



THE EARTH FLOW™ FREQUENTLY ASKED QUESTIONS

What is the Earth Flow™? - The Earth Flow™ is a mid- scale in-vessel composting system for recycling organic waste materials at the site where they are generated. It is available with an optional bio-filter for odor processing and control for a neighborhood friendly efficient composting technology solution. The Earth Flow™ has been developed specifically to meet the composting needs of universities/schools, restaurants/cafeterias, commercial food processors, hospitals, multi-unit residential dwellings, camps and other institutional organic waste generators who generate from 700-3,000 pounds per day of food waste per vessel.

What is unique about the Earth Flow™? - The Earth Flow offers the sophistication of large in-vessel composting systems to the mid-sized institutional generator at an affordable price.

What are the key features of the Earth Flow™?

- Modular and expandable design allows flexibility in application
- Bio-filter processes odors and accelerates the compost process
- High rate composting reduces volume and stabilizes material quickly
- Powered auger is thoroughly effective for mixing and shredding most foods
- Insulated design allows for operation under winter conditions

How much organic waste must an institution generate to use the Earth Flow™? - For on-site composting, the smallest Earth Flow™ is capable of processing as little as 300 lbs. (136 kg) per day or the largest as much as 3,000 lbs. (1,363 kg) per day. The modular design of the system allows it to be adapted to a wide variety of applications and configurations simply by adding more Earth Flows.

What if your organic waste stream increases? - Expansion capability is one of the key features of the Earth Flow System™. By virtue of its modular design, the system is ideally suited to incremental capacity increases. This system is a perfect application for gradually introducing composting to the institutional organic waste generators.

What are acceptable Materials for Composting?- The system is designed to process Kitchen prep waste and plate scrapings. Green garden waste and manures will easily compost in the system. Meats, cheese, and other fatty foods should be kept below 15% of total waste input. Avoid adding large pieces of meat, fats or oils to the system.

How cold can it be and still maintain compost temperatures in the Earth Flow? – The Earth Flow has been installed in some very cold locations. It may need supplemental heat if the temperature remains below 10F for more than 7 days. The aeration system should be shut down during cold weather.

Do I need a shredder for the Earth Flow? – If you are composting organic waste that is collected with cardboard, biodegradable utensils or biodegradable bags then we recommend a high torque type shredder to prepare the waste for composting. If it is only food waste and pre ground wood chips or yard waste, then a shredder is not required.



EARTH FLOW™ DESCRIPTION OF OPERATIONS

Below is a summary of the 4 basic steps to the Operation of the Earth Flow.

1. An organic “recipe” (i.e., a mixture of food waste and wood chips) is loaded into the Earth Flow™ through the loading hatch or via bucket loader or conveyor from the shredder.
2. Once the active composting cycle is complete (approximately 2-3 weeks), the auger discharges the compost through an end door of the vessel. In order to remove all the compost, the dump door is opened and the auger lifts the compost out of the Flow. The compost either falls into a 2 cu.yd. rolling container or the bucket of the tractor.
3. This compost can be used directly as mulch or can be cured (stand in a pile) for 30-60 days before being used as a soil amendment. Screening will make the finished product even finer and remove any plastic contaminants.

1. Food Scrap Loading - The first step is to make sure that the kitchen waste is collected for composting with as little contamination from plastics, etc. as possible. Hard foods such as pineapples, stale loaves of bread, etc., should be chopped up prior to disposing in the Earth Flow™. Because food scraps are wet, a dry bulking agent such as wood shavings must be added to create a balanced compost recipe. Typically 1/3 to 1/2 of the volume will be bulking materials.

2. Mixing and Shredding

Once the new material has been added, you are ready to begin mixing. The powered auger system has been designed to take the work out of turning over your compost pile. A complete mix should take approximately 30 minutes, and should be performed at least two times per week. Turning is normally done 2 to 4 times per day during maximum loading rates.

3. The Active Composting “Baking” Phase

Thermophilic composting at temperatures above 115 F occurs rapidly in the insulated Flow. The food waste becomes soft or “baked” at this temperature and is easily shredded by the notched auger. Continue adding material until the Flow is full to the top of the auger screw. During this time, the operator should mix the material at least twice per week.

4. Unloading and Curing the Compost

Once the compost has finished active composting, it is ready to be unloaded. The Earth Flow™ In order to remove up to two yards of the compost, the dump door is opened and the auger lifts the compost out of the Flow. The compost either falls onto a paved surface or into a 2 cubic yard rolling container or the bucket of the tractor.