Ecoflo® Coco Filter - Fibreglass Open Bottom

Installation Guide – CAN/USA

*This guide contains the information required to install an **Ecoflo® Coco Fibreglass open bottom.** The installation must be performed by a duly trained installer. A list of installers can be provided by contacting our customer service at **1 800 632-6356.***

1. Ecoflo® Coco Fibreglass Open Bottom Component Description

PLEASE CONSULT THE ILLUSTRATION ON FOLLOWING PAGE

Lid
- Access port for maintenance and inspection;
- Provides proper air flow through the system (via air intake);
- Secures access with bolted assemblies.

Insulating board
- Thermally insulates the system;
- Guides airflow into the shell's air ducts;
- Seals the system (with tie-wraps).

Shell
- Encloses the system's components;
- Allows connection of water and air pipes;
- Distributes air throughout the filtering media via the air ducts.

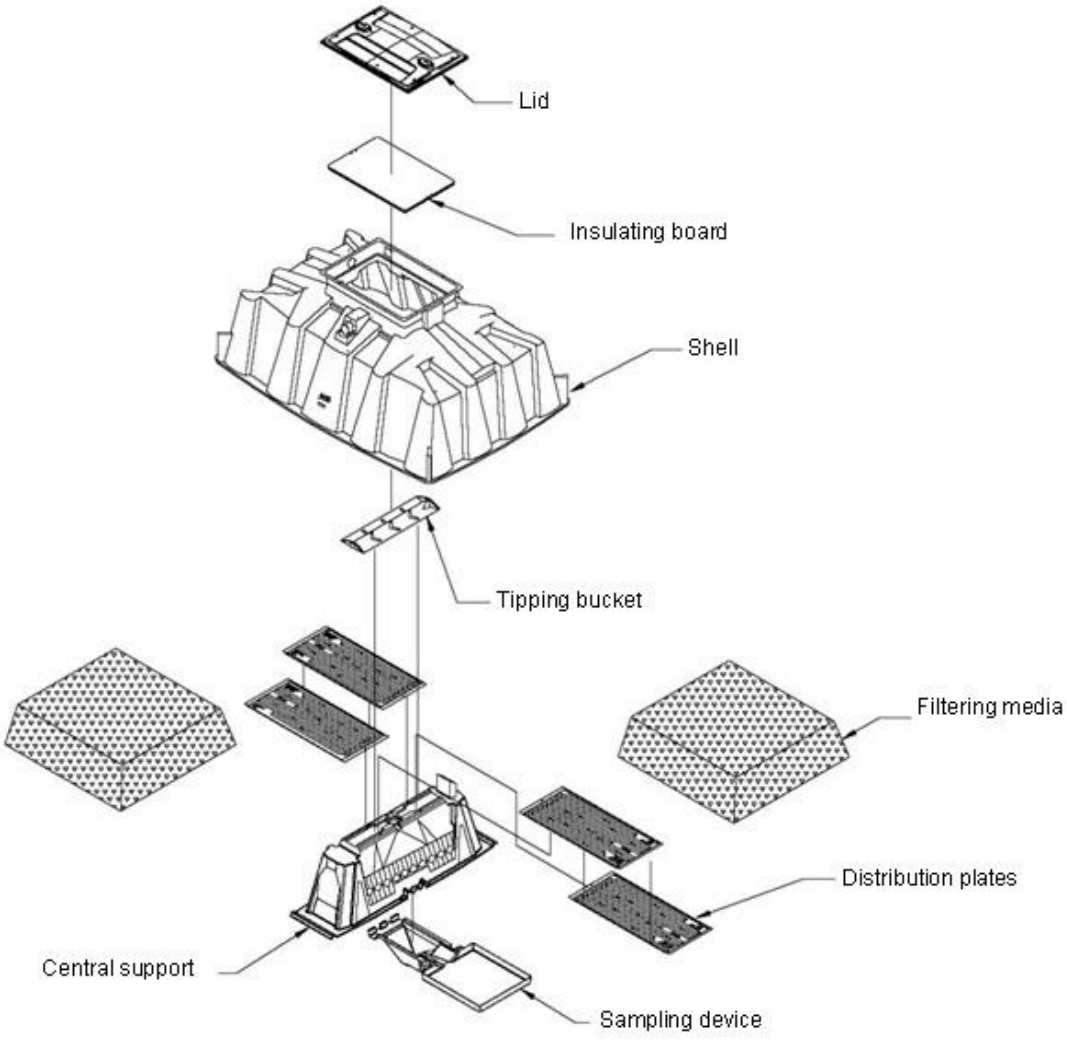
Central support
- Supports the tipping bucket and one end of the distribution plates;
- Allows air circulation between bottom and top of the filtering media;
- Allows to inspect the state of the filtering media via its access.

