DRIVING CHANGE FOR A BETTER FUTURE
In a diesel rotational engine, the pistons travel up and down rotating the cam shaft. Normally, timing of the ignition system is very well controlled.

Today’s diesel engines auto-ignite their fuel several degrees before the beginning of the power stroke. When the piston reaches the bottom of the power stoke, there is still residual diesel fuel left, that is unburnt.

The unburnt fuel that remains is then discarded through the engine’s exhaust system in the form of hydrocarbon emissions.

**HOW A TRADITIONAL DIESEL ENGINE WORKS**

**REDUCES ANY GREENHOUSE GASES THAT MAY BE PRODUCED**

**HYDRAGEN™ TECHNOLOGY RESULTS**

IN **INCREASED POWER,** **INCREASED TORQUE,** **ONGER OIL LIFE,** AND ULTIMATELY **LONGER ENGINE LIFE.**
HOW THE HYDRAGEN™ HYDROGEN ON-DEMAND SYSTEM WORKS

1. Our HydraGEN™ Technology uses simple electrolysis to turn distilled water into H₂ & O₂ gases that are produced on demand.

2. The unit is non-pressurized, and does not store the gases, making it a very safe and easy to use appliance.

3. The gases are introduced into the diesel engine’s air intake, which then produces a homogeneous air mixture prior to combustion.

4. Our patent-pending Smart Electronic Control Unit (ECU) leverages analytics to deliver an adjustable level of H₂ & O₂ gases in order to provide the optimal ratio for your engine’s specific needs.

5. The hydrogen gas, as a combustion enhancer, is introduced into the air intake of the engine and then mixes with the diesel fuel to create a faster and more complete combustion.

This results in a lower combustion temperature reducing NOₓ production and lowering other carbon emissions. It also results in an added benefit of improving fuel economy.

6. The faster and more complete burn in the power stroke means fuel is consumed more efficiently, providing more power, resulting in less unburnt fuel exhausted as hydrocarbon emissions.

7. Our Hydralytica™ telematics software allows users to monitor their fuel savings, as well as emissions reduction (in kg of CO₂) for future Carbon Credits.

8. HydraGEN™ technology draws 12-15A on any 12VDC or 6-7.5A on a 24VDC diesel engine. Please see the product specification charts for different HydraGEN™ models for different engine displacements.

THE BENEFITS OF HYDRAGEN™ TECHNOLOGY

Validated through both On-Road and accredited 3rd party testing by the PIT Group in Montreal, TÜV NORD in Germany, and performance testing, our HydraGEN™ Technology produced results of:

- 6% to 19.2% reduction in fuel consumption
- Up to 88.7% reduction in NOₓ produced
- Up to 46.7% reduction in CO produced
- Up to 9.6% reduction in CO₂ produced
- Up to 57.1% reduction in THC produced
- Up to 55.3% reduction in particulate matter (no black smoke)
- Increased engine power and torque
- Extended engine and oil life (lower maintenance costs)
- Reduction of Diesel Exhaust Fluid (DEF) usage by 30%
- Reduction of Diesel Particulate Filter (DPF) replacement period by 30%

Our HydraGEN™ Technology is designed for all types and sizes of diesel engines used in on-road vehicles, reefers, trailer, off-road construction, mining and forestry equipment, power generation, marine vessels and railroad locomotives.

Through the use of our HydraGEN™ Technology, dynaCERT seeks to help the world Drive Change for a Better Future.

Up to 19.2% reduction in fuel consumption

88.7% NOₓ BY
46.7% CO BY
57.1% THC BY

emissions reductions for greenhouse gases (NOₓ, CO, THC)

Up to 55.3% reduction in particulate matter (no black smoke)
SAVE FUEL,
LOWER EMISSIONS,
CLEAN SCIENCE & EFFICIENCY