

# INSTALLATION GUIDE

## Biomass Greasetrap - ABOVE GROUND MODELS

### LOCATION

The **Kitchen Biomass Greasetrap** is designed to be installed inside a normally heated building in a position where the waste pipe from the Kitchen sinks and/or dishwasher can accommodate the inlet height. Note that the outlet is 25mm lower than the inlet. The installation floor area should be flat smooth and level. Access is necessary to the top of the **Biomass Greasetrap** on a weekly basis. If access to the top is difficult then consider installing easily detachable pipe connections to allow the **Biomass Greasetrap** to be moved for maintenance purposes. The standard inlet position is on the right hand side with the outlet on the left, reverse handed units are available if specified at the time of ordering. Macerating garbage disposal units should wherever possible be diverted to discharge downstream of the **Biomass Greasetrap**.

### PIPEWORK

Inlet and outlet sockets fitted to the **Biomass Greasetrap** are 50mm Osmo. Level-invert reducers should be used if necessary to adapt to smaller waste pipes. There must be a fall to the **Biomass Greasetrap** and away from it. Check that the rubber sealing rings inside the connectors are located properly otherwise these could leak. It is recommended that the outlet pipe is fitted directly to a soil pipe. If fed to an outside gully, then the top should be sealed to reduce odours.

### AUTOMATIC DOSING PUMP

If supplied, the automatic dosing pump should be installed up-stream of the **Biomass Greasetrap** according to the instructions supplied with the pump.

### COMMISSIONING

After installing the **Biomass Greasetrap**, turn on a tap to begin filling the system and check the following points:-

- a) No leaks are evident from the pipework, connections or any Parts of the **Biomass Greasetrap**.
- b) That, once full, water flows freely from the **Biomass Greasetrap** outlet pipe to the drain connection.
- c) That the dosing pump (if supplied) has been primed and is switched permanently on (if no dosing pump is supplied a Bugsock must be installed inside the greasetrap).
- d) That the Bugsock (if supplied) is hanging from it's hook inside the greasetrap.
- d) Leave the maintenance guide with the **Biomass Greasetrap** owner.

Further information is available from:-

*The Greasetrap Specialists!*

**Progressive Product Developments Ltd.**

24, Beacon Bottom, Swanwick, Southampton. SO31 7GQ England.

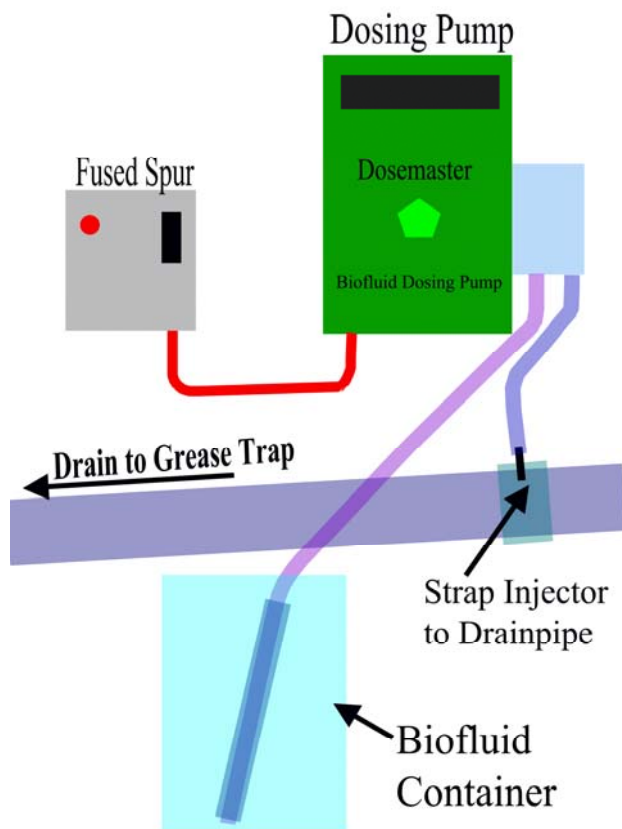
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# INSTALLING YOUR NEW *Biofluid* DOSING PUMP

When your *Biofluid Dosing Pump* is received there are a number of steps to be taken, as follows:-

- 1) Locate a suitable position to mount the dosing pump:
  - a) On a solid wall which is close to the drain pipe from the sinks but upstream of the grease-trap (if fitted).
  - b) Close to a mains electricity supply (preferably a fused spur point).
  - c) Where the *Biofluid* container can be placed on the floor under the dosing pump.
- 2) Screw the dosing pump securely to the wall, using the fixing holes in each corner (lid open) Then, either arrange for a qualified electrician to connect the dosing pump through a fused spur (preferred option), or alternatively, wire a plug to the dosing pump and connect to a convenient 240 Volt socket, labelling the socket "***Biofluid Dosing Pump* - DO NOT**



**TURN OFF!"** - THIS IS IMPORTANT, IF THE PUMP IS TURNED OFF, YOUR DRAINS WILL BEGIN TO BLOCK! Electrical connections should be made to the green terminal block to the left of the circuit board marked L and N, connect the earth terminal to the earth tag on the motor casing.

