

# IN-VESSEL COMPOSTING

In-vessel composting offers a quick, space-saving option for businesses, colleges and universities, schools and other organizations interested in reducing food scraps. In-vessel composting involves enclosing compostable material in a drum, silo, bin or other container and controlling the temperature, moisture and aeration to produce finished compost rapidly.

In-vessel composters come in various sizes and styles. Some composters can fit easily in a school or restaurant kitchen while others can be as large as a school bus to accommodate large food-processing plants.

## The Benefits of In-vessel Composting

In-vessel composting:

- can process large amounts of material without taking up as much space as in-ground composting;
- can be used year-round in virtually any climate;
- accommodates virtually any type of organic material (e.g., meat, animal manure, biosolids, food scraps);
- uses much less labor because no manual turning is needed;
- produces very little odor; and
- produces compost in as little as a few weeks, although compost may still require time to stabilize.

In-vessel composters can be expensive, especially larger versions. The cost-savings associated with disposing of less food scraps and a valuable end product, however, can offset the costs.

There are many companies that make in-vessel composters. As with any equipment purchase, companies should research which system best fits their needs. The following companies are mentioned as examples only and are not endorsed by the S.C. Department of Health and Environmental Control (DHEC).

For small spaces, composters such as Nature Mill ([www.naturemill.net](http://www.naturemill.net)) can accommodate small amounts of food scraps and take up little room. Some manufacturers that sell large-scale composters include Green Mountain Technologies (<http://compostingtechnology.com>),

BW Organics ([www.bworganics.com](http://www.bworganics.com)), Food Cycle Science ([www.nofoodwaste.com](http://www.nofoodwaste.com)) and BioGreen360 ([www.biogreen360.com](http://www.biogreen360.com)) if you need more capacity.

Additional in-vessel composting options can be found in the Green Resource Index (Index). Visit [www.scdhec.gov/HomeAndEnvironment/BusinessesandCommunities-GoGreen/SmartBusiness/What](http://www.scdhec.gov/HomeAndEnvironment/BusinessesandCommunities-GoGreen/SmartBusiness/What) to view the Index.

## Other In-Vessel Food Waste Reduction Options

- **Digesters** – Commercial digesters also break down organic material but, instead of producing compost, produce wastewater that can be disposed of through your sewer system. Companies that make digesters include BioHiTech ([www.biohitech.com](http://www.biohitech.com)), Enviropure ([www.enviropuresystems.com](http://www.enviropuresystems.com)) and Mechline ([www.waste2-o.com](http://www.waste2-o.com)) – just to name a few. Note that the liquid created by digesters can be corrosive to plumbing and have a negative impact on wastewater treatment systems. **Contact your wastewater treatment provider before installing a digester.**
- **Dehydrators** – Food scrap dehydrators break down food scraps and use heat to evaporate moisture. Unlike in-vessel composters and digesters, food scrap dehydrators do not use a biological process to decompose food scraps. Dehydrating food scraps reduces weight and volume, which can lead to reduced hauling and disposal costs. If the material is kept dry, dehydrators also may help reduce odors and vectors associated with handling and storing food scraps. Dehydrated food scraps are not compost, however, and should not be used as a soil amendment unless they are processed into a stable substance.
- **Composting Permits** – Depending on what and how much you compost, you may need a permit from DHEC or be required to meet certain conditions. To view the regulation, visit [www.scdhec.gov/Agency/docs/lwm-regs/R61-107\\_4.pdf](http://www.scdhec.gov/Agency/docs/lwm-regs/R61-107_4.pdf) or call DHEC's Division of Mining and Solid Waste at 803-898-1367 to see if the regulations apply to your facility.