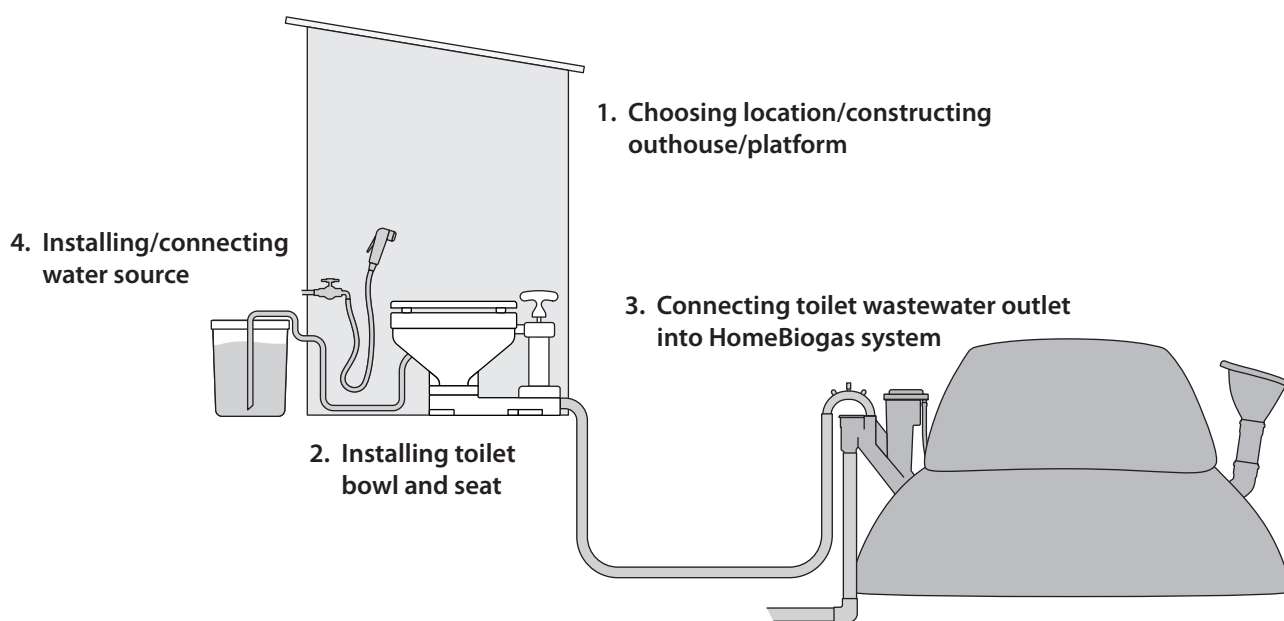


# HOME BIOGAS BIO-TOILET PREPARATION GUIDE

While you wait for delivery of your HomeBiogas bio-toilet, there are a few things you should prepare to ensure a quick, fuss-free installation process when you receive your bio-toilet kit.

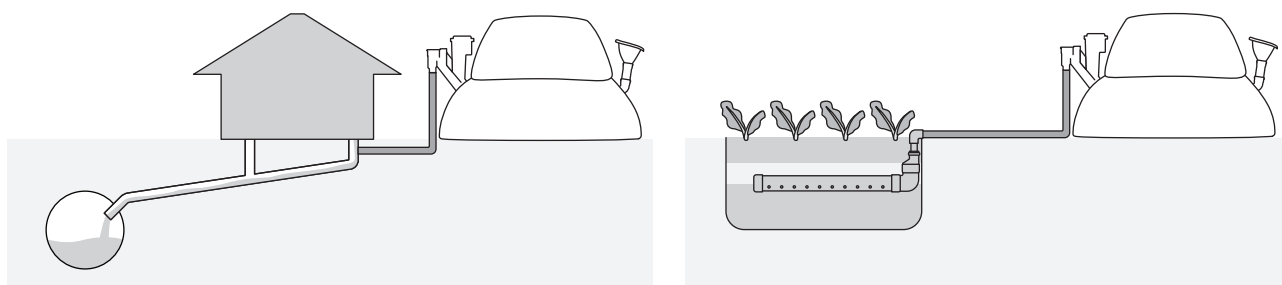
## First, an overview of the installation process:

Installing the toilet and connecting it to the system:



