

How Algae-X Works

What Algae-X works on: Most of the performance challenges and objectionable pollution from diesel fuel are the result of small clusters of fuel not burning completely. Because of the chemical and physical properties of modern diesel, users experience frequent filter clogging, heavy carbon deposits on internal engine surfaces, clouds of smoke under load, soot deposits near exhaust pipes, and clogged catalytic converters. Diesel particulate pollution is a major health concern.

Diesel fuel does not necessarily have these performance problems when it first leaves the refinery. The tendency toward clustering, performance degradation and pollution even depends on where diesel is produced. Many factors contribute to decline in the final quality of diesel fuel before it is burned in the combustion chamber. They include:

1. Blending by the refinery of products from different oil fields or products with unstable characteristics.
2. Time in transit from the refinery and in storage.
3. Temperature changes during transit and storage (condensation).
4. Exposure of fuel to the air (through tank vents).
5. Exposure of fuel to high heat (warm climates and from recirculation of unused fuel by engine fuel system).

In contrast, a tank of diesel fuel produced by straight distillation during World War II (1944) was discovered and examined after fifty years of storage and found in perfectly clear, usable condition.

Modern diesel fuel is created from a large percentage of tar-like crude oil substances that tend to cluster together in a liquid fuel over time. The good news is the clusters can be broken apart by the magnetic field in the Algae-X unit before the fuel hits the filter and before it is injected into the cylinder.

How Algae-X works: On a dry winter day, you can rub two balloons together and they will stick from the static electric charge. The tar-like components in diesel have a tendency to attach to each other like charged balloons. However, when they pass through a magnetic field, the charged condition changes, and they repel one another. The clusters get smaller.

A magnetic fuel conditioner exposes a moving stream of fuel to a strong magnetic field that makes clusters small, allowing them to pass through the filter and atomize more finely. Fuel burns more cleanly and efficiently resulting in

more miles per gallon and less soot. Magnetic treatment does not add anything to the fuel stream nor does it remove any chemicals from the fuel. Magnetic treatment simply makes fuel particles smaller, thereby increasing fuel efficiency and reducing pollution.

Effectiveness of treatment is a function of many factors, so simply pouring fuel past a magnet is not the same as having a well engineered treatment device in the fuel line. The figure below shows how molecules, which were clustered together, will be repelled after passing through the Algae-X magnetic field. The exhaust stack shows how the smaller fuel droplets injected into the combustion chamber will burn sooner and more efficiently.

