

ECOPOD Edge500 in CM-1060 Assembly Instructions

Introduction

This document provides assembly instructions for the Infiltrator Water Technologies (Infiltrator) Advanced Treatment Systems ECOPOD Edge500 housed in the Infiltrator CM-1060 tank. These instructions cover the assembly of the Edge500 500 gallon-per-day model: EDGE500CM1060.

An Infiltrator tank Authorized Assembler shall perform the assembly of the Infiltrator CM-1060 tank. Please contact Infiltrator or your local Infiltrator area sales representative for information about becoming an Authorized Assembler. The scope of this document is limited to assembly of the ECOPOD-Edge unit in an Infiltrator tank (Figure 1)



Figure 1: Cutaway view of an Infiltrator CM-1060 tank housing the 500gpd ECOPOD-Edge

FOR PROPER ASSEMBLY AND INSTALLATION, ALSO REFER TO THE FOLLOWING:

- Infiltrator Septic Tank Assembly Instructions
- Infiltrator IM- and CM-Series Septic Tank General Installation Instructions
- Infiltrator IM- and CM-Series Tank Riser Connection Guidance Document for EZsnap Risers
- Infiltrator IM- and CM-Series Tank Buoyancy Control Guidance
- State/Local product approvals and applicable regulations

ECOPOD ASSEMBLY KIT (Figure 2)**Box for distributor assembly:**

- (1) ECOPOD Edge500 reactor box (1x)
- (2) ECOPOD Edge500 Baffles (3x) (detail below)
- (3) Crossbar supports (4x)
- (4) Air inlet manifold + Flex pipe(1x)
- (5) Return-recirculation pipe (1x)
- (6) Plumbing fittings (1x flexible elbows, 3x Oetiker clamps)
- Florida ledger label (if applicable) (1x)
- UP/CAUTION Labels (2x)
- Pouch with Reactor's Serial Number (1x)

Box to be delivered to the system installer:

- (7) 4" Discharge assembly (1x)
- (8) 4" Atrium vent guard (1x)
- (9) Control panel (1x)
- (10) Aerator (1) box includes: 1" Rubber grommet (1x), 1" Female NPT coupling (1x), 1" Galvanized combo fitting (1X)
- (11) 4" Inlet tee assembly
 - Installation, Operations, & Maintenance Manual

