

The Industries
Leading Technology
Just Got Better!

PRODUCT UPDATE

MakoTherm "Ultra"

250 CFM THERMAL / CATALYTIC
OXIDIZER with LOW NOx EMISSIONS!

- Low NOx Emissions
- 60% Heat Recovery
- 99.9% DRE
- <.20 LBS/Day VOC's
- <.25 LBS/Day NOX
- Low Utility Costs
- Easy Operation
- Consistent Uptime
- Small Footprint (5' x 5')
- Quiet Operation
- Durable Construction
- Thermal or Catalytic
- 208-230-480 Volt Utility



Environmental Remediation Equipment Manufacturing and Service

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MakoTherm 250 “Ultra”

Gas Fired Thermal / Catalytic Oxidizer Specifications

Chamber Length	10 feet
Chamber Retention Time	10 feet / second
Stack Exit Velocity	30 feet / second
Stack Exit Height/Size	13 feet Above Ground Level / 14” Square
Throat Velocity	40 feet / second
Chamber Dimensions	30” outside / 20” inside
Chamber Internal Lining	Ceramic Fiber
Thermal Destruction Efficiency	99.99% +
Burner Rating	250,000 BTU’s/hour (maximum)
Operating Temperature “Thermal”	1400° to 2000°
Operating Temperature “Catalytic”	600° to 1200°
Maximum VOC Influent “Thermal”	8,000 ppmv
Heat Exchanger Efficiency	60%
Normal VOC Effluent “Thermal”	<.10 Lb/Day
Normal NOx Emission “Thermal”	<.25 Lb/Day
Normal NOx Emission “Catalytic”	<.15 Lb/Day

Blower Specifications

Blower Type	Positive Displacement
Volumetric Flow	250 SCFM maximum
Vacuum	Up to 12” Mercury
Motor Type	10 HP - TEFC
Combustion Air Blower Flow	Up to 45 CFM

Catalyst Specifications

Catalyst Type	Platinum Coated Ceramic Substrate
Catalyst Size	18” x 18” x 4.5” Height
Catalyst Volume	.84 ft ³
Catalytic Destruction Efficiency	99.9% +
Maximum VOC Influent	3000 ppmv
Normal VOC Effluent “Catalytic”	<.20 Lb/Day

Utility Specifications

Supplemental Fuel	Natural Gas or Propane
Fuel Pressure	1 to 5 psi
Fuel Volume	250 scfh (maximum)
Electrical Requirements-3 Phase	208-230-480 Volt / 60 Amp
Electrical Requirements-1 Phase	208-230 Volt / 100 Amp