# 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 an ongoing issue causing environmental and health problems worldwide. Nett Technologies' GreenTRAP<sup>™</sup> NOVA 100 is an active Diesel Particulate Filter (DPF) system that is designed to control particulate emissions from diesel engines in off-road applications.

The GreenTRAP<sup>™</sup> NOVA 100 system utilizes a DPF downstream of a Diesel Oxidation Catalyst (DOC) to trap the soot produced by the diesel engines. The system uses a proprietary catalyst on the inner surfaces of the DPF walls which reduces the regeneration temperature and therefore allows the system to passively regenerate in favorable engine exhaust operating temperatures. When temperature is not sufficient for passive regeneration, active regeneration is used by means of hydrocarbon (fuel) injection over the DOC catalyst.

An Electronic Control Unit (ECU) evaluates the system parameters such as temperature, pressure and exhaust mass flow rate in real time and uses these values to predict and activate the regeneration cycle. In addition to 95% PM reduction, the system is able to reduce Carbon Monoxide (CO) and Hydrocarbon (HC) emissions greater than 90% and 80% respectively.

The GreenTRAP<sup>™</sup> NOVA 100 system is an effective solution for all your off-road emission control needs. Contact Nett Technologies today to see how we can assist you with all your emission control requirements.

### GreenTRAP<sup>™</sup> NOVA1000 active diesel particulate filter

can and learn

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.



#### www.nettinc.com

#### GreenTRAP<sup>™</sup> NOVA 100 PRODUCT OVERVIEW

#### How does the GreenTRAP<sup>™</sup> NOVA 100 work?

The GreenTRAP<sup>™</sup> NOVA 100 system registers and measures various engine and system parameters in order to determine exactly when to activate the regeneration cycle.

Regeneration is activated by injecting a precise amount of diesel fuel into the exhaust line which is then oxidized by a Diesel Oxidation Catalyst (DOC). The exothermic reaction within the DOC raises the exhaust temperature to the Diesel Particulate Filter (DPF) regeneration criterion level. The heated exhaust gas oxidizes the particulate matter (soot) accumulated on the particulate filter monolith. The estimated volume of soot trapped within the filter is calculated based upon the exhaust flow, engine load, back pressure, exhaust temperature, and the Soot Load Index (SLI).

The GreenTRAP<sup>™</sup> NOVA 100 Electronic Control Unit (ECU) continuously monitors and measures the performance of all system sensors and components. Built-in safety features will avoid soot overload, system high back pressure or temperature at all time. In addition, the on-board diagnostic unit will inform the operator of system status and potential issues via the dashboard indicator.

#### GreenTRAP<sup>™</sup> NOVA 100 System Schematic



#### **PRODUCT FEATURES**

- Active regeneration system, not sensitive to variations in exhaust gas temperatures
- Regeneration is being performed on-the-go
- Engineered to install into tight engine compartment
- Durable design with quiet operation
- Optional computerized controller with three customizable alarms and data logging capabilities
- System maintenance intervals of 2000 to 6000 hours
- Stainless steel housing, custom fit available

## Typical GreenTRAP<sup>™</sup> NOVA 100 Emissions Reduction Performance Image: Constraint of the second seco

EMISSIONS REDUCTION PERFORMANCE

