

Florida ECOPOD-N Assembly Instructions for Infiltrator Category 4 IM-1060 Tank

Introduction

The ECOPOD-N Fixed Film Wastewater Treatment System reactor is a specially designed containment device that houses an engineered plastic media specifically designed to treat domestic wastewater. The ECOPOD-N Fixed Film Wastewater Treatment System reactor is submerged in a tank of liquid, which operates as a dilution/recirculation clarifier zone. An external air compressor is connected to the tank to provide the necessary air to the system. There are no moving mechanical parts or filters in the ECOPOD-N Fixed Film Wastewater Treatment System. Each ECOPOD-N reactor is shipped preassembled from the factory and furnished with an assembly kit for installation into an Infiltrator IM-1060 single-compartment tank. These instructions cover the assembly of the following ECOPOD-N models:

E50-N (500 gallons per day)

E60-N (600 gallons per day)

E75-N (750 gallons per day)

For design and field installation of a fully assembled unit, please refer to the ECOPOD-N SERIES FIXED FILM WASTEWATER TREATMENT SYSTEM INSTALLATION, OPERATION AND MAINTENANCE MANUAL found online <https://www.infiltratorwater.com/delta-treatment-systems/ecopod/ecopod-n/>.

An authorized assembler shall perform assembly of the Infiltrator IM-1060 tank. The "IM-Tank Assembly Checklist and Assembler Authorization Form" must be completed and submitted to Infiltrator Water Technologies (IWT) to become an authorized assembler. For concerns regarding becoming a certified assembler, please contact IWT, or your local IWT sales representative.

NOTE:

FOR PROPER ASSEMBLY AND INSTALLATION ALSO REFER TO: INFILTRATOR IM-1060 SEPTIC TANK FLORIDA CATEGORY 4 ASSEMBLY INSTRUCTIONS, INFILTRATOR IM-TANK GENERAL INSTALLATION INSTRUCTIONS, RISER CONNECTION GUIDANCE, AND BOUYANCY CONTROL GUIDANCE DOCUMENTS AND STATE/LOCAL PRODUCT APPROVALS AND APPLICABLE REGULATIONS PRIOR TO INSTALLATION AND USE.

Tools Required:

Drill, with Nut Drivers (5/16", 3/8")
7/16" Wrench
Pipe Saw or Reciprocating Saw
Tape Measure
3" and 5" Hole Saw
2' Level (Recommended)
Utility Knife
Rubber Mallet
Hammer

Materials Needed:

Safety Glasses and Gloves
Lifting Straps
PVC Glue
Infiltrator Category 4 IM-1060 Tank
Infiltrator EZsnap Riser (24" x 6" minimum)
2" Sch. 40 PVC 90° Elbow(s)
2" Sch. 40 PVC Pipe
Soapy water in spray bottle
Permanent Marker



Figure 1: Tools and Material Needed

Assembling the ECOPOD-N:

Instructions are written for the E50-N with specific instructions for the E60-N and E75-N where needed. Each preassembled ECOPOD-N reactor is shipped on a pallet with an assembly kit, a foot pad kit to adapt the reactor to IM-1060 tank, a compressor, and a control panel. When using a Florida Category 4 IM-1060 tank, the ECOPOD-N reactor has one predrilled hole (E50-N) or two predrilled holes (E60-N and E75-N) through the sidewalls and media to accommodate the mid-body horizontal stiffener(s).

Assembly Kit Includes:

2" Rubber Gasket (1)
4" Vent Pipe Assembly (1)
4" Discharge Assembly (1)
5 ½" Category 4 Cover Plate (2)
No. 14 X 1" Flanged Hex Head Screw (4)
Foot Pad and Screws (10)

E60/E75 Kit Includes:

5 ½" Category 4 Cover Plate (4)
No. 14 X 1" Flanged Hex Head Screw (8)
Foot Pad and Screws (12)



