## **VOSGES srl** Magnetic Catalyzer Department Via Roma 133 36040 - TORRI DI QUARTESOLO VICENZA - ITALY

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# CARS, TRUCKS, SHIPS AND ENDOTHERMIC ENGINES



## NEW FUNCTIONALITY WITH THE APPLICATION OF MAGNETIC CATALYZER SUPER CATALYZER

Designed to improve the combustion and increase engine power, the **Super Catalyzer** also prevents the formation of engine deposits because it exercises a cleaning action.

### **SCIENTIFIC PRINCIPLE**

#### Effect on the magnetic field on fuels

Hydrocarbons may be defined as a group of chemical compounds composed only of carbon and hydrogen, bonded together by the sharing of valency electrons with accompanying bond energy. The action of the magnetic field which the **Super Catalyzer** exerts on the fuel, prior to the combustion process, leads to the reduction of the bond energy between carbon-carbon atoms and carbon-hydrogen atoms. This reduction leads to greater availability of carbon and hydrogen atoms in a highly reactive form defined as "radical". With this combination, during the combustion process, intermediate compounds, namely "peroxides", are formed with the oxygen from the atmosphere. These in turn react with the unburnt elements bringing more energy to the system, with an increase in speed of combustion and consequently in thermal efficiency.

#### Effects of the Super Catalyzer on the combustion process

Following the formation of the highly active radical compounds which increase the rate of reaction, the following objectives are achieved:

- total oxidation of the unburnt elements (HC, CO and C) into carbon dioxide and water
- total recovery of the chemical energy still available in the unburnt elements
- reduction in the floating particles which cause the opacity of the fumes
- less excess air in the process of combustion
- decrease in the formation of nitric oxides due to the lower concentration in atmospheric nitrogen available
- reduction of specific consumption.

#### Average experimental specifications

- 10% (approx.) reduction in fuel consumption.
- 80% (approx.) reduction in air pollution.
- No substitution or maintenance of the cartridge required.
- Can be used with any type of fuel and engine; in those with turbo-compressors it maintains the turbines constantly at peak efficiency.
- It cleans the valves, combustion chambers and exhaust, removing oily debris and incrustations from paraffin.
- It facilitates start-up with diesel engines even at temperatures well below zero.
- Its performance as regards waste gas exhaust fumes is comparable to that of the best catalytic muffler, costing nothing to run and having a higher horsepower.

### Principle of operating

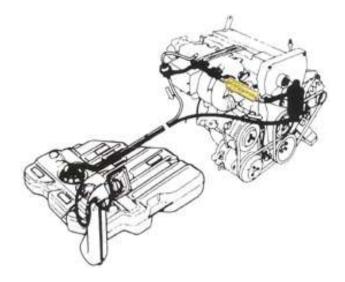
It is basically a high potential (approx. 10.000 Gauss) permannt magnetic field. As the fuel molecules pass through it they are transformed as described above, thus increasing the engine's efficiency and the life of its components, preventing the formation of incrustations from solid residues and, above all, significantly decreasing the emission of toxic substances from the exhaust pipe.

This system is perfect for the operation of converting all cars actually run on lead super gasoline to **green gasoline**. Moreover it even works for all engines run on GPL or methane. With such a cartridge those engines become anti-polluting and have the same performance as engines run on gasoline.

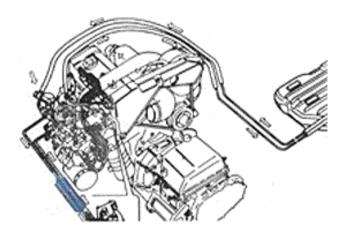
#### <u>Installation</u>

The "Super Catalyzer" cartridge must to be installed as follows:

- For vehicles run on petrol, between the fuel pump and the carburettor or the injection system.
- For old vehicles run on diesel, between the fuel pump and the diesel filter.
- For new vehicles run on diesel, before the injection pump and after the diesel filter.
- For vehicles run on GPL or methane, between the tank and the expansion lung, nearer to the latter.
- When the fuel system has two or more fuel supply pumps and the fuel is filtered several times, the **Super Catalyzer** must always be installed in front of the last diesel filter.
- In the case of vehicles or ships with a recirculating fuel system, any treated fuel which is not burnt flows back into the tank starting the pre-treatment process again which is permanent, even if the fuel happens to remain indefinitely in the bottom of the tank. This treatment, both preventive and curative, acts against the formation of sludge and microbes (due to the deterioration of the fuel which has remained inactive for too long) by gradually dissolving the deposits in the tanks, filters and fuel supply pipes.
- Cleaning will be gradual and definitive:
  - for vehicles, after 5000 km;
  - for ships, according to the general state of the circuit (on average 100 hours of operation are required);
  - at the end of this cycle, the filters should not need to be substituted or cleaned as frequently as before;
  - these results are possible due to the great power of the magnetic fuel which makes it possible to maintain the action of the treatment permanently.



Example of installation on car to diesel



Example of installation on car to gpl or methane

