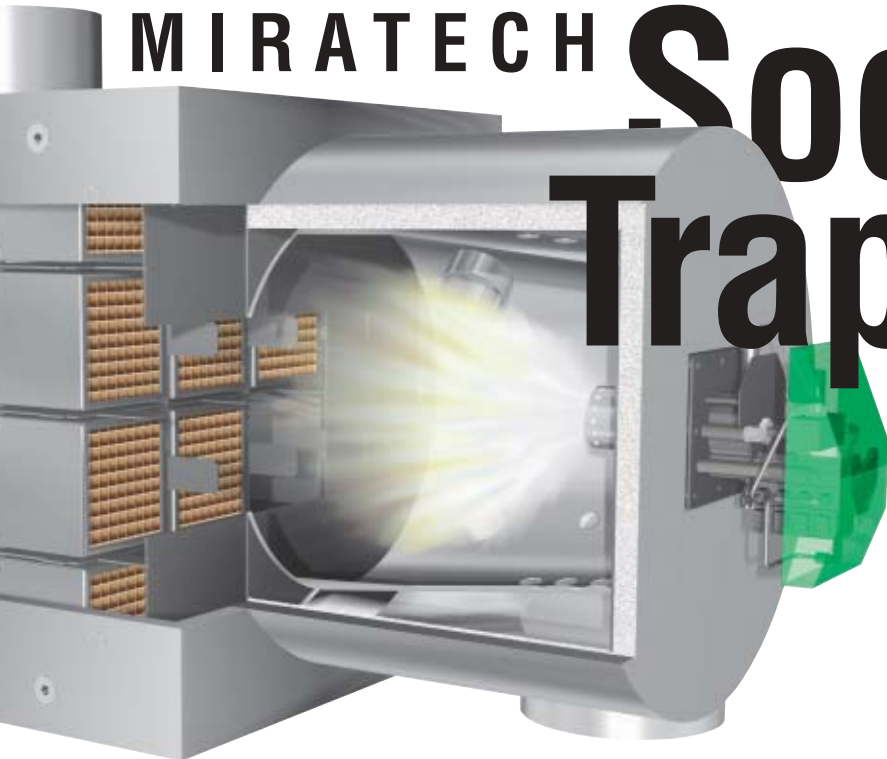




# MIRATECH Soot Traps



## SOLUTIONS THAT SUIT YOUR OPERATION & BUDGET.

When you run a diesel engine, *particulate matter* (PM) or “soot” can be a problem. Diesel PM is the exhaust-stream mix of carbonaceous particles, SOF – the “Soluble Organic Fraction” of heavy hydrocarbons from unburned fuel and lube oil condensed on the carbon particles – and sulfated ash. Soot can be a sore point for neighbors. But it’s also been identified as a cause of cancer and other health problems – and has been targeted for increasingly strict regulation, with increasing impact on your operation.

MIRATECH offers solutions you can bank on, tailored to your operation and your budget.



» Designed & Built For Rugged, Reliable Performance.

## WHATEVER SOOTS YOU.

The CBS Soot Trap is the dollar-wise soot reduction system for engines that run mostly at high loads, in applications from 150KW to about 7MW: power generation, air compression, liquid or petroleum pumping and irrigation pumping. The CBS uses Silicon Carbide filters, which are thermally more durable than metal fiber and cordierite filters, to trap fine soot for PM 10 and PM 2.5 compliance. A catalytic coating on the filters gives you “passive regeneration” at exhaust temperatures as low as 700° F. depending on the engine’s soot production.

An optional burner system for the CBS allows “active regeneration” that keeps your operation in PM compliance at any exhaust temperature or engine load.

The MIRATECH MobiClean delivers active regeneration independent of load or exhaust temperature in a compact, rugged, shock-resistant design with no added ducts or manifolds. Using the same high-durability Silicon Carbide filters as the CBS, the MobiClean is a proven performer in locomotives and marine power.

All MIRATECH soot traps are built for rugged, reliable performance and easy maintenance. They even offer noise reduction as an added benefit. In many applications, there’s no need for a separate silencer or muffler.

## CONTACT MIRATECH.

Get the cost-effective soot solution that suits your operation. To find out more about MIRATECH soot traps and other MIRATECH Emissions Solutions, 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
- » 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
- » Soot Traps
- » SCR Catalyst Systems
- » Analysis-Controlled Injection Systems
- » Air-Fuel Ratio Control Systems
- » Service Contracts
- » Technical Support & Training
- » MIRATECH Catalyst Services
- » Replacement Parts



# MIRATECH Soot Traps

## RUGGED & HARDWORKING. EASY TO MAINTAIN.

MIRATECH soot traps feature wall-flow, porous Silicon Carbide filters, for superior thermal durability over metal fiber and cordierite filters. Our CBS and MobiClean units are shipped with filters installed, for easy, plug-and-play startup. Stainless steel construction adds strength, temperature resistance and insulation. Plus, easy maintenance is designed into each and every unit. The CBS offers side-access soot filter cleaning ports; the MobiClean comes with removable filter cassettes. With both the MobiClean and the optional burner for the CBS, active regeneration is totally automatic, thanks to built-in programmable controls; with the MobiClean's built-in burner, no extra ducts or manifolds are required. After PM is regenerated, only a fine layer of ash is left to be blown off the filters by high-pressure air. And, with MIRATECH soot traps, you don't have to switch to costly, ultra-low-sulfur fuel. Our soot traps work with any diesel grade.