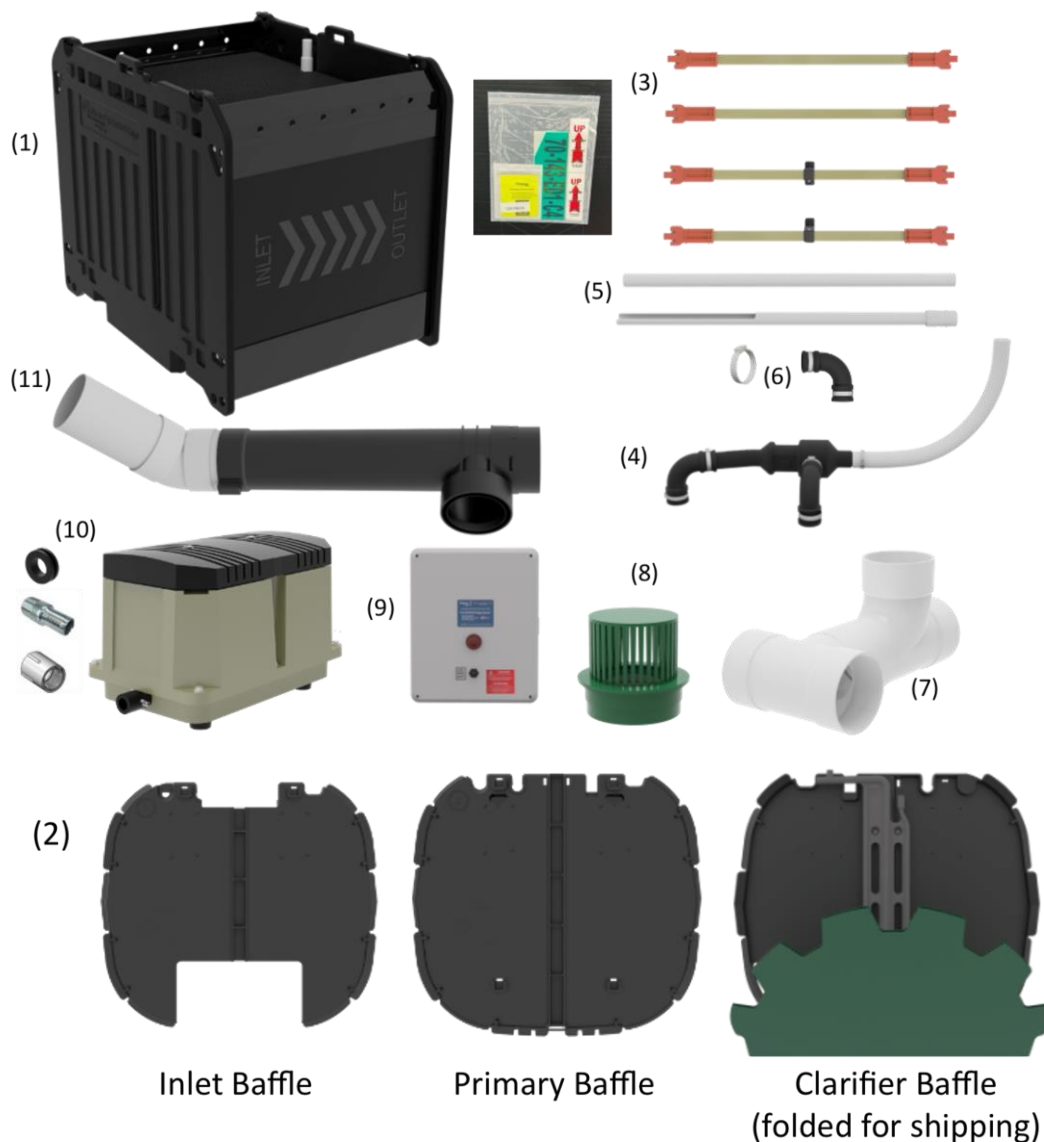


Figure 2: ECOPOD Edge assembly components (not to scale, not all parts shown)

The Infiltrator tank authorized assembler will receive the CM-1060 tanks and ECOPOD Edge500 separately. The ECOPOD Edge500 kit will be shipped and should be received by the authorized assembler as shown in *Figure 3a*, one pallet with the baffles and a second pallet with reactors, and on top of them, distributor and contractor boxes that include all the required parts.

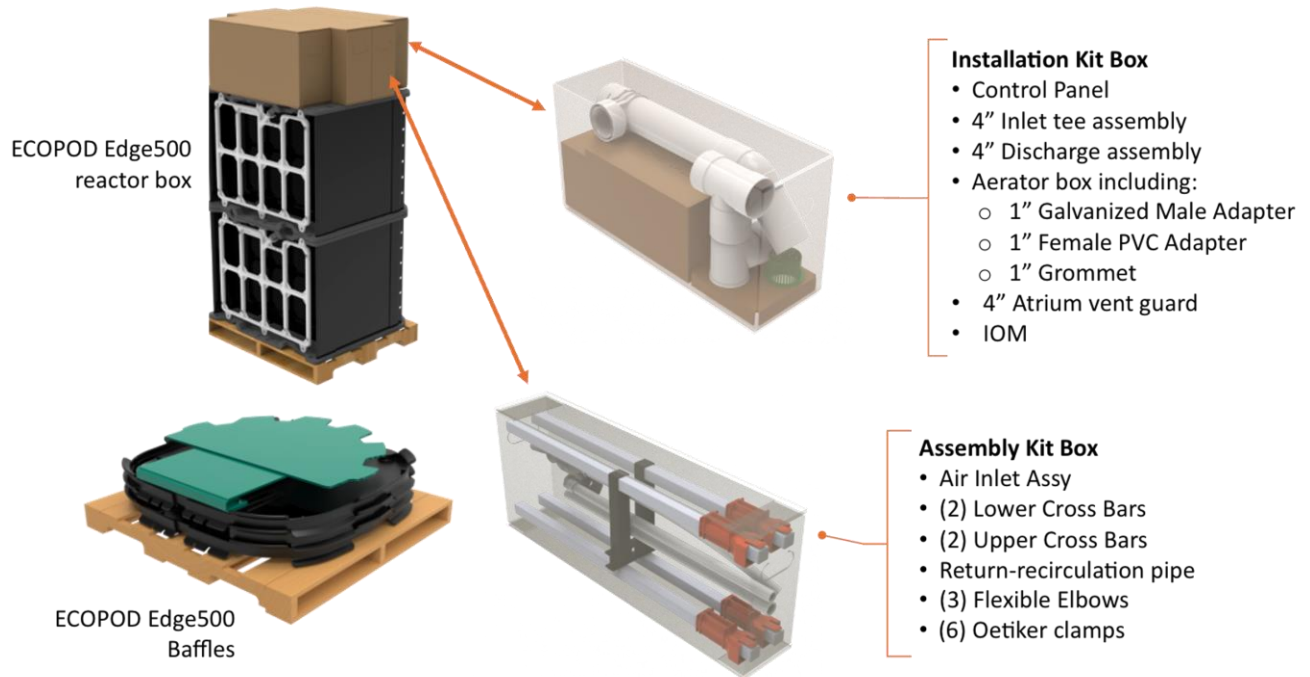


Figure 3a: ECOPOD Edge assembly and Installation components (not to scale, not all parts shown)

