VORTEX'S RESPONSE TO THE EPA/FTC POSITION ON

MAGNETIC FUEL SAVING PRODUCTS

Vortex Fluid Optimizer Corp. (Vortex), manufacturer of the Vortex Fuel Saver (www.VortexFuelSaver.com), is frequently asked to respond to reports from the Environmental Protection Agency (EPA) wherein it tested 109 products and found that none of the tested products are effective. Similar reports have been published by the Federal Trade Commission (FTC).

First, to be perfectly clear; neither the EPA nor the FTC has tested any Vortex product and therefore, none of our products have been found not to work. Vortex technology has numerous credible third party tests, on a variety of engines, from around the world, that attest to the efficacy of our product line.

Second, let's look at the actual tests and information published by the EPA and FTC.

EPA Tests and Information. It is interesting to note that of the 109 products tested, just six of those were tested in the decade of the 1990's and only one product was tested this century! Testing began in 1970, and the vast majority of the cars tested by the EPA have no bearing on today's cars. Carburetor engines and leaded gasoline were the standards back then, which is not the case today. Even diesel fuel has been regulated to reduce sulfur content three times from unlimited amounts of sulfur to 5000 parts per million (ppm), to 500 ppm and currently at 15 ppm. The refining process to reduce sulfur content also reduces lubrication which causes the engines to run hotter. Nonetheless, let's look closely at the one product tested this century, which used magnets, as does Vortex. Here is a quote from the EPA report concerning the results (http://www.epa.gov/oms/consumer/devices/ftc_fuelmax_data.pdf):

> "Examination of data with the device installed- separated only by mileage accumulation- appears to indicate an improvement in fuel-economy due to the device. However, the baseline retests after mileage accumulation (immediately after removing the device) indicated that any improvement in the fuel-economy value was not due to effects of the device. Had the device any effect at all, it would have been observed if baseline retests after mileage accumulation matched the original baseline tests. This was not the case."

The EPA is stating that the mileage indeed went UP during the test. The actual increase was from 39.4 MPG to 41.36 MPG, a gain of 4.9% for car one, and an increase of 3% for car two (http://www.epa.gov/oms/consumer/devices/ftc_fuelmax_data.pdf). However, since the mileage did not go back down "immediately after removing the device," the EPA concluded the system didn't work. This is sometimes referred to as an A-B-A test. The "A" being without the device, the "B" with the device, and then the "A" again without the device to confirm the results of the B test. Yet, anyone experienced with magnetic force fields would be able to inform you that taking the device off doesn't "immediately" do away with the magnetic force – it is still there and will linger for a while. The reverse of this is also true; placing the magnets on the fuel line doesn't "immediately" boost the fuel economy, which is why the manufacturer suggests putting the car on the road for more than 2500 kilometers before expecting true results.

Clearly, a 4.9% increase doesn't come close to the manufacturer's advertising claim of "up to 27%," but Vortex would not agree with the EPA's conclusion that a 4.9% increase "indicates no fuel-economy benefit due to the device." At $4.00 a gallon gasoline, 4.9% is 19.6 cents a gallon. There are news reports of 45 minute waiting lines for a savings of 19 cents a gallon, so obviously a percentage of the public would disagree with this conclusion.

So, what does it take to have the EPA state that a device works? The EPA does have a guideline "If a minimum five percent difference in average fuel economy is shown, one may usually conclude with reasonable confidence that a real improvement exists." (http://www.epa.gov/oms/consumer/b00003.pdf) So, with a 5% savings, "a real improvement exists," but a 4.9% increase "indicates no fuel economy benefit." The second "A" test for the product described above resulted in a 6.5% improvement in fuel mileage for car one.

No discussion of EPA testing would be complete without discussing the actual test procedures. This is the same EPA that didn't start testing cars with air conditioning and heaters running until the 2008 model year estimates! The testing is performed in a controlled environment, in a laboratory on a dynometer. While this does control some variables, Vortex finds it surprising that additional variables that could be controlled are not. For example, in testing the fuel savings devices, the EPA may use different drivers for the before and after, as well as testing on different dynometers. As the driver is the biggest variable in fuel economy, it would make sense to us to use the same driver for the before and after, as well as the same test equipment.

But perhaps the biggest issue is that a laboratory does not equate to real world driving conditions. A car moving at 70 MPG consumes 70% of its fuel moving air out of the way. On a dynometer, there is no such resistance. Sometimes fans are used to stimulate the air, but that doesn't come close to real world driving conditions. As long as the before and after are under the same test conditions, this shouldn't be an issue. Right? Wrong!

Some fuel saving devices need what is referred to as "ram air" – the air forced into a car's engine when driving – to operate efficiently. Proper air flow is crucial to the optimum performance of the ***Vortex Fuel Saver*** system, so EPA tests would not necessarily be an accurate determinant of real world savings using our product.

We believe that our ***Vortex Fuel Saver*** system is superior to the above single unit product and other magnetic fuel saving products because we employ a proprietary (patented and

patents pending) magnetic force field protocol which includes the use of 13 to 32 magnet units per vehicle depending on engine size, type of fuel, and engine configuration.

FTC Tests and Information. The FTC has published a report, "Gas Saving" Products: Fact or Fuelishness, which has some interesting language (http://www.ftc.gov/bcp/edu/pubs/consumer/autos/aut10.shtm) if one actually reads the report rather than the conclusion attributed to the report. The report lists 109 devices tested, and indicates "Those with asterisks may save measurable, but small, amounts of gas." There are nine products listed with asterisks, yet the media frequently report that none worked.

Again, from the same FTC report, "Even for the few gas-saving products that have been found to work, the savings have been small," and the report further states [the EPA] "…has not found any product that significantly improves gas mileage." Yet, no explanation is given as to the definitions of "small" and "significant."

Here is a quote from a major trucking logistics company which seems to echo the FTC's position, "The Federal Trade Commission (FTC) has tested over 100 gas-saving products and found (just like Ryder) that these devices/additives either do not work, or if they do, they do not improve MPG enough to pay for their cost!" Interesting though that the FTC doesn't include the price of the devices in their report, so how does one know if the products are cost effective or not? No mention is made of the definition of cost effectiveness either. In one of their reports on fuel savings devices, the Rand Corporation assumes "consumers require a three-year payback." Is the FTC's definition also three years, or three months?

Our Conclusion. We at Vortex believe that the information published by the EPA and FTC is stale, and certainly not representative of the efficacy of our product. We backstop our product with a 90 day unconditional money back guarantee for gas powered engines and a 120 day unconditional money back guarantee for diesel powered engines.

We also offer FREE demonstrations of our products for fleets of 10 or more vehicles for 30 days on gas powered engines and 120 days for diesel powered engines. Call us at (877) 888-2744 and see for yourself, on your vehicles. Or visit www.vortexfuelsaver.com for more information.