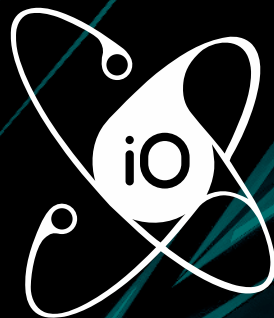


ORION



iO-ENERGIES ITALIA SRL

PRESENTATION



Dear Sirs,

The **iO-ENERGIES** Company presents to your attention a mini installation for purification of diesel fuel and oil products from sulfur compounds «**ORIOUS**». We managed to achieve a result of **3 ppm**, which is the maximum level of fuel purification from sulfur compounds, destructive for the engine and harmful to humans.

The maximum level of diesel fuel purification from sulfur compounds at refineries is **8-10 ppm**, and the ignition temperature of fuel is **74-80** degrees Celsius. _____



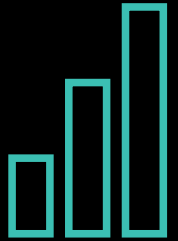
Our technology reduces the ignition temperature of fuel to **66** degrees Celsius. In addition, it raises the octane number of **92** to an octane number of **98-100** in the fuel. This has a positive effect on engine performance in both winter and summer.



«Dirty» diesel is used as a second fuel for tanker engines, with pollutants such as **NOx** poisoning the air over seas and oceans, and deposits in the pistons and combustion chamber shortening engine life and leading to premature overhaul.

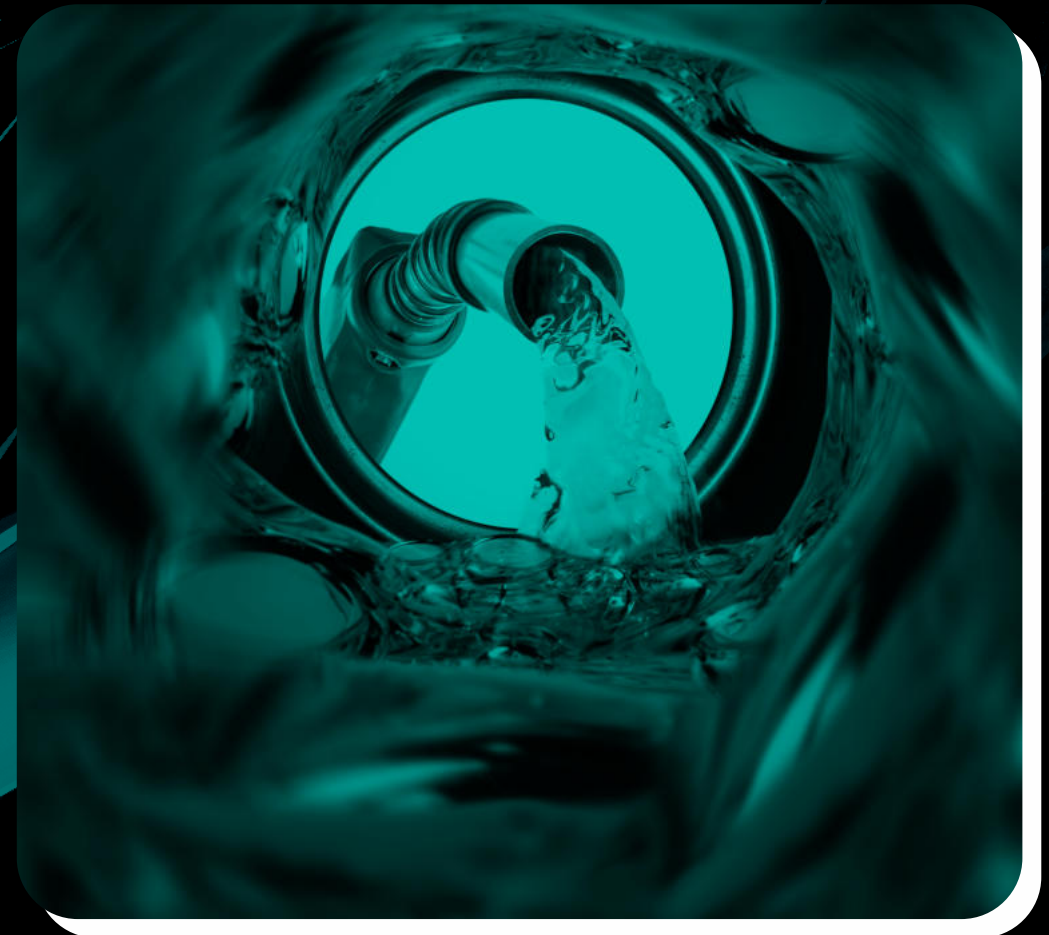


High sulfur content in fuel leads to reduced engine power due to incomplete combustion of fuel. The higher the sulfur content, the lower the octane rating of any fuel. Low-sulfur fuels are known to increase engine power while significantly reducing fuel consumption.



