



SYSTEM TECHNICAL DESCRIPTION & SPECIFICATIONS

MODEL: HELIOS 0.3

System Overview: 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.

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

Electrical required: Single point - 120 VAC, 25 amp

Fuel Capacity: 25 gal. - diesel or #2 fuel oil

Primary chamber:

Type:	fixed hearth, with controlled over & under-fire air injection
Chamber volume:	13.5 cu. ft.
Hearth Area:	5 sq. ft.
Burners capacity:	.25 MMBtu/hr. nom. (modulated control)
Construction:	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

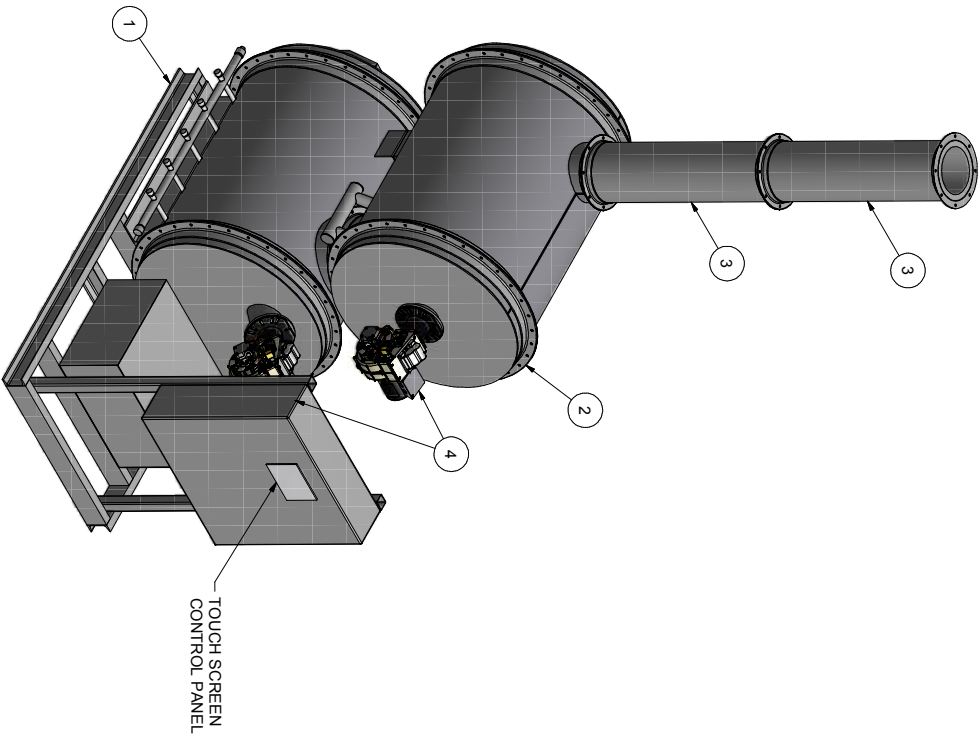
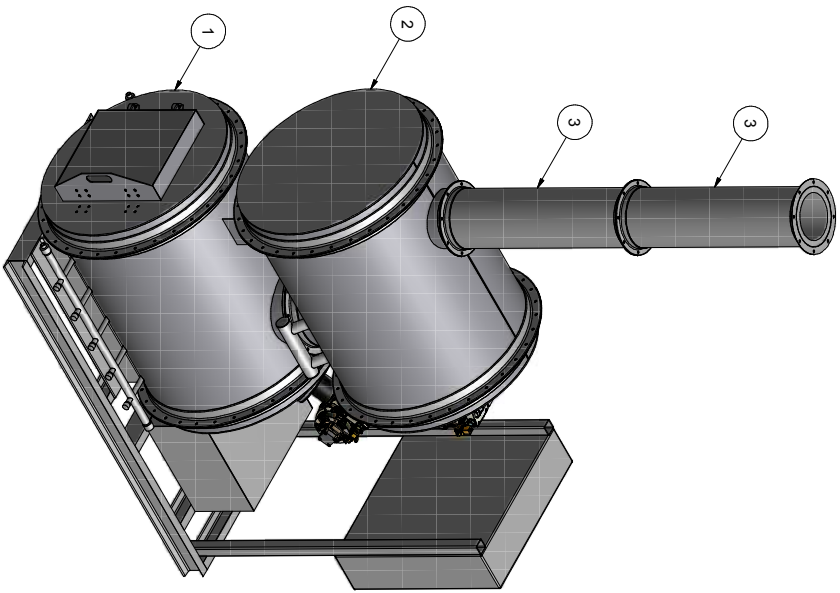
Secondary chamber:

