# Your diesel engine emission control just got easier!

Diesel engines are an excellent power source, with the exception of their emissions. Particulate Matter (PM)/soot is a significant contributor to air pollution causing negative environmental and health effects worldwide. Nett Technologies' GreenTRAP™ 100 is a passive Diesel Particulate Filter (DPF) system designed to control PM emissions from diesel engines in off-road applications.

The GreenTRAP™ 100 system utilizes cordierite or silicon carbide wall-flow monoliths to trap the soot produced by diesel engines. A proprietary catalyst is coated onto the inner surface of the filter monolith which lowers the soot combustion temperature allowing the filter to self-clean (regenerate) at lower exhaust temperatures. The PM filtration efficiency of the catalyzed diesel filter typically exceeds 90%. The filtration efficiency of the elemental carbon fraction of diesel particulates (soot) is 95-99%.

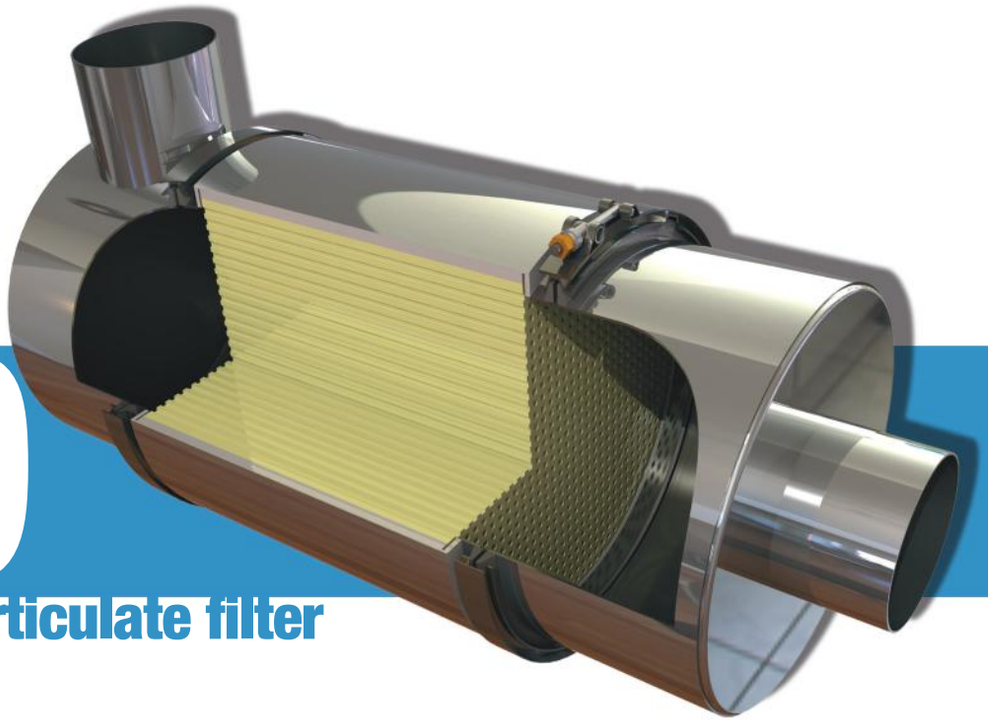
Due to the precious metal coating of the filter, the GreenTRAP™ 100 typically reduces 80% and 90% (depending on exhaust temperature) of Hydrocarbons (HC) and Carbon Monoxide (CO) emissions, respectively. Typical exhaust backpressure on a properly regenerating filter is between 5 and 10 kPa (20-40 "$H_2O$).

Applications on new diesel engines with low engine-out particulate emissions or with higher exhaust temperatures regenerate better, accumulate less soot in the filter, and experience lower pressure drop.

Nett Technologies' GreenTRAP™ 100 DPF systems are an excellent way to control and remove harmful diesel emissions. Contact your representative today to receive more information about the emission control solutions for your off-road diesel engines.

## GreenTRAP™ 100

## passive diesel particulate filter



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Sold and supported globally, Nett Technologies Inc., develops and manufactures proprietary catalytic solutions that use the latest in diesel oxidation catalyst (DOC), diesel particulate filter (DPF), selective catalytic reduction (SCR), engine electronics, stationary engine silencer, exhaust system and exhaust gas dilution technologies. Our reliable and real-world emission solutions will extend the usable life of existing equipment while allowing you to avoid costly future replacements. We manufacture emission control solutions that are California Air Resources Board (ARB) and the U.S. Environmental Protection Agency (EPA) verified. As the emission control authority, we are here to help you navigate through the hassles and complexities of emission control compliance.

