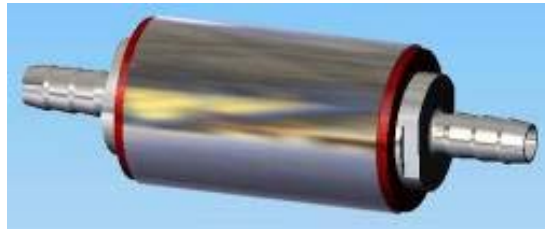

INTER  CHARGER TM
Improving Engine Performance



FAQ's

www.intercharger.com



Frequently Asked Questions

(Call toll-free for more information 866-945-3800)

Industry Questions:

#1. Is it really possible to inexpensively reduce emissions?

Yes, emissions are a result of incomplete or uncontrolled combustion reactions. With this technology we have consistently demonstrated that combustion can be manipulated to such a high degree that emissions are reduced significantly as a result of the cleaner, more complete burn process. Thousands of hours in research and development have enabled us to produce this technology in such a way as to be extremely efficient, compact and light weight. This ultimately translates to cost effectiveness in manufacturing and installation. As well, the improvements instilled to the combustion process translates quickly into improved performance and reduced maintenance allowing existing emission control equipment to last longer and function at their optimum longer.

#2. Can such a system be adaptable and function well on new and old engines?

Yes, this technology easily adapts to any and all types of internal combustion engines, even old ones. The concept of combustion hasn't really changed over the years, fire is fire. Even though, new injection systems and computers ultimately influence combustion reactions. By extremely high pressure injection system or variable rate injection, fire can be more easily modified using reactive intermediately. This enables us to be able to effectively influence and improve combustion on virtually any engine, old or new.

#3. What modifications are involved and are they expensive or complicated?

The modifications necessary to adapt this technology to most any given engine, old or new, is relatively easy. In most cases it involved simply fitting the device in the crankcase emission vent tube. The unit is light weight and compact enabling it to easily be connected, usually in line, enabling the crankcase emission to pass through the device and into the engines air ingestion system before the combustion chamber. Being light weight and compact, it does not interfere with any of the engines accessories or operating systems.

#4. How long will the system last?

The device is designed specifically to process toxic, gooey crankcase emissions without itself being consumed in the reaction or becoming contaminated by these emissions. Its external structure is designed to allow these emissions to be processed without restriction and maintenance is not generally required. As well, the reaction involved absorbs heat, therefore the condition involving the modification of these emissions are very mild contaminants are not baked on the surface as often occurs with exhaust-type, heat releasing catalytic converters. The device is believed to have an indefinite life span.



#5. Will it function in various industries such as underground mines, farm equipment, on-road vehicles?

Yes. All engines produce crankcase emissions regardless if their operating environments or odd conditions. We have successfully demonstrated in many commercial applications that the environment or condition of operation have no effect on the units' function. In fact, we have observed that in extreme cold climates, the engines start easier with the device installed and in extremely hot countries, the engine ran cooler. Therefore, as long as an engine is operating, the crankcase gases can be modified successfully with our technology.

#6. Will customers appreciate the changes imparted by the systems function?

Yes. The entire purpose of modifying crankcase emissions with this technology is to improve the engines function while reducing exhaust emissions simultaneously. This technology is very unique in that it can convert toxic emissions into performance enhancing reactive fragments without additives or any external assistance such as heat or electricity. Maintenance is also not an issue. This is not like any known system because there are no filters to clean or replace and the significant improvements to an engines performance and long term durability are what motivates most customers to want this technology. A reduction in vibration, sound, smoke and engine temperatures accompany an increase in performance and engine durability are realized by most customers and appreciated.

#7. Is there anything similar on the market?

No. We have extensive field experience ranging from lawn mowers to ship engines. Never have we seen technology such as this, anywhere. We have also discovered that the unique method in modifying crankcase emissions to produce reactive intermediates introduces a completely new concept in the field of manipulating combustion reactions. Also, since fire itself is a chemical reaction, it makes perfect logic that the chemistry involving our technology can ultimately improve combustion characteristics as well as reduce exhaust emissions.

#8. Are there any risks involved with product use? Manufacturing materials?