Figure 2: Assembly Kit

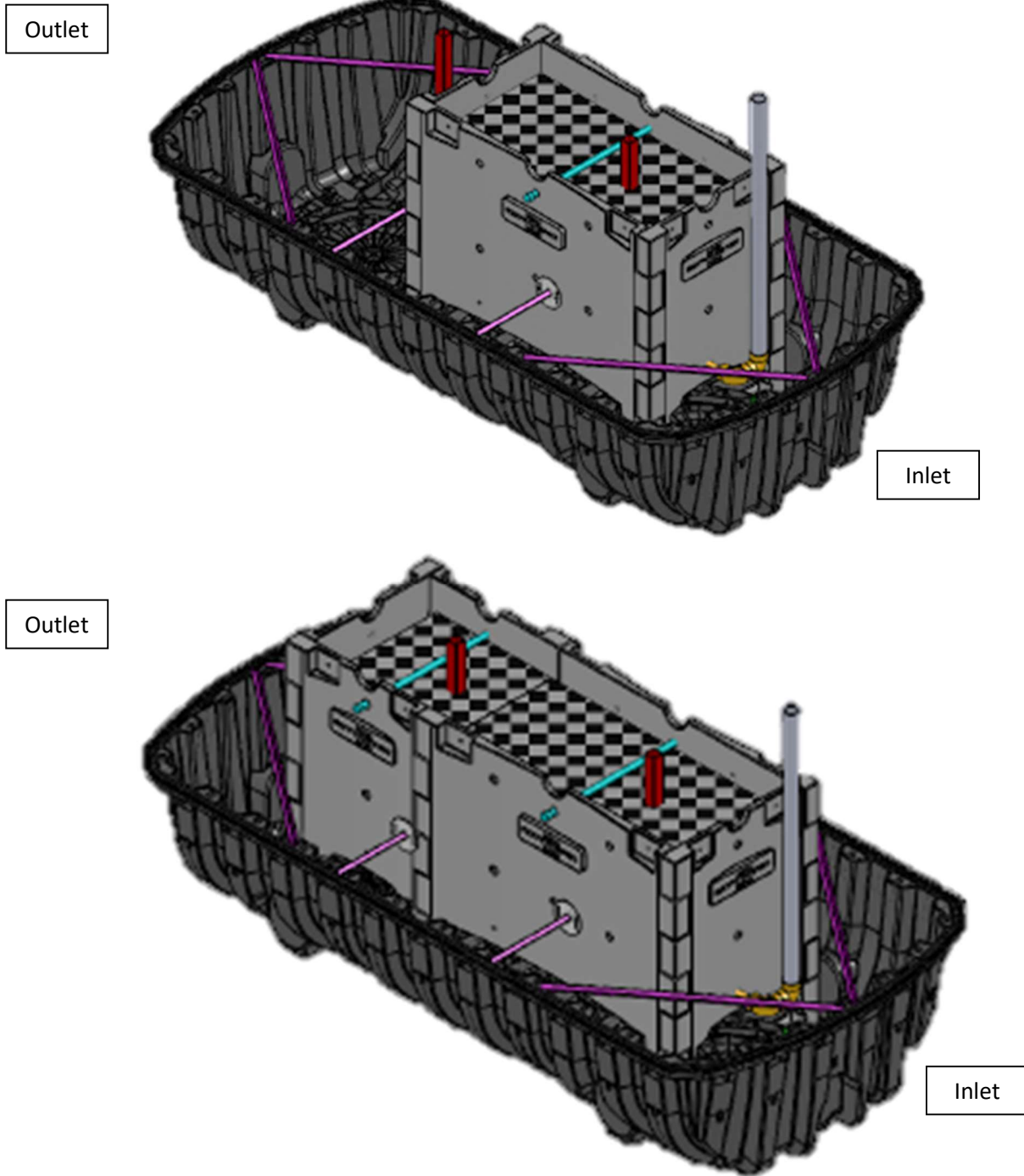


Figure 3: ECOPOD-N E50 (Top) and ECOPOD-N E60/E75 (Bottom)
Assembled Reactor in Florida Category 4 IM-1060 Tank

1. Install Feet

For All Models: The foot kit includes six (6) foot pads (only four of the foot pads are used when assembling an E50-N). There are two different types of foot pads:

- The flat-bottomed foot sits on the inlet end of **E50-N**, **E60-N**, and **E-75-N** and on the outlet end of the **E60-N** and **E75-N** models.
- The curved-bottom foot sits on the outlet end of the **E50-N** and on the “middle feet” of the **E60-N** and **E75-N**.



Figure 4: ECOPOD-N Reactor Feet: Flat Bottom (left) and Curved Bottom (right)

Using the provided 5/16” screws secure the legs of the ECOPOD-N reactor to the provided foot pads. Use at least two long screws per foot pad.