Our technology is characterized by relatively small installation size: **100-120 m²**, and high productivity: **100 t/hour**.

At such processing speed the product quality remains high and the fuel ignition temperature does not exceed **70-74 (66)** degrees Celsius. Such characteristics are not available today in any other, even the most modern oil refining equipment.



At the request of a refinery in an oil-producing country, we were able to develop, manufacture and demonstrate a low-cost sulfur removal technology in the shortest possible time.

After demonstrating our technology in Dubai, we received reports from the refinery's laboratory confirming the high degree of sulfur removal from diesel fuel.

It should be noted that the production of low-sulfur fuel significantly reduces the environmental costs of the refinery, reducing emissions, climate change, energy costs and vehicle maintenance, which in turn contributes to the growth of the country's economy and improves the quality of life and health of people.



The **iO-ENERGIES** equipment is reliable and safe, every component of the mini-installation has been thought out to the last detail. All this allows the equipment to function in any weather conditions and does not require complex projects.

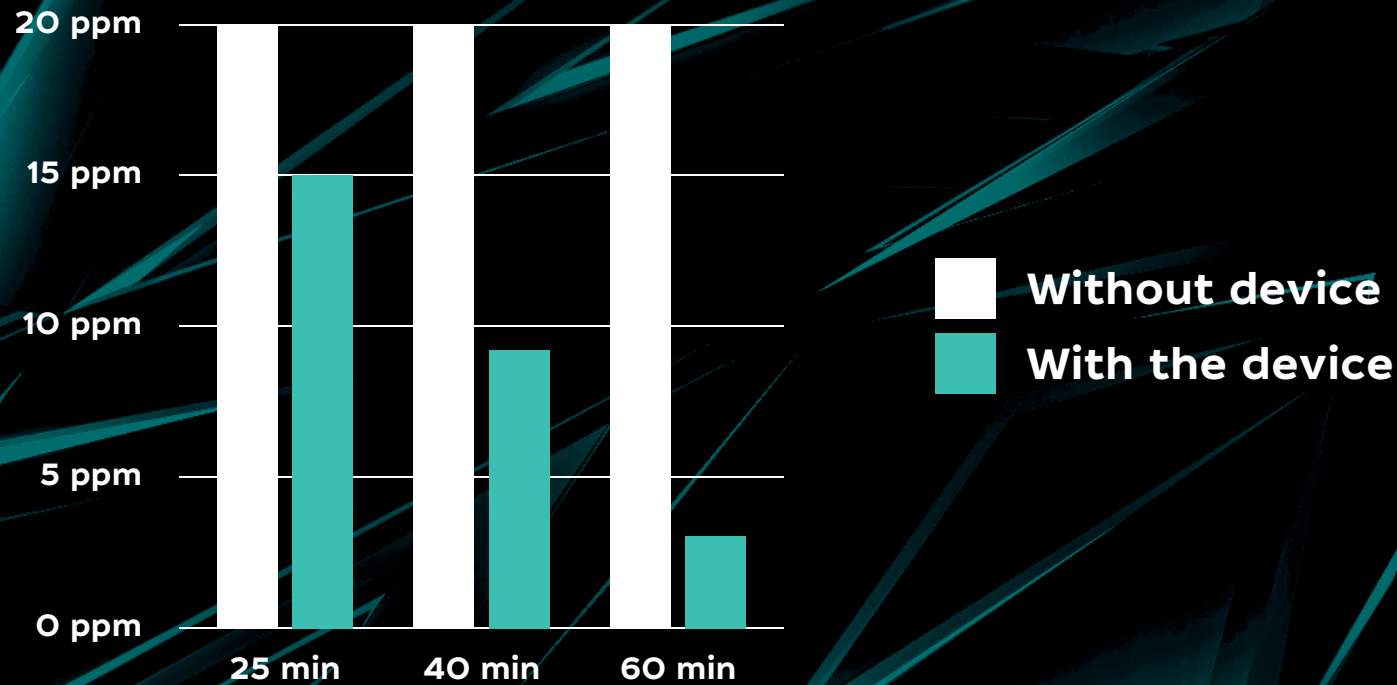
The components of the mini unit are delivered to the construction site with a pre-prepared foundation. Our specialists install and assemble the unit on site and perform commissioning within 45 days from the delivery of the components.