No. This technology involves heat absorbing chemical reactions between the crankcase emission and specifically chosen materials inside the device. The materials are non toxic, nor are they consumed. The temperatures are mild and there is a slight vacuum draw rather than pressure. There are no fluids to leak or freeze and if a hose connection was removed, at any time on a diesel engine, there would be no detrimental effect on the unit or the engine.

#9. How is it possible to work with all different types of engines and fuels?

This technology works with most any internal combustion engine because they virtually all produce crankcase emissions and, since fire is simply a chemical reaction, regardless of fuel used, it can be modified. Conventional belief is that



different fuels involve different, unique combustion reactions. We have learned through extensive field testing that all engines respond favorably to the ingestion and combustion of the reactive intermediates produced by our device. The chemical reaction involving fire, regardless of fuel, become more controlled resulting in improved performance and reduced emissions.

#10- Can the system be successfully manufactured in large quantities?

Yes, after nearly eight years of field testing in research and development we have maximized the efficiency in the design of the device enabling mass production with minimal effort. The current design allows unlimited parameters in flexibility of design such as shape, size or application. This technology is currently in mass production.

#11- How many different model sizes are available and can changes easily be made if necessary to adapt to new applications?

Any size of device desired can be easily manufactured from motorcycles to very large diesel engines in ships. It only requires that sufficient volume be allowed for the internal application; the technology itself is the same, it only requires sealing to enable adaptation to the various applications.

#12. Is the technology safe?

Yes, the technology is safe. It does not produce heat or is under any pressure. The gases exiting the device are not as unhealthy as the crankcase gases entering the unit. The modified gases are reactive to fuels and other hydrocarbons such as oil residues. As well, crankcase gases are not under pressure or high heat condition. This allows flexibility and safety in installation unlike fuel processing, or exhaust catalytic converters.

#13. How will it affect the engine and what are the long term benefits?

Normally an engine produces crankcase gases, which are either recycled back into the combustion chamber or vented into the atmosphere. These toxic gases, when recycled, cause the engine to become contaminated with carbon sludge eventually reducing its life span considerably. The sticky tar-like material sticks in rings, valves and other components reducing their service life. These gases also reduce combustion efficiency producing vibration, excess heat and worse exhaust emissions. As well, performance is reduced. Open crankcase vent systems contribute to cancer. When crankcase gases are recycled but pass through the device, they become considerably different. They effectively clean the engines combustion system allowing rings and valves to work freely. They also improve combustion ultimately reducing vibration, sound and exhaust emissions. As well, performance becomes significantly improved. Engines run cooler, last longer and pollute less. These effects are sustained for very long periods of time when using this technology, even under extended use commercial application. It has also been noted that an engines lubricating oil stays cleaner, longer. All of these effects are logic repercussions of using modified crankcase emissions to manipulate and control combustion reactions.

#14. How long does it take to demonstrate its function?

Many engines respond immediately to the installation of this technology. Usually an engine produces noticeably less toxic emissions, runs smoother and quieter within a few minutes. However, the full effects are not realized until the engine has been run and worked significantly to allow contaminants to be cleaned from the rings and valves. As the engine becomes clean and the compression pressures restored it performs better and better. In many cases this happens in only a few hours and in some extreme cases it requires over one hundred hours. Most importantly, once installed, the unit will allow the engine to remain in service significantly longer. Cleaner engines perform better, last longer and produce less toxic emissions. Many old engines that we have demonstrated this technology on are performing better than ever have, even better than when they were new.

#15. Are there any modifications necessary on engines with computers or emissions control technology?

Modern engines use computers to help control the combustion system, for example, by manipulating injection pressure. These engines usually recycle crankcase emission which significantly contaminates the entire intake and combustion system. As well, the exhaust system and emissions control equipment become excessively contaminated with un-burnt crankcase emissions over time. When these gases are modified by our system, they no longer contaminate the engines sensors and combustion system allowing them to work as intended. Most importantly, however, the modified gases improve the combustion process regardless of the computers influence. When the chemical reaction of fire is improved with our system, the combustion process becomes more efficient ultimately providing more work with less energy input. The computer sensors never indicate problems and, in fact, by having them cleaned and by producing smoother combustion reactions, allow even greater benefits than otherwise possible.



Before



After

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Before Installation



Two hours after installation