

**Fuel and Air Saver**

**Technology <sup>TM</sup>**

*Reducing Emissions while Increasing  
Profitability*

Manufactured by

**World NCI**

**Minden, Nevada**

# Fuel and Air Saver Technologies ... ( A Tested and Validated Solution)

- Numerous Fuel products and additives brought to market “failed to produce results when independently tested”  
EPA
- **Independent SAE testing has validated that the Fuel and Air Saver Technology reduces fuel consumption and emissions**
  - University of West Virginia Center for Alternative Fuels, Engines, and Emissions (SAE J271 test)
  - Auburn University Program for Advanced Vehicle Evaluations ( SAE/TMC Type II Fuel Economy Test)
  - EPA sponsored Environmental Technology Verification

# The Fuel and Air Saver™

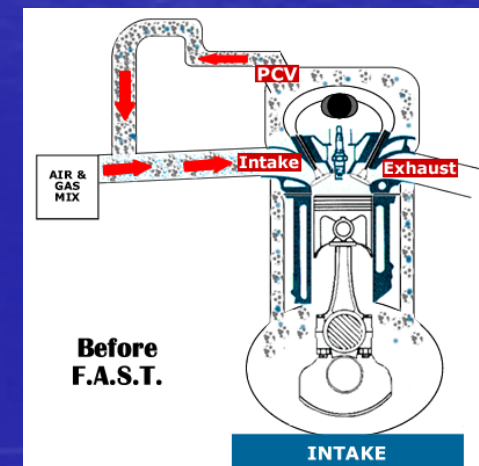
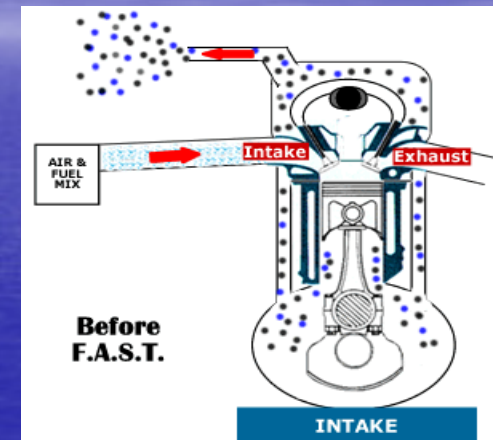
## Three Major Benefits

- Reduced Fuel Consumption
- 4% SAE J2711
- 4.1% SAE/TMC Type II
- 10% +/- Gasoline engines
- Attractive Return on Investment
- 3 to 1 (ROI) year one
- Pays for itself in 3-4 months
- Reduced Emissions
- Crankcase 100 %
- Tailpipe 17%



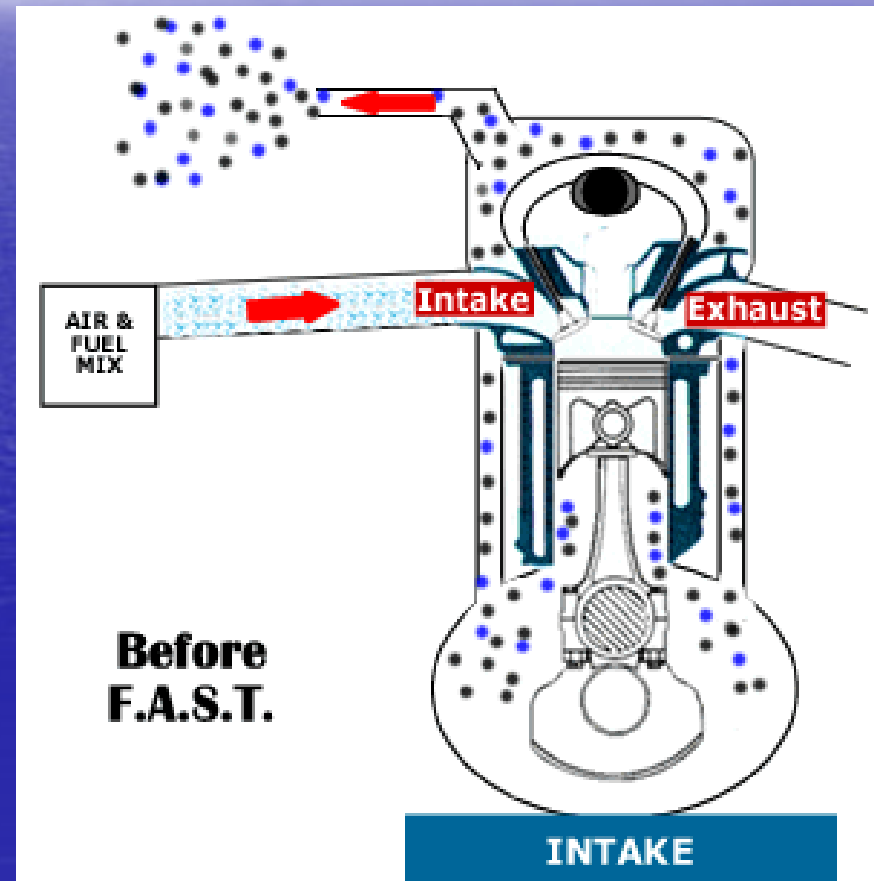
# Technology is based on managing the Crankcase Vapor known as “Blow-By”