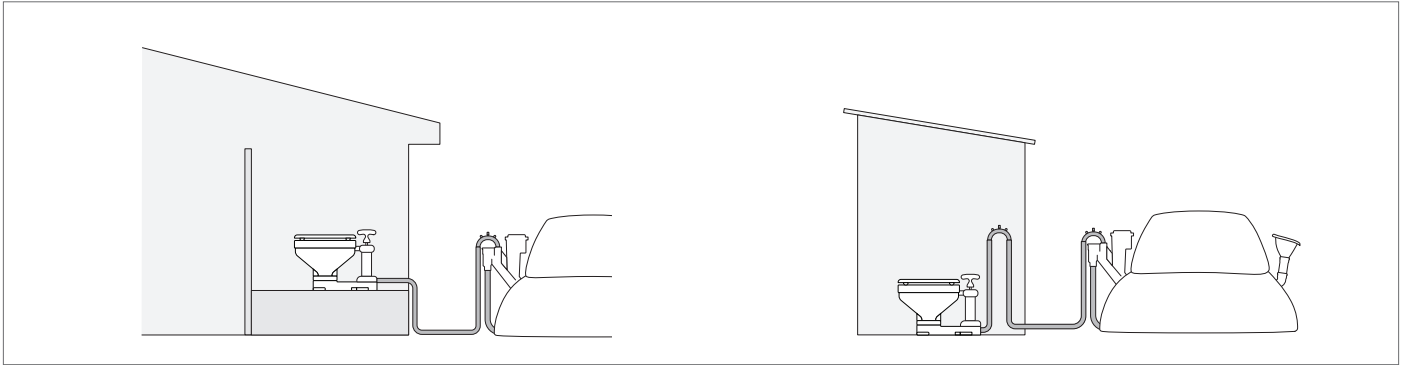
Connecting the HomeBiogas system to a proper effluent management system:

1. Choosing most suitable effluent management option for your location
2. Connecting HomeBiogas fertilizer outlet to effluent management solution



# 1. Choosing a location for the bio-toilet

You can install the bio-toilet indoors as a replacement for a regular toilet, or construct an outhouse for the toilet nearer to your biogas system.

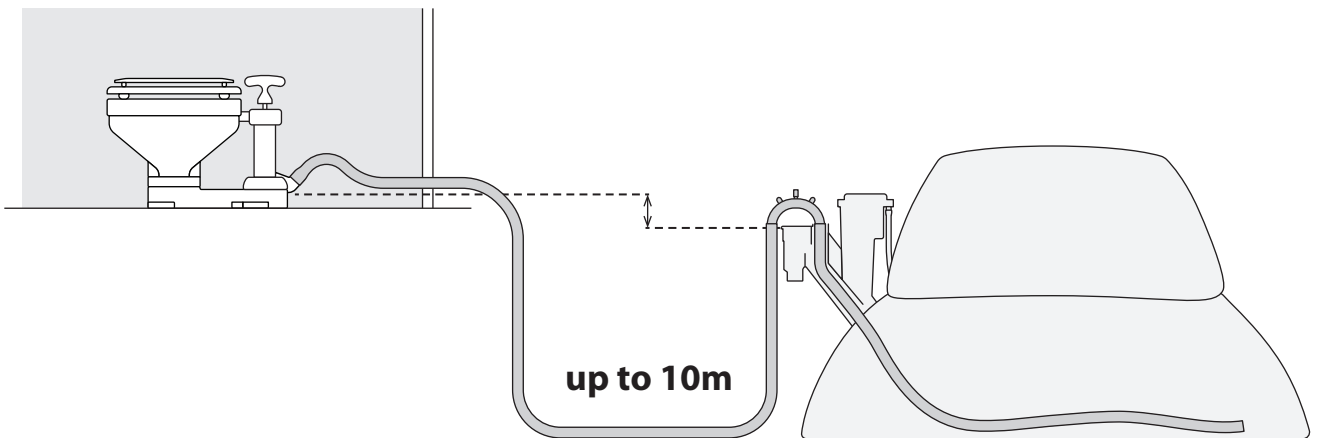


There are 2 ways to connect the bio-toilet to your HomeBiogas system - the option you choose will affect where you can locate the bio-toilet.

## Option 1 (Recommended):

The toilet is located **HIGHER** than the system (discharge elbow of the toilet must be higher than the top of the fertilizer outlet - where the wastewater pipe enters the system)

In this type of installation, the toilet can be located up to 10m (33ft) from the HomeBiogas system.