If the authorized assembler orders a full 53' truckload, they will receive 42 units in 28 pallets with the layout shown below in *Figure 4b*

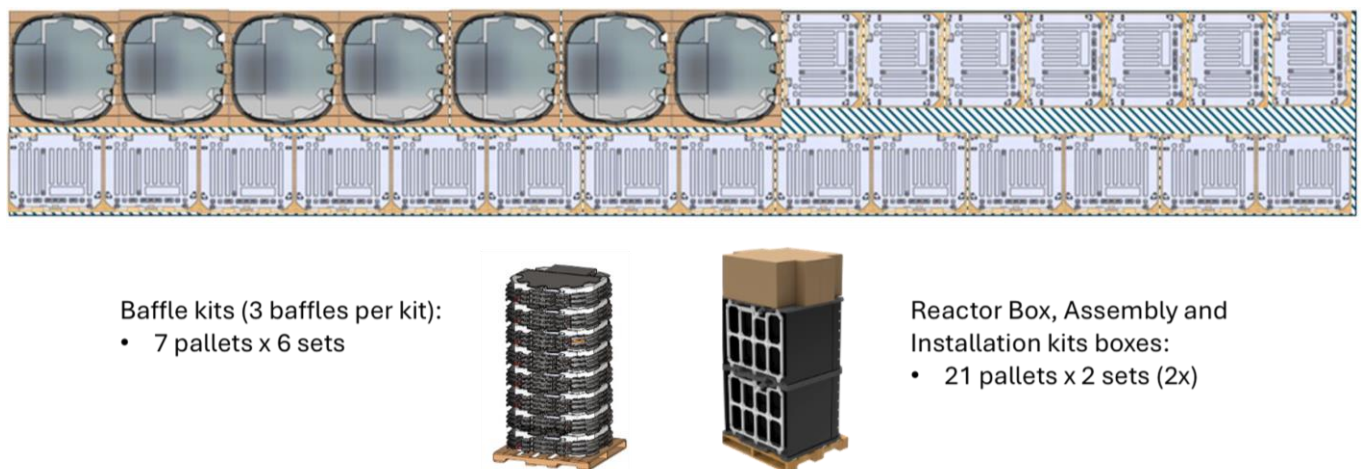


Figure 4b: ECOPOD Edge full truckload layout (not to scale, not all parts shown)

ASSEMBLY INSTRUCTIONS:

1. Place Baffles and horizontal support crossbars in Tank

- Place the baffles in the locations shown below (Figure 5)
 - Clarifier Baffle** (marked as ③ at the top-right) on the rib marked **F** in the tank. Once the baffle frame is in place, unfold the sloped baffle wall aligned with the tank body mid-seam against the outlet end of the tank.
 - Primary Baffle** (marked as ② at the top-left) on the rib marked **A** in the tank.
 - Inlet Baffle** (marked as ① at the top-left) on the first straight rib right before the rib marked A in the tank

