



“Optimus has put in the hard work to develop a system we can rely on everyday.” - Rich Iverson, City of Ames

Optimus Technologies is a clean energy technology company based in Pittsburgh, Pennsylvania. Optimus manufactures the Vector System, an advanced fuel system technology that enables diesel engines to operate on 100% biodiesel (B100).

The Vector System is designed for severe-duty fleet applications and integrates into existing operations to facilitate a seamless transition to near-zero carbon fuels.

ENABLES FLEET SUSTAINABILITY – The Vector System upgrades any medium or heavy-duty engine to operate on 100% biodiesel, which is renewable, sustainable and allows fleets to achieve near-zero carbon emissions.

UPGRADES EXISTING ENGINES – Incorporate The Vector System into your new vehicle specifications for factory-fit installation or easily upgrade existing vehicles.

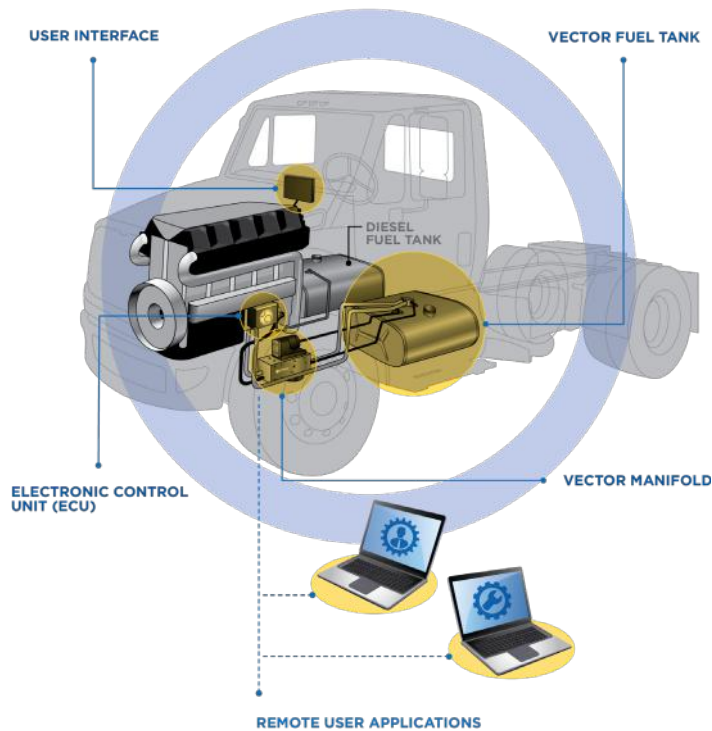
QUICK & EASY INSTALLATION – The Vector System is a bolt-on technology that installs in as few as 12 hours.

FULLY AUTOMATED OPERATION – The Vector System tracks and analyzes emission reductions, cost-savings, and petroleum offsets while automatically optimizing the use of biodiesel – without the need for driver input.

STRAIGHTFORWARD FUELING – Biodiesel utilizes existing diesel infrastructure so there are no special processes, training requirements, or lengthy refueling/recharging periods.

SIMPLE OPERATIONS AND MAINTENANCE – Optimus’ system operates in harsh environments and is compatible with all modern emission after-treatment systems.

From vocational trucks to Class 8 tractor trailers, The Vector System is engineered for severe-duty fleet applications where it is challenging or impossible to achieve emission reductions in a cost-effective manner through electrification, natural gas, or hydrogen.



OPTIMUS' VECTOR SYSTEM OVERVIEW

FUEL TANK - Includes in-tank heat exchanger and fuel pickup and return lines.

USER INTERFACE - Provides the driver with system information, including operational status, fuel level, and alerts.

VECTOR MANIFOLD - Includes a heat exchanger, fuel pump, sensors, and a dedicated biodiesel fuel filter.

REMOTE USER APPLICATIONS - Allows for real-time wireless access to system data, service information, and performance metrics.

ELECTRONIC CONTROL UNIT - Communicates with the engine's control module, Vector Manifold, and Remote User Applications to optimize the use of biodiesel and record system operational and engine performance data.

BENEFITS OF BIODIESEL:

NEAR-ZERO CARBON

Reduces carbon dioxide emissions to near-zero levels due to its biogenic lifecycle

LOWERS PM EMISSIONS

Reduces particulate matter on average 50% when compared to petroleum diesel

DECREASED DPF LOADING

Biodiesel's lower soot generation fills the DPF much slower, and can lead to less frequent regenerations

INCREASED LUBRICITY

Biodiesel reduces friction between the engine's moving parts, eliminating need for additives

HIGHER CETANE

Biodiesel has a shorter ignition time and higher combustion index than petroleum diesel