Tipping bucket
- Evenly distributes the wastewater on both sides of the filtering media;
- Creates hydraulic events required for proper distribution of the wastewater on the distribution plates and, at the same time, contributes to the self-cleaning of the plates.

Distribution plates
- Allow even distribution of the influent on the surface of the filtering media.

Filtering media
- Consists of a natural organic fibers filtering media;
- Promotes good biomass growth which is essential to biological treatment of the wastewater;
- Physically filters the solids contained in the influent;
- Maintains adequate humidity level required for biomass viability when there is no water going through the system for a certain amount of time.

Sampling device
- Allows to collect samples of the effluent treated by the system.



Exploded view of the Ecoflo® Coco Fibreglass open bottom

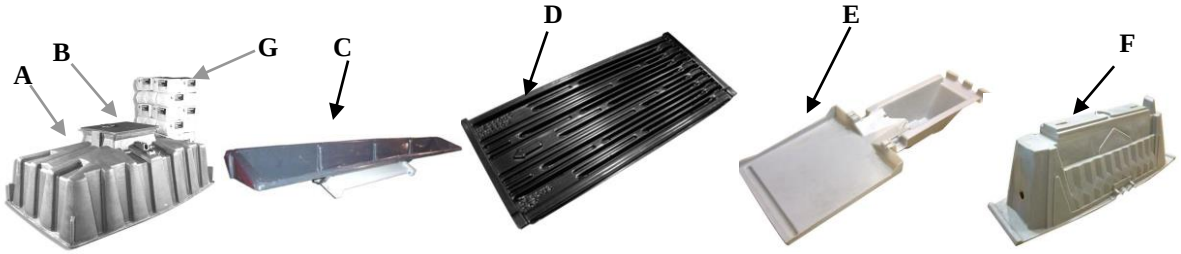
2. Installation Sequence

NOTE: The installer is responsible for the implementation of safety measures throughout the installation (i.e. wearing a hard hat, gloves, boots, safety glasses, mask, etc).

2.1 Make sure you have all the following components

A. 1 fibreglass shell including :
- 1 bag (not illustrated) with the owners documents, 6 plastic tie-wraps;
- 1 insulating board;

B. 1 lid;
C. 1 tipping bucket;
D. 4 distribution plates;
E. 1 sampling device;
F. 1 central support;
G. 1 pallet of filtering media.



For any problem, broken or missing part,
contact Premier Tech Aqua at 1 800 632-6356

2.2 Absorption bed, sampling device and central support

Excavate and prepare the absorption bed according to the standards specified in the applicable Design Guide.

- Use clean crushed stone with a diameter of 15-60 mm (½"-2"). It is strongly recommended to use crushed stone with a diameter of 20 mm (¾");
- Make sure the minimum thickness of the bed is 200 mm (8").

Then, place **the sampling device on the bed of crushed stone, making sure the flat part is installed on the left side of the inlet pipe** (when looking at the absorption bed from the septic tank). The sampling device's receptacle must be located in the center, underneath the central support.

Properly level the central support and make sure it is fully in contact with the surface of the crushed stone.

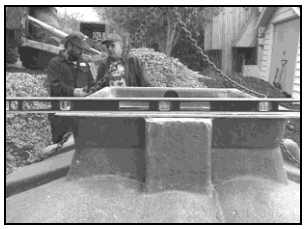
IMPORTANT:
- Never install the Ecoflo® Coco Filter's absorption bed within 2 m (6.5') of a tree.
- **Never install a riser on the Ecoflo® Coco Fibreglass open bottom** – the depth of the absorption bed is therefore very important.

NOTE: if the existing regulations allow an installation in low permeability soil, consult the Installation Guide of the Collecting bucket used for low permeability soil in the Fibreglass Section at ptzone.premiertechaqua.com in order to improve water infiltration in the soil.