2. Air Supply Manifold

For All Models: The air supply manifold (See Figure 5) is designed to be piped around the IM Tank vertical support. The jog in the air supply manifold goes on the inlet end of the reactor.

For E50-N: The air supply manifold has six (6) air drops.

- The inlet to the air manifold is attached at the inlet end of the tank.

For E60-N and E75-N: The air supply manifold has eight (8) air drops.

- The air supply manifold has two jogs in the manifold to avoid the IM Tank vertical supports.
- The inlet to the air manifold is attached at the inlet end of the tank.

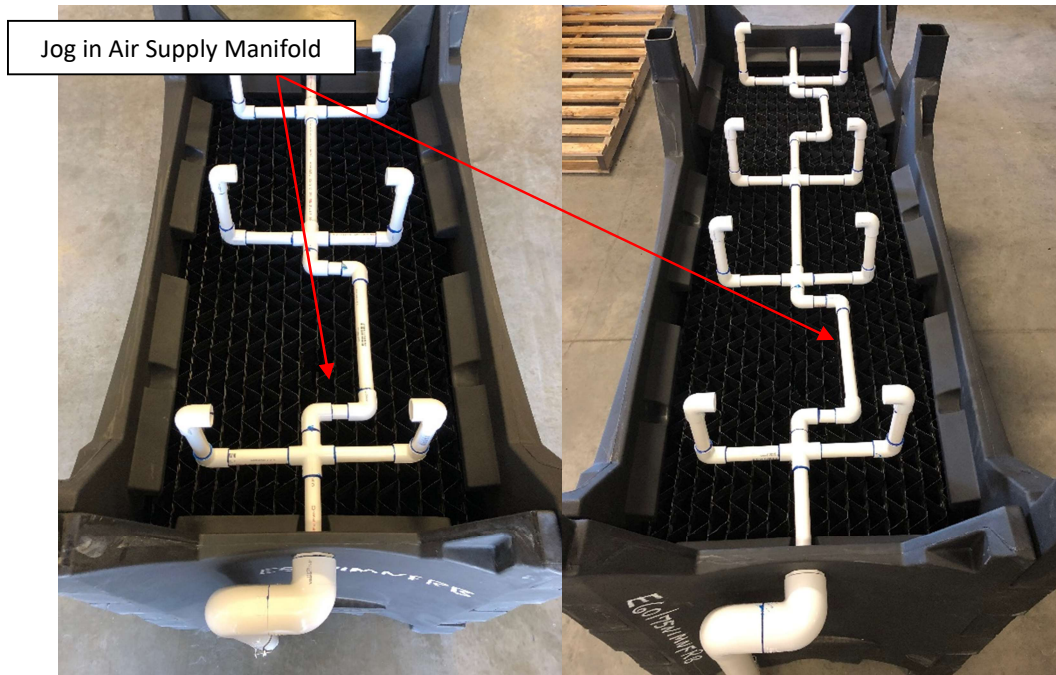


Figure 5: ECOPOD-N E50 (Left) and ECOPOD-N E60/E75 (Right) Air Supply Manifold

3. Place Reactor in Tank

For All Models: Turn the ECOPOD-N reactor box upright (legs will hang below the box), place the reactor into the tank. (See Figure 7 for placement)

4. Insert Horizontal Member(s)

For E50-N: Insert a mid-body horizontal stiffener through the predrilled hole in the ECOPOD-N sidewalls and media. Place the second mid-body stiffener adjacent to the outlet end of the ECOPOD-N. Set stiffeners in the recessed seats located along the tank body sidewall such that half of the stiffener projects above the top rim of the tank bottom half.

For E60-N and E75-N: Insert the two mid-body horizontal stiffeners through the predrilled holes in the ECOPOD-N sidewalls and media. Set stiffeners in the recessed seats located along the tank body sidewall such that half of the stiffener projects above the top rim of the tank bottom half.

5. Install Cover Plates

For All Models: Slide cover plates onto the ends of the mid-body horizontal stiffeners (See Figure 6). Attach the cover plates to the ECOPOD-N by installing the No. 14 hex head screws at the midpoint of the cover plate slots. Advance the screws until the head is snug against the face of the cover plate, but allows the cover plate to slide vertically along the ECOPOD-N surface if the unit moves. Do not overtighten the screw, or the cover plate may deform or break, the cover plate may not be able to slide along the outside surface of the ECOPOD-N, or screw bead may be stripped.

