

Compost Hot Box 250R[™]

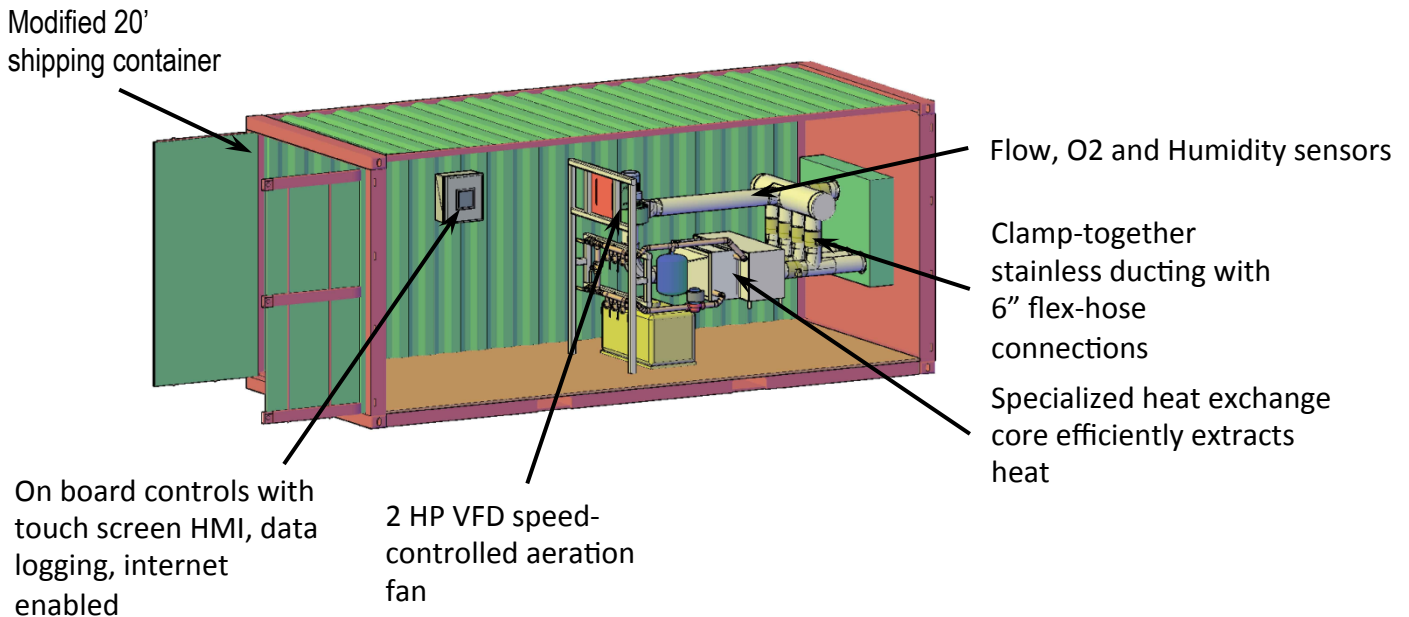
The Compost Hot Box 250R[™] is a mobile plug and play compost aeration and heat recovery system with recirculation capability, featuring Agrilab Inside[™] technology designed for negatively aerated or enclosed composting systems on medium to large scale farms and commercial/municipal compost operations.

Aerated Static Pile processing means minimal mechanical tumbling of material is required to aerate and break down the material into stable compost.

It includes remote data monitoring, computerized controls, hot water, and condensate recirculation systems. Aeration exhaust can be automatically vented back into the compost for moisture and heat retention, or directly into a bio-filter for odor control. Everything is assembled on a steel skid for easy setup alongside existing structures or other enclosures. Data captured is used to increase profits through optimizing compost production volumes and quality. System documents temperature and oxygen level tracking to meet “PFRP” quality regulations and maximize renewable thermal energy captured.

Annual Maximum Compost Volume Processing Capacity: 800 CY/month or 9,600 CY/year

Annual Maximum Energy ROI when heating water to 120F based on \$15 per million Btu energy prices: \$36,000



What is Agrilab Inside[™]?

- The patented Agrilab Inside[™] process takes aerated compost systems to the most advanced level with the ability to modulate air flow rates relative to oxygen and temperature levels, capturing useful heat and moisture, and recirculating compost vapor or fresh air into the compost to optimize heat and moisture levels.
- Renewable thermal energy captured as moist hot compost vapor is run through specialized heat exchangers where water is heated and condensate water is reclaimed. Aeration exhaust can be automatically sent back into the compost for moisture and energy optimization. Cooled aeration vapor can be vented directly into a bio-filter for odor control.
- This process is the first and most advanced compost heat recovery system available and saves time and money compared to turned windrow composting. Agrilab Inside[™] optimizes the overall composting process and enables effective bio-filter odor control, fast compost production and predictable heat and water recovery.

Compost Hot Box 250R[™]

The Compost Hot Box 250R[™] is an integrated, plug and play system that contains the core mechanical and control equipment for aerated composting with heat recovery - the “brains, lungs and heart” of the system. The Hot Box 250R[™] is designed for aeration flow of 100 to 500 cubic feet per minute, with 4 compost batch zones and the ability to recirculate into any zone for additional heat recovery. All pumps, blowers and valves are controlled by an on board SCADA system with touch screen interface, data logging and remote monitoring software.

Specifications:

Dimensions, Installation:	Customized metal shipping container; 8' wide by 20' long by 8' high, ~6,000 lbs. 6" hoses for compost aeration and exhaust connections.
Aeration:	2 Horsepower blower, speed controlled, 100 to 500 CFM range adjusted manually or with feedback controls. Four compost and exhaust zones with fresh air intake.
Recirculation:	Exhaust from any compost zone can be mixed with fresh air to desired oxygen level and injected into another zone. This conserves heat and moisture, and can jump-start cold or frozen material.
Sample Heating Output:	With 250 CFM of saturated 140F compost exhaust: <ul style="list-style-type: none"> • 124,000 Btu heating loop: 9 GPM heated from 100F to 128 F • 160,000 Btu pre-heating: 5 GPM heated from 55 to 120 F With 500 CFM: <ul style="list-style-type: none"> • 174,000 Btu heating loop: 12 GPM heated from 100 to 130 F • 281,000 Btu pre-heating: 8.75 GPM heated from 55 to 120 F
Monitoring:	Parameters can be used to optimize composting and heat recovery, linked to SCADA system: <ul style="list-style-type: none"> • Oxygen and humidity of compost vapor • Temperatures at all critical points • Air and water flow rates
Control:	<ul style="list-style-type: none"> • Touch screen with web server for intuitive operator control • Full control and monitoring via internet. Remote support available by contract. • Expandable to control auxiliary systems (i.e. greenhouse climate control)
Delivery, Purchase or Lease:	<ul style="list-style-type: none"> • Base price includes delivery within 250 miles of Richmond VT, and startup support for the first week of operation plus travel expenses; No \$ down lease-to-own financing is available.

