



SHIP & SHORE
ENVIRONMENTAL, INC.
Clean Air Solutions for Industry

Regenerative Thermal Oxidizer (RTO)

The Most Advanced RTO Technology

Regenerative Thermal Oxidizers are the most efficient & effective technology used to destroy large volumes of air pollution containing VOCs (Volatile Organic Compounds), HAPs (Hazardous Air Pollutants), and odorous emissions with low VOC concentrations from industrial applications. They can significantly reduce operating costs and energy consumption by re-using and re-directing thermal energy that is generated during a manufacturing process. This results in high VOC destruction efficiency and self-sustaining operation for most applications.



S&S CLEAN TECH RTO HOW IT WORKS

The Ship & Shore Clean Tech RTO converts VOCs, HAPs, and odorous emissions into carbon dioxide and water by thermal oxidation. The heat produced during the oxidation process is directed into heat exchange chambers where the highly efficient structured ceramic media captures the heat of combustion to pre-heat the incoming air stream to the RTO. This heat recovery process significantly reduces the RTO operating cost as compared to other thermal oxidizers. After initial start-up, many RTO systems often operate in self-sustain mode by utilizing the BTU value of the incoming VOC as fuel.

MAXIMUM VOC CONTROL & COMPLIANCE

ITS A FACT! WE HAVE ASSISTED OUR CLIENTS IN RECEIVING
OVER 7 MILLION DOLLARS IN CASH UTILITY REBATES

Clean Tech Products and Services

Air Pollution Abatement Systems
Engineering Design
Permit Compliance Consulting
Equipment Fabrication

Thermal Oxidizers:

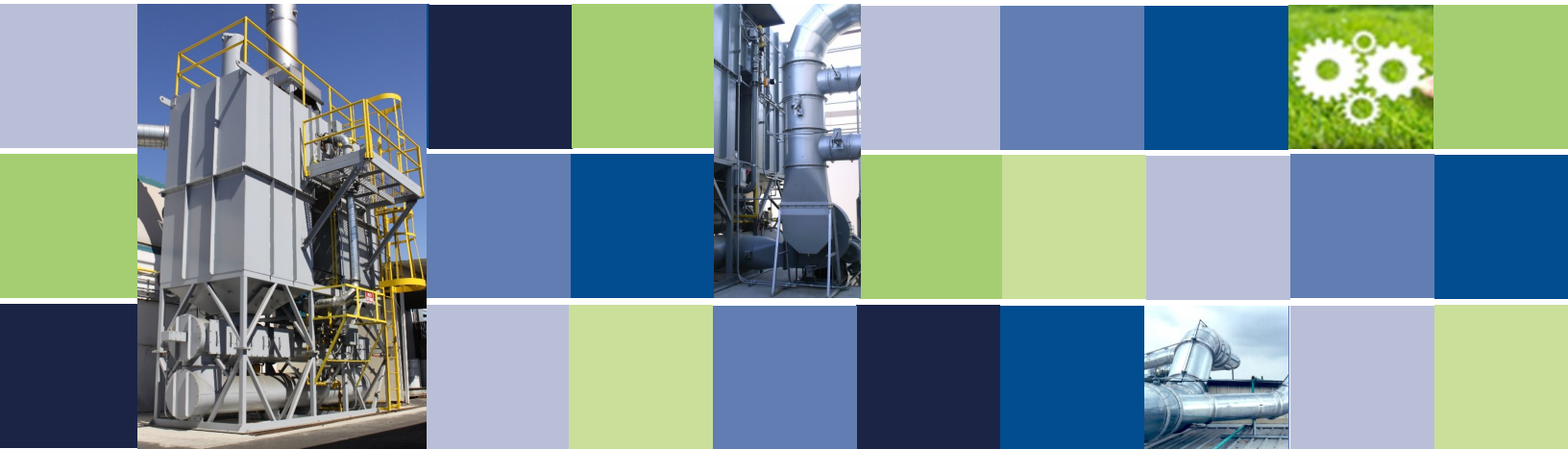
- RTO
- Recuperative
- Catalytic
- Compact Catalytic
- Steam Generating

Concentrators & Absorption
Flares & Low NOx Alternatives
Vapor Recovery & Destruction
Collection System Design
Permanent Total Enclosures
Upgrades & Retrofits
Installation & Service
Preventive Maintenance
Troubleshooting & Spare Parts
Process Testing & Analysis
Industrial Energy Analysis
Energy Recovery Solutions
Waste Heat Recovery

From engineering, fabrication, delivery to installation along with technical support provided throughout the project, Ship & Shore excelled in all areas.
— FOAM FABRICATORS

CONTACT US for a
confidential consultation

562.997.0233
SHIPANDSHORE.COM



THE SHIP & SHORE ADVANTAGE

Ship & Shore facilitated all the necessary paperwork to process our application for energy efficiency rebates available on equipment. This saved our staff a significant amount of time and effort and resulted in receiving the rebate quickly.

— Automated Packaging

- Equipment Designed & Manufactured in USA
- 100% Compliance & Success Rate on All Projects
- Complete In-House Engineering Team & Disciplines
- VOC Abatement Equipment & Collection System Design
 - In-House Project Engineer Manages Each Project
 - Installation, Commissioning, and Aftermarket Service
 - 24/7 Factory-Trained Service by Telephone
 - Customized Heat & Energy Recovery Solutions
- Industrial Energy Efficiency Analysis & Recommendations
 - Assistance with Rebate & Incentive Programs
- Skid-Mounted Equipment to Reduce Installation Time/Expense
 - Extended Warranty Available with PM Service Contract
 - Assistance with Air Quality Compliance Permits

VIRTUALLY
GAS FREE | NO_x FREE | EMISSION FREE

S&SE RTO DESIGN FEATURES

- VOC Destruction Efficiency Rating (DRE) Up to 99%
- Built-in Heat Exchange Media Chambers
 - Up to 97% Thermal Efficiency (TE)
 - Premium Structured Ceramic Heat Exchange Media
 - Low Pressure Drop
 - Resists Thermal Shock & Deterioration
 - Multiple Chamber Systems Available
- Reliable Poppet Valve Manifold Design
- State-of-the-Art PLC & Interactive HMI Touch Screen
- Digital Data Recorder & Telemetry
- Integrated VPN (Option) for Remote Real Time Assessment
- High Efficiency Electric Motors for Blowers
- High Efficiency VFD (Variable Frequency Drive)
- VOC Concentrators up to 25% LEL (Lower Explosive Limit)
- Varying Solvent Mixtures and/or Varying Exhaust Air Volumes Running on the Same Production Line
- User-friendly Design for Ease of Maintenance
- Sub-assembly Design for Rapid Installation

AVAILABLE OPTIONS

Hot Bypass Stack
VOC Collection Systems
Secondary and Tertiary Heat Recovery
Free Standing Control House
PTE (Permanent Total Enclosures)
Prefiltration of Particulates and/or Moisture

WE HAVE OVER 1,000
SUCCESSFUL OPERATIONAL
UNITS IN SERVICE