

# Diesel Emission Control Has Never Been Easier!

Diesel engines are a reliable and efficient power source; however, their emissions require advanced control solutions to meet increasingly stringent environmental regulations.

The BlueMAX™ 300d is a high-performance nitrogen oxides (NO<sub>x</sub>) control system engineered for medium- to heavy-duty diesel engines in stationary applications. The system integrates a Diesel Oxidation Catalyst (DOC) upstream of a Selective Catalytic Reduction (SCR) system to deliver comprehensive emissions control under both transient and steady-state operating conditions.

The system utilizes Diesel Exhaust Fluid (DEF), a urea-based solution, to convert NO<sub>x</sub> into harmless nitrogen and water vapor. The integrated Electronic Control Unit (ECU) continuously monitors NO<sub>x</sub> levels, exhaust temperature, and engine air flow to precisely control DEF injection, ensuring optimal performance without requiring engine recalibration. This closed-loop control strategy makes the system suitable for both original equipment manufacturer (OEM) and retrofit applications.

With advanced catalyst design, optimized washcoat formulation, and precise dosing control, the BlueMAX™ 300d delivers high-efficiency emissions reduction across multiple pollutants. The system is capable of achieving up to 99% reduction in nitrogen oxides (NO<sub>x</sub>), up to 97% reduction in carbon monoxide (CO), and up to 95% reduction in hydrocarbons (HC), resulting in corresponding reductions in volatile organic compounds (VOCs) and hazardous air pollutants (HAPs), along with over 26% reduction in particulate matter (PM).\*

The system is verified by the United States Environmental Protection Agency (EPA) and is designed to deliver consistent emissions control performance under real-world operating conditions. Overall performance depends on system integration, engine conditions, exhaust temperature, and DEF dosing strategy.

## BlueMAX™ 300d SCR system



scan 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.

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## BlueMAX™ 300d PRODUCT OVERVIEW

The BlueMAX™ 300d combines Diesel Oxidation Catalyst (DOC) and Selective Catalytic Reduction (SCR) technologies to achieve high-efficiency emissions control.

Exhaust gases first pass through the DOC, where carbon monoxide (CO), hydrocarbons (HC), and aldehydes are oxidized into carbon dioxide (CO<sub>2</sub>) and water vapor (H<sub>2</sub>O), improving overall exhaust conditions before entering the SCR system.

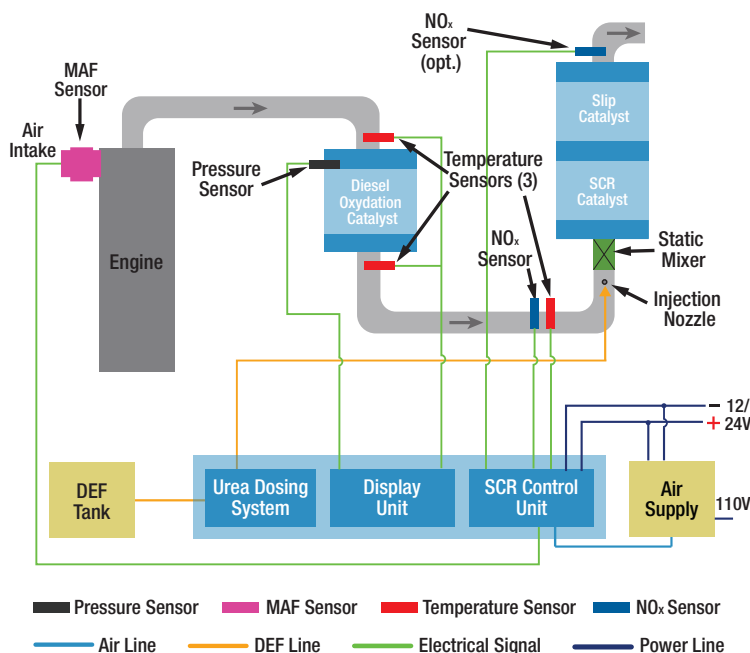
Downstream, the SCR system reduces NO<sub>x</sub> through a controlled chemical reaction using Diesel Exhaust Fluid (DEF). The system includes an SCR catalyst, DEF tank, dosing unit, injection nozzle, static mixer, air supply, and an advanced Electronic Control Unit (ECU).

A NO<sub>x</sub> sensor located upstream continuously measures NO<sub>x</sub> concentration in the exhaust stream. This data, along with inputs from exhaust temperature and engine air flow sensors, is processed by the ECU to determine the precise amount of DEF required.

DEF is injected into the exhaust stream and atomized using compressed air to ensure proper mixing. As the exhaust passes through the SCR catalyst, DEF decomposes into ammonia, which reacts with NO<sub>x</sub> to form nitrogen and water vapor.

This closed-loop control strategy enables accurate, real-time dosing, maximizing NO<sub>x</sub> reduction efficiency while minimizing DEF consumption. The system does not require engine recalibration and can be applied to a wide range of diesel engines, both mechanically and electronically controlled.

### BlueMAX™ 300d System Schematic Drawing

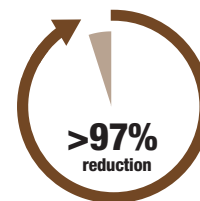


## PRODUCT FEATURES

- Integrated SCR and DOC system for comprehensive emissions control
- Designed for stationary diesel engines from 50 kW to 450 kW
- Suitable for OEM and retrofit applications
- No engine recalibration required
- Advanced ECU with real-time monitoring and diagnostics
- Data logging capabilities with customizable alarm settings
- Maintenance intervals ranging from 2000 to 5000 hours
- Robust stainless steel construction for demanding environments
- Colour display for system status and operational feedback

## EMISSIONS REDUCTION PERFORMANCE

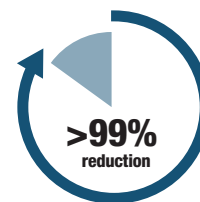
### Typical BlueMAX™ 300d Emissions Reduction Performance \*\*



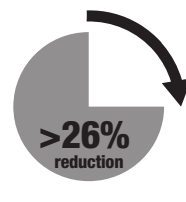
Carbon Monoxide (CO)



Hydrocarbons (HC)



Nitrogen Oxides (NO<sub>x</sub>)



Particulate Matter (PM)

\*\*Actual emission reduction may vary with engine, load, and operating conditions. Properly engineered catalyst systems are capable of achieving higher conversion efficiencies than EPA verification values when optimized for a specific application.



...the emission control authority.

Contact Nett Technologies Inc. today at:

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