NOTE: Install baffles ② and ③ with the embossed markings facing each other

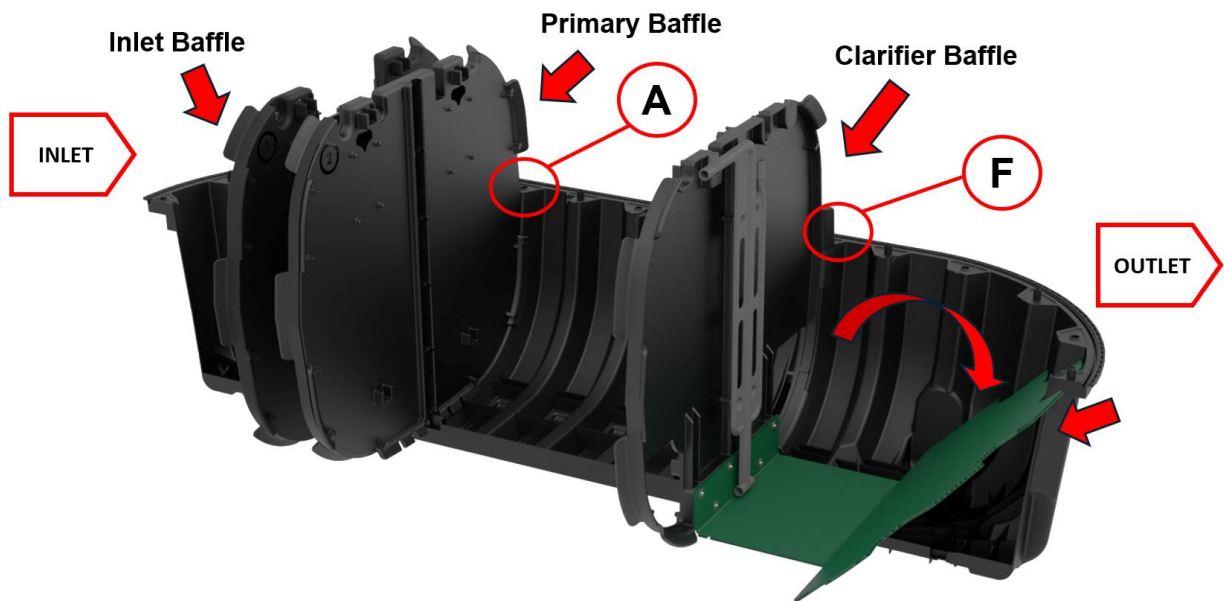


Figure 5: Baffle positions in CM-1060 Tank

- As shown in Figure 6, insert two 2"x2" vertical support posts, sliding them thru the channels in baffles ② and ③, and into the post seats located at the bottom of the tank. Once in place use the two included zip ties to secure posts to baffles ② and ③.
- Insert the two crossbars supports between the primary and clarifier baffles holes at the bottom [identified by the pre-attached supports that sit at the bottom of the tank]. Once in place, slide the locks against the baffles to secure them and allow support for the reactor box.

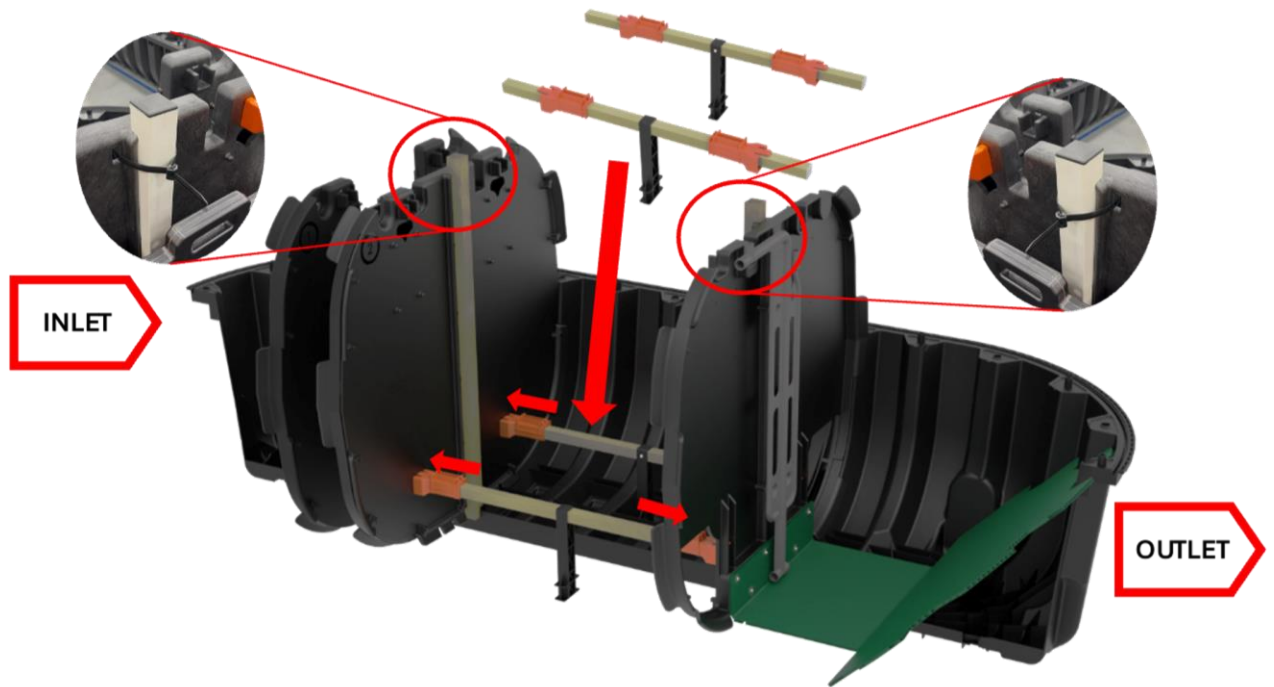


Figure 6: Vertical and horizontal support crossbars positions in CM-1060 Tank

2. Place ECOPOD-Edge Reactor

- Preferably using a forklift and tank lifting straps, lower the (1) ECOPOD-Edge reactor box between primary and clarifier baffles and position it on top of the two vertical post as shown in Figure 7. Note the inlet and outlet markings on the reactor box to ensure proper orientation.

