

fueled by nature



Looking for a way to reduce diesel emissions without sacrificing power and fuel economy?

Here are your current options:

- Alternative Diesel Fuels
- Selective Catalytic Reduction Systems
- Active Exhaust Control System
- Diesel Particulate Filters
- Engine Replacement



“Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other known cancer-causing substances.” “Each year in California, diesel PM contributes to 3,500 premature deaths and thousands of hospital admissions, asthma attacks and other respiratory symptoms, and lost workdays. Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants.” “Even though Californians average about 6% of their time on roadways, 30 to 55% of diesel PM exposures occurs in vehicles.”[1]

Clearly, diesel emissions pose a risk to drivers and an affordable solution is needed that won't increase operating costs and rob horsepower.

Introducing Hydro-Maxx®

The Hydro-Maxx Servo-Controlled On-Board Hydrogen Oxygen Generator gets back to square one with nature's solution to eliminating emissions. Hydrogen is the most abundant element in our universe. It fuels our Sun and, when combined with Oxygen and diesel fuel, it provides the catalyst needed to completely burn the fuel.

The result?

Reduced emissions along with increased power and improved fuel economy. Drivers are happier. And, a cleaner burning engine virtually eliminates EGR problems and requires fewer oil changes.

[1] Published by the California Environmental Protection Agency Air Resources Board in an article, "Health Effects of Diesel Exhaust Particulate Matter"

So how does it work?

Hydro-Maxx uses distilled water and excess capacity from your alternator (average of 20 amps) to create hydrogen and oxygen (“hydroxy gas” or “HHO”) on-demand. The infused HHO binds to the diesel fuel and enhances flame propagation and combustion. Because safety comes first, the system works at low pressure without “storing” any hydroxy gas.



Is it safe?

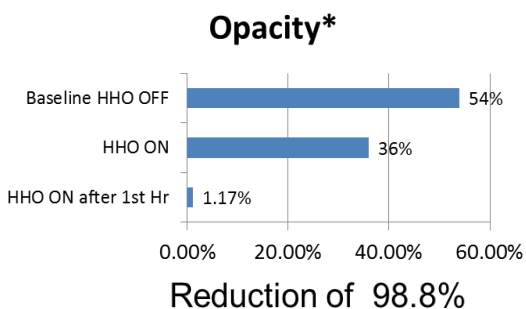
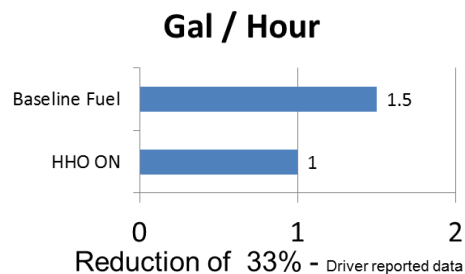
An Underwriters Laboratory listed pressure relief valve, hydrogen certified fittings, redundant anti-detonation tanks, and instant venting on shut-down provide for safe emissions reduction and increased power. Our Servo Integrated Controller continuously monitors the system and immediately shuts it down if any unsafe condition is detected. If for any reason the Hydro-MAXX shuts down, your engine runs just as it did before the system was installed.

Is it easy to use?

Simply add distilled water every 3,000 to 5,000 miles. The other two fluids only need to be topped off every three months. The Driver’s In-Cab Display lets you know when fluids are required.