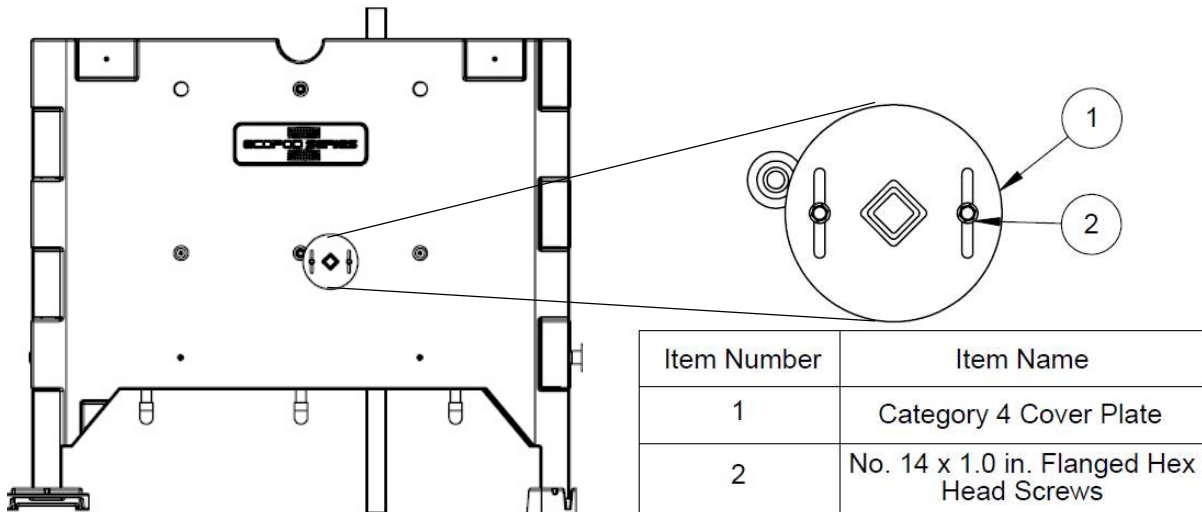


Figure 6: ECOPOD-N E50 mid-body horizontal member with cover plate

6. Insert Diagonal Member(s)

For All Models: Insert the 4 diagonal stiffeners into the recessed seats located along the tank body sidewalls and ends. Set stiffeners in the recessed seats located along the tank body end and sidewall such that half of the stiffener projects above the top rim of the tank bottom half.

