ENGINEERED COMPOST SYSTEMS

Customer Driven Solutions

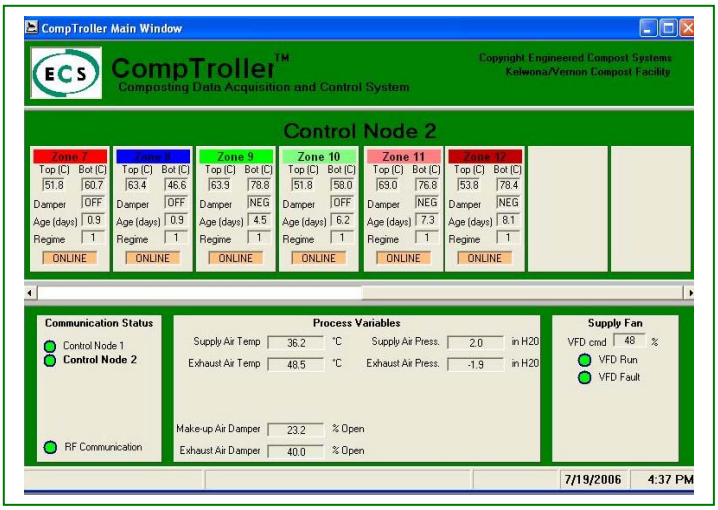
CompTroller™

Automated Aeration Control, Monitoring and Data Storage

The CompTroller™ automates the amount of aeration to each compost zone depending on its cooling requirements. It automatically guides each batch of compost through the time & temperature protocol of the US EPA PFRP and VAR regulations; records the time/temperature process; and keeps track of each batch of compost as it moves through the facility. The CompTroller™ constantly optimizes process control based on your settings. It simplifies operations, conserves electricity, and reduces labor. It's smart, flexible and reliable. It is the controller found in all ECS In-vessel and Aerated Static Pile (ASP) systems.

Operator PC Software

The Operator Software is the interface to the CompTroller™ (Windows™ is standard and PLC communication options are available). Anyone with a basic understanding of computers can use it effectively. The screens graphically represent the layout of your facility. The software is intuitively organized. By "drilling deeper" the screens go from big-picture to small process details. A glance at the Main Screen shows the overall conditions of your facility.



Control Nodes

The Control Node is the work-horse of the CompTroller™. It simultaneously monitors and controls compost temperature, pile temperature stratification (in systems with reversing aeration), duct pressures, air volumes, biofilter conditions, and other user-specified functions. Its internal architecture is hardened and fault-tolerant. It doesn't loose data even during power outage. Process data from the Control Node is updated to the PC Software.

Process Sensors

The Process Sensors (wireless and hard-wired temperature probes) are ruggedly constructed based on years of compost application experience. Any reliable sensor such as tank level, air flow or weather station can also be integrated into the CompTroller™ and displayed on the PC Software.

Blower Drives

Different compost piles have different aeration needs (because of age and feedstock variation). The Control Node receives the Process Sensor data from all the active piles, sorts it out, and then determines the fan speed necessary to accomplish every pile's process goals. This evaluation happens every few minutes so the fan speed is constantly changing using Variable Frequency Drives (VFD) on the motors. This optimizes process control (delivering only the amount of cooling aeration necessary to each zone) and minimizes power consumption. ***The ECS blower control method can save 30% or more of electrical consumption costs when compared with conventional on/off timer fan controls.***

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

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