

**iO-ENERGIES ITALIA SRL**

**PRESENTATION**



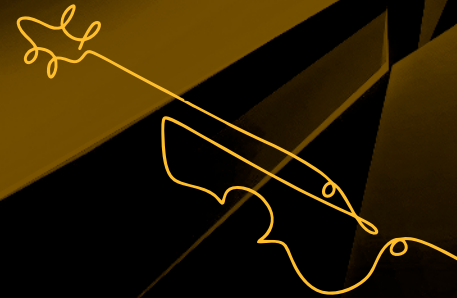
## CATALYST

### Exhaust gas neutralizer

More than 100 years have passed since the invention of the internal combustion engine muffler (1894). But its main function was to reduce noise from internal combustion engines. Manufacturers of the automotive industry, applied the latest inventions in the exhaust system, for a better sounding engine, adding different kinds of components.

Resonators, catalytic converters, mufflers, exhaust manifolds, everything was done so that the exhaust system not only reduces noise, but also reduces the amount of harmful pollutant emissions into the atmosphere.

Today, many systems and components are very spectacular, but at the same time bring many problems to both engines and vehicle owners over time! Contaminated diesel particulate filters and neutralizing catalysts in gasoline engines tend to clog and virtually block the free flow of exhaust gases. But this is not a problem for manufacturers, over time it is a problem for vehicle owners who must either change the particulate filters or replace the catalytic converter.



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# NORMS

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## Strict emission standards ...

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... of regulatory authorities in different countries have led to the use of various devices and components, which each time reduced fuel consumption and positively influenced the quality of exhaust gases.

The moment has come when increasingly stringent emission measures are forcing manufacturers to abandon internal combustion engines and switch to alternative sources and propulsion systems.

Hydrogen, gas, hybrid and electric propulsion systems are gaining popularity with manufacturers, as they have been effectively put in front of the fact - either clean exhaust or a complete ban on the operation of vehicles in the world.

Manufacturers were faced with a no-alternative choice that had no second option.

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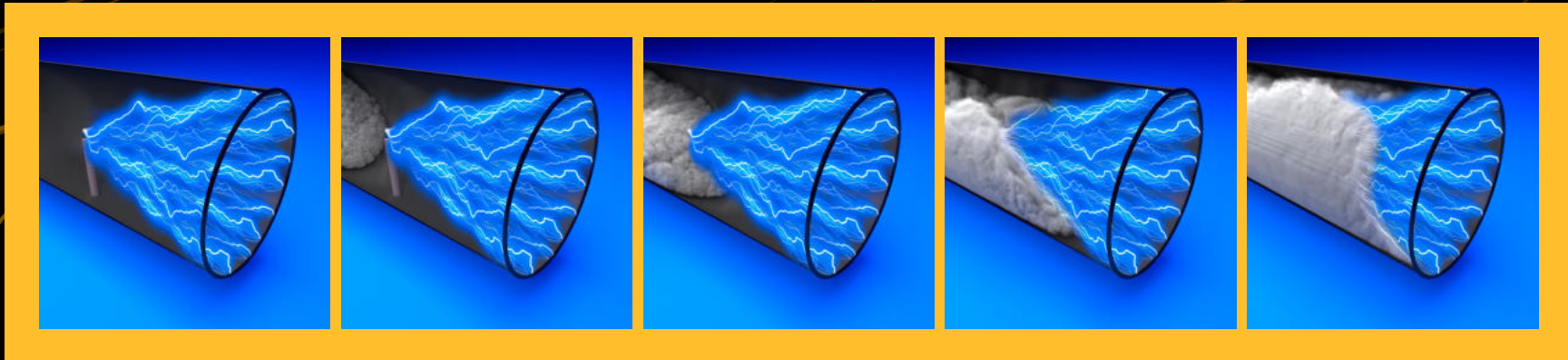
# NORMS



Two innovations for all engines in the world. **io-ENERGIES** has solved a really tough challenge to reduce emissions to the atmosphere, which has a direct impact on reducing the greenhouse effect from internal combustion engines, which have and are negatively impacting global warming! In an unexpected turn of events, the countdown begins on July 7, 2021. Specialists of **io-ENERGIES** company have patented an innovative exhaust gas catalyst, which by its characteristics not only surpasses all existing technologies by dozens of times, but also completely solves the global problem that could not be solved by many companies in the world.