CAUTION: Do not hit the bottom of the reactor box against the tank or any other hard surface



Figure 7: ECOPOD-Edge Reactor placement

- **Install Horizontal Supports:** Insert the remaining two horizontal crossbar supports between the primary and clarifier baffles holes, resting in the mid-sockets at the top of the reactor box. Once in place, slide the locks against the baffles to secure them and keep the reactor box in place (Figure 8).

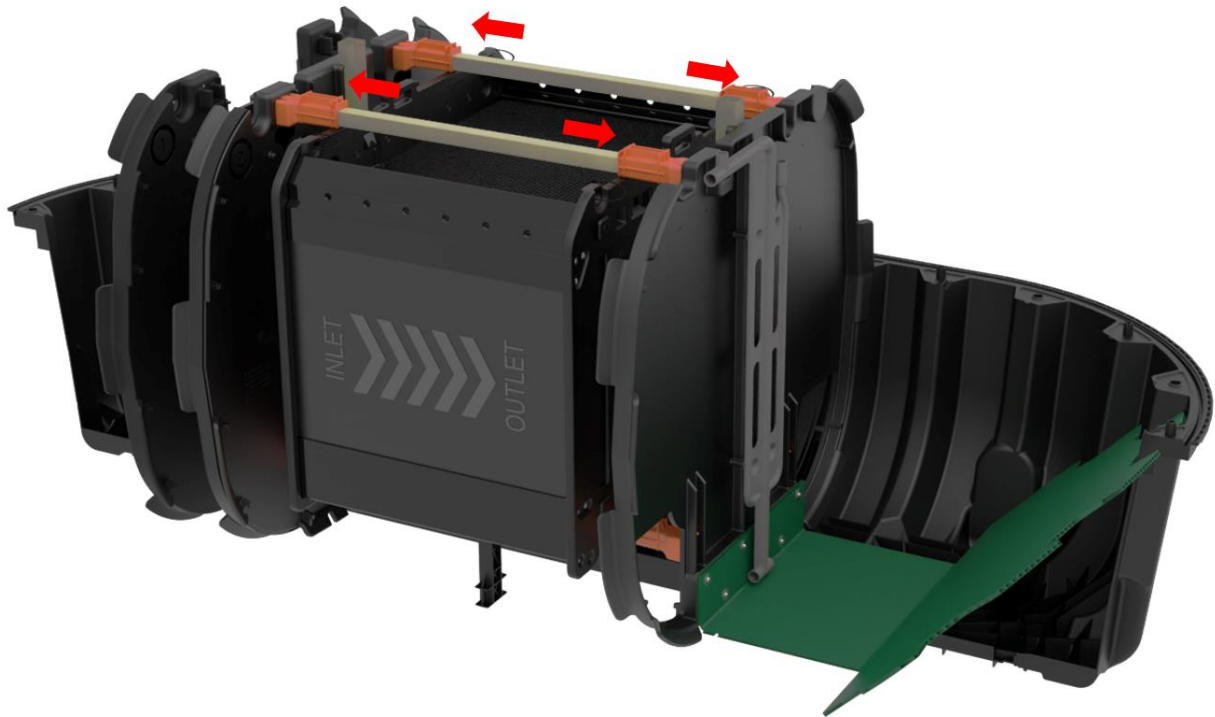


Figure 8: Top horizontal support crossbar

3. Finish Internal Plumbing Assemblies

All piping connections described below DO NOT REQUIRE ANY TYPE OF GLUE.

- Install air inlet manifold:** Slide in the air inlet manifold (item 4) into the groove on the top of the clarifier baffle (Figure 9Ⓐ).
- Connect air lift manifold:** connect the air inlet manifold on Figure 9Ⓐ to the air lift manifold pre-assembled on the clarifier baffle ③ using the loose end of the flexible elbow.
- Connect reactor's air grid:** connect the other end of the air inlet manifold with the visible pipe that runs from the bottom to the top of the reactor box on the outlet end as shown in Figure 9Ⓒ, using the loose end of the flexible elbow.
- Connect return-recirculation pipe:** assemble the recirculation pipe and slide it through the hole in the inlet baffle ① all the way to the slot on clarifier baffle ③. Using one 1" x 90° flex elbow fitting with clamps, attach recirculation pipe to the air assembly affixed to the clarifier baffle ③ as shown in Figure 9Ⓓ.