- Diesel vs. Gasoline
- All internal combustion engines produce blow-by
- Partially burned and unburned fuel is pushed past the piston rings and into the crankcase
- Fuel mixes with oil and soot in the crankcase
- Creates crankcase vapor that must be vented or controlled



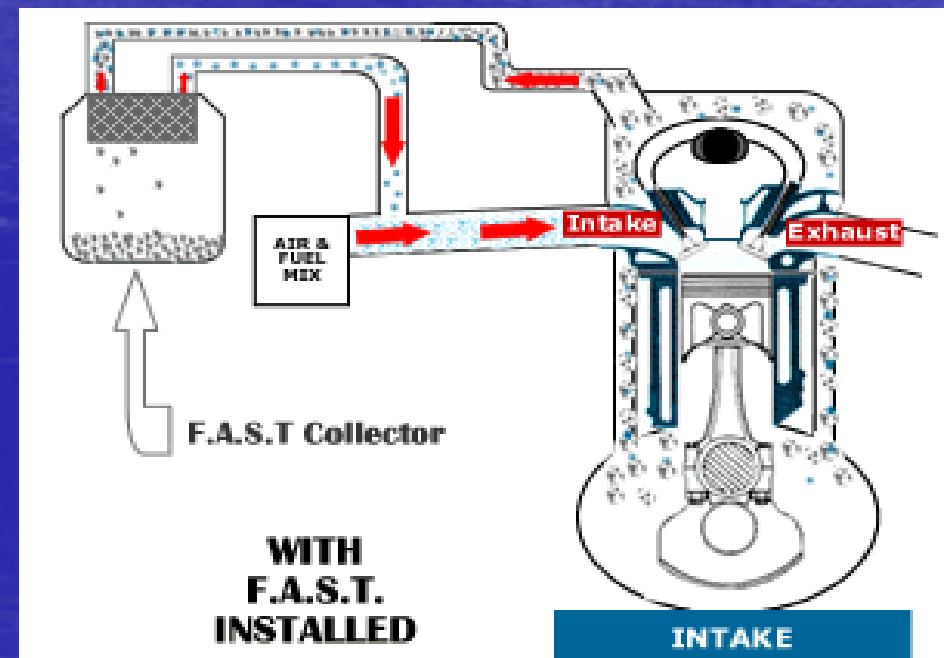
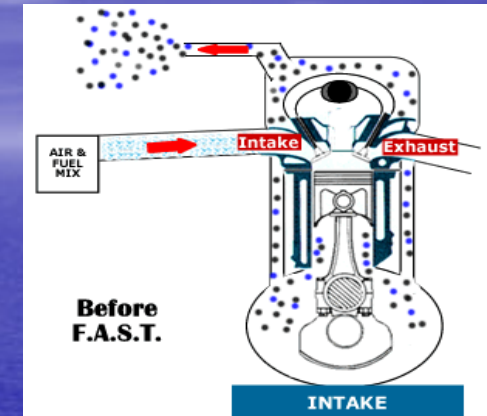
# Current Venting Process on pre 2007 Heavy Duty Diesel Engines

- Crankcase vapors are vented through an open vent or tube directly into the environment
- Creates environmental pollution
  - Oil
  - Fuel
  - Soot
- Each engine is throwing away gallons of oil and fuel each year, that could be used



# FAST Retrofit System for Pre 2007 Diesel Trucks

- Installs between the open blow-by tube and the turbo air intake
- Patented separator condenses heavy hydrocarbons such as oil, soot, and moisture into bottom of the container
- Routes only clean unburned fuel back into the combustion chamber which increases the efficiency of the combustion and fuel economy
- We increase fuel economy by capturing and burning fuel that has been traditionally thrown away
- We reduce emissions by capturing gallons of oil that has been traditionally dumped into our environment