2.2.1 Surface installation on a sloped site

- On a sloped site, the shell should be placed perpendicular to the slope;
- The profile of the lot should be such that surface runoff flows away from the Ecoflo® Coco Fibreglass and the absorption bed. If necessary, the profile should be modified;
- To account for water released into the soil by the Ecoflo® Coco Fibreglass, the base of the retaining wall must be well drained to ensure that the soil and septic system remain stable;
- Make sure there is a minimum distance of 6 m (20') between the Ecoflo® Coco Fibreglass lid and the retaining wall;
- Make sure there is a minimum distance of 3 m (10') between the absorption bed and the retaining wall;
- If there is no retaining wall, the backfill material as well as the backfill technique must ensure the stability of the system in order to avoid the Ecoflo® Coco Fibreglass displacement.

2.3 Placing and levelling of the shell

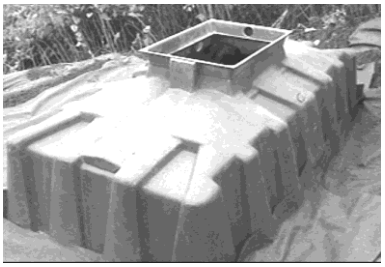


Place the shell on the central support, making sure that the central support is embedded in the shell. **The central support chimney must be opposite the water inlet.**

Double check to make sure the shell and the central support are both levelled and fully in contact with the surface of the clean crushed stone.

NOTE: Never install a riser on the Ecoflo® Coco Fibreglass open bottom.

2.4 Geotextile installation and initial backfill

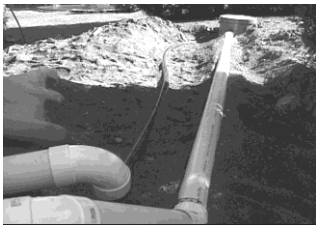


Place a **geotextile** (polymeric membrane permeable to air and water) on top of the crushed stone, **around the shell only,** to protect the stone from contamination or obstruction from objects or particles. **Do not place any geotextile under the Ecoflo® Coco Fibreglass.**

For the initial backfill, begin by stabilizing the shell by carefully backfilling each of the four corners. Then backfill the two long sides followed by the two short sides, using successive 30 cm (12") layers. The backfill material must be placed with care, not dumped, which is why using a bulldozer for this step is not recommended.

Backfill the fibreglass unit with sandy material up to 50 mm (2") below the lid. The backfill material should not contain any organic matter, impervious soil, stones, rocks, debris or other object that could damage the shell. The shell should not be overloaded with backfill material or with heavy equipment. **Protective barriers/markers should be installed during landscaping to keep vehicles from driving over the Ecoflo® Coco Fibreglass.**

2.5 Water supply pipe connection



Connect the water supply pipe from the septic tank to the water intake of the Ecoflo® Coco Fibreglass, making sure that the entire length of the pipe is on a constant downwards slope that slants towards the Ecoflo® Coco Fibreglass. Note that the soil under the pipes must be properly compacted.

In the case of a gravity fed installation with two (2) Ecoflo® Coco Filters, a flow divider is required. Premier Tech Aqua offers two types of gravity flow dividers: the gravity flow divider GFD-200 and the gravity flow director GFD-200A.