- e. **Adjust clamps:** Once all elbows and connections are in place, tighten the Oetiker metallic clamps using the provided 3-handle ratchet as shown in Figure 7[©]

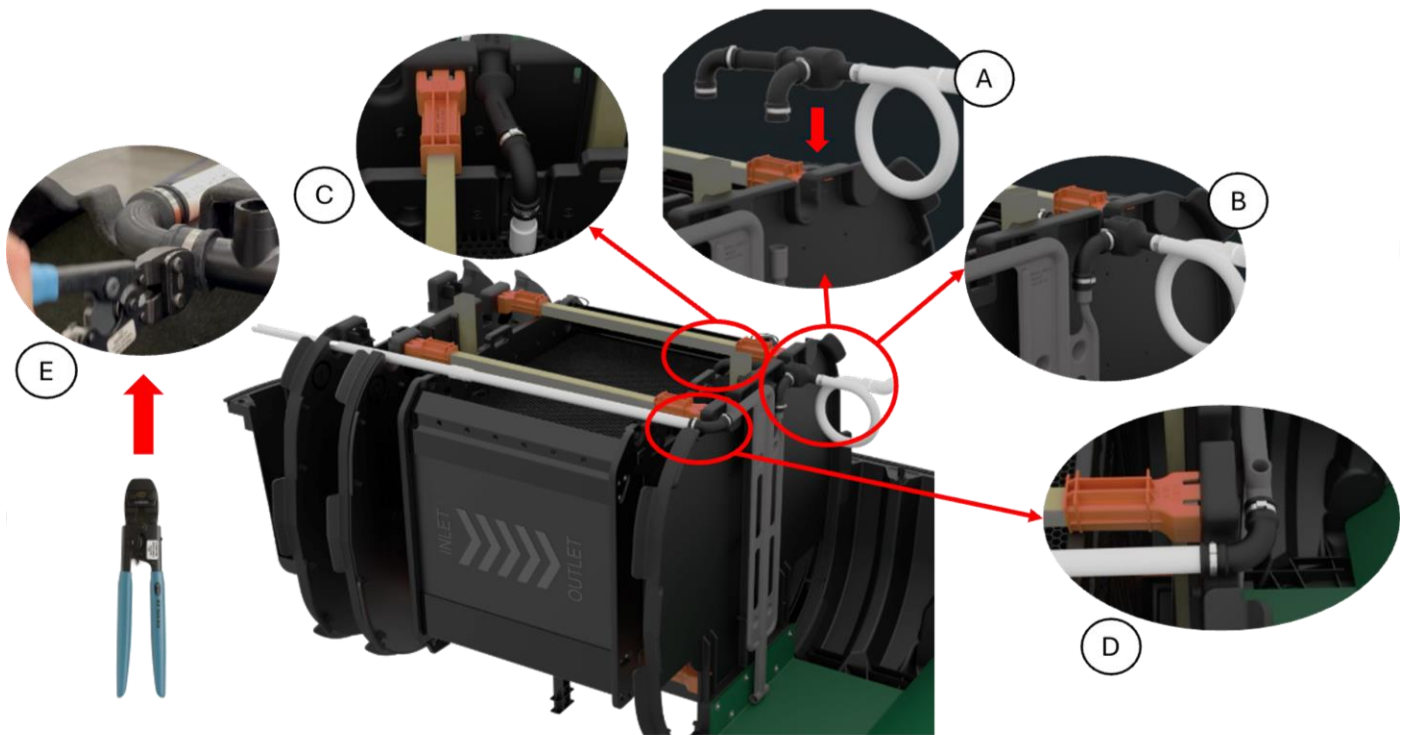


Figure 9: Internal plumbing assemblies

4. Complete the CM-1060 Tank Assembly

- **IMPORTANT:** Remove the attached pouch with Ledger, Up/Caution and Reactor's Serial Number labels from the front of the Edge Reactor. These labels are to be used on step 5 and 6.
- Remove the EZ Snap lids from the top half of the CM-1060 tank using a 3/8" hex head nut driver.
- Place the top half of the CM-1060 tank onto the bottom half of CM-1060, ensuring alignment of the 2" x 2" vertical support posts installed in *step 1*.
- Continue with Infiltrator CM-1060 Septic Tank assembly steps (refer to the Infiltrator Septic Tank Assembly Instructions) by attaching the mid-seam clips and installing the final vertical support posts.

NOTE: Caution - Do not roll the tank on its long axis as recommended in the tank assembly instructions to insert the outlet 2" x 2" vertical support post. Rolling the tank may displace the reactor box.

- Replace and secure the EZ Snap lids and/or risers using a 3/8" hex head nut driver.

