

MILLENNIUM® Regenerative Thermal Oxidizer

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AMERICAS

United States
MEGTEC Systems, Inc.
Telephone: +1-920-336-5715
Toll-free: +1-800-558-2884

Solvent Recovery Division
MEGTEC Systems, Inc.
Telephone: +1-772-567-1320

Brazil
MEGTEC Systems, Inc.
Telephone: +55-19-3885-6116

EUROPE

France
MEGTEC Systems SAS
Telephone: +33-1-69-89-47-93

United Kingdom
MEGTEC Systems, Ltd.
Telephone: +44-1628-59-1700

MEGTEC Environmental Ltd.
Telephone: +44-1257-42-7070

Germany
MTS Environmental GmbH
Telephone: +49-6181-94040

Sweden
MEGTEC Systems AB
Telephone: +46-31-65-7800

MEGTEC Systems Amal AB
Telephone: +46-532-62900

ASIA - PACIFIC

Singapore
Singapore Sales Branch -
MEGTEC Systems SAS
Telephone: +65-6298-4666

China
MEGTEC Systems (Shanghai) Ltd.
Telephone: +86-21-6769-7878

India
MEGTEC Systems India Pvt. Ltd.
Telephone: +91-20-3026-9600

Japan
MEGTEC Systems, Inc.
Telephone: +81-78-783-0161

Australia
MEGTEC Systems Australia, Inc.
Telephone: +61-3-9574-7450

www.megtec.com

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MEGTEC's three interrelated businesses draw on common core competencies--environmental sciences, liquid and material processing and thermal air management - to provide significant synergies for high performance products across a broad range of industrial processing applications.

MEGTEC Products

Drying & Conditioning

Air flotation dryers
Air flotation dryers with integrated oxidizer
Roll support dryers
Thru-air dryers
Catenary ovens
Festoon-style ovens
Chill stands
Silicone coaters

Environmental Compliance and Sustainability

Regenerative thermal oxidizers (RTO)
Regenerative catalytic oxidizers (RCO)
Recuperative catalytic oxidizers
Recuperative thermal oxidizers
Direct thermal & catalytic oxidizers
VOC biological treatment systems
Solvent recovery/carbon adsorption systems
Distillation systems
Heat recovery systems
Energy production from methane

Roll & Web Handling Equipment

Match speed splicers
Zero speed splicers
Butt splicers
Register splicers
Web guides
Roll loading systems
Rewinders
Infeed
Air turns
Web stabilizers
High-speed sheeters

MEGTEC Services

24/7d TeleCare Center
Condition monitoring
Preventive maintenance programs
Spare parts & upgrades
Training programs
Project management
Turnkey installation
Equipment optimization
Equipment rebuilds
In-house pilot line testing
Process energy audits
Environmental compliance assistance
Catalyst testing & supply
In-house laboratory analysis

A Major Innovation in Low-Flow Regenerative Thermal Oxidation



Regenerative Thermal Oxidizers (RTOs) offer distinct operating cost and performance advantages over other VOC control technologies in high flow process applications. The MILLENNIUM RTO redefines the economics of clean air compliance in low-flow applications. This unique, compact system can meet the needs of a wide variety of industrial applications at flows extending to 15,000 SCFM. The MILLENNIUM provides the efficiency, effectiveness and reliability of RTOs at very affordable capital, installation and operating costs.

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The bottom line is process knowledge

MILLENNIUM® Regenerative Thermal Oxidizer



Preassembly and pretesting at the factory reduce the MILLENNIUM's installation and start-up times to a minimum



All units ship on commercial trucks



Installation and startup time is minimal. Turnkey installation available



The MILLENNIUM's low capital, operating and maintenance costs provide economic advantage



The MILLENNIUM'S small footprint allows the unit to be installed in tight spaces



Secondary heat recovery system returns energy to process or other plant energy requirements

Performance Benefits

- Energy efficient variable frequency drive (VFD)
- Low pressure drop ceramic media
- Simple, touch-screen controls
- Modem Support
- Purge/idle makeup air damper

Optional Equipment

- Recirculation systems
- Hot-side bypass
- Secondary heat recovery

Compact, Cost-Effective Design

The system's integrated ductwork, individual poppet valves and unique, single-box configuration save on both capital and installation costs. The compact, space-saving unit offers considerable installation flexibility. Systems for either indoor or outdoor placement are available. The MILLENNIUM's relatively light weight easily permits rooftop placement.

