



Industrial Waste Incinerator System Overview:

Our [Solid Waste Disposal Incinerator](#) is a modular, multiple chambered, controlled air, solid waste thermal oxidizer system (incinerator), engineered for the unique demands of mixed composition and solid waste disposal.

An advanced cyclonic secondary combustion chamber provides superior, turbulent thermal oxidation of combustion gases with over 1 second retention std., for environmentally safe stack exhaust to atmosphere.

Utilization of weight saving refractory materials and modular construction enhances ease of erection and installation as well as improved maintenance of the system.



System Capacity: 4.2 MMBtu/hr waste combustion, providing 363-605 lb/hr (95165-275 kg/hr) processing capacity for mixed waste streams with an average gross HHV of up to 5500-8500 Btu/lb.

Batch Operation: Approx. 5 yd³ (3.82 m³) per batch cycle

Intermittent Feed (w/optional loader): 4 yd³/hr (3 m³/hr) up to 8 hrs/day





Thermal Oxidizer Incinerator - Technical Specifications:

Dimensions:

Length overall: 11'-6" (3505.2mm) batch system w/o loader
21'-6" (6553.2mm) w/optional loader system
Width overall: 10'-3" (3124.2mm)
Height (w/o stack): 14'-0" (3962.4mm)
Approx. weight: 26,000 lbs. (11,818 kg)

Primary chamber:

Type: fixed hearth, with controlled under-fir air injection
Chamber volume: 185.4 cu. ft.
Hearth Area: 30 sq. ft.
Burner capacity: .8 MMBtu/hr. (Hi-Lo-Off control)
Construction: skid - 6", 10.5#/ft., A36 channel
shell - .250" thick, A36 plate
lining - 5", 2800°F 750 psi, (Plicast 3100KK or equal)
insulation - 1"1900°F Fiber (ASTM C612093, type V)
Approx. weight: 15,500 lbs. (4090 kg)

Secondary chamber:

Type: cyclonic thermal oxidizer with 1+ sec. r/t @ 1600°F (850°C)
Chamber volume: 113.6 cu. ft.
Burner capacity: 3 MMBtu/hr. (full modulating, excess air control)
Construction: shell - .250" thick, A36 plate
lining - 4", 2800°F 750 psi, (Plicast 3100KK or equal)
insulation - 1"1900°F Fiber (ASTM C612093, type V)
Approx. weight: 10,500 lbs. (2727 kg)

Combustion air:

Supply to under-fire and secondary air injection.
35 hp, 230/460 V, 3Ø, 60 Hz
1250 cfm @ 18" W.C. pressure

Optional Hydraulic Ram Loader





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System 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
Hydraulic systems control (applicable with optional loader)
**Discrete, UL, CSA, FM & IRI burner monitoring/control
w/U.V. flame supervision provided for each burner

Exhaust Stack:

Std. refractory lined

Construction:

(2-4' sections with s.s. no-loss cap & spark screen)
shell - 10 gage, A36 carbon steel
lining - 3" 2400oF, 175 psi, (Plicast AL-Tuff LWI-24 or equal)
Wt. - 155 lb/ft (70.45 kg/ft.)

Optional loader:

Type: Hydraulic ram feed (optional cart tip hopper load available)
Hopper volume: 1.3 yd³
Power unit: 5hp, 230/460 V, 3Ø, 1800 psi
Hydraulic cylinders: 2500 psi: Charge door - two 2" bore, 36" stroke
Charging ram- two 2" bore, 36" stroke
Hopper lid - one 2.5" bore, 16" stroke
Hopper loader - two 2.5" bore, 18" stroke
Charging frequency: 10-15 minutes, up to 4-5 times per hour
Approx. weight: 6,500 lbs. (2955 kg)