5. UP/Caution Labels (2 included) and Reactor Serial Number:

- Identify two locations on opposite sides of the tank, preferably on an unused inlet or outlet flat surface, to affix the two UP/CAUTION labels.
- If the surface of the tank where the labels are to be placed is not clean and dry, use a cloth to clean and dry the surface prior to label application.
- Remove the backing from the “**UP/Caution**” adhesive label and apply it to one side of the tank. Press firmly by hand to ensure full contact and proper adhesion to the tank surface (see Figure 10Ⓐ)
- Repeat for second label making sure there is one on each side of the tank.
- Remove the backing from the **Reactor’s serial number pouch** adhesive label and place it on a visible spot for the installer on top of the tank (Figure 10Ⓑ)

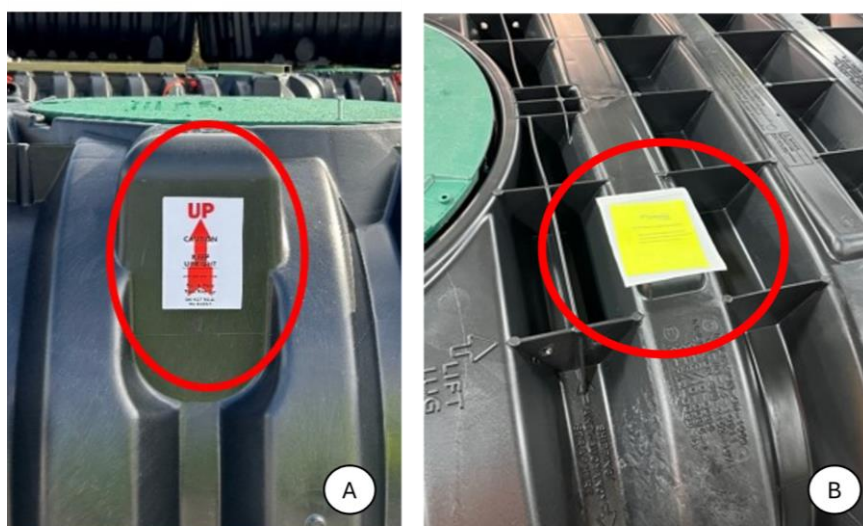


Figure 10: A) UP/Caution label on side of tank – B) Reactor S/N pouch

**6. Florida State Specific Instructions [Skip to Step 7 for All Other Jurisdictions]
Conduct the Florida Watertightness Test (only applies to Florida)**

This step only applies to units assembled for installation in Florida and requiring a watertightness test using vacuum pressure:

- Conduct a Florida watertightness test if the unit requires testing under Florida’s 1 in 10 assembled units criterion. Not all assembled units require watertightness testing.
- Perform watertightness testing in accordance with Infiltrator Septic Tank Vacuum Test Instructions for Florida. Record results as required on the tank assembly log.

Florida Only: FL rule requires that the inlet and outlet be drilled before the assembled unit leaves the assembler’s location.

- Drill inlet and outlet holes in the end ports per the Infiltrator *IM- and CM-Series Septic Tank General Installation Instructions*.
- Drill Florida inlet and outlet holes for a 2-inch difference between the inlet and outlet invert heights, with a 5” hole saw (Figure 11)

Apply the Florida tank ledger label as required.

- To establish the CM-1060 as housing an ECOPOD-Edge unit, use an Infiltrator-supplied label for the CM-1060 ECOPOD Edge500 and **make sure the number on the label matches this ledger number: 70-143-ED1-C4** (ECOPOD Edge500 – CM-1060).
- Make sure the surface is clean and dry. If not, use cloth to clean and dry the surface before applying the label.
- Remove the backing from the adhesive label.
- Place the adhesive side of the label onto the tank, **positioning the label in the first corrugation to the left of the INLET, 6" from the top of the tank** as shown in Figure 11 [INLET].
- Press the label onto the tank's surface using firm hand pressure to promote a bond between the label and the tank's surface.

IMPORTANT: This new ledger label MUST cover completely the embossed ledger in the tank

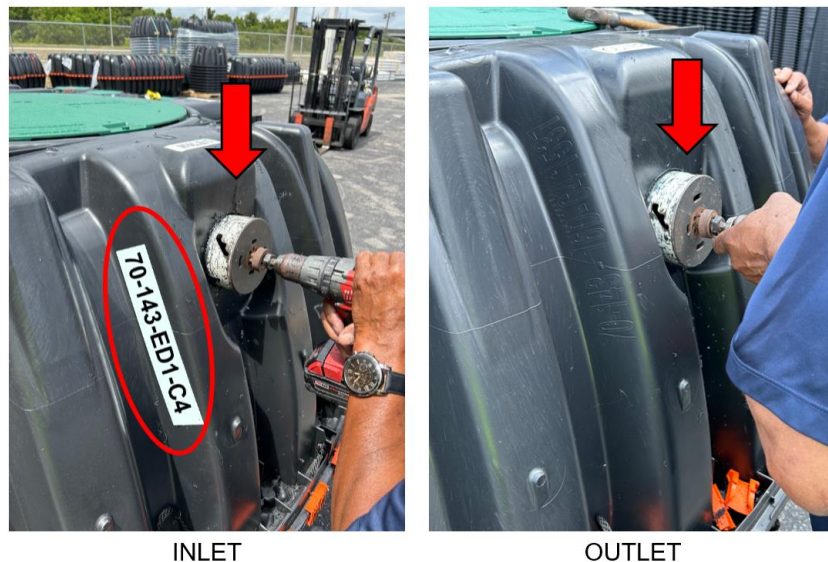


Figure 11: Drilling Inlet/Outlet and Ledger application

After this step, the unit will be completely assembled as shown in Figure 12. The 4" Inlet/outlet plumbing, and the remaining connections must be installed at the jobsite by the contractor.



