

Earth Tub Installation Requirements

The Earth Tub is typically delivered by tractor trailer with a bed height of 5 feet. The Earth Tub weighs over 500 pounds, so a forklift or similar equipment is required to remove the unit from the truck. The Earth Tub comes packaged with the biofilter and all components inside the Tub.

Siting the Earth Tub

Choose a site near access to power that is also convenient for loading food scraps. An area approximately 12'x12' is ideal. We recommend that the unit be located away from traffic areas, windows or ventilation ducts to minimize odor impacts. A gravel or concrete pad is an ideal surface. Construct the pad with a 1-2% slope towards the side where the drains will be located on the tub. Bare ground or pavement is also adequate surfaces provided they are well drained. The site should be graded with a 1-2% slope toward the drain at the base of the Earth Tub. Make sure that the ground is smooth and no rocks or roots are protruding which could damage the bottom of the plastic tub base. Position the Earth Tub with the aeration port towards a wall or away from the direction of access. A minimum of 24" clearance is recommended on all sides of the Earth Tub. An ideal fence enclosure is 12'x14' for schools or other security risk areas.

Auger Motor Electrical Installation

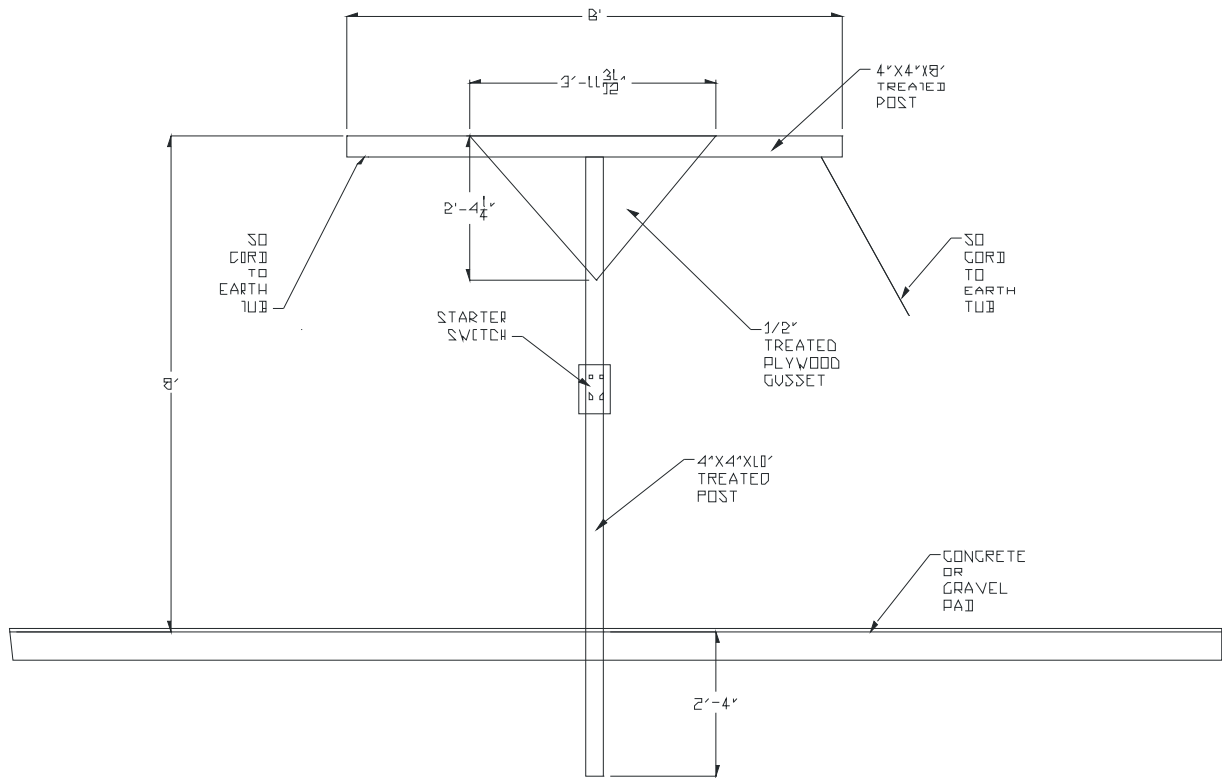
The gearmotor driving the mixing auger is a 2 hp, 3-phase motor mounted on a helical gearbox. The voltage range is 208-230 AC and draws 6 amps per leg. The high voltage ranges is 460 volts, which we do not recommend due to higher electrical shock risk. We recommend that an overload motor contactor, VFD or starter be used to turn-on the motor. The motor contactor will provide variable overload protection to prevent motor burnout in the event of auger binding. A single starter can be used for several units if the customer wants to save money on installation. A twist lock plug can be installed on the bottom of the starter panel to allow the operation of both motors. GMT has an optional variable frequency drive (VFD) for converting single phase to 3 phase power for sites that only have single phase power. The VFD eliminates the need for the motor contactor and provides overload protection and more torque when starting the motor. The VFD should increase the life of the gear motor.

Auger Motor Wiring

Local electrical code may require additional disconnect switch to allow the service to the starter to be locked out. GMT supplies a twistlock plug and 16-4 retractable SO cord to connect the motor to the starter via an overhead junction box. The cord should be suspended from over the center of the lid where possible to prevent the cord from catching when rotating the lid. Below is a drawing of a post and cross for mounting the starter switches and supporting the SO cord over two Earth Tubs. The VFD is available as an option from GMT.

Blower Motor Wiring

The blower comes with 10' of cord and is mounted inside the biofilter. The blower requires a standard 120V ground fault outdoor receptacle. The blower draws less than 1 amp (100 watts) continuously.



Liquid Drainage

There are two liquid drains; one at the base of the Earth Tub and the other at the base of the biofilter. Depending on the material to be composted, the liquid can be very odorous. The liquid from the Tub is collected in a 1" drain fitting on the 2" PVC aeration line. GMT provides 1" clear hose to connect the Tub drain to the 1" npt thread drain at the base of the biofilter. The installer will have to purchase additional 1" tubing or plastic pipe to connect to a drain. GMT recommends draining the liquid into a sanitary sewer or underground soak away or drip irrigation system.

Aeration System

The aeration piping must be assembled once the tub is in place and leveled. The piping is all standard 2" PVC plumbing so additional parts and pipe are readily available if modifications to biofilter position are desired. Set up the tub and place the biofilter in the general location where it will be sited when the aeration lines are installed. Typical assembly will take 2 hours to connect the piping.

Loading Platform

The loading height is 4 ft. Some installations build a platform or stairs to reduce the lift height for loading foodwaste into the tub. The platform should be 12-14" in height.