



MEGTEC

Millennium[®] Regenerative Thermal Oxidizer

High-Efficiency VOC Destruction for Low-Flow Process Applications



Millennium® Regenerative Thermal Oxidizer

Regenerative Thermal Oxidizers (RTOs) from Dürr Megtec offer proven volatile organic compound (VOC) destruction performance capabilities and a range of operating cost advantages for low-flow process applications. The Millennium® RTO redefines the economics of clean air compliance compared to other VOC control technologies typically deployed in high-flow process applications.

This unique, compact system can meet the needs of a wide variety of industrial applications at flows extending to 15,000 SCFM (23,700 Nm³/hr). The Millennium RTO combines operating efficiency, destructive effectiveness and overall reliability with very affordable capital, installation and operating costs.

Compact and Cost-Effective Design

The system features integrated ductwork, individual poppet valves, and a unique, single-box configuration. These features 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, and the relatively light weight of the Millennium RTO easily permits rooftop installation.

Money-Saving Media

The Millennium RTO uses a cost-effective and robust ceramic heat-exchange media. The exceptionally low-resistance of the media minimizes pressure drop, which means smooth operation and reduced electrical operating costs.

Superior Fuel Efficiency

The system delivers thermal efficiencies up to 95 percent. And even at relatively low solvent concentrations, the system can sustain thermal conditions with the heat released during VOC oxidation, thereby requiring no additional fuel.

Regulatory Compliance

The small, entrained volume of the Millennium RTO holds VOC puffs to a minimum. The standard system can achieve up to 98 percent VOC destruction, which is sufficient to meet 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.



Preassembly and pretesting at the factory reduce Millennium RTO installation and start-up times to a minimum.



All units ship on commercial trucks.



Installation and start-up time is minimal. Turnkey installation options are also available.

Fast, Simple Installation

The system is preassembled, prewired, prepped, 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.

Operational Reliability

The Millennium RTO 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 is engineered to deliver low maintenance costs.

Advanced Telemetry

Each Millennium RTO is equipped with a modem for trending, monitoring, and remote diagnostics. A wide range of performance data is available to the operator for analysis, troubleshooting, and fuel optimization.

Long-Lasting Performance

The rugged construction and reinforced body are designed for years of reliable service. Special alloys provide superior resistance to embrittlement and cracking. Extra insulation helps control thermal stress and minimize radiant heat loss.

Secondary Heat Recovery

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

Performance Features

- 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

Operating Specifications

Flow Capacity	up to 15,000 SCFM (23,700 Nm ³ /hr)
VOC Destruction	typically 98%-99%
Thermal Efficiency	up to 97%
System Fan	Forced draft w/VFD
Optional Secondary Heat Recovery	Yes
Heat Exchange Media	Ceramic

The Millennium RTO offers the economic advantages of regenerative thermal oxidation exclusively for low-flow process applications.

Dürr Megtec uses DFSS (Design for Six Sigma) methodology to ensure equipment and service quality.



The Millennium RTO has a small footprint, which allows the unit to be installed in tight spaces.



Dürr Systems, Inc.

830 Prosper Street
De Pere, Wisconsin, 54115 USA
Phone: +1 920.336.5715

www.durr-megtec.com



Subject to change. The information in this brochure contains only general descriptions or performance characteristics which may vary in actual cases. The requested performance parameters shall be binding only if they are explicitly agreed to within the sales contract. © Dürr 2020

Millennium is a registered trademark of Dürr Systems, Inc.

© Dürr 2020. All rights reserved.

For more information or to contact us, visit our website at
www.durr-megtec.com