then pull back on the accordion overflow tube.

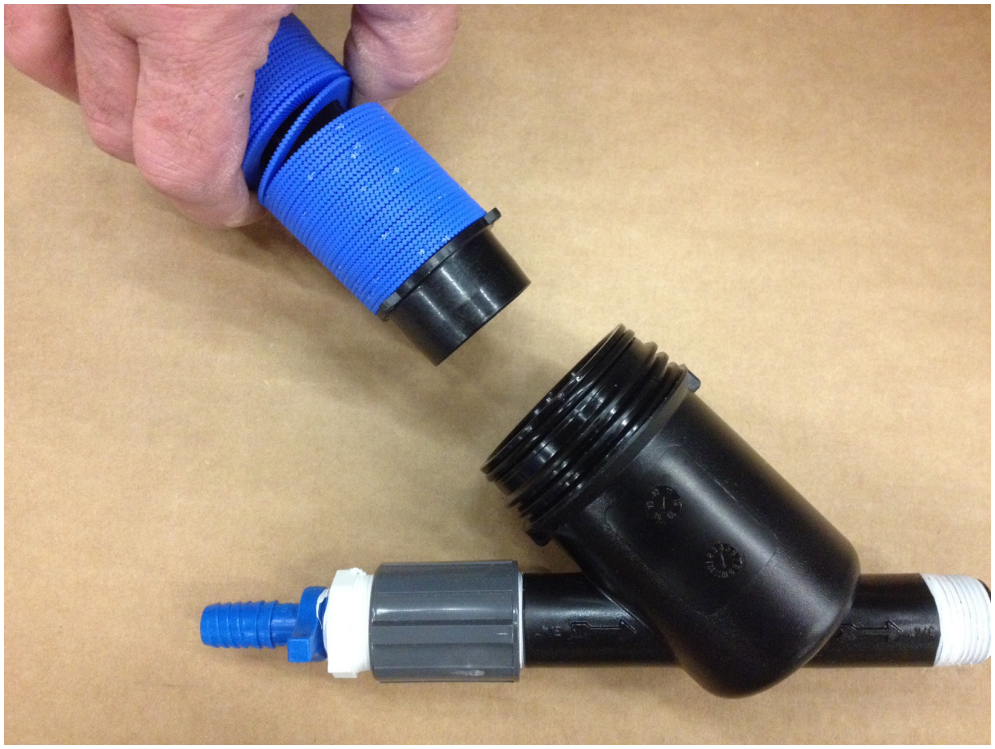
ACCESSING GREYWATER PROCESSOR

After the filter carriage has been lifted out, internal components are easily removed for inspection or future servicing.



FILTER WASH DISC FILTER

The filter wash disc filter prevents initial installation pipe debris from plugging the internal wash system. Unless there has been a disruption to the system this is not a regular maintenance item. See pages 3 and 10 for location.



TROUBLESHOOTING

Although the primary filter is self-cleaning, it is recommended that the filter is periodically cleaned to retain optimum system efficiency and functionality.

PROBLEM:	SOLUTION:
Minimal water is coming out of the drippers and neither performance indicators are fully popped up.	Both the primary and the secondary filter needs to be cleaned.
Minimal water is coming out the drippers and the brown indicator (pump) has fully popped up but the green indicator has not popped up.	The secondary filter needs to be cleaned.
Both filters have been cleaned and the pop-up indicators are still not fully popping up. Note: If not draining back to the sewer make sure the receiving area is sufficient to not cause water to backup over the top of the filter carriage.	The screen at the base of the pump has become restricted with micro particles. Remove the filter carriage and lift out the pump and wash off the pump intake.
The pump will not turn on.	Make sure there is power to the outlet, the filters have been cleaned, and there is at least 3” of water at the bottom of the tank to engage the pump switch. If the pump still is not pumping, unplug the piggy-back cord connection and plug the pump directly into the outlet. If the pump starts pumping then the float switch is defective. If the pump motor still does not start, then the pump will need to be serviced.
Filter wash nozzles are not spraying	Installation debris has collected in the filter wash strainer. Remove the filter disc element & wash debris. See page 10 for the filter wash disc filter location.

SYSTEM WARRANTY

LIMITED TRADE WARRANTY

The Filtrific Co. LLC (Filtrific) offers a 5 year warranty on all Flotender polyethylene components. All other products and accessory components are warranted to be free of defects in material and workmanship for a period of one (2) years from the original date of purchase. This warranty extends only to the original installer of the Flotender system. Filtrific will repair or replace any properly handled and installed product which fails under normal operating conditions within the warranty period, providing it was installed and maintained correctly, and all materials are returned to the factory (shipping prepaid). This warranty does not extend to labor or replacement charges, nor does it apply to any equipment of another manufacturer used in conjunction with Flotender products. Filtrific shall not be held liable for indirect, incidental, or consequential damages to Flotender products.