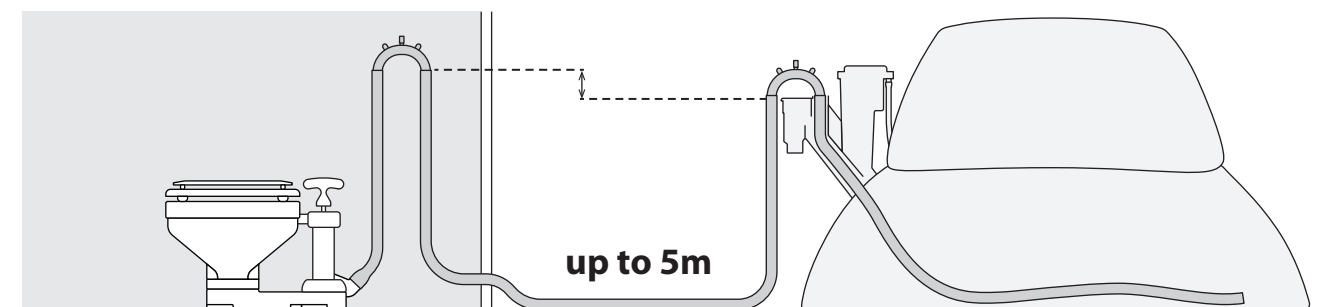


## Option 2 (where option 1 is not possible):

The toilet is on the same level as the system (discharge elbow of the toilet **MUST NOT** be lower than the base of the system)

A second vented loop must be installed along the wastewater pipe, **HIGHER** than the fertilizer outlet.

In this type of installation, the toilet can be located only up to 5m (16ft) from the HomeBiogas system.

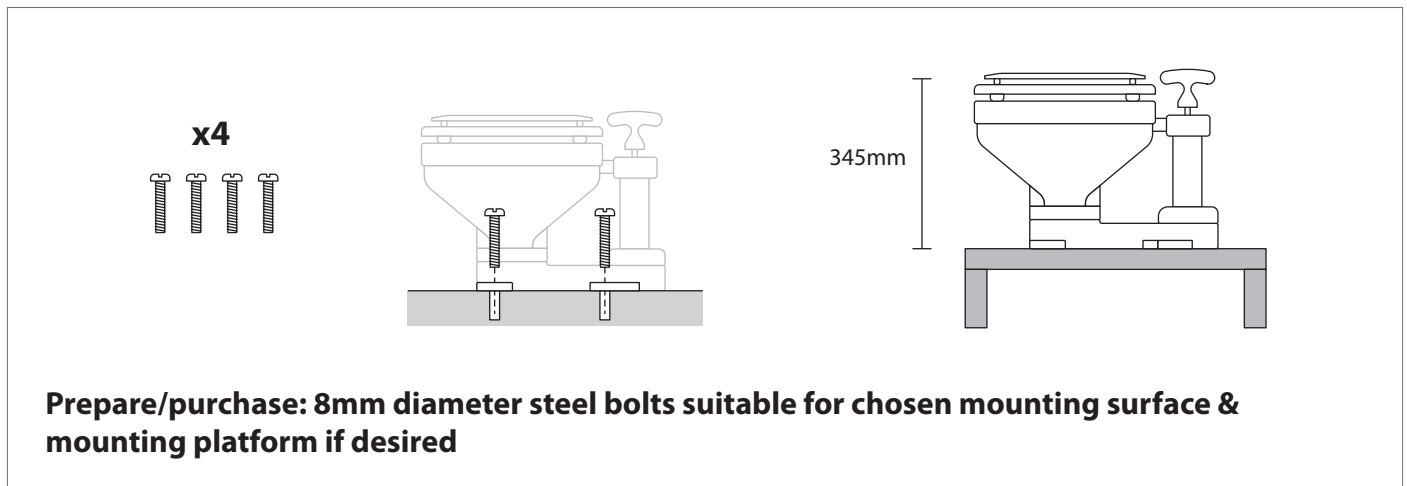


## 2. Preparing to install the bio-toilet

You need to prepare 4 (8mm diameter) steel bolts for mounting the toilet. Choose bolts of suitable type and length for your chosen mounting surface.