According to the technical specifications of **io-ENERGIES**, one of the suppliers manufactured the components of the catalyst, which are used for the first time in the world. Ceramic components, with exhaust gas capture system, ozonation of incoming air and oxidation unit, are equipped with a web of discharges of 180 000 volts and a frequency of 1 000 hertz, where every cubic centimeter of exhaust gases, air and the resulting mixture will not be able to pass the treatment barrier without a decontamination effect.

Also, all internal components are housed in titanium housings that are coated with Titanium Dioxide, which also reduces emissions by 3-5%. The complete set of catalyst components is placed in a common muffler housing made of metallized aluminum, which guarantees long-lasting operation of the catalyst with maximum protection from external environmental influences.



The uniqueness of the exhaust gas catalyst is such that any vehicle with even the worst exhaust gas quality will be emission clean to the point of clean air. Without exhaust gas resistance, the **CATALYST**, allows for increased engine power, which was a huge problem on conventional engines with ceramic catalysts and particulate filters.

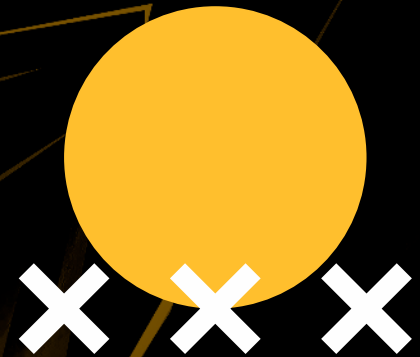
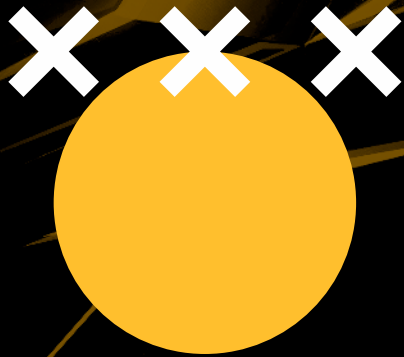
The physical, chemical processes of oxidation, afterburning and ozonation with variable regulation of crankshaft speed and quality of the exhaust gases, incoming ozonized air, the catalyst system recognizes and makes the whole process automatic and guarantees clean exhaust of **Euro 7** and future **Euro 8** standards.

The **EQOPED** electromagnetic fuel catalyst, the result of the early work of **io-ENERGIES** specialists, together with the **CATALYST**, makes the engine incredibly economical and guarantees the cleanliness of the engine exhaust products. The exhaust gas catalyst, electromagnetic fuel catalyst, are small in size and weight, but give unrivaled performance in terms of environmental friendliness, power with lower fuel consumption, which give full confidence to any vehicle manufacturer or vehicle owners to continue the production and operation of vehicles on hydrocarbon fuels.