NETT® TECHNOLOGIES INC.

...the emission control authority.

**www.nettinc.com**

## GreenTRAP™ 100 PRODUCT OVERVIEW

### How does the GreenTRAP™ 100 system work?

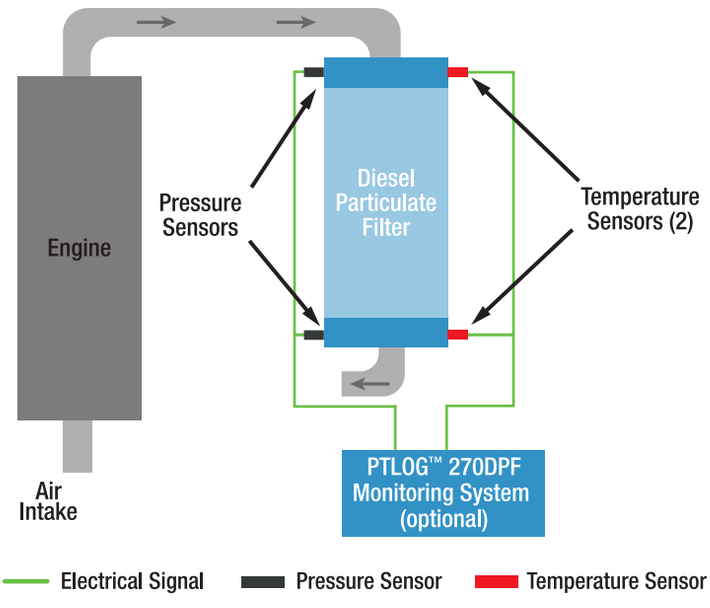
The GreenTRAP™ 100 Diesel Particulate Filter (DPF) system utilizes cordierite or silicon carbide wall-flow monoliths to trap the soot produced by diesel engines. The cylindrical filter element consists of many parallel channels running in the axial direction, separated by thin porous walls. The channels are open at one end and plugged at the other, forcing the particle-laden exhaust gases to flow through the walls. Gases are able to escape through the pores in the wall material, but particulates are too large to escape and are trapped inside the filter.

A proprietary catalyst is coated onto the inner surface of the filter monolith. The catalyst lowers the soot combustion temperature allowing the filter to regenerate at lower exhaust temperatures. The accumulated soot inside the filter can be oxidized during regular operation of the engine. Exhaust temperatures of 275-300 °C (527-572 °F) for 25-30% of the operation time are necessary for proper filter regeneration when Ultra-low Sulfur Diesel (ULSD) fuel is used. Nett Technologies' filters can also be used with other fuels and with diesel with up to 500ppm sulfur content; however, higher exhaust temperatures will be required for regeneration which can be achieved on most medium and heavy-duty diesel engine applications.

Under favorable engine operating conditions, the system can reduce up to 90% of Carbon Monoxide (CO), 80% of Hydrocarbons (HC) and 95% of Particulate Matter (PM).

The PTLOG™ 270DPF monitoring system (optional) along with 2 temperature sensors and 1 differential pressure sensor are used to monitor the DPF backpressure and DPF inlet/outlet temperatures in real-time. The monitoring system will notify the operator of possible system issues and will help ensure problem-free operation for the life span of the system.

### GreenTRAP™ 100 System Schematic Drawing

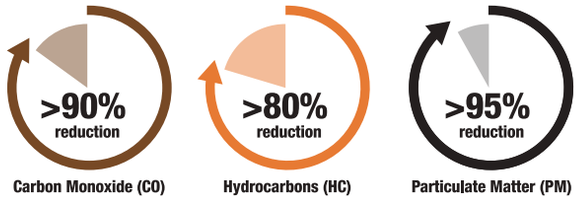



## PRODUCT FEATURES

- Passive regeneration system (self-cleaning)
- Ideal for diesel engines used in off-road applications (construction, mining, material handling)
- Compact design with thermal insulation (optional)
- Computerized controller with 3 customizable alarms and data logging capabilities (optional)
- System maintenance intervals of 2000 to 6000 hours
- Stainless steel housing, custom-fit designs available
- Bypass valve (optional)

## EMISSIONS REDUCTION PERFORMANCE

**Typical GreenTRAP™ 100 Emissions Reduction Performance**

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**Contact Nett Technologies Inc. today at:**

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or visit us online at **www.nettinc.com**

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