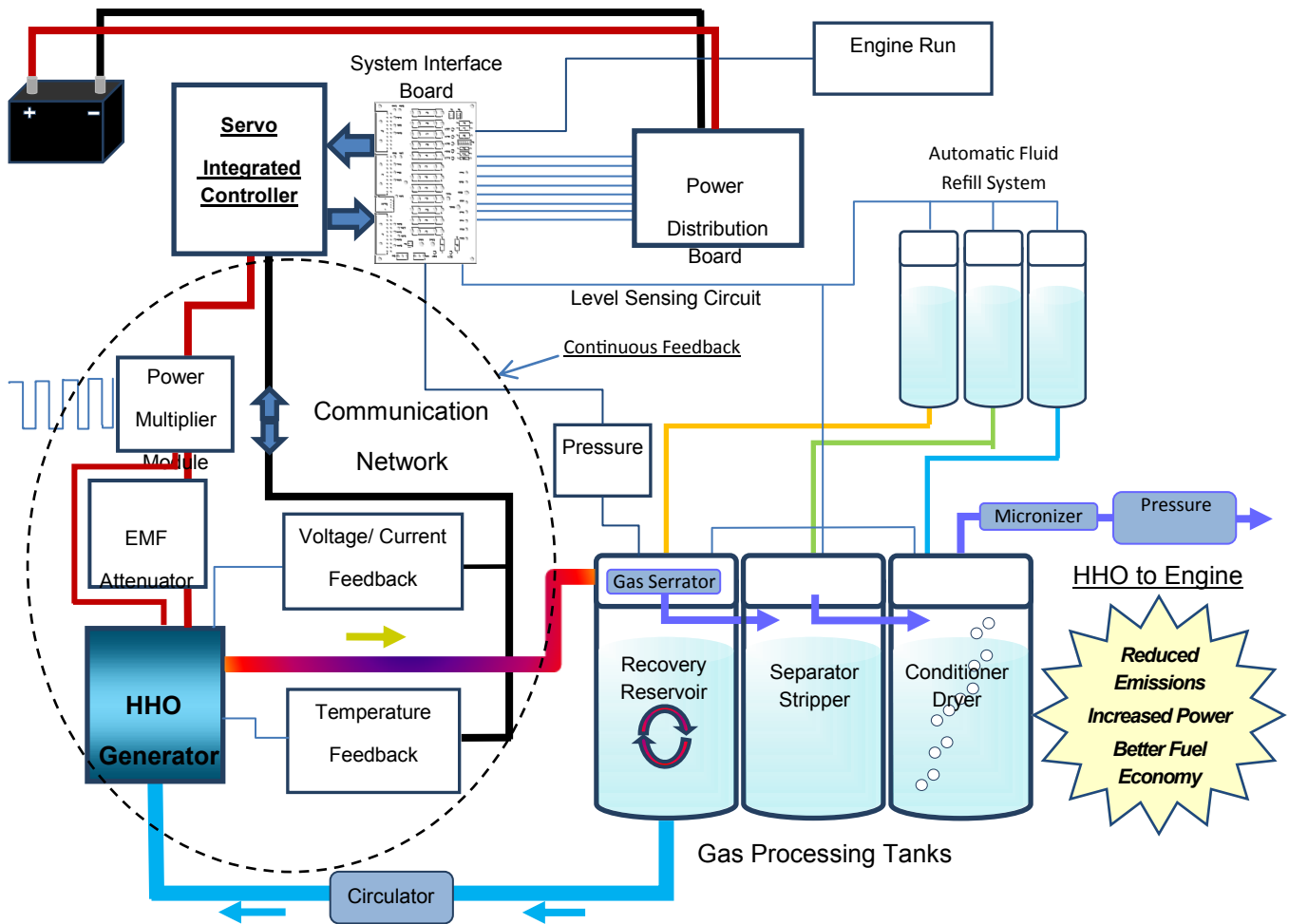
Is it hard to install?

The Hydro-MAXX box is mounted using 4 bolts. Five wires are required: three to the battery, one to the ignition, and one to an engine run sensor—usually an oil pressure switch. A hose delivers HHO to the Gas Inlet Nozzle which is installed in front of the turbo in the air intake boot. No engine modifications or adjustments are required.



* Opacity data collected via Red Mountain Smoke Check 1667- CARB, EPA & DOT Certified

HYDRO-MAXX® - How It Works

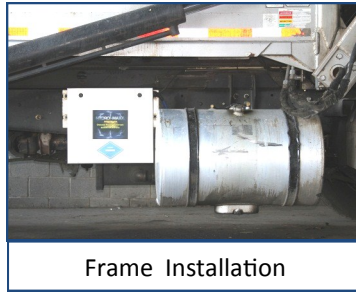


The Heart of the HYDRO-MAXX system is Square1 Energy's patents pending Servo Integrated Controller. The Controller is a micro-computer that continuously monitors operating parameters of the On-Board Hydrogen-Oxygen Generator. Algorithms send servo control signals to the HHO Generator, Refill System, and Environmental System to ensure safe, consistent, and reliable HHO delivery to the engine.

Hydro-Maxx uses Distilled Water and an average of 20 amps from the alternator to create "hydroxy gas" (hydrogen & oxygen or "HHO") only when the engine is running. The infused HHO binds to the diesel fuel which results in enhanced flame propagation and combustion. Because safety comes first, the system works at low pressure without "storing" any HHO gas. No engine adjustments are required to achieve the HYDRO-MAXX benefits of reduced emissions, increased power and better fuel economy.



