Solutions for Sustainability

ECS

engineered COMPOST systems

The ECS Process

No two compost facilities have the same operating requirements and feedstocks. That is why ECS is committed to providing each of our clients with a solution that is tailored to meet their economic, regulatory and market driven needs.

We begin by listening. Then using a rigorous Pro-Forma analysis approach we've developed over the past decade, combined with our unparalleled range of experience and product offerings, we provide

AC Composter™

Covered ASP (CASP)

The AC Composter™ (CASP or Covered Aerated Static Pile) system provides facility operators with a cost-effective tool for controlling odors, VOC and Greenhouse Gas emissions; and for maintaining optimal pile conditions during composting. The AC Composter™ system combines an impermeable fabric cover with standard ECS components including the CompTroller™ (a web based aeration control and monitoring system), options for Low Friction In-Floor or CompDog™ aeration systems, and biofiltration.

The AC Composter™ is appropriate for a wide range of facility sizes, and virtually all feedstocks. It can be used outside in discrete piles/zones; with a bunker-wall configuration to reduce the facility footprint; or inside buildings to control the odor and humidity associated with in-building ASP systems.

Standard Features

- Complete capture and excellent reduction of VOC and Greenhouse Gas emissions
- Superior odor control
- Minimized evaporative water losses from the biomass
- An effective barrier against vectors (birds, rats, flies)
- Accommodates a broad range of aeration rates and process control options

SV Composter™

Stationary In-vessel Composting System

The ECS SV Composter™ (Stationary In-Vessel) is designed for small, to large-scale composting facilities with higher tipping fees; and is ideal for locations with hot and cold ambient temperatures (+40º to –40º C). The SV Composter™ has the best odor control, process control, and the smallest footprint compared with ASP or windrow systems. In addition, it features the aeration control and monitoring technology, and ease of operation, that is found in all ECS systems.

Standard Features

- Excellent odor control with completely sealed aeration design and biofilters
- A batch system accepts a broad variety of feedstocks at irregular loading rates
- Constructed for a 20+ year service life
- Built-in condensate/leachate management system
- Semi-automated vessel loading conveyor systems
- Integrated horizontal or vertical compost mixers

ECS clients with an analysis of their best suited composting options. Our clients are then better able to make an informed decision on whether or not to proceed; and which process approach will best meet their needs.

When a client does decide to build or to upgrade a facility, ECS works closely with the client's other team members (consultants and contractors) to see the project all the way through to successful operation. ECS' typical scope of work includes providing:

- **Permitting support**
- **Manufactured compost process components**
- **Compost system installation drawings and supervision**
- **Facility start-up, acceptance testing, and training**
- **Long term technical support and service**

CV Composter™

Containerized In-vessel Composting System

The CV Composter™ (Containerized Vessel) is a modular in-vessel composting system designed for small, to medium-scale composting facilities that require comprehensive environmental control. It requires minimal infrastructure and the modular approach easily adds additional capacity to accommodate growth. The CV's advanced control system and unique aeration design optimizes compost stabilization and pathogen reduction rates; while capturing and dramatically reducing VOC, GHG, and odor emissions. The CompTroller™ aeration control and monitoring system requires little or no operator intervention during composting, and automatically records pertinent data for every compost batch.

Standard Features

- A batch system accepts a broad variety of feedstocks at irregular loading rates
- Excellent odor control with completely sealed aeration design and biofilters
- Constructed for a long service life
- Built-in condensate management system
- Semi-automated vessel loading conveyor system
- Integrated vertical or horizontal auger compost mixer

Standard ASP

Aerated Static Pile (ASP) System

The ECS ASP Systems offer great versatility and reliability. They are appropriate for primary and secondary composting; small to large-sized facilities; and for any feedstocks including food waste and biosolids. They have a smaller footprint, faster process time, and better odor control when compared with windrow or static pile compost systems.

ECS has an innovative array of specialized ASP components, such as the CompTroller™ (automated aeration control and monitoring system); RF Teleprobe™ (wireless temperature transmitting technology); In-Slab and CompDog™ aeration floors; and the AC Composter™ (Covered ASP System) that features an impermeable cover combined with a negatively aerated compost process.

Standard Features

- Excellent VOC, GHG and odor control using site-built biofilters
- Condensate management and collection
- Batch or continuous-flow processes
- Ability to process feedstocks at irregular loading rates
- Reversing or single direction aeration
- Discrete piles, mass-bed or bunker wall configurations
- Accommodates growth and expansion easily

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Aeration Floors

ECS offers several different below and above grade aeration floors that distribute air through the biomass and are compatible with loading and unloading using front-end loaders. Our In-Slab channel aeration floor collects condensate/leachate, is plug-resistant, and is easily maintained. Our unique and affordable CompDog™ pipe-less & above-grade aeration floor adapts easily to new facilities, and provides a logical upgrade path for existing windrow facilities looking to transition to ASP technology.

CompTroller™

ECS' automated aeration control and monitoring system is operating at all ECS compost installations. It is designed for regulatory compliance and provides operators with a broad range of process options.

RF TeleProbe™

The compost industry's leading wireless compost temperature monitoring technology. The RF TeleProbe™ has been continuously in service since 1999; offers single or dual sensors; and is compatible with ECS aeration control and monitoring software, PLC systems, or data monitoring and recording only.

Mixers

ECS recommends and provides the extremely durable Luck/Now horizontal and vertical compost mixers manufactured by the Helm Welding Company. ECS engineers have specified Helm Welding Mixers for compost systems since 1995 and incorporate them into compost facilities for all types of feedstocks. ***ECS is the exclusive representative for Luck/Now mixers for composting applications in North America.***

- **Facility Design**
- **In-Vessel**
- **ASP**
- **Automated Controls**
- **Client Support**

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(206) 634-2625 • Seattle, WA www.compostsystems.com