**NOTE:** If you have a battery version of the dosing pump, ignore the above instructions.

c) Drill a 5mm hole in the top of the selected drain pipe, strap the injector pipe to the drainpipe tightly so that it seals to prevent smells and leaks! Connect a length of the flexible tube from the dosing pump 'out' connector to the injector pipe/strap. (arrows on outside of pump indicate in and out)

d) Connect another piece of flexible tubing to the 'in' side of the dosing pump, take the cap off a container of *Bugfluid*, drill an 8mm hole through it and put the end of the tube from the dosing pump through the lid. Slide the rigid, straight length of tubing over the end of the flexible pipe to act as a weight and to keep the pipe straight, add the

rubber grommet at the bottom to hold it in place, position so that the bottom of the rigid pipe touches the bottom of the container. Screw on the lid.

- e) Turn the power to the dosing pump on together with the little rocker switch underneath the pump and wait for the prime function to finish.
- f) Check the timer is set to 1 minute at 2 a.m. for small greasetraps or adjust as per instructions overleaf.

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## **ADJUSTING YOUR *Biofluid* DOSING PUMP (Doseminder)**

This pump is designed to inject the *Biofluid* bacteriological treatment liquid into a convenient drainpipe close to the kitchen sinks, upstream of the grease trap, usually at night after kitchen activity has ceased. The programmer allows up to 2 doses to be set, each one for a specific period of time. The period of time for dosing, controls the amount of fluid injected - 130ml per minute. The dosing pump is factory set to turn on at 2 a.m. with a pumping period either to suit the *Biomass Greasetrap* supplied, or for the std. Time of 1 minute which puts a dose of 130ml into the drainage system every night. The pump must be set to inject the correct volume of *Biofluid* - see the table below.

### **Bugfluid DOSING TABLE**

#### **Without Greasetrap**

#### **With Greasetrap**

<u>MEALS/DAY</u>	<u>ML's <i>Biofluid</i></u>	<u>MINUTES</u>	<u>ML'S <i>Biofluid</i></u>	<u>MINUTES</u>
100	260	2	130	1
150	325	2.5	195	1.5
200	390	3	260	2
250	455	3.5	325	2.5
300	520	4	390	3
400	585	4.5	442	3.4
500	650	5	481	3.7
600	715	5.5	520	4
700	780	6	572	4.4
800	845	6.5	611	4.7
900	910	7	650	5

### **CHANGE THE TIME/DOSE**

Open the timer casing taking care not to touch any electrical components. Please note that the unit will autoprime each time the unit is switched on, the pump will run for 10 seconds.

There are 3 buttons marked 1-MODE, 2-MOVE CURSOR and 3-CHANGE NUMBER. The programmer has 4 modes, pressing the mode button will cycle through each mode and return to the 'GO' mode. Holding the mode button for 5 seconds will return the programmer to the 'GO' mode also.

#### **MODE 1 – 'GO'**

Button 1 = Change Mode

Button 2 = Activates the pump to prime the line, first press switches pump on, second press switches pump off.

Button 3 = No effect.

#### **MODE 2 – 'SET CLOCK'**

Button 1 = Change mode

Button 2 = Moves cursor between hours and minutes.

Button 3 = Increases hours or minutes depending on cursor position.

#### **MODE 3 – 'SET ON TIME'**

Button 1 = Change mode.

Button 2 = Not in Use

Button 3 = Change hour for pump to start operating. (24 hour clock)

#### **MODE 4 – 'SET RUN TIME'**

Button 1 = change mode

Button 2 = Moves cursor between minutes and seconds

Button 3 = Increases minutes or seconds depending on the cursor position.

Mode 3 and 4 will repeat for program 2

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# INSTALLATION GUIDE

## Biomass Greasetraps - UNDERGROUND MODELS

### Specification

The standard duty tank is suitable for installation where any ground water table never rises above the base of the tank. Special duty tanks are available for wet areas.

It is recommended that all **Biomass Greasetrap** tanks are installed into traffic free areas.

When installed into a traffic area an adequate cover and concrete surround must be designed to prevent imposed loads being transmitted to the tank. The standard cover supplied is for pedestrian use only.