# How FAST works

1. Install canisters
2. Install New "Low Maintenance" Collection Reservoir (not shown)
3. Connect FAST intake tubes into crankcase (input) vent
4. Connect FAST exit tubes to turbo air intake
5. Connect drain system from the Collection Canisters to Reservoir
6. Crankcase vapors enters canisters, separating fuel vapors from heavy oil
7. Fuel vapors are routed into engine to be burned
8. Excess oil collected in two main collection canisters are drained into the collection reservoir when engine is turned off
9. Installs in about 30-60 minutes



# Low Maintenance

- Canisters are emptied during routine oil changes
- Separators are easily cleaned by simply rinsing with diesel fuel – never air dry or use forced air to clean separators
- No Filters to replace
- Warranted for as long as original purchaser owns the system
- 100% satisfaction guaranteed





# Reduced Fuel Consumption

- University of West Virginia Center for Alternative Fuels, Engines, and Emissions SAE J271 Over The Road Fuel Economy and Durability Test (**4% MPG Increase**)
- Auburn University Program for Advanced Vehicle Evaluations SAE/TMC Type II Fuel Economy Test ( **4.1 % MPG Increase**)

# Reduced Emissions

- EPA's Environmental Technology Verification Report (SwRI)
- "the open crankcase was closed"
- "blow by emissions (essentially all unburned organic material) were successfully routed back into the engine"
- "total engine PM emissions were immediately reduced by 9.84 percent"

# Reduced Emissions

- **The West Virginia University, Center For Alternative Fuels, Engines, and Emissions**
- “successfully eliminated 100% of the crankcase emissions”
- “tailpipe PM emissions reduced by 17%”
- “detailed results in summary showed”
  - 3.0% lower in HC
  - 9.4% lower in PM
  - 2.8% lower in carbon dioxide (CO)
  - 0.6% lower in carbon dioxide (CO<sub>2</sub>)
  - 1.2% of <2.5mg contaminants

# Accepted Process/New Technology

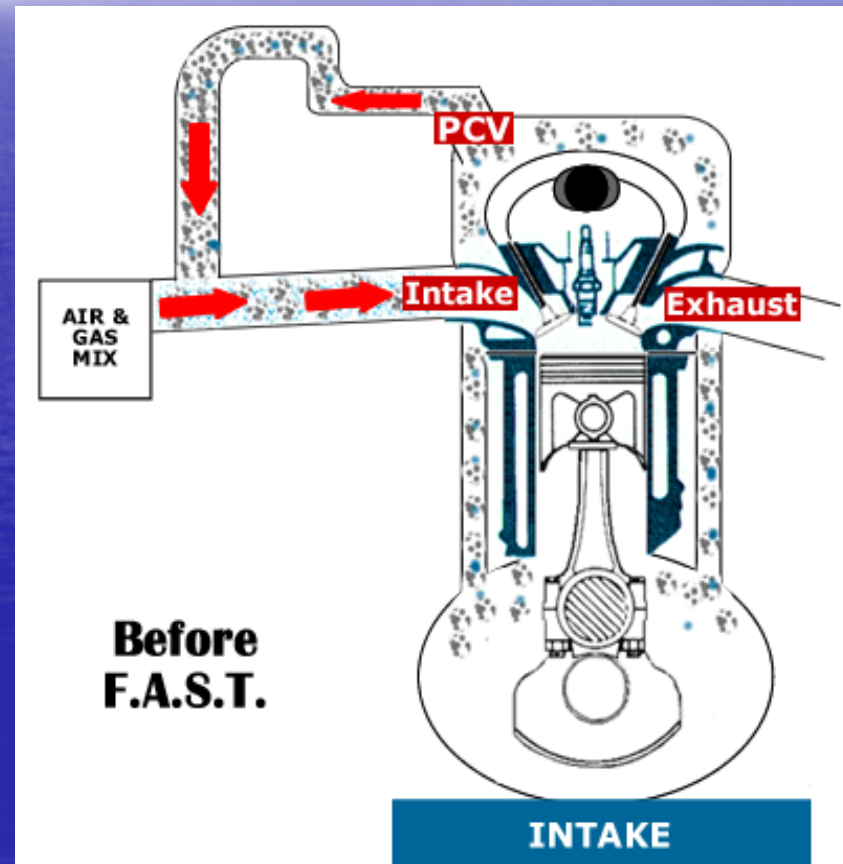
- Engine manufacturers have been closing and controlling crankcase vapors on marine engines and some OEMs already produce a retrofit system for filtering the crankcase on over the road applications
- FAST Separates rather than filtering
- Our Proprietary Patented Separation process results in **FAST being the only crankcase ventilation system proven and validated to increase fuel economy** while reducing emissions