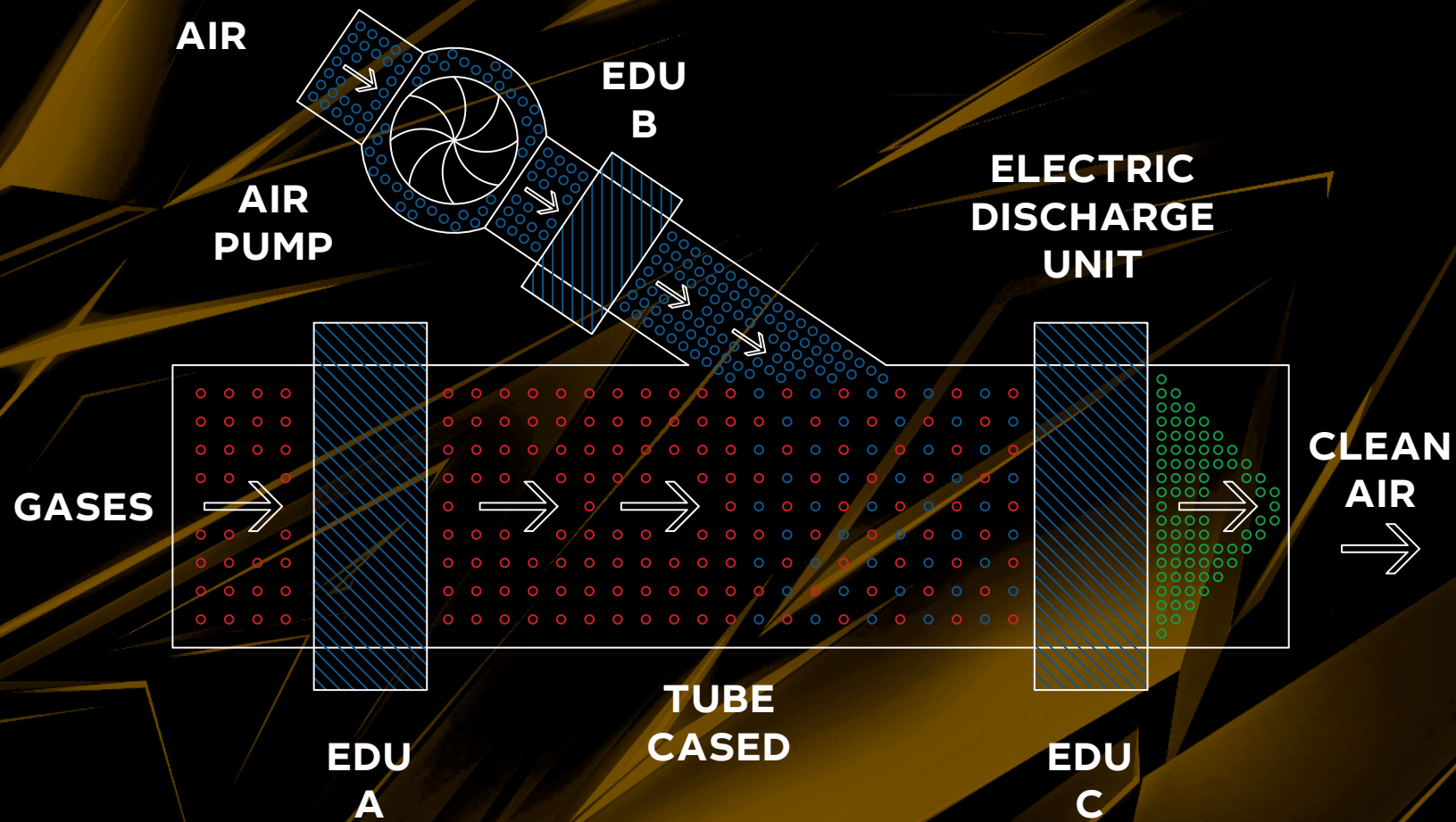
## Application of the **CATALYST** exhaust gas neutralizer