Flotender™ by Filtrific®
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Optional Accessories
GL Series Systems

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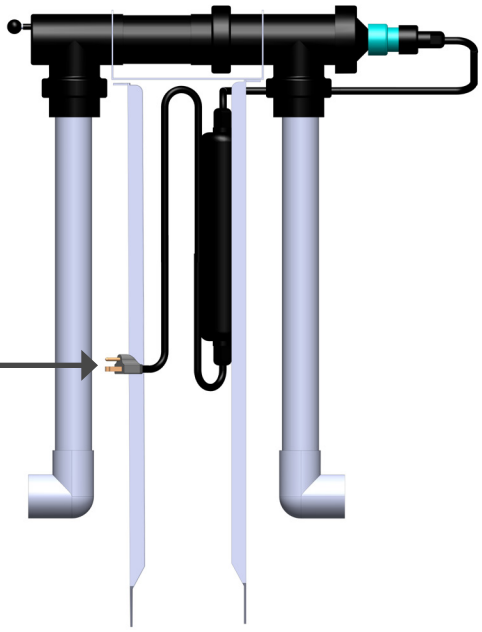
GreyLink™

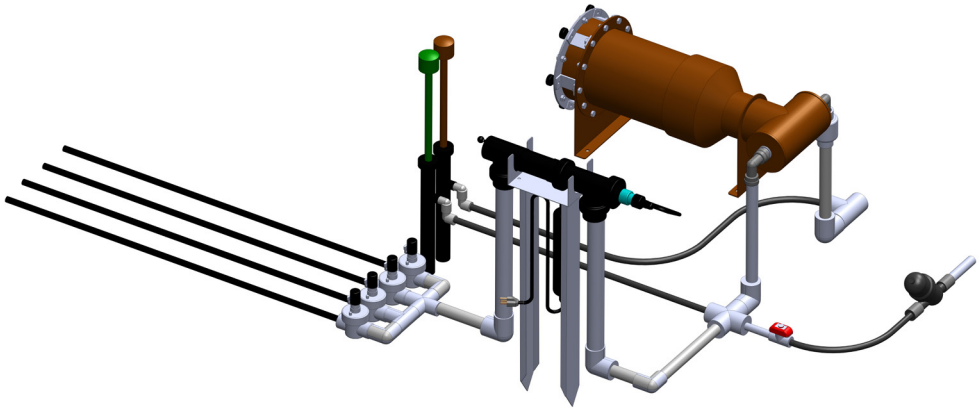
Smart Greywater Irrigation Systems

Ultraviolet Sterilizer System - GXL Series Systems

Installation:

Plug the ultraviolet sterilizer and the irrigation pump into a pump relay controlled double outlet. This will ensure that both the uv sterilizer and pump are powered simultaneously.





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Toll Free: 800.906.0604 • Local: 425.643.2312 • Fax: 425.482.9559
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GreyLink™

Smart Greywater Irrigation Systems

Ozone Treatment System

Installation:

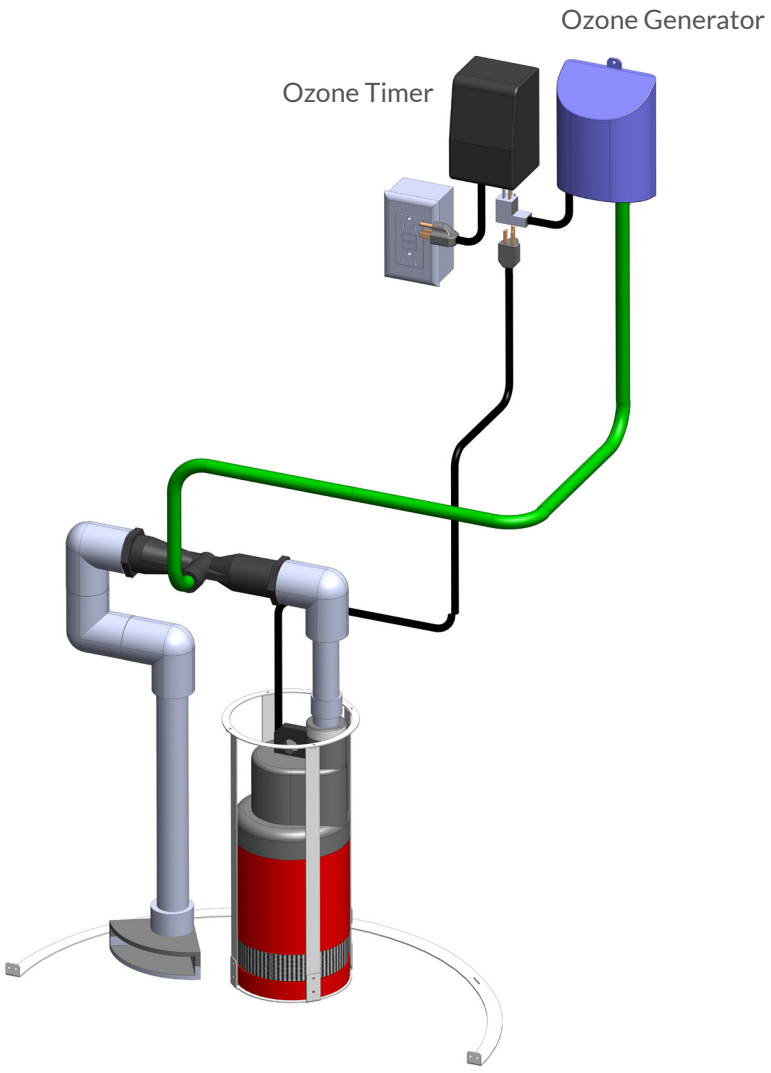
The ozone circulating system is pre-installed within the greywater processor and does not require further assembly. Connect the green ozone supply tube from the processor to the ozone generator.

Timer Connection:

Plug the cord marked “ozone” into the **single outlet outdoor timer**.

Do not exceed 30 minute run times to prevent the pump from overheating at low water levels.

30 minutes one or two times per day is usually sufficient for most installations.



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GreyLink™

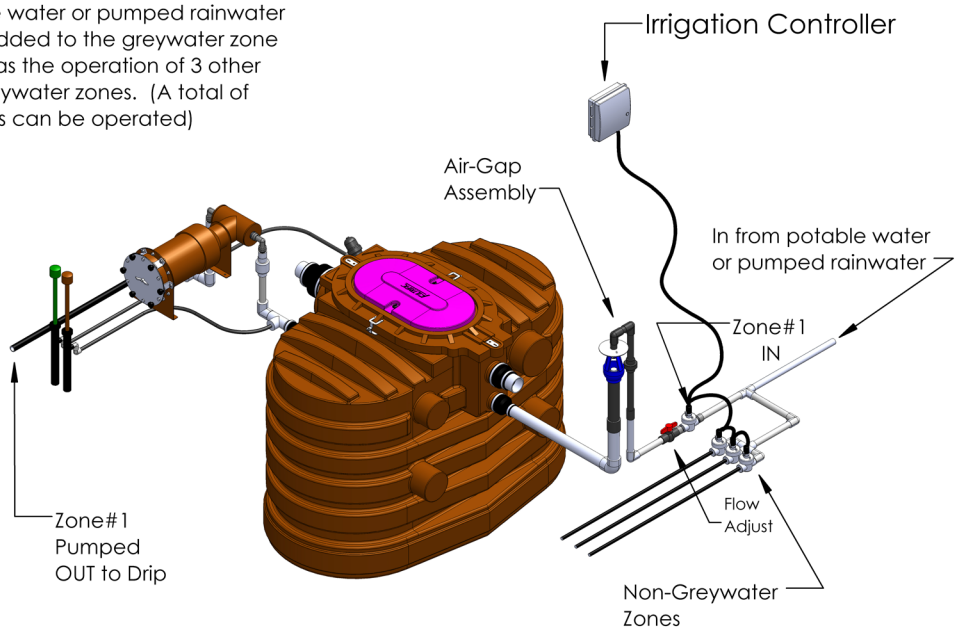
Smart Greywater Irrigation Systems

GXL Flotender Automation Option 1

Add a Scheduled Auto-Fill and Non-Greywater Zones

MZ-3 Automation Package

Provides for controller programmed potable water or pumped rainwater to be added to the greywater zone as well as the operation of 3 other non-greywater zones. (A total of 16 zones can be operated)



Required:

- MZ-3 Automation Package
- Airgap Assembly

How It Works:

Greywater from the building flows into the Greywater Processor where it is immediately pumped out to the landscape. If the building greywater is insufficient or when away on vacation Zone# 1 can be programmed to add additional water as needed. Since this Auto-fill Option is not sensor controlled, the flow-adjust valve should be set to not exceed the pump-out rate, otherwise water could be lost out the overflow.

