



# MIRATECH

## CATALYST SERVICES



### REPLACEMENT. MULTI-LEVEL WASHING. REPAIR.

The catalyst elements you've paid for and rely on to keep your business in compliance with emissions regulations need *regular, proper service* to get the job done.



▶ A MIRATECH Hallmark  
*Better Designed, Better Built Catalyst Elements*

That's what MIRATECH Catalyst Services are for: replacement, multi-phase chemical washing and repair, backed by responsive, timely, full-service support.

For any make or model of catalyst, with any substrate, used in any brand of stationary reciprocating engine catalytic converter: ceramic or metal monolith design, 3-way and oxidation catalysts.

MIRATECH offers a full range of cost-effective, timely solutions and support services that take the hassles of emission control system maintenance off your agenda, so you and your people can concentrate on your core business.

### CONTACT MIRATECH.

As-needed services to turnkey maintenance programs tailored to your needs and budget, simply give us a call. Better yet, visit our website: [www.miratechcorp.com](http://www.miratechcorp.com)

### WHY MIRATECH?

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

### EMISSIONS SOLUTIONS

- ▶ Non-Selective Catalytic Reduction
  - 3-Way Catalyst Systems
  - Oxidation Catalysts
  - HAPs Catalysts
  - Diesel Oxidation Catalysts
- ▶ Catalyst Housings
  - MN/MBA
  - IQ
- ▶ Catalyst-Silencer Combos
  - QCC/QCH
  - RCS/RHS
- ▶ Active Regeneration Soot Traps
- ▶ SCR Catalyst Systems
- ▶ NX Analyzers
- ▶ Analysis-Controlled Injection Systems
- ▶ Air-Fuel Ratio Control Systems
- ▶ Service Contracts
- ▶ Technical Support & Training
- ▶ MIRATECH Catalyst Services
- ▶ Replacement Parts

# MIRATECH

## CATALYST SERVICES

### REPLACEMENT CATALYSTS.

When your catalyst elements are beyond service or repair, count on MIRATECH for top-quality replacements – for any catalyst element design, with any substrate, used in any brand of catalytic converter: ceramic or metal monolith design, 3-way and oxidation catalysts. We also offer the option of trading up to a new MIRATECH IQ or MN/MBA catalytic converter, or RCS/RHS catalytic converter/silencer combo, with a trade-in credit per cubic foot of spent or broken catalyst from the old unit.

**Why MIRATECH replacements?** Simple: They're better designed and better built. So they work harder – with less trouble, less maintenance, and less life-cycle cost.



»Catalyst Elements  
Wash, Repair & Replace With MIRATECH

### »REPLACEMENT PARTS

### ELEMENT REPAIR.

Count on MIRATECH to restore or re-core damaged catalyst elements and substrates – at a fraction of the cost of replacement. Our patented banding and pinning process delivers higher mechanical strength and thermal durability, while providing low back-pressure. It's your assurance of longer service life, peak performance and lower costs for maintenance and replacement.

### MULTI-LEVEL CHEMICAL WASH.

Non-compliance fines aren't cheap. Add in reduced engine efficiency from an ashed or dirty catalyst – plus higher maintenance costs when catalysts aren't properly serviced – and the bottom-line result is clear. When your catalyst elements need cleaning, it pays to do it right. **It pays to call MIRATECH.**

We've developed a thorough, cost-effective, multi-level chemical wash process specifically for industrial engine catalysts. The service is available for **any brand of catalyst, with any substrate material.** As part of the washing process, we also replace catalyst gaskets, to ensure tight seals and reduce blow-by. Plus, we perform all washing in our service facility – and strictly manage wash water and disposal.

### »MULTI-LEVEL CHEMICAL WASH

#### »Caustic Solution

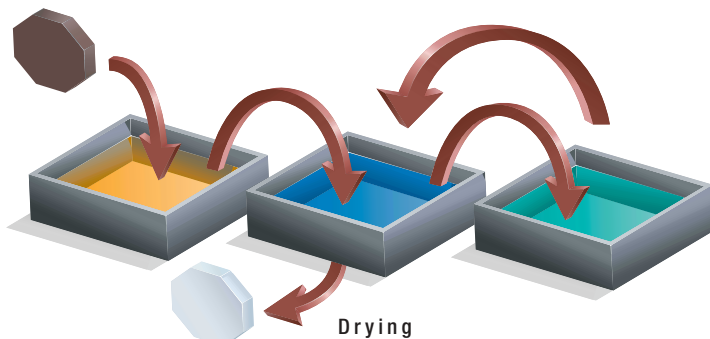
Removes Inorganic Masking, Fouling & Poisoning Agents

#### »Deionized Water

Removes Some Masking & Fouling Agents, As Well As Caustic / Acidic Washing Agents

#### »Acidic Solution

Removes Organic Resins, Residues & Deposits From Lube-Oil Contamination



### TOTAL EMISSIONS CONTROL.

For many customers, an important part of the MIRATECH advantage comes in on-going, single-source service contracts, and technical support services tailored to specific needs and budgets. We'll take emissions control issues off your busy agenda – with unsurpassed experience and expertise behind every MIRATECH service.

### EMISSIONS SOLUTIONS: CONTACT MIRATECH.

Whatever your emission control needs may be, whatever number or size of stationary engines you run, count on MIRATECH for solutions. Contact us by phone, e-mail, or FAX – or visit our website [www.miratechcorp.com](http://www.miratechcorp.com). Ask for your **FREE** subscription to our useful, fact-filled electronic newsletter, **THE EMISSIONS MONITOR.**



### MIRATECH CATALYST SERVICES

- » Multi-Level Chemical Washing
- » Catalyst Element Repair
  - Banding & Pinning
    - Patented MIRATECH Process
- » Gasket Sets
- » Catalyst Regeneration
- » Replacement:
  - Any Make Or Model
  - Any Industrial Stationary Engine Catalytic Converter
  - Any Type Of Catalyst Element
    - Ceramic Substrate
    - Metal Monolith Design
    - 3-Way Catalysts
    - Oxidation Catalysts

### MIRATECH SERVICE CONTRACTS

- » Inspection & Testing
- » System Adjustments
- » Cleaning
- » Component Replacement
  - Gaskets
  - Filters
  - O-Rings
  - Valves
  - & More

### MIRATECH TECHNICAL SUPPORT SERVICES

- » Consultation
- » Expert Knowledge Of Current, Applicable Regulations
- » Permit Review
- » Proposals
- » Technical Drawings (AutoCAD/SolidWorks)
- » Project Management
- » Commissioning
- » Training
- » Manuals
- » Troubleshooting