2.5.1 Connecting the water supply pipe to the flexible adapter

Assembly steps

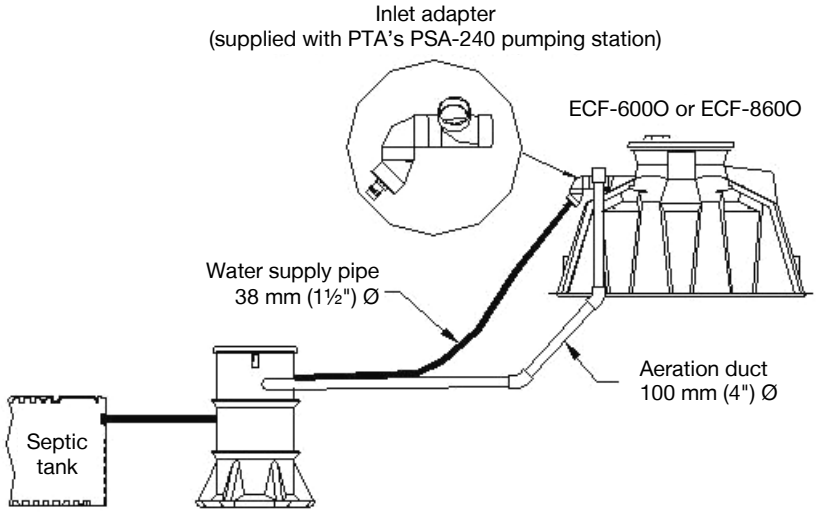
1. Loosen the pipe clamp without removing it from the adapter and push it to the end of the adapter;
2. Clean the pipe and apply a PVC primer;
3. Apply PVC cement on the outside of the pipe end that will be inserted into the adapter and on the inside of the adapter;
4. Insert the pipe (with the cement) into the adapter until it touches the end of the adapter;
5. Bring the clamp back to its original position and tighten it on the adapter and the 100 mm (4") Ø pipe.

2.5.2 Connecting the water supply pipe when a pumping station is required to feed the Ecoflo® Coco Filter

When a pumping station is required upstream of an Ecoflo® Coco Fibreglass open bottom, the following instructions must be taken into account:

- When a pumping station is required Premier Tech Aqua recommends sending approximately 30 to 40 L (8 to 10 US gallons) of wastewater to the Ecoflo® Coco Filter every pump dosing cycle (10 tipping bucket events);
- The pumping station must be watertight (infiltration and exfiltration);
- The water supply pipe (flexible 38 mm (1½") Ø pipe) is connected to an inlet adapter (supplied with Premier Tech Aqua's PSA-240 pumping station) which allows the connection to the Ecoflo® Coco Filter's 100 mm (4") Ø inlet pipe. **Note that the adapter is mandatory to break the stream of water coming from the pumping station**;
- An air duct must connect the pumping station to the Ecoflo® Coco Filter to ensure air circulation. This air duct is connected to the adapter, which is equipped with a tee-Y;
- Depending on site conditions, a forced air vent may be required;
- The pumping station must be accessible at all times.

The figure below illustrates the guidelines mentioned above. Consult the Premier Tech Aqua's Pumping Station Installation Guide which can be found at ptzone.premiertechaqua.com for more information.



PSA-240 pumping station

When an installation consists either of two Ecoflo® Coco Filters which cannot be fed by gravity or of three Ecoflo® Coco Filters, a pumping station combined with a pressurized flow divider is required. Premier Tech Aqua offers several pressurized flow dividers. For more information on Premier Tech Aqua's pressurized flow divider, consult the Peripherals Section at ptzone.premiertechqua.com.

2.6 Final backfill and filtering media installation

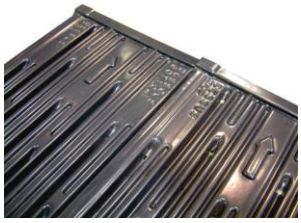
Complete the backfill. The backfill material must be placed with care and not dumped (do not compact with bulldozer). **The backfill material must be sandy with no rocks or stones**. Allow space for ground cover and make sure the lids are at least 50 mm (2") above the surface of the landscaped lot. **Never install a riser on the Ecoflo® Coco Fibreglass open bottom.**

Fill the Ecoflo® Coco Filter with the filtering media. Pour the filtering media bags with equal amounts on each side of the central support up to the base of the distribution plates.

Use a rake to level the surface of the filtering media. The final surface of the filtering media should be just below the distribution plates.

Be careful! Avoid compacting the filtering media (don't walk on it).

2.7 Distribution plate installation



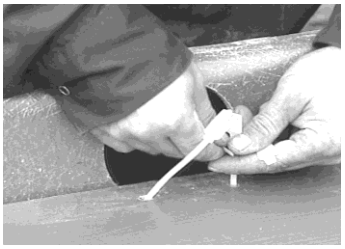
- Install the distribution plates by placing them on their support rails at both ends of the shell.
- The arrow on the distribution plates must be oriented towards the shell's extremities.
- Place the first plate on the left side, followed by a second plate on the right side, fitting it onto the edge of the first plate.
- Follow this same procedure for the other side of the shell (two plates on each side).

