



Innovative Environmental Containment, Storage and Control

Floating Barriers | Stormwater Filtration | Flexible Water Tanks  
Incinerators | Containment Berms and Liners

# Small-Batch Incinerators

HELIOS 0.3

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# HELIOS 0.3

The HELIOS 0.3 is a modular, dual-chambered, controlled air, solid waste thermal oxidizer system (incinerator) engineered for 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. This packaged system is provided fully assembled (except stack), factory tested and ready to use. Simply set the stack sections, fill the diesel tank and plug in power, with no special factory commissioning or training required.

## Capacity

### System

.3 MMBtu/hr waste combustion, providing 30-50 lb/hr processing capacity for solid waste streams with an average gross HHV range of 5500-8500 Btu/lb.

### Batch

Approx. 9-10 cu.ft. per 4-6 hr. batch cycle.

## Power

### Fuel

Diesel or #2 fuel oil (20 gal. aluminum tank with gage & filter included)

### Electrical Requirements

Single point - 120 VAC, 25 amp

## Chambers

	Primary Chamber	Secondary Chamber
<b>Type</b>	Fixed hearth, with controlled over & under-fire air injection	Cyclonic thermal oxidizer with 1+ sec. r/t
<b>Chamber Volume</b>	13.5 cu. ft.	13.5 cu. ft.
<b>Hearth Area</b>	5 sq. ft.	N/A
<b>Burner Capacity</b>	1.25 gph (ON/OFF control)	1.7 gph (ON/OFF control)
<b>Construction</b>	Skid - 4", 6.25#/ft., A36 channel Shell - 10 ga., A569 carbon steel Lining - 3", 3000°F 750 psi, (Plicast 3000KK) Insulation - .25", 550K, 2000°F ceramic fiber	Shell - 10 ga., A569 carbon steel Lining - 3", 3000°F 750 psi, (Plicast 3000KK) Insulation - .25", 550K, 2000°F ceramic fiber

## Combustion Air

2 x 75 cfm, 3016 rpm, 115 V blowers to under-fire and secondary air injection

## Systems Control

Siemens PLC with Touch-screen operator interface, including:

- Primary & secondary chamber over temp. control
- Temperature actuated fuel and air control
- Burner interface\*\*
- System status and alarm display

\*\* Discrete, UL, CSA, FM & IRI burner monitoring/control w/CAD flame supervision provided for each burner

## Shipping

Approx. 4500 lbs.



# HELIOS .02

The HELIOS .02 is a packaged, dual-chambered, controlled air, solid waste thermal oxidizer system (incinerator), engineered for small batch (approx. 25 lbs.) combustion of solid drug & contraband wastes. A secondary combustion chamber provides superior, turbulent thermal oxidation of combustion gases with over 1 second retention std., for environmentally-safe stack exhaust to atmosphere. This packaged system is provided fully assembled (except stack), factory tested and ready to use. Simply set the stack sections, plug in power, & connect LPG gas supply, with no special factory commissioning or training required.

## Capacity

### System

80,000 Btu/hr. waste combustion, providing 9-15 lb./hr. processing capacity for solid waste streams with an average gross HHV range of 5500-8500 Btu/lb.

### Batch

Approx. 25 gal. (3.4 ft<sup>3</sup> / 96 ltr.)

## Power

### Electrical Requirements

Single point - 120 VAC, 25 amp

## Chambers

	Primary Chamber	Secondary Chamber
<b>Type</b>	Fixed hearth, with under-fire air injection	Thermal oxidizer with 1+ sec. r/t @ 1600°F
<b>Chamber Volume</b>	3.7 cu. ft.	4.27 cu. ft.
<b>Burner Capacity</b>	2 x 80-90K Btu/hr. max. LPG (modulated control)	
<b>Construction</b>	Skid - 3", 5#/ft. channel & 3" x 3" angle, A36 Shell - 11 ga., A569 carbon steel Lining - 3", 3000°F Cast refractory Insulation - .5", 550K, 2000°F ceramic fiber	

## Air Injection

Under-fire & draft induction & exhaust gas cooling

## Systems Control

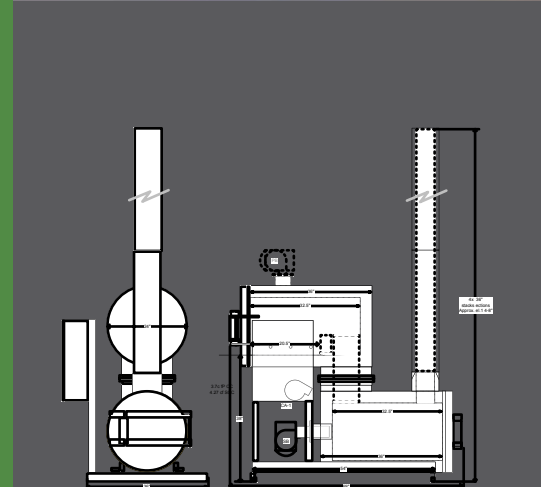
Siemens PLC with Touch-screen operator interface, including:

- Primary & secondary chamber over temp. control
- Temperature actuated fuel and air control
- Burner interface\*\*
- System status and alarm display

\*\* Discrete, UL, CSA, FM & IRI burner monitoring/control w/CAD flame supervision provided for each burner

## Shipping

Approx. 2500 lbs. | 5'-2" L x 3' W x 8'-8" H (to top of std. stack)



# HELIOS 0.2

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Scale: 1" = 1'