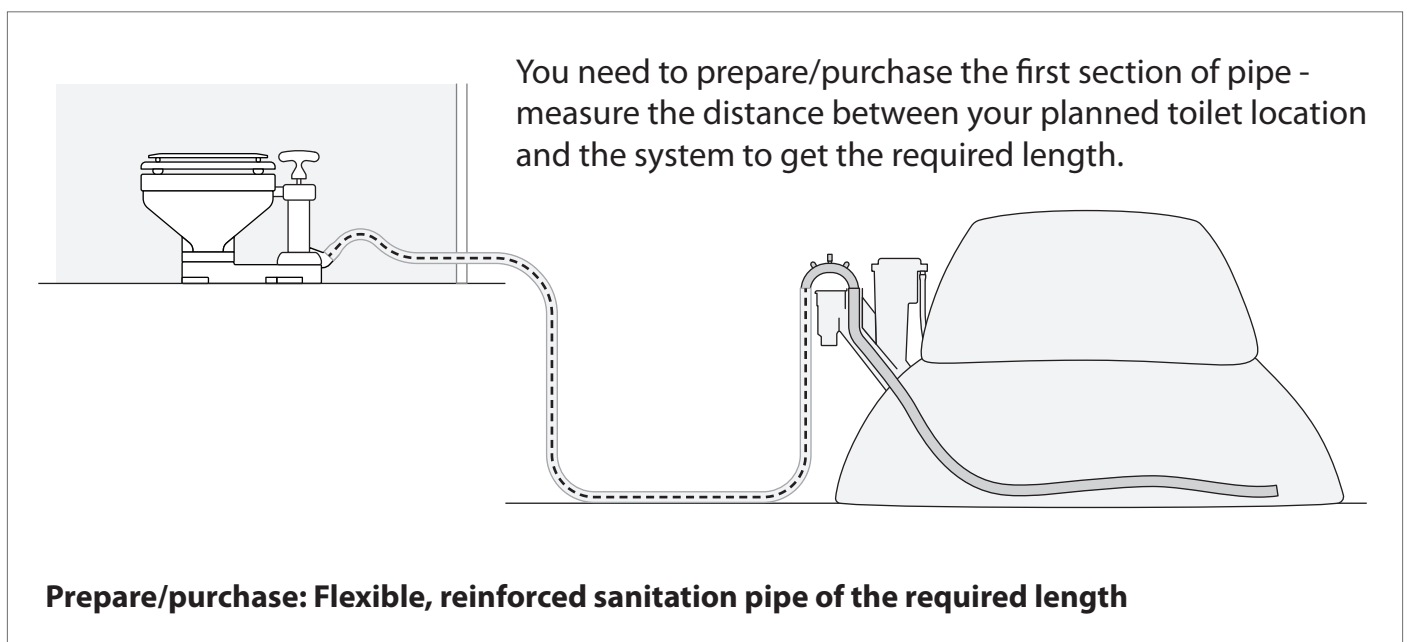
The bio-toilet is slightly shorter than a regular toilet. You can construct a platform if you would like a more elevated seating position, or to raise the toilet above the system.

The platform should be level, rigid and strong enough to support the weight of an adult. Do not mount the toilet on shipping pallets or other weak surfaces. The platform should measure at least 52x63cm (W x L)



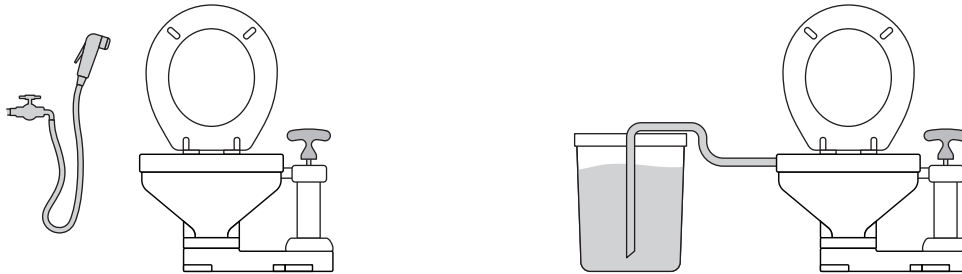
## 3. Preparing connection from bio-toilet to HomeBiogas system

The wastewater from the bio-toilet should be transferred into the HomeBiogas system through a reinforced, flexible sanitation pipe. The second section of the pipe, which goes all the way into the digester tank, is included with the bio-toilet kit, and comes attached to a vented loop.