## ONGOING COMPLIANCE ASSURED.

Diesel soot reduction requirements vary from place to place. But with the EPA estimating that nearly 100 million Americans live in areas that must clean fine soot particles

from the air, there's every sign that PM emissions rules will tighten almost everywhere.

All MIRATECH soot traps deliver field-proven PM 10 and PM 2.5 reduction and meet PM regulations as tough as those of New Jersey and Wisconsin (0.1 gms/bhp-hr), as well as those of the South Coast Air Quality Management District (0.15 g/bhp-hr).

## THE MIRATECH DIESEL OXIDATION CATALYST: THE PERFECT SOOT TRAP PARTNER.

A MIRATECH Diesel Oxidation catalyst removes unburned fuel and lube oil – which form the “Soluble Organic Fraction” (SOF) that can make up about 40 percent of diesel PM. With SOF removed, only carbonaceous material remains to be oxidized by the MIRATECH soot filter. In addition, the Diesel Oxidation catalyst removes carbon monoxide and hydrocarbons.

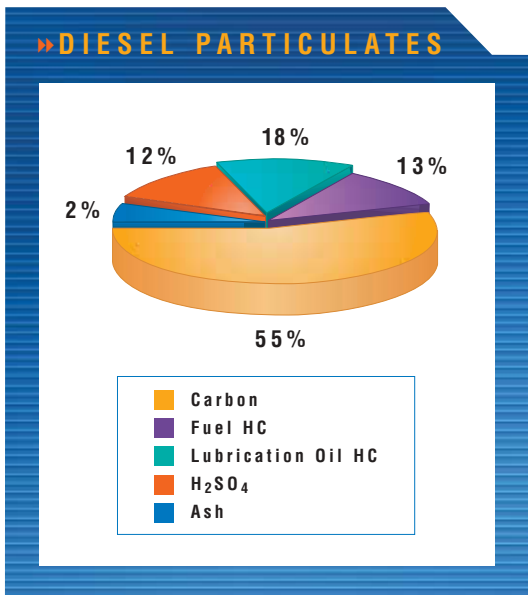
## WORLD-CLASS SOLUTIONS. HEADQUARTERS: USA.

Only MIRATECH soot traps give you soot-reduction technologies developed by the acknowledged leader in the field: Swiss-based HUG Engineering. As HUG's sole North American partner, we put the world's most advanced solutions to work for our customers, backed by expert, full-service MIRATECH engineering, training and technical support close to home. And we back our soot traps – as well as every other product we ship – with customer service that sets standards for the industry. If there's a question, we'll answer it. If there's a problem, we'll fix it, whatever it takes. No *ifs*, *ands*, or *buts*.

## FULL-SERVICE SUPPORT FOR CONSULTING & SPECIFYING ENGINEERS.

If you spec soot solutions for your clients or your company, MIRATECH stands ready to provide full-service support, pre-bid to project completion and after. We'll supply the specs you need, tailored to your project, and we'll work with you to ensure best value every step of the way. Simply key up our dedicated web page:

[www.miratechcorp.com/cse](http://www.miratechcorp.com/cse)



## EMISSIONS SOLUTIONS: CONTACT MIRATECH.

Whatever your emission control needs may be, count on MIRATECH for solutions that pay off in benefits you can literally take to the bank. Contact us by phone, e-mail, or FAX – or simply 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*.

## WHY MIRATECH SOOT TRAPS?

- » Solutions That Suit Your Operation & Budget
  - Cost Effective Passive Regeneration
  - Active Regeneration Independent Of Exhaust Temperature Or Engine Load
- » Compliance Assured: PM 10 or PM 2.5 Reduction
- » No Need For High-Cost, Low-Sulfur Fuel
- » Better Designed, Better Built Soot-Reduction Systems
  - The World's Most Advanced Technology
  - Rugged & Reliable
  - Easy Installation, Operation & Maintenance
  - US-Based Service & Support
- » Sound Attenuation Included
  - May Replace Silencer / Muffler

## CBS SOOT TRAP

- » Passive Regeneration Using Exhaust Heat As Low As 700°F
- » Active Regeneration Via Added Burner Duct – For Compliance Independent Of Load Or Exhaust Temperature
- » Applications
  - 150KW - approx. 7MW:
  - Power Generation
  - Air Compression
  - Liquid Or Petroleum Pumping
  - Irrigation Pumping

## MOBICLEAN SOOT TRAP

- » Active Regeneration
- » Rugged, Compact Design Resists Shock & Vibration In Mobile Applications
- » No Added Manifolds
- » Applications
  - Up to 3 MW:
  - Locomotives
  - Marine Power



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