



OXI-MISER™

OXIDATION CATALYSTS FOR BAKERY APPLICATIONS

NEXCERIS has consulted bakeries and VOC oxidizer manufacturers to understand the economics of today's systems, and the opportunities for improvement.

Oxi-Miser™ catalysts are designed to cut the cost of VOC compliance without changing equipment or creating regulatory headaches.

Our catalysts use proven formulations to destroy VOC's at very low temperature, maximizing savings while minimizing technical risk.

NEXCERIS can design catalyst beds to drop into your existing system, whether it requires monoliths, beads, or pellets. Alternatively, our engineers can work with you to implement new catalyst bed designs to meet the demands of your application.

NEXCERIS works with customers world-wide to develop new catalyst technologies and products. We identify applications where end users could be better served by innovative catalysts and new product designs--and coordinate with customers to provide new solutions.

Leveraging a portfolio of catalyst intellectual property and manufacturing know-how, we create products that perform better, simplify operations and save money. We work closely with our customers from the concept stage to the product installation to achieve amazing results.

Our client list includes Fortune 500 companies and U.S. National Laboratories, along with leading developers in the energy and environmental markets.



**THE BEST WAY TO SAVE ENERGY
IS TO NEVER USE IT**

NEXCERIS

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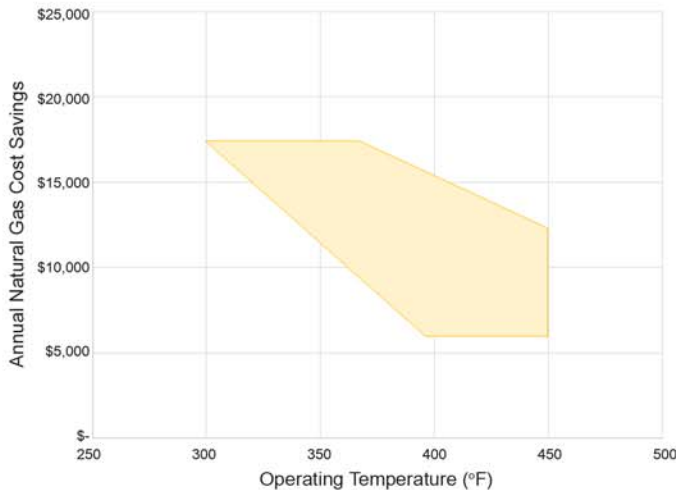
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OXI-MISER™ CATALYSTS

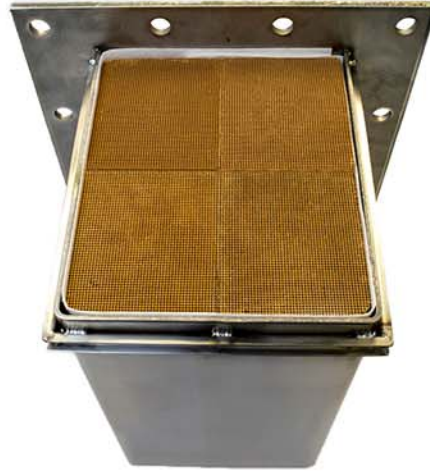
NEXCERIS redesigned VOC catalysts specifically for bakery applications. We enhanced their activity by changing the way the catalysts are manufactured.

Using established performance models, we compared the energy cost for a typical catalytic oxidizer running at various set point temperatures and heat exchanger efficiency values.

Based on the resulting data, we graphed the annual energy savings from these lower operating temperatures. Beyond these savings, reduced gas usage may qualify for rebates from local utilities.



CATALYST RETROFIT



The retrofit option is designed to work with your current VOC system, so the only changes you see are immediate energy savings.

Substituting the Oxi-Miser™ catalysts into an existing VOC oxidizer reduces the operating temperature to 350°F. The lower temperature diminishes natural gas use by about 60% and cuts energy costs by the same percentage.

Replacement of conventional catalysts with Oxi-Miser™ catalysts is designed to be simple and quick. Our manufacturing team can design and build a catalyst bed tailored to fit your existing system and operate at a lower cost.

IN-LINE SYSTEM DESIGN

Utilizing nano-scale manufacturing approaches, the operating temperature of bakery-designed catalysts can be reduced to that of the oven itself.

The Oxi-Miser™ In-Line System design was created to test the limits of low-cost VOC destruction. We challenged our team to create a passive device capable of meeting VOC requirements with a minimum power draw.

By placing the catalyst in-line near the oven, the utilization of heat is improved. Designing low back pressure filters and catalysts reduces electrical draw for blowers.

The Oxi-Miser™ in-line system design shown below will cut energy costs by more than 75% and simplify system installation. NEXCERIS is actively developing performance data to refine this product for a 2016 offering.