# A 4.1% Increase In Fuel Economy in One Average Class 8 Truck.....

- Annual Miles per Year 125,000.00
- Current MPG 6 mpg
- Current Gallons per/yr 20,833
- Current Fuel Expense per/yr \$52,083.00
- A 4.1% Increase in MPG 6.25 mpg
- New Gallons per/yr 20,000
- New Fuel Expense per/yr \$50,000
- **Savings per/yr 833 Gallons / \$2,083.00**
- The Fuel and Air Saver is a **One Time Investment** of \$560-\$795 depending on purchase volume
- Pays for itself in several months and provides an exponential Return On Investment year after year

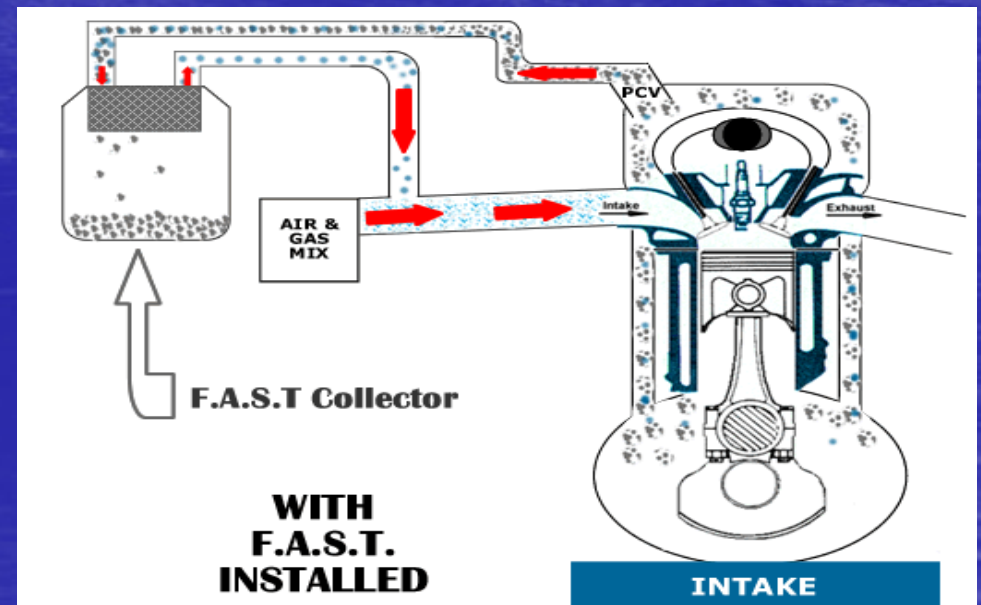
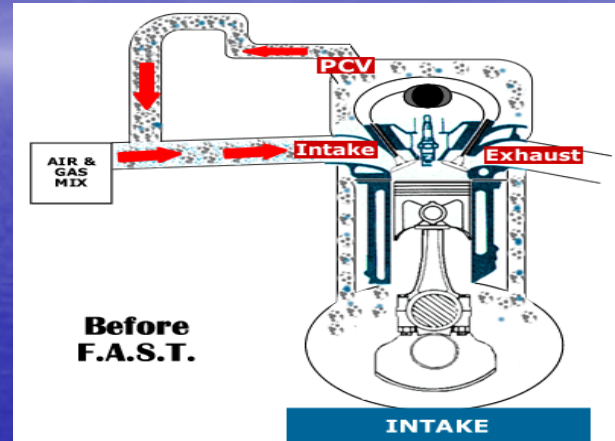
# Gasoline Engine Deficiency

- In gasoline engines, the blow-by is vented out of the crankcase through a PCV valve and is routed back into the combustion chamber.
- The oil, soot and moisture adversely affect the quality of the fuel and air combustion and increase emissions



# FAST Gasoline Systems correct the deficiency

- Installs between the PCV valve and the air/fuel intake
- Patented separator condenses heavy hydrocarbons such as oil, soot, and moisture into the bottom of the container
- Returns only clean unburned fuel back into the combustion chamber which increases the efficiency of the combustion and increases fuel economy



# Gasoline System Installation

- Installs in about 30 – 60 minutes
- Ideally Installed at a Car Care Center
- Can be Installed by Consumers
- Simply empty canister during routine oil changes
- MSPR \$295.00





# Conclusion

- **The Fuel and Air Saver, a new and innovative product, validated through independent industry standard testing to....**
- Reduce Fuel Consumption
- Reduce Crankcase Emissions
- Reduce Tailpipe Emissions
- **Which...provides our customers the ability to reduce emissions while increasing their bottom line!**
- Decrease Dependency On Oil
- Improve the Global Air Quality
- Improve the Air Quality of the tractor cabin for drivers and school buses for our nation's children

# For Additional Information

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  - [www.fuelandairsaver.com](http://www.fuelandairsaver.com)