Note: Baffles are not required to be installed in the IM-1060 with ECOPOD-N

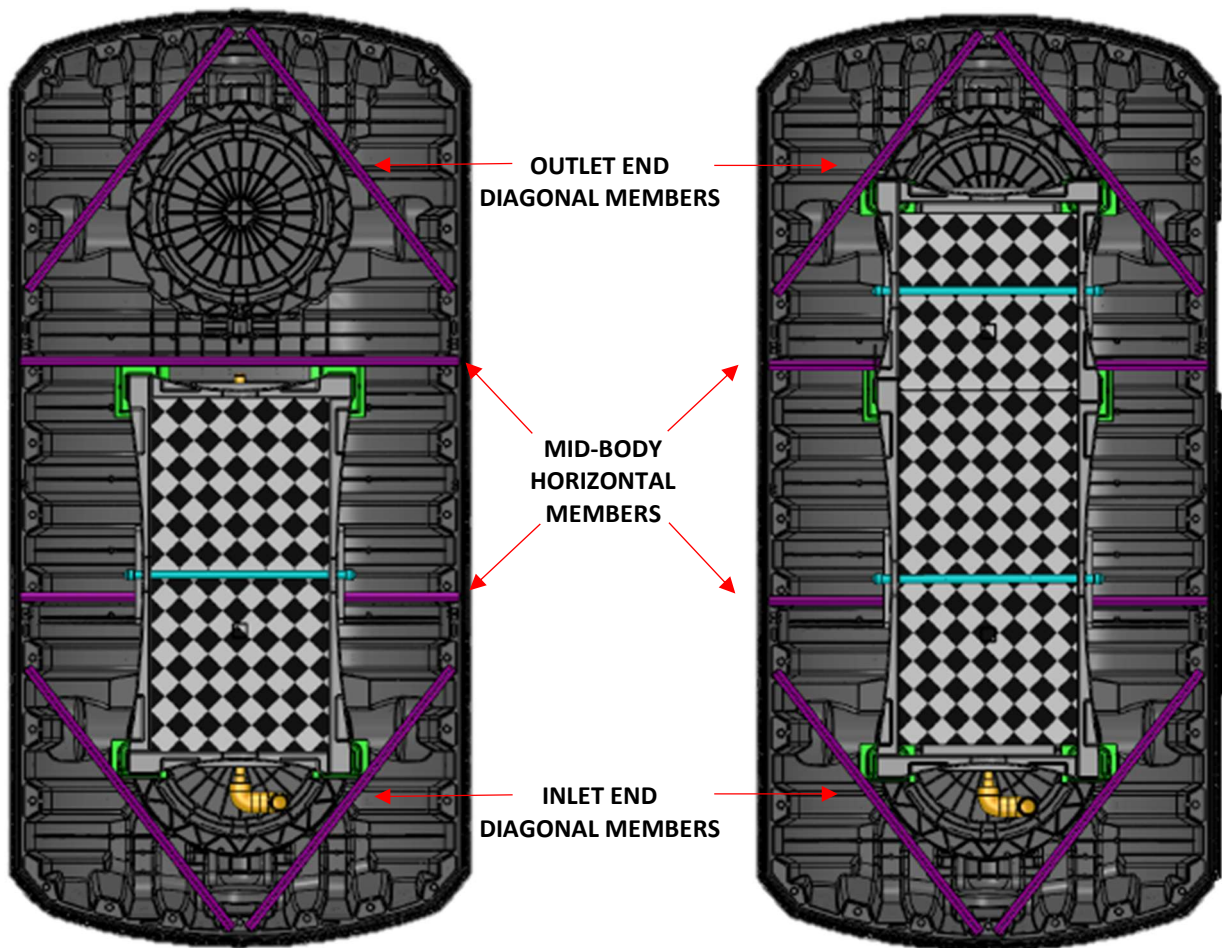


Figure 7: ECOPOD-N E50 (Left) and ECOPOD-N E60/E75 (Right) Horizontal and Diagonal Stiffener Locations

7. IM Tank Vertical Supports

E50-N: Insert the vertical support through the media into the post seat located at the bottom of the tank on the inlet end of the tank.

E60-N and E75-N: Insert two vertical supports through the media into the post seat located at the bottom of the tank on the inlet and outlet end of the tank.

Steps 1 Through 7 Should Be Performed Before Permanently Securing IM-1060 Tank Halves with Fastening Clips per the Infiltrator IM-Series Septic Tank Assembly Instructions

8. Assemble IM Tank

- Place the top half onto the bottom half of IM-1060 tank.
- Secure vertical tank supports in post seat located at the top of the tank.

- Continue per Infiltrator IM-1060 Septic Tank Florida Category 4 Assembly Instructions.

9. Outlet Hole

- Cut the outlet hole at the provided drill point on the tank (44" above the bottom of the tank).
- Install the 4" rubber gasket included with the Infiltrator IM-tank assembly in the cut outlet hole.
- Install a 2.5' length of 4" ASTM 3034 PVC through the gasket at the tank outlet.

Note: It is recommended to bevel and lubricate the pipe prior to installation.

10. Discharge Tee

- Glue the 4" discharge tee assembly (Figure 8) to the 4" outlet pipe on the outlet end of the tank.



Figure 8: 4" Discharge Tee Assembly

11. Inlet Hole

- Cut the inlet hole at the provided drill point on the tank (47" above the bottom of the tank).
- Install the 4" rubber gasket included with the Infiltrator IM-tank assembly in the cut inlet hole.
- Install a 3' length of 4" ASTM 3034 PVC through the tank inlet and into the ECOPOD-N reactor through the semi-circle in the end panel. The inlet must "spill" onto the reactor

media block (Figure 9). Note: It is recommended to bevel and lubricate the pipe prior to installation.

INLET AND OUTLET SHOULD HAVE A 4" RUBBER GASKET WITH PROPER PIPING PRIOR TO THIS STEP.

