



Modern solid waste incineration systems utilize a two stage combustion process whereby the waste is charged into the primary combustion chamber, where it is pyrolyzed under a temperature actuated controlled air combustion system utilizing under-fire air injection along the hearth and optimally positioned, primary ignition burner(s) to ensure adequate flame dispersion and carbon reduction. The by-products of the first stage combustion process (VOC's and HAP's) are then further oxidized in the secondary combustion chamber which provides turbulent, secondary over-fire air injection and a controlled, temperature maintenance/oxidizing burner.

System Overview: The Containerized Equip is Skid mounted, horizontal, low profile, multiple chambered, controlled air, solid waste thermal oxidizer system configured for ease of deployment and mobility. The system is also suitable for mounting in an optional 20ft. ISO shipping container. The system is engineered for environmentally safe incineration of mixed composition, solid waste streams of ranging from Types 0-4.. A 31.5 cu. ft. secondary combustion chamber provides thermal oxidation of combustion gases at 1800-1800°F with a min. of 1 sec. retention. Flue gases to be exhausted via a draft induction & cooling system to minimize stack height and enable utilization of a light weight, dual wall s.s. stack.

System Capacity: Approx. 1.3 yd³ per batch, 4-6 hour operation cycle @ .95 MMBtu/hr waste combustion, providing 110-190 lb./hr. processing capacity for the solid waste mixtures with est. gross HHV compositions ranging 5000 – 8500 Btu/lb.

Electrical: Single point - 208-230 V, 3 Ø, 60 Hz, 25-30 amp

Approx. Dims.: Length overall - 14'- 0"
Width overall - 4'- 4"
Height (w/o stack) - 6'- 10"

Primary chamber: Type: fixed hearth
Chamber volume: 52.8 cu. ft.
Hearth Area: 18 sq. ft.
Burner capacity: 2 - 3 gph diesel/light oil (modulated control)
(.4 MMBtu/hr., NG or LPG fired burner available)

Secondary chamber: Type: Direct fired thermal oxidizer
Chamber volume: 31.5 cu. ft.
Burner capacity: 2.5 - 4 gph diesel/light oil (modulated control)
(.75 MMBtu/hr. NG or LPG fired burner available)

Combustion air: Supply to under-fire, secondary air injection & draft induction/cooling
1 hp, 500 cfm (5 hp, 750 cfm w/NG or LPG burners)

Exhaust & Stack: System shall incorporate an integral refractory lined draft induction & cooling system venting to a 18" i.d.. stack to atmosphere

Systems Control: Siemens S-7 series PLC with Touch-screen operator interface
To include: Primary & secondary chamber temperature control
Temperature actuated fuel and air control
Burner interface, status and reset access**
System status and alarm display
** Discrete, UL, CA burner monitoring/control
w/CAD cell. flame supervision provided for each burner.



Shown mounted in 20' ISO container