

## PRODUCT ADVANTAGE

The MIRATECH Oxidation Catalyst is your best bet for handling carbon monoxide (CO), volatile organic compounds (VOCs), hazardous air pollutants (HAPs) and more. Together with the MIRATECH SCR system, specially designed to reduce oxides of nitrogen (NOx) in lean-burn engine exhaust, the MIRATECH Oxidation Catalyst keeps your operation on the right side of emissions regulations, with easy installation and maintenance – and fewer headaches for you and your people.

**NESHAP**  
*Ready!*

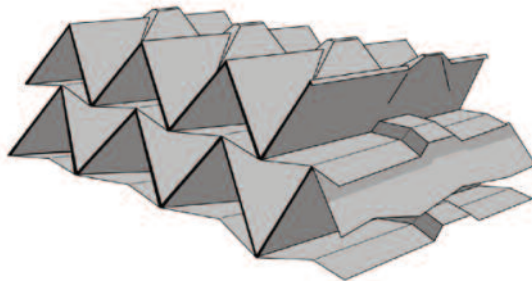
## FEATURES AND BENEFITS

### Efficient and Durable Solution

**Durability**  
 You Can Bank On  
 2-Year Warranty!

The MIRATECH Oxidation Catalyst gives you a reliable, low-cost, no-hassle solution for lean-burn engine CO, hydrocarbons, VOCs and HAPs. Together with MIRATECH SCR control of lean-burn engine exhaust NOx, the Oxidation Catalyst keeps your operation on the right side of the noncompliance fine-line, with easy installation and maintenance, less impact on engine performance, and fewer headaches for you and your people.

Our revolutionary NEXT catalyst substrate design features channel grooves that create turbulent exhaust flow through the catalyst. The result: more exhaust gas comes in contact with the catalyst materials, so you get better emissions reduction performance. Plus, NEXT channel grooves mean every layer of the catalyst



*Traditional catalyst element – straight-line laminar flow: Most exhaust gas never contacts the catalyst.*



*NEXT channel grooves create exhaust gas turbulence for more pollutant breakdown – and superior durability.*

substrate is *interlocked* – for a stronger, longer-lasting, harder-working catalyst element that resists telescoping while staying within backpressure limits.

- Creates turbulent airflow through the length of the substrate
- Improves catalytic reaction within the substrate channels
- Reduces pollutants more effectively than open-foil catalysts
- Stronger than conventional open-foil catalysts
- Low backpressure – well within engine OEM limits
- Compatible with non-MIRATECH housings (including GT Exhaust Systems, Johnson Matthey and Maxim Designs)
  - Off-the-shelf availability for many sizes
  - Structure allows MIRATECH to design catalysts of any size
  - Two-Year Warranty: unique in the industry
  - **Fully NESHAP Compliant**

## WHY MIRATECH?

- » Advanced Technology
- » Cost-Effective, Comprehensive Solutions
- » Unsurpassed Experience & Expertise
- » Fast, Responsive, Customer-Focused Service & Support
  - Prevent Non-Compliance Fines
  - Improve Engine & Catalyst Performance
  - Cut Maintenance Costs
  - Maximize Catalyst Life

## INDUSTRY SOLUTIONS

- » Gas Compression
- » Power Generation
- » Rail
- » Marine
- » Water Pumping
- » Air Compression
- » Drilling Rigs

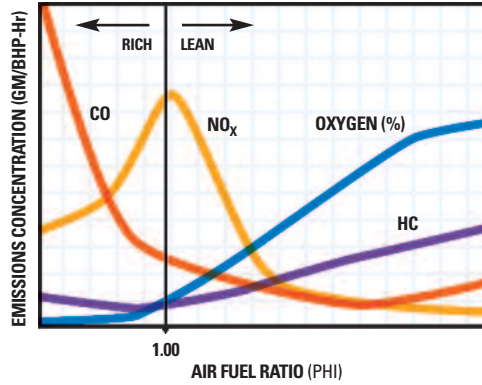
# Oxidation Catalysts for Gas Engines

## Better Designed. Better Built.

Our Flat-Top Bonnet™ design eliminates blow-by and enhances catalyst efficiency. In real-world operation, nothing prevents nesting or resists vibration and shock better than the MIRATECH catalyst's corrugated metal foil construction – with the multi-layered honeycomb design adding durability. Chemisorption catalyst impregnation produces a cost-effective, long lasting element that resists masking and catalyst “poisoning.” And the patented MIRATECH banding and pinning process is your assurance of superior mechanical strength and high-temperature tolerance.