### Handling and storage

The contractor is responsible for the offloading of the tank and any accessories. The tank should be lifted carefully, use straps if necessary not chains or wire ropes. Do not lift any tanks which contain water. Store the tank in a secure area on soft level ground protected from strong winds and vehicles.

### Installation procedure

- If std. Unit, remove the **Bugsock** hanging by it's tether from the white square plastic **Bugnest** and the loose **Bugpack** from the bottom of the **Biomass Greasetrap** and keep them dry until installation is complete. If the automatic dosing pump and **Bugfluid** optional unit has been purchased, then this is not necessary.
- Installation should be conducted in accordance with health and safety regulations, good building practice and any local regulations.
- Excavate to the tank dimensions plus an extra 150mm to each side and under the tank for concrete. Level the bottom of the excavation.
- Maintain a completely dry excavation until the concrete surround has set.
- Pour the base concrete into the excavation and level.
- Position the tank in the excavation and align the pipes, ensuring the higher, inlet pipe is at the upstream end. Connect the pipes from the tank to well clear of the excavation and seal the ends to allow the internal water level to rise to the top of the tank whilst pouring the concrete. Allow initial set to base concrete.
- Commence backfilling around the tank with drymix concrete at the same time commence filling the tank with clean water, ensuring the levels of concrete and water remain equal at all times. Excessive pressure from either the water or the concrete will cause the tank to distort or fail. Use only minimal compaction to remove voids. Continue backfilling until 150mm of concrete surrounds the tank.
- After the concrete has cured, remove pipe stoppers to let the water level drop to the outlet pipe level install the **Bugsock** by hanging it from the white square plastic **Bugnest** hook and drop the loose **Bugpack(s)** into the tank and replace the cover. If the Automatic dosing pump and **Bugfluid** option has been purchased, then this should be installed inside the kitchen according to the instructions supplied with the dosing pump and the **Bugsock** instruction is ignored.

**Further information can be had by calling:-**

***The Greasetrap Specialists!***

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# MAINTENANCE GUIDE

## Biomass Greasetraps

### GENERAL

The *Biomass Greasetrap* is an oil and grease separation and treatment plant. A Biomass is created inside the Greasetrap and the microbes “eat” the grease changing it into mainly carbon dioxide and water. The microbes are self-sustaining within the *Biomass Greasetrap* but the strain gradually weakens and needs replacement. Two replacement systems are used: 1) The liquid dosing pump injects *Bugfluid* every night. or 2) The *Bugsock* needs to be replaced every 4 months. This keep the microbes up to the optimum strength. Grease and oil is separated from the waste water and retained within the *Biomass Greasetrap* until degraded by the microbes. There is therefore normally a layer of grease and oil floating on the top of the water inside the *Biomass Greasetrap*, this can be up to 30mm thick. Sediment is also separated by the *Biomass Greasetrap* but passes through and is treated by the microbes downstream.

### WARNING

The microbe colony inside the *Biomass Greasetrap* is delicate. **Do not allow concentrated bleach or other strong chemicals to get into the drainage system.** We recommend the use of environmentally friendly cleaning agents to protect the microbe colony.

If the Biomass Greasetrap begins to smell then the microbe colony has been partially or completely destroyed, in which case increase the dose of *Bugfluid* for a few days or replace the *Bugsock*.

### WEEKLY CHECK

Every week the *Biomass Greasetrap* lid should be opened and checked that the grease layer is less than 30mm thick by disturbing the surface layer. If the grease layer is thicker than this 30mm, a choice must be made between removing some of the grease manually, or increasing the microbe strength by inserting one or more soluble *Bugpacks* or increasing the *Bugfluid* dose. Check that the *Bugfluid* level is sufficient for more than one week or order replacement.

### EVERY FOUR MONTHS

Every 4 months the Lid should be removed from the *Biomass Greasetrap*, and the inside examined for the following points:-

1. Is the grease layer less than 30mm?
2. Is the sediment at the bottom of the tank less than 75mm thick?
3. Is water able to flow freely through the *Biomass Greasetrap*?
4. Is there sufficient *Bugfluid* (if used) left in the container.

If all the above are satisfactory then the *Bugsock* (if fitted) should be removed from it's hook and replaced with a new one and the lid replaced.

Should the grease layer or sediment layer be too thick then we reccomend that the whole tank be emptied, cleaned and re-filled with clean water. Then the *Bugsock* (if fitted) should be replaced or the dosing pump prime button pressed for 6 minutes.

Good maintenance practice is to empty and clean the Greasetrap annually.

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