Type:	cyclonic thermal oxidizer with 1+ sec. r/t
Chamber volume:	13.5 cu. ft. (std.)
Burner capacity:	.25 MMBtu/hr. (modulated control)
Construction:	shell - 10 ga., A569 carbon steel
	lining - 3", 3000°F 750 psi, (Plicast 3000KK)
	insulation - .25", 550K, 2000°F ceramic fiber

Combustion air: Supply to burners, under-fire and secondary air injection
.33 hp, 120VAC, 60 cfm

Systems Control: Siemens PLC with Touch-screen operator interface
To include: Primary & secondary chamber temperature control
Temperature actuated fuel and air control
Burner interface**
System status and alarm display
Hydraulic systems control (applicable with optional loader)
** *Discrete, UL, CSA, FM & IRI burner monitoring/control w/CAD cell flame supervision provided for each burner*

Exhaust breaching: 10" dual wall, s.s., insulated stack (6' std.)



ITEM	QTY	PART NUMBER	DESCRIPTION
4	2	CF375	OIL BURNER, LIGHT COMMERCIAL
3	2	1716K138	CHIMNEY VENT, INSULATED, Ø10 X 36 LONG
2	1	0.3-SC-1000	CHAMBER ASSEMBLY, SECONDARY
1	1	0.3-PC-1000	CHAMBER ASSEMBLY, PRIMARY