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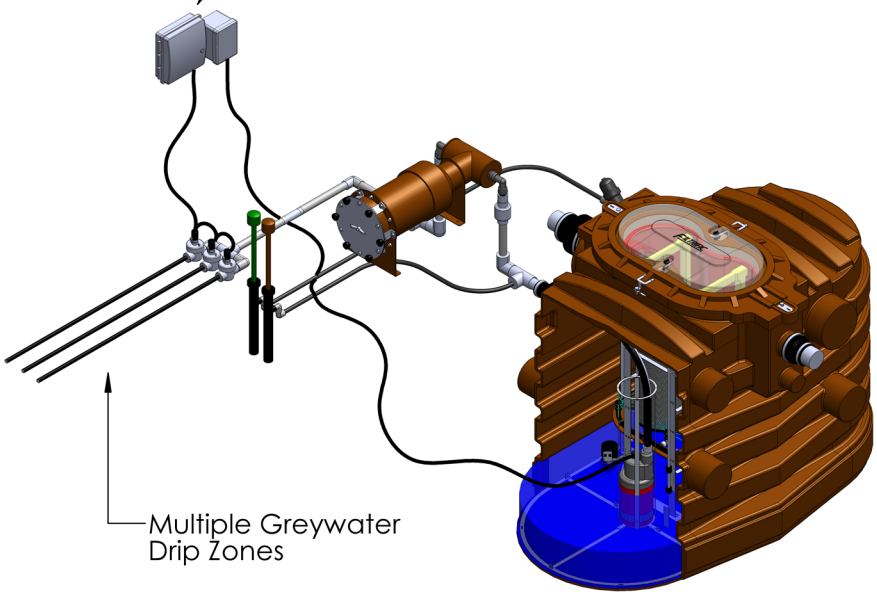
GXL Flotender Automation Option 2

Programed Multiple Greywater Zones Without Auto-Fill

MZP-3
Controller, Pump Start &
Greywater Zone Valves

Opens programed zone valves and provides multiple daily filter wash intervals. (Allowing for a wash zone, a total of 15 irrigation zones can be operated)



Required:

- MZP-3

How It Works:

Greywater from the building flows into the Greywater Processor where it is held until the irrigation controller actives the greywater pump and opens a greywater drip zone. (Greywater should not be stored for more than 24 hours)

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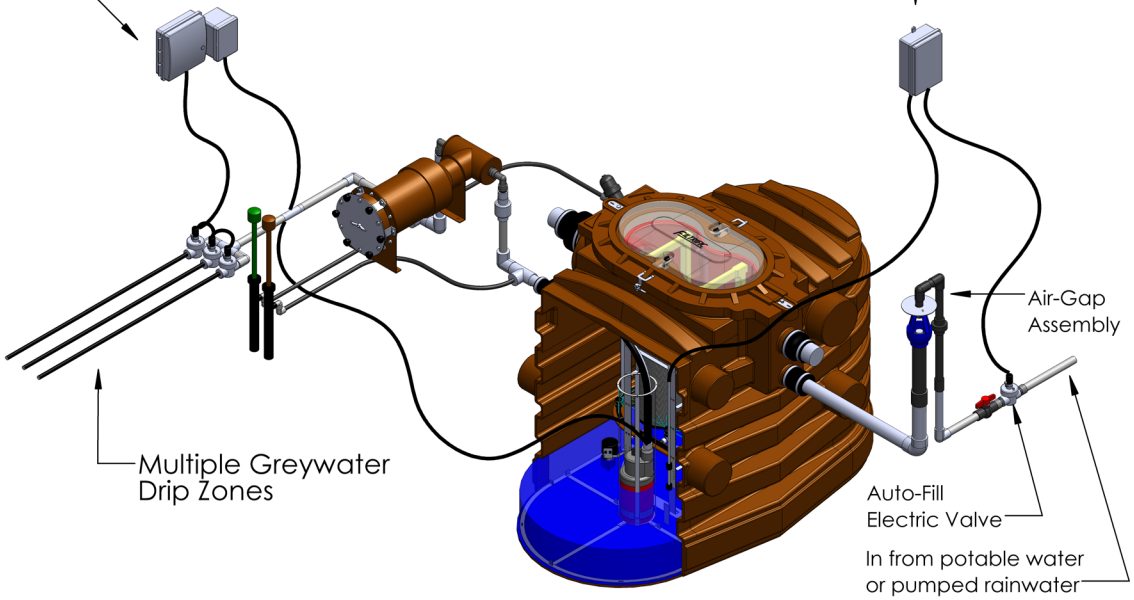
GXL Flotender Automation Option 2A