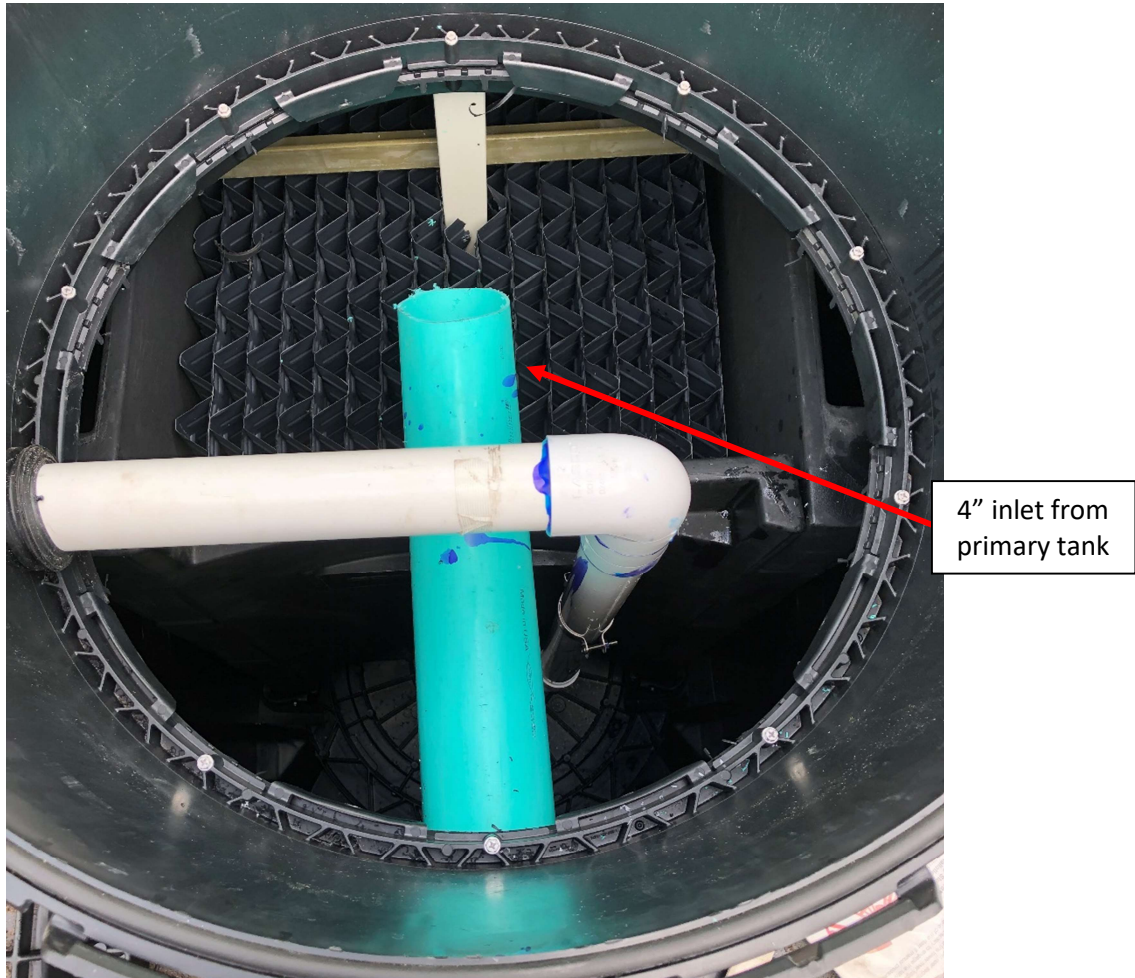


Figure 9: ECOPOD-N in an Infiltrator IM-1060 tank

12. Category 4 label application instructions:

- To establish the IM-1060 as housing an ECOPOD unit, use an Infiltrator-supplied label for the Category 4 IM-1060 ECOPOD, with a ledger number as follows: 70-143-EP5S-C4 (ECOPOD E50-N- IM-1060), 70-143-EP6S-C4 (ECOPOD E60-N-IM-1060), and 70-143-EP7S-C4 (ECOPOD E75-N-IM-1060).
- If the surface of the tank where the embossed ledger number (70-143-11D-C4, at the inlet end) is not clean and dry, use a cloth to clean and dry the surface prior to label application.
- Remove the backing from the adhesive label.
- Place the adhesive side of the label onto the tank, positioning it over the embossed ledger.
- Place the label such that it covers the entire embossed ledger number.