### 3. Preparing water source for flushing bio-toilet

We recommend using a bidet with the bio-toilet, both for cleaning up and as a water source for flushing (running water source required)  
Alternatively, you need to prepare a bucket or suitably-sized container to hold water for flushing.



**Prepare/purchase: Bidet head, hose & plumbing attachments OR suitable bucket**

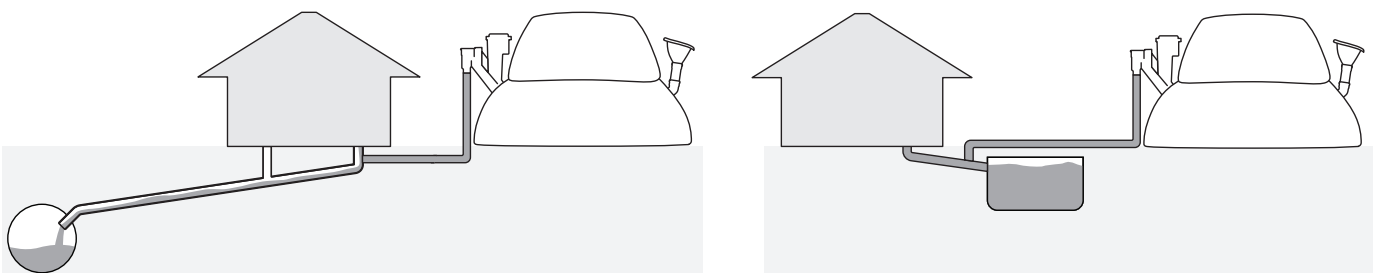
### 4. Preparing effluent management solution for HomeBiogas system's effluent output

With the Bio-toilet connected, the HomeBiogas system's liquid fertilizer should be safely diverted directly to a treatment solution **WITHOUT** potential for user contact. The effluent should **NOT** be fed directly to plants.

#### **Option 1 (Recommended):**

**Connect the system's fertilizer outlet to existing sewage system or septic tank.**

**Consult a professional if necessary when working with sanitation plumbing.**



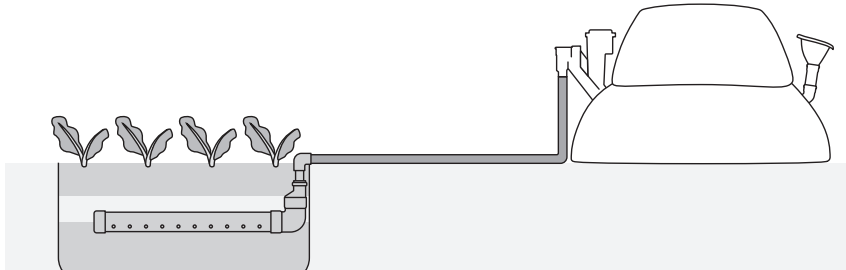
**Prepare/purchase: PVC pipes & fittings needed to connect Fertilizer Outlet's 4" opening to sewage system or septic tank**

## Option 2

### Build a drainfield or mulch basin

When constructing a drainfield, pick a location that is:

- clear of trees within a 3.5m (10ft) radius.
- at least 15m (50ft) from any downhill slope greater than 25% (15 degrees)
- at least 30m (100ft) from any private wells
- 3.5m (10ft) away from any property boundary



Prepare/purchase:

#### (Drainfield)

- PVC piping and connectors  
(4"Ø 1m, 2-4" converter, 4" elbow & cap, 2" elbows, etc)
- large gravel (1-2" diameter), ~170 liter
- fine gravel (0.25-0.75" diameter), ~25liter

#### (Mulch Basin)

- PVC piping and connectors
- landscaping mulch, large wood chips, fine wood chips/sawdust

## Checklist

### Choose

- location of toilet
- effluent management solution

### Prepare

- 4x suitable mounting bolts (8mm)
- handheld bidet & necessary plumbing connections OR bucket or suitable reservoir for flush water
- flexible, reinforced sanitation hose (OD 38mm/1.5in) of suitable length
- PVC pipes and fittings to connect fertilizer outlet to chosen effluent system

### Optional:

- build outhouse
- build mounting platform
- drainfield/mulch basin parts/materials