Parts List

DRAWN
J. BODJACK

4/1/2012

CHECKED

APPROVED

DO NOT SCALE DRAWING

DIMENSIONS ARE IN INCHES

UNLESS OTHERWISE SPECIFIED

STANDARD TOLERANCES

FRACTIONS: 1/16
X.X: ±.03
X.XX: ±.01
X.XXX: ±.005
ANGLES: ±.5°

www.GEIMoorks.com

772.646.0597

TITLE
SOLID WASTE THERMAL OXIDIZER SYSTEM

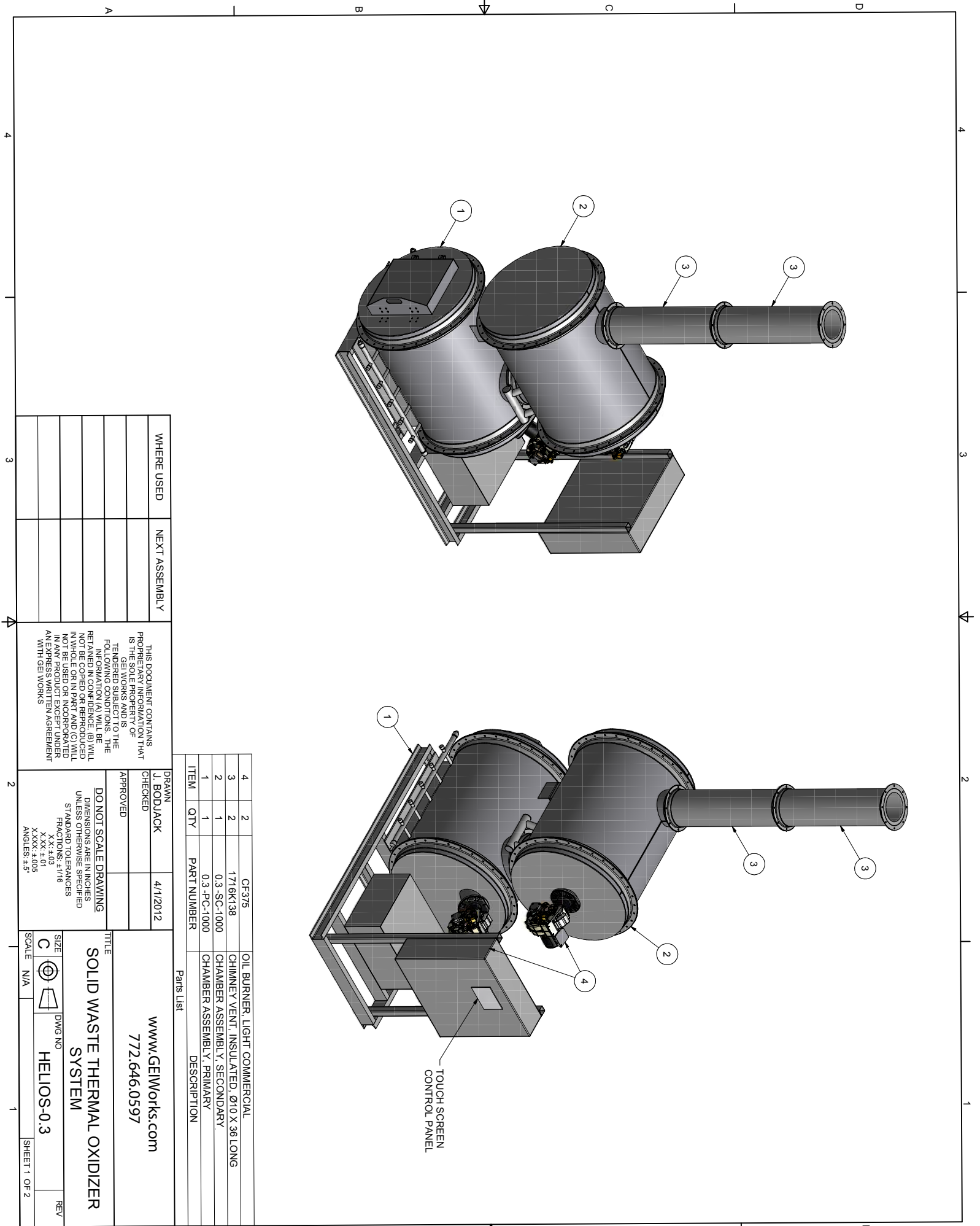
SIZE C
SCALE N/A

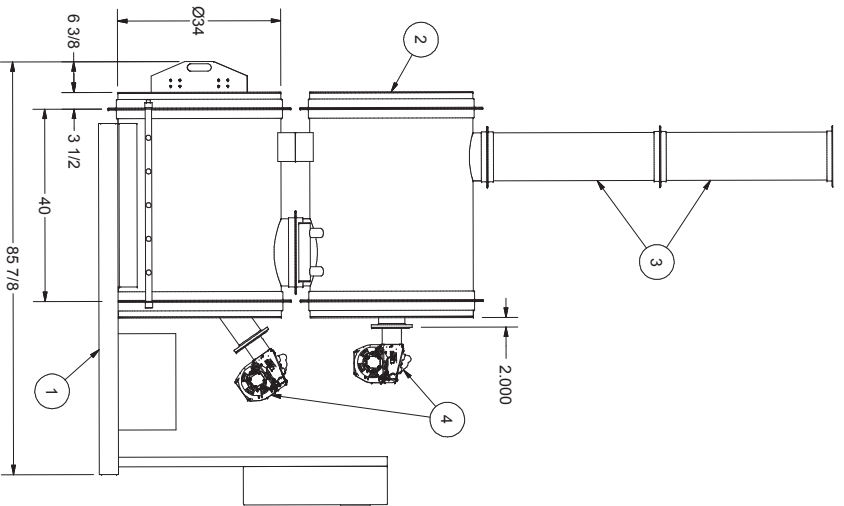
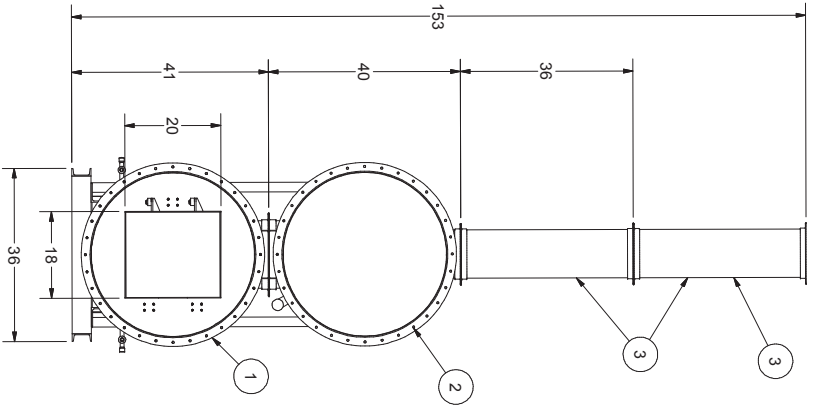
DWG NO. HELIOS-0.3
REV

WHERE USED

NEXT ASSEMBLY

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION THAT IS THE PROPERTY OF GEIWORKS AND IS TENDERED SUBJECT TO THE FOLLOWING CONDITIONS. THE INFORMATION (A) WILL BE RETAINED IN CONFIDENCE. (B) WILL NOT BE COPIED OR REPRODUCED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN AGREEMENT WITH GEIWORKS.





TITLE		SOLID WASTE THERMAL OXIDIZER SYSTEM	
SIZE	DWG NO.	REV.	
C	HELIOS 0.3		
SCALE	N/A	SHEET 2 OF 2	