Recuperative Thermal Oxidizer, Model TO- R4

The TO-R4 is a recuperative thermal oxidizer, with a 50%-70% efficiency heat exchanger, designed to treat hydrocarbon contaminated air streams. It is an enclosed system engineered to achieve 99%+ destruction efficiency of Volatile Organic Compounds. The oxidizer is commonly utilized in industrial environments and includes proper safety interlocks for interface with upstream processes. Applications include treating waste gas streams in many industrial processes including natural gas processing, chemical manufacturing, animal feed production and oil & gas refining.

Base System Components

Stainless Steel Combustion Chamber
High Temperature Ceramic Insulation
Industrial duty Process Blower w/ VFD
Industrial duty Combustion Air Blower
Automatic Purge / Process Damper
50% - 70% SS Heat Exchanger
Natural Gas Primary Burner
NFPA Compliant Gas Train
SS Exhaust Stack w/ Sample Ports

Nema 4 Control Panel, UL Listed
Allen Bradley PLC
Thermocouple Temperature Control
Paperless Chart Recorder
Air Flow Sensor and Gauge
Differential Pressure Transmitter
Instrumentation Package
Optional O2 Analyzer, LEL Analyzer
Optional Flame Arrestor

Specifications

Maximum Air Flow Capacity: 4,000 SCFM
VOC Destruction Efficiency: 99%+
Burner Capacity: 4,800,000 BTUH
Inlet Connection: 8” Dia
Stack Discharge Height: 25’ Above Grade
Stack Diameter: 20” Dia
Maximum Thermal Operating Temperature: 1800°F
Primary Heat Exchanger: Shell and Tube
Heat Exchanger Efficiency (nominal): 50% to 70%
Shell & Tubes Construction: 309 Stainless Steel
Heat Exchanger Exterior: Insulated and Cladded
Time To Reach Operating Temperature: 30 Minutes from cold start
Power Requirements: 460/3/60, 50 FLA