



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

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

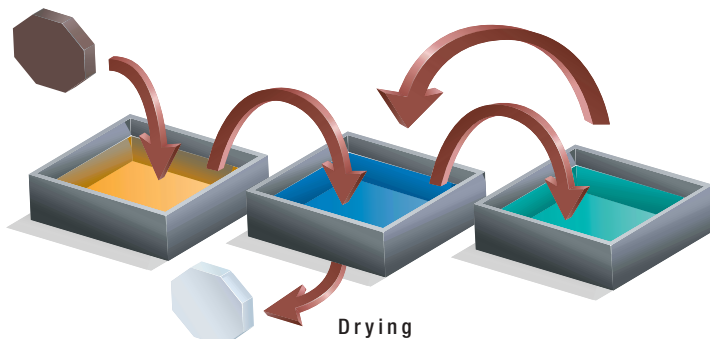
Removes Inorganic Masking, Fouling & Poisoning Agents

»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. Ask for your **FREE** subscription to our useful, fact-filled electronic newsletter, **THE EMISSIONS MONITOR**.



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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