

# OnZite Worm Farm System

An Environmentally Sound and Natural

Wastewater Treatment System

WORMS... VERMICULTURE

Vermiculture is the process by which organic material is fed to a variety of worm species with the purpose of converting the organic materials into increased worm biomass and vermicast. Vermicast is the excreta from worms and has use as a plant growth medium and soil conditioner.

It is generally believed that Australia has over three hundred different worm species. Only a handful of these are suitable for commercial purposes

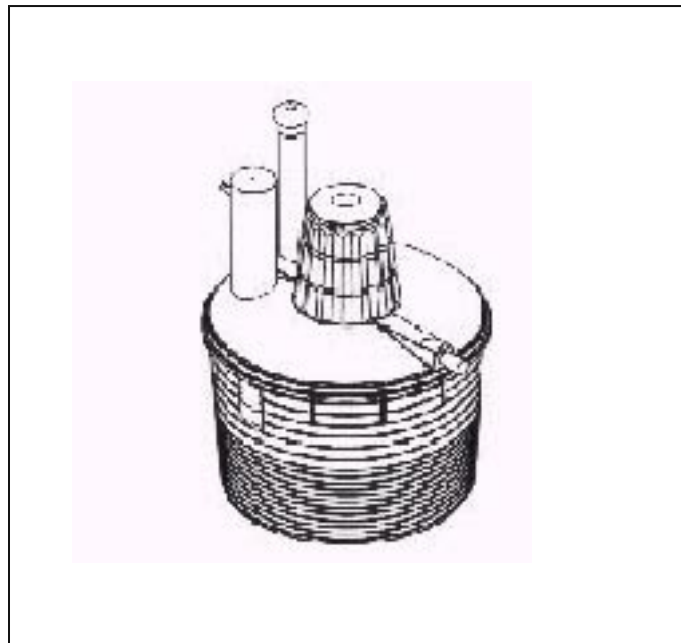
One of the most common misconceptions is that the everyday earthworm can be used in a worm farm system. The worms found in gardens, pastures and paddocks are slow breeders and not suitable for composting or for use in a wormfarm toilet system. The Rota-Loo Wormfarm System comes complete with the right kind of worms. These worms are also obtainable from garden nurseries.

Worms have the ability to convert a wide range of organic material including sewage sludge presented in an acceptable and varied form. Therefore, for the efficient operation of your Rota-Loo Wormfarm System, it is desirable to include carbonaceous materials such as paper and cardboard, blended with other organic materials such as vegetable food scraps.

The objective of blending is to deodorise and aerate the waste and adjust the Carbon/Nitrogen balance, the pH and salinity. In this context your wormfarm toilet is able to recycle household organic wastes.

During processing the waste liquid from the kitchen, shower and toilet (if a flushing toilet is used) enters the chamber where the solids are separated from the liquids, which drain through the organic biomass and is polished. This process is similar to that which happens on the floor of a rain forest. The liquids then drain out of the chamber to an approved closed disposal system. No liquid is stored in the chamber.

The latest EPA approved design of the Rota-Loo Wormfarm System has created a suspended bed of organic material, which allows for a continuous flow of material. Waste is fed to the surface. The worms, slaters and natural occurring organisms, which are seeded into the system, live on and multiply with the food source available and progressively stabilise the material. The fully stabilised material is harvested from the base and flushed to trenches or to an approved recycling system. The design maximises the retention of the worm biomass, eliminating the need to separate the worms



from the vermicast. It also optimises the environment to promote the development of beneficial bacteria and fungi central to the beneficial process.

Worms eat 50 to 100% of their own body weight per day. The grinding and tumbling action within the worm gut reduces the sludge particle size exposing a greater surface area to a range of viruscidal enzymes and a host of bacteria. ( Just thought you would like to know that ) After excretion the sludge particles continue to be exposed to an aerobic environment in the suspended bed with very high bacterial and fungi populations.. Whilst it is less prevalent in residential properties, worms also seem to be quite resilient to heavy metals contamination, Dieldrin, PCBs and organo-phosphates as these bio-accumulate.

## SUBSTANCES NOT TO PUT INTO THE SYSTEM

The Rota-Loo Wormfarm System cannot process inorganic materials such as cans, glass, plastics, disposable nappies, ceramics or clays, stones, paints and non organic chemicals. CARE should also be taken when using strong detergents ( such as bleaches ) and acids. Large amounts of these may well slow down the operation of the system. These contaminants however, will not necessarily destroy the metabolism of the entire system as biological activity is always going on either below or around the infected area. As the contaminant filters through the organic pile its strength and effectiveness are diminished and as more organic matter is added to the pile the biological activity succeeds the inactivity.

OnZite Wormfarm Systems have three (3) years conditional warranty against original factory imperfections of material and workmanship



# ONZITE WORMFARM SYSTEMS COME IN TWO MODELS

## WF240V and WFGRAV

EPA Approval No. CA81/03

### Model WF240V

The Wormfarm tank is moulded in UV stabilized polypropylene, manufactured to the Standard AS/NZS 1546.1.

The system is approved for domestic wastewater flow not exceeding 3000 litres per day.

The OnZite Wormfarm System is supplied as a package which comprises, the tank, filter bed with starter mix and the worms. Internal pipes for air and liquid flows and all plumbing connections. A robust 240v pump is installed which is automatically controlled and includes an alarm unit as required by the EPA.

A compost bin is supplied to provide access to the compost pile for the addition of organic material, e.g. vegetable peelings, paper and cardboard. The package is completed with a specially designed anchoring system. A complete installation and maintenance manual is supplied with each unit

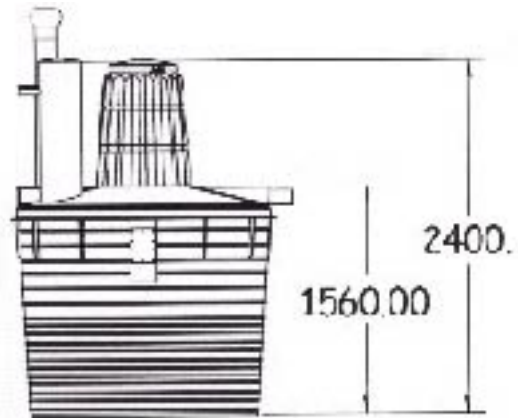
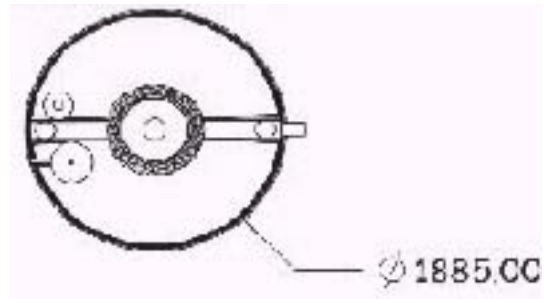
The conditions of the EPA approval require that the installation of an Onzite Wormfarm System shall be carried out by a properly accredited person usually a 1650.00 licensed plumber.

The estimated cost of an installation including trenches is around \$1000.00. but, you should obtain quotations from your local plumbers who have a knowledge of the site and soil conditions in your area. If you are not sure, call us for assistance.

### Model WFGRAV

Except for the inclusion of an automatic pump, alarm system and any electrical connections, this model is the same as the WF240V previously described.

The WFGRAV is a gravity fed system and is only suited to a sloping block with a with a minimum incline of 1:40



OnZite Wormfarm Systems are manufactured by Environment Equipment Pty Ltd.  
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