Programmed Multiple Greywater Zones with Sensor Controlled Auto-Fill (Automatically adds additional water if needed to complete the programmed watering)

MZP-3
Controller, Pump Start & Greywater Zone Valves
Opens programed zone valves and provides multiple daily filter wash intervals. (Allowing for a wash zone, a total of 15 irrigation zones can be operated)

AFS-1 Sensor Controlled Auto-Fill System
Adds supplimental water if needed when a greywater zone valve is activated



How It Works:

Greywater from the building flows into the Greywater Processor where it is held until the irrigation controller actives the greywater pump and opens a greywater drip zone. (Greywater should not be stored for more than 24 hours)
If during the scheduled watering duration the greywater level in the processor becomes to low, the auto-fill sensor will activate the auto-fill valve to maintain a sufficient pumping level.

Required:

- MZP-3
- AFS-1
- Air Gap Assembly

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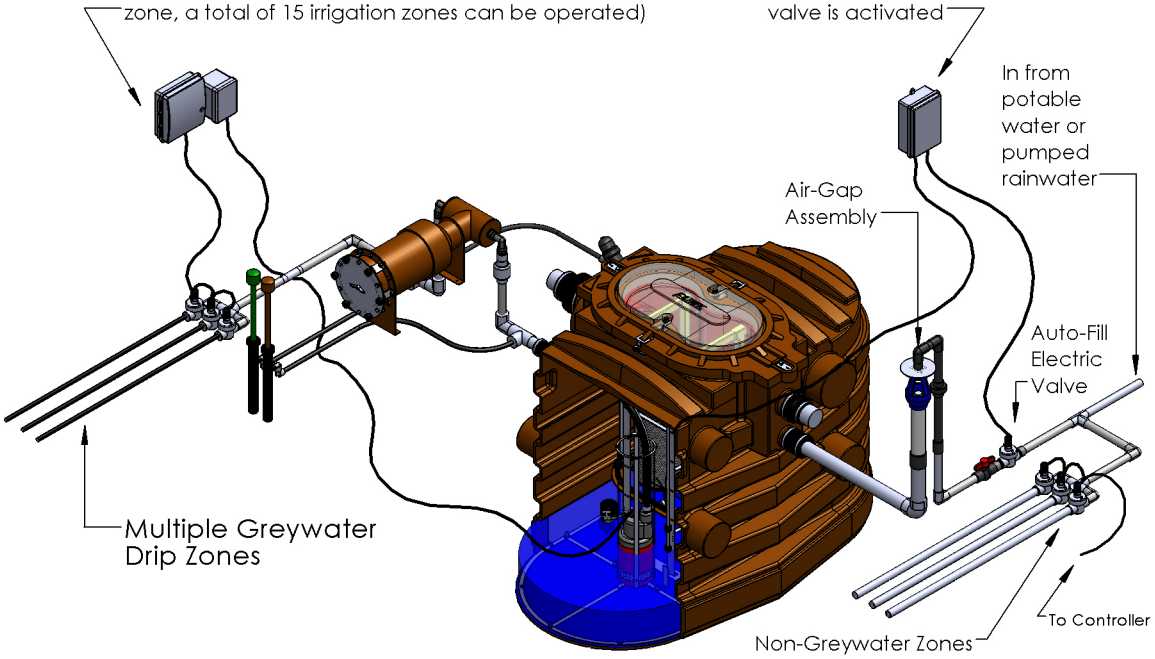
GXL Flotender Automation Option 3

Programmed Multiple Greywater Zones and Non-Greywater Zones with Sensor Controlled Auto-Fill (Automatically adds additional water if needed to complete the programmed watering)

MZP-3
Controller, Pump Start & Greywater Zone Valves
Opens programed zone valves and provides multiple daily recycled filter wash intervals. (Allowing for a wash zone, a total of 15 irrigation zones can be operated)

AFS-1 Sensor Controlled Auto-Fill System
Adds supplimental water if needed when a greywater zone valve is activated



How It Works:

Greywater from the building flows into the Greywater Processor where it is held until the irrigation controller actives the greywater pump and opens a greywater drip zone. (Greywater should not be stored for more than 24 hours)
If during the scheduled watering duration the greywater level in the processor becomes to low, the auto-fill sensor will activate the auto-fill valve to maintain a sufficient pumping level.

Required:

- MZP-3
- AFS-1
- Air Gap Assembly

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