Figure 12: 500gpd ECOPOD-Edge in CM-1060 completed assembly

7. Verify Matching Model and Serial Numbers on Certification Data Plates

If you ordered the standard **EDGE5002210LIN** system with a CP2210 Control Panel, you can skip this step and proceed to Step 8 — the control panel and aerator are pre-matched at the factory.

For all other configurations:

Before delivering the assembled unit with installation parts kit to the contractor, verify that the model number and serial numbers on the certification data plates located on the control panel and aerator are an exact match (see Figure 13). The certification data plates are affixed to the control panel and aerator at the factory by Infiltrator personnel and will be inside of the **Installation Kit Box** (see Figure 14)

NOTE: The certification data plate numbers must match for auditing requirements under NSF/ANSI 40 and 245.



Figure 13: Certification data plate examples for 500gpd ECOPOD-Edge

8. Deliver the Following Items to System Installer

Deliver the following documents to the system installer with the assembled ECOPOD Edge500 either in hard copy or electronic format:

- Infiltrator IM- and CM-Series Septic Tank General Installation Instructions
- Infiltrator IM- and CM-Series Tank Riser Connection Guidance Document for EZsnap Risers
- ECOPOD-Edge Fixed Film Wastewater Treatment System Installation, Operations, and Maintenance Manual (already included on the Installation Kit Box)
- ECOPOD-Edge Warranty Form (included in the above-referenced Manual)

Also deliver the **Installation Kit Box**, which includes the following components (see Figure 14)

- | | |
|----------------------------------|--|
| • (7) 4" discharge assembly (1) | (1" Rubber grommet (1x), 1" Female NPT coupling (1x), 1" Galvanized combo fitting (1X) |
| • (8) Atrium vent cap (1) | |
| • (9) Control panel (1) | |
| • (10) Aerator (1) with fittings | • (11) 4" Inlet tee assembly |

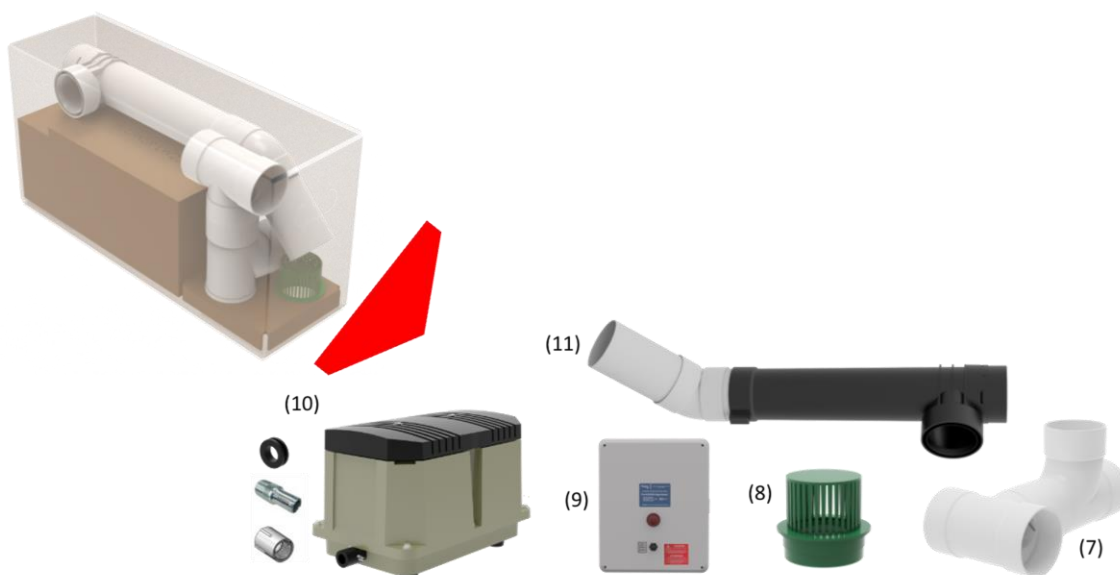


Figure 14: Items to deliver to the system installer with the assembled ECOPOD Edge500 (not to scale)

For questions, call Infiltrator Water Technologies at 1-800-221-4436.