



# HUG SOOT TRAP

## THIS SOOT TRAP BEATS THE OTHERS COLD.

If you run diesel engines, you know the problem. Diesel soot – the mix of carbonaceous material, unburned fuel and lubrication oil, and ash from lube oil combustion in diesel exhaust – has been identified as a cause of cancer and other health problems. That's why diesel soot has been targeted for increasingly strict controls.



▶▶ The HUG Soot Trap  
Active Regeneration Soot-Reduction System

To meet ever-toughening regulatory requirements, the HUG Soot Trap – available in North America only from MIRATECH – is the one to bank on.

## THE KEY: ACTIVE REGENERATION.

Most soot traps use engine exhaust heat to oxidize – or burn off – particulate matter in the diesel exhaust stream.

With this “passive regeneration,” your engine exhaust must reach a temperature of 700 to 1050° F to oxidize soot trapped by the filters. At cold starts and with light loads, carbon and lube oil ash, as well as unburned fuel and lube oil, build up on the filters – and that build up boosts back-pressure on the engine.

The HUG Soot Trap gives you the option of *active regeneration*, using its own built-in heat-source. You don't have to wait for warm-up or rely on heavy loads or load banks. It goes to work – trapping and burning 99 percent of diesel soot, including toxic sub-micron nano particles – as soon as you turn your engine on, with any engine load.

For high-temperature applications, the HUG Soot Trap also comes without a built-in burner.

Either way, the HUG Soot Trap helps you meet the toughest particulate emission reduction requirements, regardless of what type of diesel fuel you use. High-dollar ultra-low-sulfur fuel isn't needed. Easy to install and easy to maintain, it operates within OEM-specified engine back pressure limits – with low pressure loss. It even delivers sound attenuation and can replace a silencer or muffler.

## CONTACT MIRATECH.

To fire up your compliance program with the HUG Soot Trap – or to find out more about 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
- ▶▶ 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

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## HOW IT WORKS.

All soot filters remove particulate matter (PM) from diesel exhaust. Then, most take the “passive” approach, using high-temperature exhaust heat to burn off – or “regenerate” – trapped particles. At cold startup or with light loads, they simply can’t do the jobs you’ve bought them to do.

The HUG Soot Trap difference: *active regeneration*. For light or variable load applications, it comes with its own heat source, built-in – so it works as soon as your engine starts up, and its performance is independent of engine load or exhaust temperatures.

The HUG traps PM on the surface of a porous silicon carbide filter. Monitoring back-pressure on the engine and automatically activating a built-in diesel fuel duct burner, the system burns off particulates as they build up on the filter. This leaves only a small amount of ash on the filter surface that can be blown or washed off during regular maintenance.

For high temperature, steady-load applications, the HUG Soot Trap also comes *without* built-in burners, using exhaust heat to burn off particulates.

## COMPLIANCE: ASSURED.

Diesel soot reduction requirements vary from place to place – and there’s every sign they’ll tighten in coming years, almost everywhere.

The HUG Soot Trap meets your needs for particulate emission reduction wherever you run your engines, no matter how strict applicable regulations may be. In fact, the HUG Soot