Money-Saving Media

The MILLENNIUM uses an inexpensive ceramic heat exchange media that is virtually indestructible. The media's exceptionally low resistance minimizes pressure drop. That means smooth operations and reduced electrical operating costs.

Exceptional Fuel Efficiency

The system delivers thermal efficiencies of 95%. Even at relatively low solvent concentrations, the system can sustain thermal conditions with the heat released during VOC oxidation-requiring no additional fuel for VOC destruction.

Regulatory Compliance

The MILLENNIUM's small entrained volume holds VOC puffs to a minimum. The standard system can achieve 99% VOC destruction, easily meeting most clean air requirements. For higher cleanup rates, a VOC Capture System is available. This option can be ordered as original equipment, or field-installed at a later date.

Fast, Simple Installation

The system is preassembled, prewired, prepiped and pretested at the factory. All units ship on commercial trucks. Installation and start-up time is kept to a minimum, typically requiring less than one week. Turnkey installations are available.

Operating Reliability

The MILLENNIUM practically operates by itself. In standard configuration, the only moving parts are two reinforced poppet-style valves. An advanced electronic control system automatically tunes the system for high VOC destruction rates with maximum fuel efficiency. The system's simple design offers low maintenance costs.

Advanced Telemetry

Each MILLENNIUM comes equipped with a modem for trending, monitoring and remote diagnostics. A wealth of data is available to the operator for analysis, troubleshooting and fuel optimization.

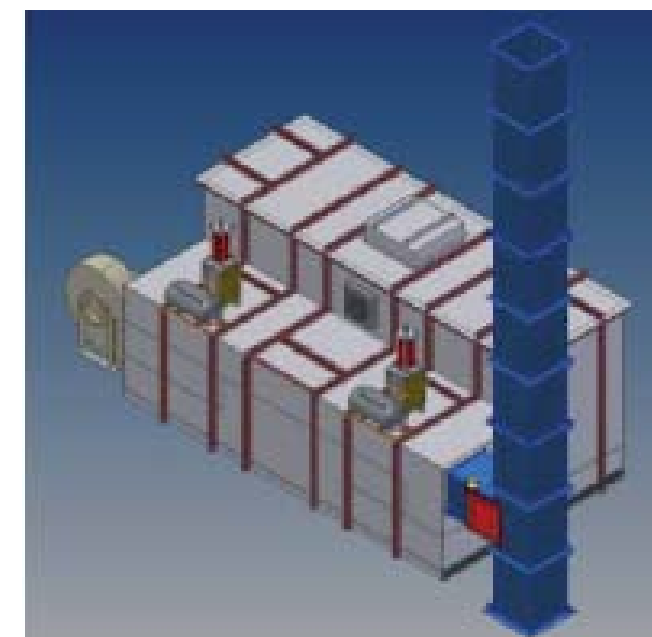
Long-Lasting Performance

The system's rugged construction and reinforced body ensure years of reliable service. Special alloys provide superior resistance to embrittlement and cracking. Extra insulation helps control thermal stress while minimizing radiant heat loss.

Secondary Heat Recovery

MEGTEC offers secondary heat recovery for applications where higher solvent loading yields more heat than is needed to sustain oxidation. The recovered energy can be returned to process applications or used to reduce other plant energy requirements.

The MILLENNIUM...
the economic advantages of regenerative thermal oxidation for low-flow installation.



Six Sigma Quality...
MEGTEC Systems uses DFSS (Design for Six Sigma) methodology to ensure the quality of our equipment and services.

Operating Specification	
Flow capacity	up to 15,000 SCFM (23,700 Nm ³ /hr)
VOC Destruction	98-99%
Thermal Efficiency	95%
System Fan	Force draft w/VFD
Optional Secondary Heat Recovery	Yes
Heat exchange media	Ceramic