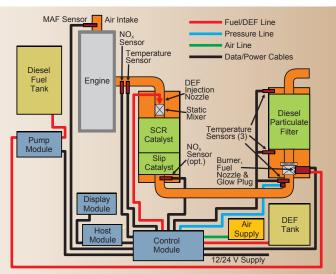
## BLUEMAX ULTRA SYSTEM

## SYSTEM OVERVIEW

The Nett BlueMAX ULTRA™ SCR and active DPF system is designed to control emissions of particulate matter (PM) and oxides of nitrogen (NO<sub>x</sub>) from medium- and heavy-duty diesel engines in on-road, non-road and stationary applications.

The system uses a diesel fuel burner to heat and oxidize the particulate matter that accumulates on a silicon carbide particulate filter monolith. A computerized monitoring system evaluates the level of soot in the filter and triggers regeneration (automatic mode) or alerts the machine operator (manual mode) when soot needs to be burned off. In both modes, the regeneration occurs during periods when the engine is idling.

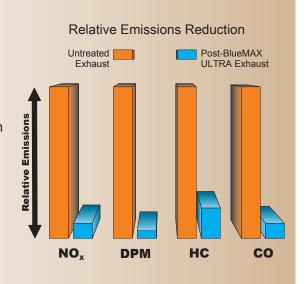
NO<sub>x</sub> is reduced over the SCR catalyst through chemical reaction with a reducing agent 'urea' commonly referred to as diesel exhaust fluid (DEF). The urea control strategy relies on NO<sub>x</sub> concentration measurements by a sensor positioned upstream of the SCR catalyst. Based on the NO<sub>x</sub> sensor signal, in combination with an engine mass air flow sensor and temperature sensor, the computer calculates the amount of urea which needs to be injected for optimum NO<sub>x</sub> reductions.



## SYSTEM EFFICIENCY

The particulate matter filtration efficiency of the active diesel filter typically exceeds 90%. The filtration efficiency of the elemental carbon fraction of diesel particulates (soot) is 95-99%. The system reduces over 90% of NO<sub>X</sub> and 70-90% (depending on exhaust temperature) of hydrocarbon and carbon monoxide emissions.

Active systems are not sensitive to variations in exhaust gas temperature and are a practical emission control solution for all sizes of diesel engines regardless of the duty cycle. The NO<sub>x</sub> sensor-based control strategy makes the system very suitable for both original equipment and retrofit applications. System calibration (i.e. engine mapping) is not required and the system can be installed on a wide range of diesel engines, both mechanically and electronically controlled.



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2-6707 Goreway Drive Mississauga, ON L4V 1P7 Canada web: http://www.nett.ca e-mail: sales@nett.ca tel: 905-672-5453 fax: 905-672-5949 toll-free (North America): 800-361-6388 Technical data and information regarding the products described in this brochure is believed to be reliable. However, no representation or warranty is made with respect thereto except as made by Nett® Technologies Inc. in writing at the time of sale.

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...the emission control authority.