- Place the label so that the ledger number is in the same orientation as the embossed ledger number.
- Press the label onto the surface of the tank using firm hand pressure to promote a bond between the label and tank surface.

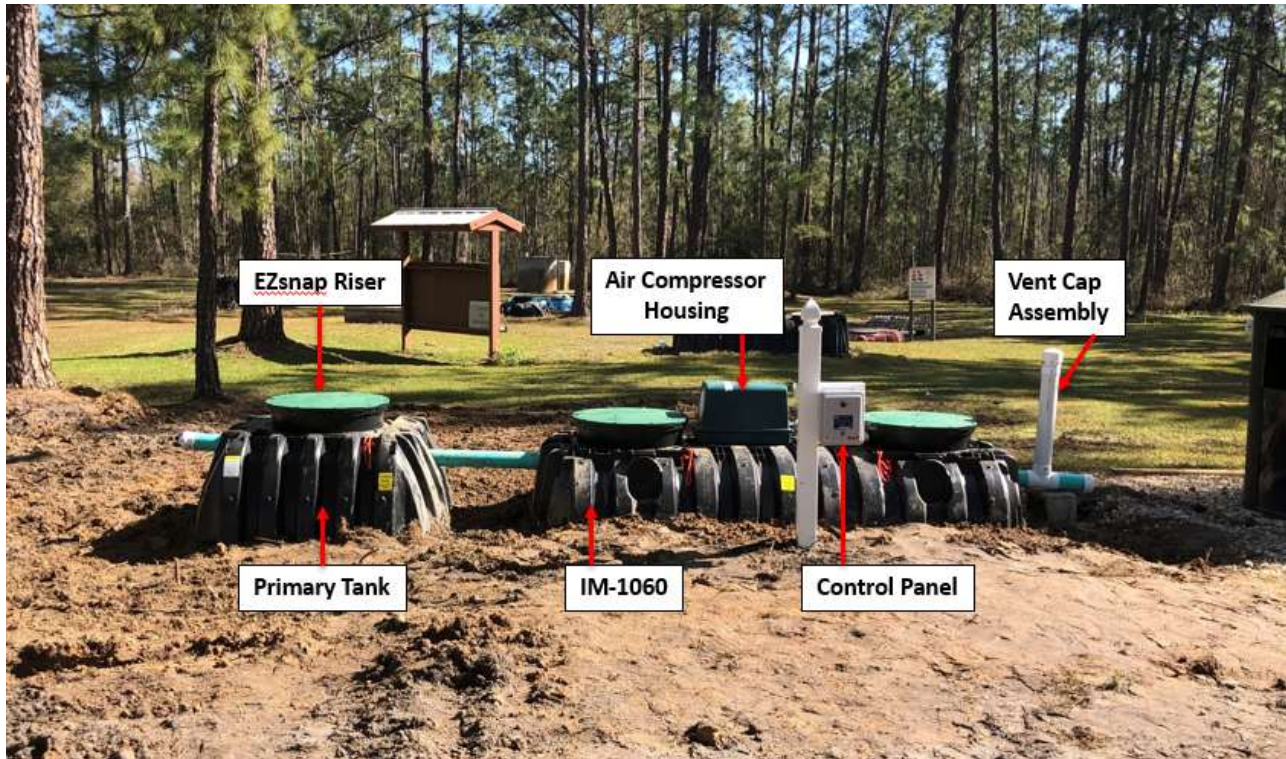


Figure 10: Primary tank with EZsnap Riser, IM-1060 tank with air compressor housing on top, control panel, and vent cap assembly. NOTE: Tank is partially exposed for demonstration

Documents to be included with each assembled ECOPOD-N Series:

Infiltrator IM-Series Tank General Installation Instructions

Infiltrator IM-Series Tank Rise Connection Guidance Document for EZsnap Risers

ECOPOD-N Series Fixed Film Wastewater Treatment System Installation,
Operations, and Maintenance Manual

Control Panel and Corresponding NSF Serial Tags

For questions, call Delta Treatment Systems at 1-800-219-9183.