Each element is wrapped in tough, 304 stainless steel for virtual indestructibility, as well as personnel safety. The hard outer band, with its “Easy-Grab” lift-shelf, protects workers from injury and makes element insertion and removal quick and easy.

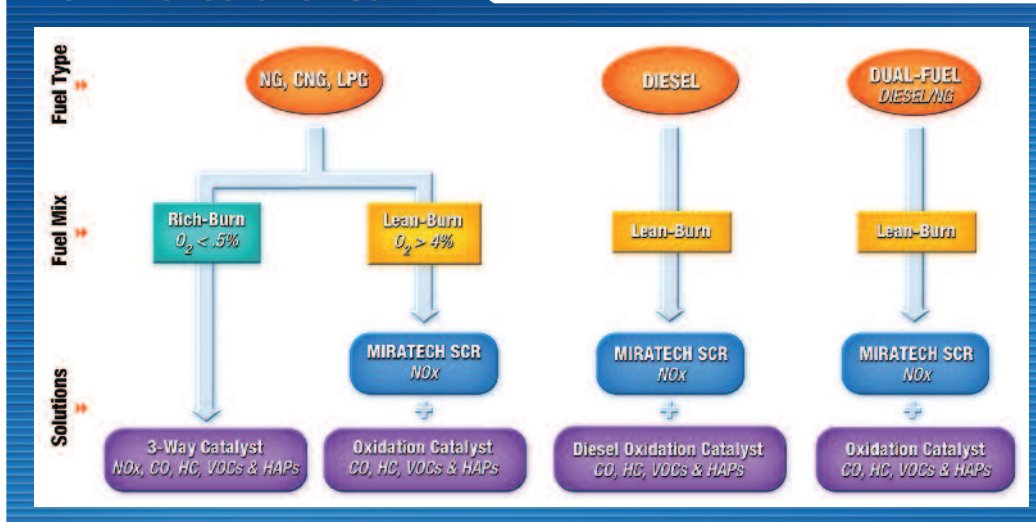
## » UNCONTROLLED EMISSIONS: RICH-BURN & LEAN-BURN ENGINES



## MIRATECH Replacements.

MIRATECH manufactures replacement elements for our MBA, EQ and IQ catalytic converters, as well as our RCS/RHS Catalyst-Silencer combos. Custom designs to replace elements from other manufacturers – with the hallmark quality, performance and value of MIRATECH Diesel Oxidation, 3-Way and Oxidation Catalysts – are also available.

## » CATALYST SOLUTION GUIDE



O<sub>2</sub>: Oxygen / CO: Carbon Monoxide / NO<sub>x</sub>: Oxides of Nitrogen / HC: Hydrocarbons / VOCs: Volatile Organic Compounds / HAPs: Hazardous Air Pollutants

## Contact MIRATECH.

To learn more about MIRATECH emissions solutions, simply call us at 1.800.640.3141; email us at [info@miratechcorp.com](mailto:info@miratechcorp.com) - or visit our website: [www.miratechcorp.com](http://www.miratechcorp.com)

## WHY MIRATECH HAPS CATALYSTS?

Cost-Effective, No-Hassle, HAPs Compliance. Simultaneous Non-HAPs Compliance.

- » Rich-Burn: CO, NO<sub>x</sub>, HC, VOCs
- » Lean-Burn: CO, HC, VOCs
- » Better Designed, Better Built, Better Value

## APPLICATIONS

- » Rich-Burn & Lean-Burn Stationary Engines
- » Natural Gas, LPG, Diesel, Dual-Fuel
  - Gas Compression
  - Air Compression
  - Power Generation
  - Chillers
  - Water Pumps & Irrigation

## SUMMARY OF FEATURES & BENEFITS

- » Prevent Non-Compliance Fines
- » Minimize Catalyst Cost Of Ownership & Operation
- » Quick & Easy Element Insertion & Removal
- » Flat-Top Bonnet™ Design Eliminates Blow-By & Enhances Catalyst Efficiency
- » Low Pressure-Drop
- » Resists Vibration & Shock
- » Minimize Impact On Engine Performance
- » Durable & Long-Lasting
- » Virtually Indestructible & Safer For Workers
- » Patented Banded & Pinned Construction
  - Superior Mechanical Strength & Thermal Durability
- » Independent Corrugated & Flat-Foil Construction Honeycomb Design
  - Prevents Nesting, Masking & “Poisoning”
- » NEXT & VORTEX Two-Year Warranty
- » Fully NESHAP Compliant