The distribution plates should rest on top of the central support and must be attached to it with four black plastic tie-wraps provided for this purpose.

2.8 Tipping bucket installation

Attach the tipping bucket to the central support by inserting the locking catches into the central support's anchor slots. Press the opposite end down into position and make sure the tipping bucket stays in place. Check the state of the tipping bucket by moving it from left to right to make sure nothing is blocking its movement.

2.9 System verification and warranty seals



After making sure the tipping bucket is fully operational and that the distribution plates are installed properly, install the insulating board inside the main access. Seal it shut by attaching the handle of the insulating board to the access of the Ecoflo® Coco Fibreglass using the plastic fasteners. Finally, close the lid of the Ecoflo® Coco Fibreglass.

Note that the owner does not have to do anything in particular to start the system.

Don't forget the inspection permit, where applicable.

IMPORTANT REMINDERS

- ❑ NEVER cover or bury the lids of your septic system. Always keep the lids accessible.
- ❑ The lids of you septic system must be at least 50 mm (2") above the surface of the landscaped lot.
- ❑ **NEVER install a riser on the access of an Ecoflo® Coco Fibreglass open bottom.**
- ❑ NEVER plant a tree within 6 m (20') of the Ecoflo® Coco Fibreglass lid and within 2 m (6.5') of the absorption bed.
- ❑ NEVER open the lids or go inside the septic tank or Ecoflo® Coco Filter.
- ❑ NEVER connect a drain pipe, roof gutter, sump pump or air conditioning drain to your septic system.
- ❑ NEVER operate a vehicle or place objects weighing over 225 kg (500 lbs) within 5 m (16.5') of the lid. Pass on this information to all those who have access to your system (landscaper, snow blower, etc.).
- ❑ NEVER let anything accumulate on top of your septic system (for example: compacted snow). The overload could damage the system.
- ❑ NEVER empty the backwash of a spa or pool into your septic system.
- ❑ NEVER empty wastewater of a recreational vehicle (camping trailer, caravan, etc.) into your septic system.
- ❑ NEVER use automatic toilet cleaners.
- ❑ If there is a delay in finishing the landscape after the initial installation of the system, place reference posts and protective fences to identify the location of the Ecoflo® Coco Filter. This will prevent any circulation on the unit and help indicate the system's final level.
- ❑ If a pumping station is installed upstream of the Ecoflo® Coco Filter, an airflow duct must be connected from the pumping station to the Ecoflo® Coco Filter.
- ❑ Households must be equipped with an air vent that is in proper working condition and complies with the applicable standards. Premier Tech Aqua strongly recommends using a 100 mm (4") Ø pipe.
- ❑ Hand over the package containing the Owner's Manual and the Maintenance Agreement to the customer.
- ❑ Remind the customer to fill out and sign the Maintenance Agreement. The customer must keep the white copy, give the yellow copy to the municipality, and send the pink copy to Premier Tech Aqua.

By respecting these guidelines, you are contributing to the proper operation of your wastewater treatment system. Failure to abide by these guidelines may, at Premier Tech Aqua's discretion, render the warranty invalid.

3. Handling and Shipping

3.1 Shipping from the distributor to the installation site

- Use a trailer or vehicle with adequate loading space depending on the dimensions of the system;
- Use appropriate straps to support the systems properly and securely;
- When possible, the lifting rings should be used to load the fibreglass shell on the trailer or vehicle;
- The carrier is responsible for complying with all laws and codes in effect;
- The carrier is responsible for any damage caused to the system occurring during shipment.

3.2 Handling

- Avoid using handling methods that could damage the system;
- Use the four (4) lifting rings of the shell to unload the system. If a forklift is used, make sure the forks are long enough to support the whole system;
- The handler is responsible for any damage caused to the system occurring while handling.

3.3 Loading configuration

- The loading configuration depends on the type of transportation used to carry the fibreglass shell to the installation site;
- The loading area must have a surface of at least 4.2 m x 2.4 m (14' X 8') for the fibreglass shell to fit completely;
- The carrier must make sure there is enough space to transport the filtering media bags (the bags can be taken off the pallet). A pallet of filtering media has a surface area of approximately 1.5 m x 1.2 m (5' X 4').

If you have any problems, questions or comments, do not hesitate to contact Premier Tech Aqua at 1 800 632-6356.

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