Platform Installation



Frame Installation



Refrigeration Installation

Safety Comes First If any unsafe condition is detected (such as over pressure, out of fluid, engine stalled, roll-over and more) the HYDRO-MAXX is shut down and HHO is immediately vented to atmosphere. Whenever the HYDRO-MAXX is turned off the engine continues to run just as it did before the system was installed.

Simple to Maintain The Driver's In-Cab Display keeps you informed about the HYDRO-MAXX operating status and lets you know when fluids are running low. Our 24x7 technical support team is always available to answer questions and provide help if needed. Our extended service contract keeps your system running without any hidden costs.

Electrolysis 101

An Electrolyzer uses electric current to separate water into its components-hydrogen and oxygen. Electricity enters the water at the cathode, a negatively charged electrode, passes through the water and exits via the anode, the positively charged electrode. Hydrogen is collected at the cathode and oxygen is collected at the anode.

Square1 Energy's patents pending Servo-Integrated Controller continuously monitors and adjusts the system to ensure safe, consistent, and reliable HHO delivery to the engine.

The HYDRO-MAXX System



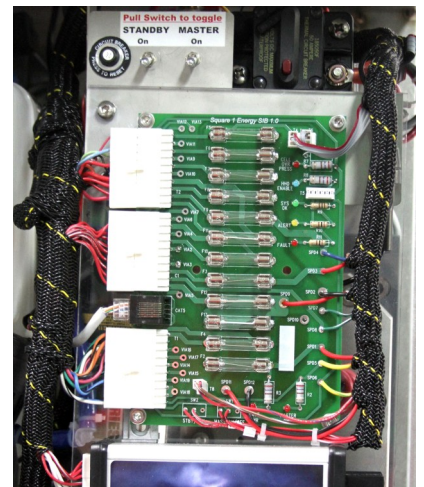
Only Periodic Fluid Refills are Required



**All Welded Stainless-Steel
Liquid/Gas Processing Tanks**



**HYDRO-MAXX POWER
BLOCK 836 HHO Generator**



**Interface Board With Fused
Outputs and Indicator lights**



Driver's In-Cab Display



**Fully Automated Servo
Integrated Controller**

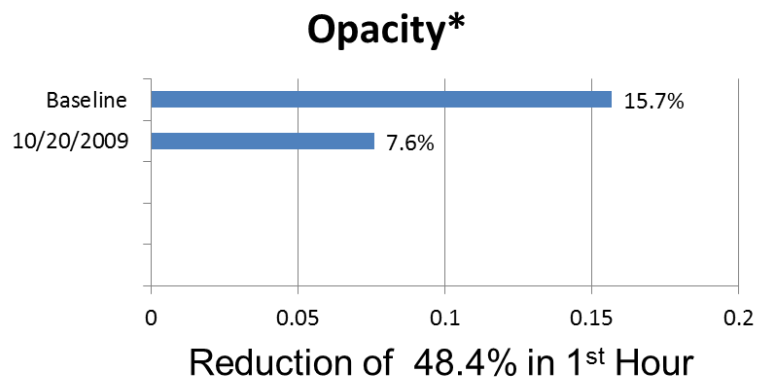


Gas Inlet Nozzle

What kind of emissions reductions can I expect?

The majority of diesel emissions are unspent fuel and, with HHO injection, more of the fuel is combusted. That's why HYDRO-MAXX provides more power with less emissions. The table below shows the approximate amount of emissions reduction you can expect by utilizing HYDRO-MAXX.

Emission	Percent Reduction
NOx	Up to 60%
Carbon Monoxide (CO)	Up to 100%
Hydrocarbons (HC)	Up to 100%
Particulates (PM)	Up to 95%
Opacity (Smoke)	Up to 70%



* Opacity data collected via Red Mountain Smoke Check 1667- CARB, EPA & DOT Certified

What about fuel economy?

Hydro-MAXX will increase fuel economy in most diesel engines. You can expect up to a 35% increase in fuel economy depending on the make and model year of your engine.

We're Here When You Need Us!

All of our products are backed by a 24x7 technical support hotline and a one year limited warranty. Ask about our affordable maintenance contract that includes all fluids and parts for the life of the system.

We invite you to get back to Square1 and learn more.
Please call 866-718-2480 or email us at Sales@Square1Energy.com

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SQUARE1 ENERGY™

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