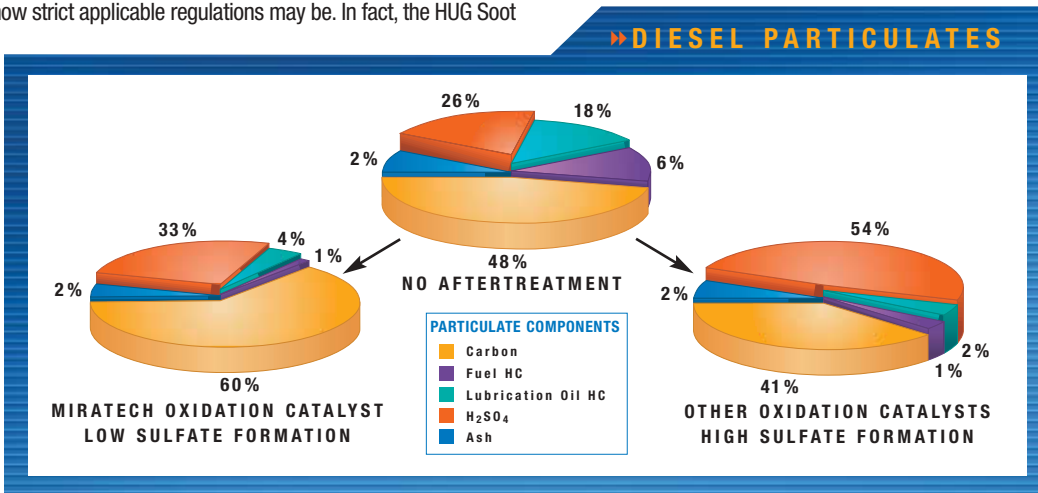
Trap clears the air of 99 percent of diesel particulates – including toxic sub-micron carcinogens and nano particles. It also reduces visible smoke, which can be an issue for hospital HVAC systems, manufacturing applications – or facilities that simply need to be good neighbors

## THE DOLLAR-WISE SOLUTION.

With the HUG Soot Trap, you avoid the need to switch to costly ultra-low-sulfur fuel: the HUG keeps your operation on the right side of the soot-reduction non-compliance fine-line with regular No. 2 diesel fuel or any other fuel you choose. That alone can save you tens of thousands of dollars each year, compared with other soot-control solutions.

The HUG Soot Trap operates within OEM engine back-pressure limits – with low pressure loss and minimal impact on engine performance and fuel consumption. Plus, with the HUG, you have only a single unit to install and maintain. There are no additional manifolds. The HUG Soot Trap even delivers noise reduction in addition to soot control, and can replace engine mufflers. Designed and built for rugged, long-term, failsafe operation, each unit is easily accessible and comes equipped with modular components, which cuts maintenance time, costs, and hassles – and reduces the need for operational shutdowns.

A proven performer in power generation and locomotive applications, the HUG Soot Trap is tailor-made for gensets in the 500 kW - 7 MW range and can be retrofit or customized for OEM packages.



## 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*.



4224 SOUTH 76<sup>TH</sup> EAST AVENUE • TULSA, OKLAHOMA 74145-4712  
800.640.3141 • [www.miratechcorp.com](http://www.miratechcorp.com)



## WHY THE HUG SOOT TRAP?

- ▶▶ Active Regeneration:
  - Cost-Effective Compliance Assured: Anywhere, All The Time
  - Independent Of Exhaust Temperature Or Engine Load

- ▶▶ For High Temperature Applications: Available Without Built-In Burners

## APPLICATIONS

- ▶▶ Diesel Engines
  - Power Generation
    - 500 KW - 7 MW Gensets
  - Chillers
  - Compressors
  - Locomotives
  - Marine

## FEATURES & BENEFITS

- ▶▶ Traps & Oxidizes 99% Of Particulates – Including Nano Particles
- ▶▶ Meets The Toughest Soot-Control Regulations
- ▶▶ No Need For High-Cost, Low-Sulfur Fuel
- ▶▶ Works with Any Diesel Fuel
- ▶▶ Low Back Pressure
- ▶▶ Low Pressure Loss – Within Engine Manufacturer Specifications
- ▶▶ Minimal Impact On Engine Performance & Fuel Consumption
- ▶▶ Rugged Design: Failsafe, Long-lasting, Low-Maintenance Operation
- ▶▶ Easy Installation & Startup: Single Unit – No Additional Manifolds
- ▶▶ Fast, Easy Maintenance: Easily Accessible; Modular Components
- ▶▶ Proven In Power Generation & Locomotive Applications
- ▶▶ Poison Resistant
- ▶▶ Sound Attenuation Included – May Replace Silencer Or Muffler
- ▶▶ Competitively Priced