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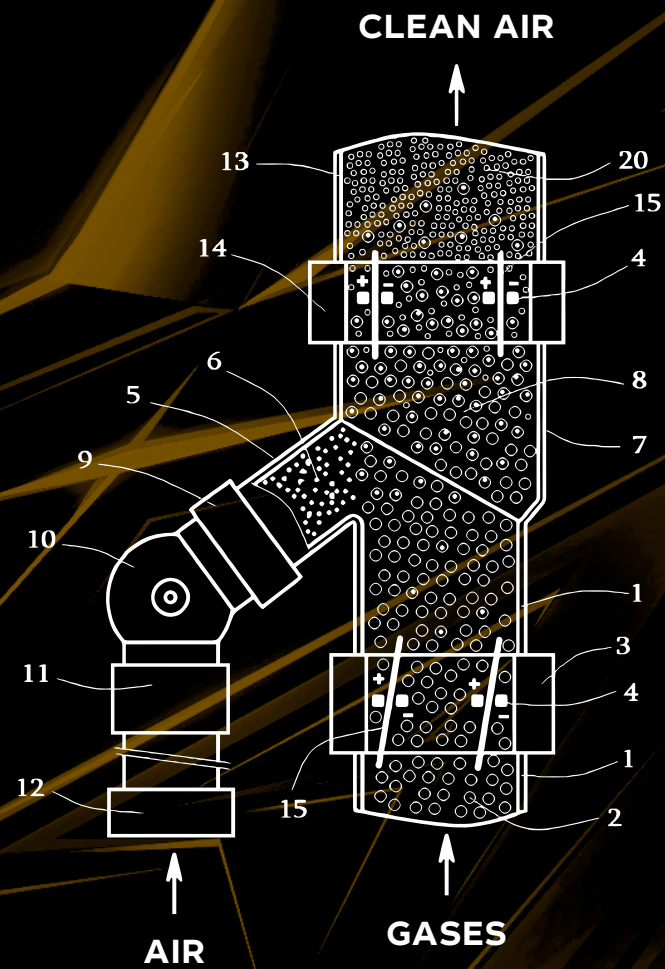
- Scooters -
- Motorcycles -
- ATVs -
- Cars -
- Commercial Vehicles -
- Trucks -
- Construction equipment -
- Road Equipment -
- Diesel generators -
- Gasoline generators -
- Motor boats -
- Yachts -
- Ships -
- Internal combustion engines for any purpose -



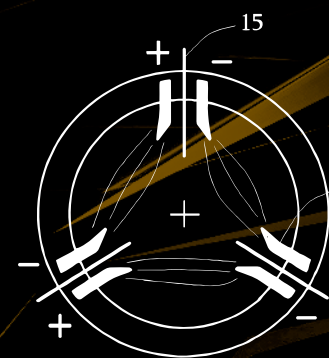
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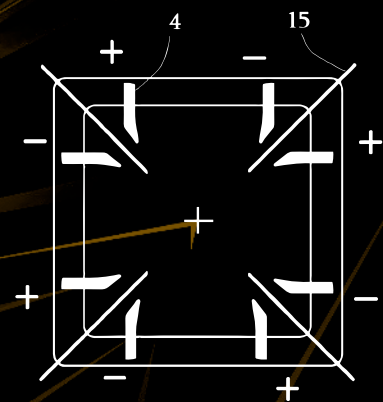




