## HGTO Series Horizontal Thermal Convertible Oxidizers



## **Features & Specifications**

• 1350-1600°F thermal operating temperature range with a maximum hydrocarbon throughput of 40% LEL

• All Welded Steel reactor shell construction, ASTM A-36 7 gage sheet with epoxy finish

• 6" Thick 2200°F mineral fiber board insulation

• 304 Stainless steel zero incidence exhaust stack with sampling port

• Completely assembled and tested gas trainwith all necessary shut off valves and switches in accordance with NFPA 86, indicating pressure gages with shutoff cocks for incoming, regulated, pilot, & burner gas pressure

• Gas train meets NFPA 79, 86, &

- 54 & is suitable for FM approval
- Natural gas or propane direct fired secondary air burner
- Exothermic burner control & temperature alarms

• Panel mounted and wired on oxidizer skic

- wiring meets NEC for non-classified area
- Welded steel skid, enamel finish & fork
  Pockets

• Optional Noble metal catalysts insert with maximum operating temperature of 1200°F minimum operating temperature 600°F, maximum 25% LEL throughput in catalytic mode

• Centrifugal inlet vapor blower to provide for pressure loss through oxidizer and ensure purge air on startup, steel construction, <80 dBA at 3' in open field conditions

• Purge valve assembly with: manually operated process isolation butterfly valve with limit switch interlock, motorized modulating purge/bleed butterfly valve which automatically closes upon completion of purge

• Flame arrestor on vapor inlet with spiral crimped ss ribbon matrix

• UL 508 listed NEMA 4 main control panel with: inner door mounted displays and switches, main door interlocking electrical disconnect, control power transformer, motor starter, and overload protection for the blower

 Allen Bradley Micro 1000 PLC with single touch visual display with first out alarm indicator

- Flame rod with approved safety
- programmer with built in purge timer

• Thermocouple temperature control monitoring burner temperature and exhaust temperature



## **Applications**

- Remediation Industry
- Free phase hydrocarbon product recovery systems
- Air stripper off gas treatment
- High concentration dissolved phase hydrocarbon recovery systems
- Bio Venting & Bio-pile systems
- Off gas treatment from dual phase, soil vacuum extraction and soil venting systems

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Model Number	Rated Flow SCFM	Length Ft.	Height Ft.	Ship Height Ft.	Dim Width Ft.	Available Voltage	Shippimg Weight Lbs.
HGTO-2	100-300	5'	6'	15'	5'	230 VAC 1 phase 230/460 VAC 3 phase	2,500
HGTO-3	200-400	6'	6'	15'	6'	230 VAC 1 phase 230/460 VAC 3 phase	3,400
HGTO-5	400-600	8'	8'	15'	8'	230 VAC 1 phase 230/460 VAC 3 phase	5,000
HGTO-7	600-800	8'	8'	15'	8'	230/460 VAC 3 phase	5,700
HGTO-9	800-1,000	8'	8.2'	15'	10'	230/460 VAC 3 phase	7,500
HGTO-12	1,100-1,500	8'	8.2'	15'	10'	230/460 VAC 3 phase	8,500
HGTO-18	1,600-2,000	8'	8.2'	15'	12'	230/460 VAC 3 phase	9,500



Note:

1. Gasoline assumed to be 107 MW, 19,000 BTU/lb. Net and 1% Vol. = LEL @  $\sim 53$  BTU/SC

2. If maximum %LEL (temperature) is reached ambient air must be bled into the system to stay below the maximum allowable operating temperature.



## **Options**

- Nominal 50% Efficient air/air heat exchanger to recover up to 50% of exhaust heat to inlet vapor stream, stainless steel construction, note H/X cannot be run in thermal mode
- 2-pen (or more) chart recorder for recording, burner and exhaust temperatures
- 95% or 99% destruction efficiency drop in catalyst, noble precious metal with ss ribbon matrix
- LEL sensor, to measure inlet vapor %LEL
- Flow, pressure, level & temperature gages or transmitters
- Air flow meter or transmitter