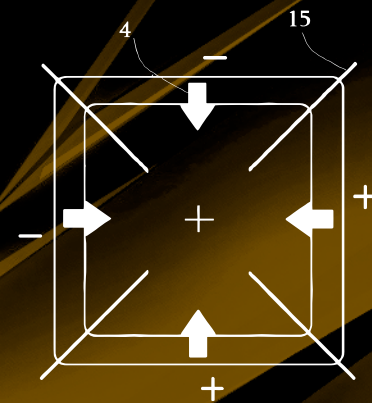
**FIG. 1**



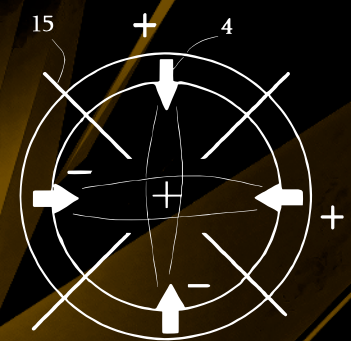
**FIG. 2**



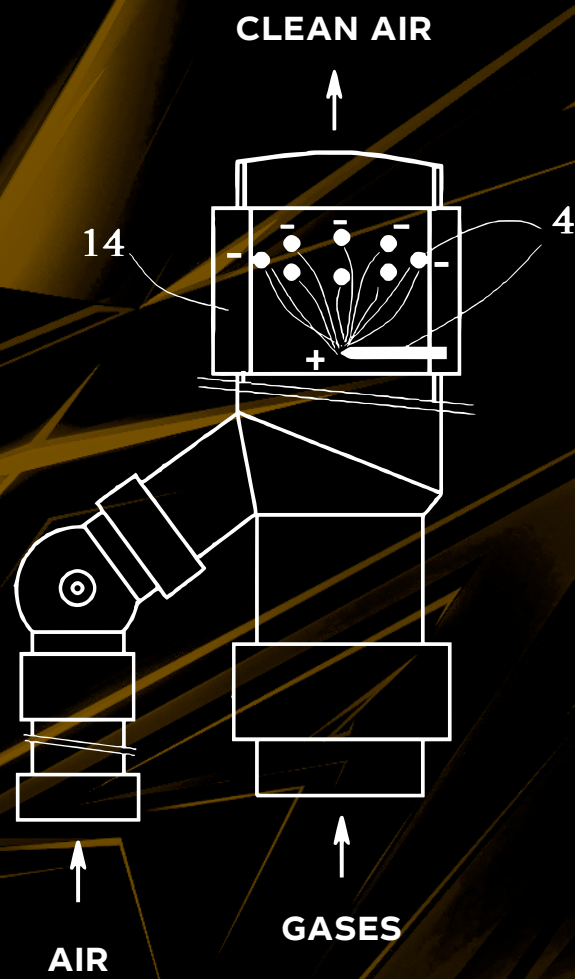
**FIG. 3**



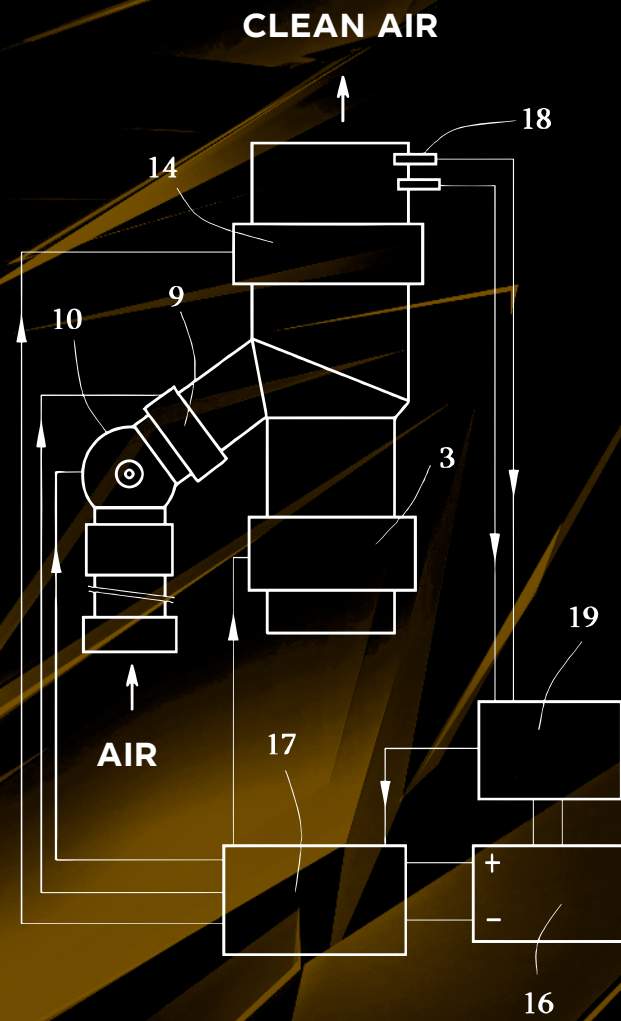
**FIG. 4**



**FIG. 5**

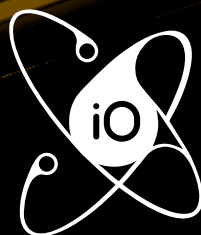


**FIG. 6**



**FIG. 7**





## **iO-ENERGIES ITALIA SRL**

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**Thank you for your interest in iO-ENERGIES  
and we wish your business prosperity!**