The customer receives a functioning mini-installation and personnel trained by **iO-ENERGIES** to operate the equipment.

iO-ENERGIES specialists are ready to carry out maintenance of the equipment in the shortest possible time in any part of the world.



Cooling test results



According to the results of cooling tests, the sulfur content in the oil sample, after using **iO-ENERGIES** equipment in just 45 minutes decreased from **20 mg/kg** to **3 mg/kg**.



20 mg/kg
Without device



15 mg/kg
After 25 minutes
With device

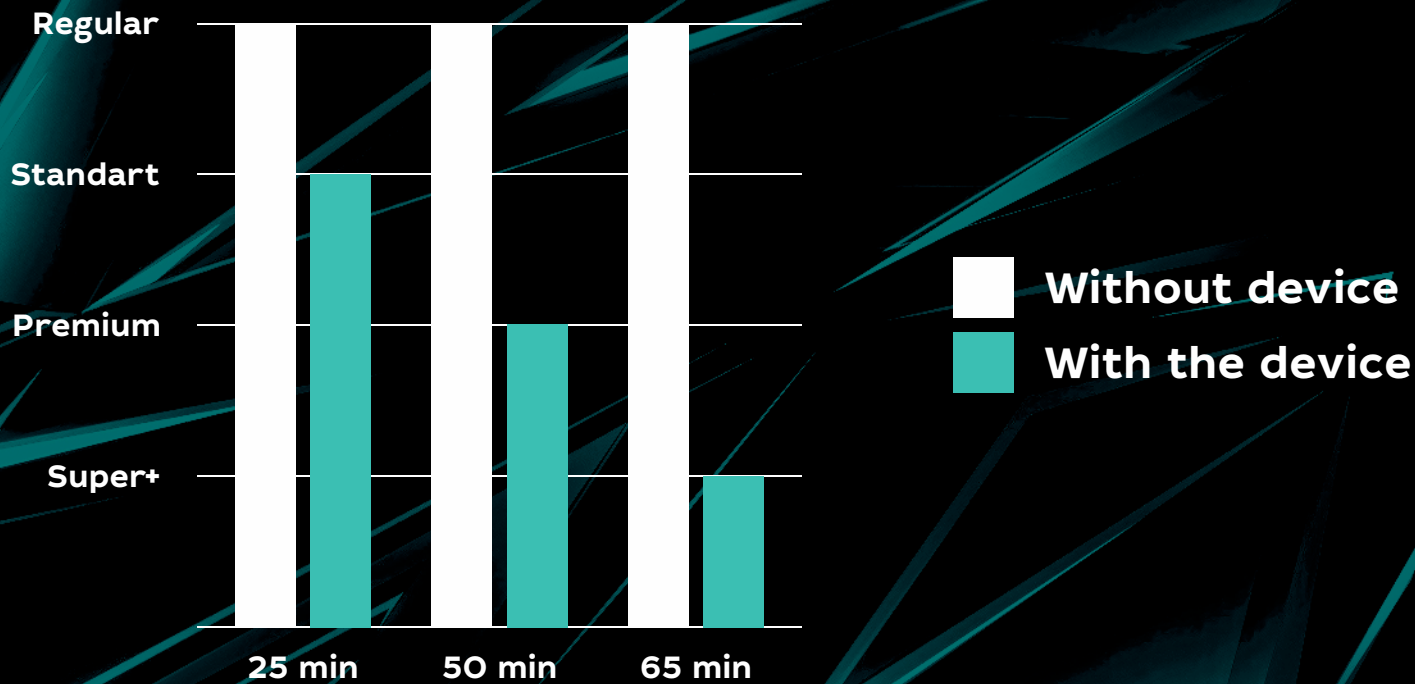


9 mg/kg
After 40 minutes
With device



3 mg/kg
After 60 minutes
With device

Test results



According to the test results, the octane number in a gasoline sample after using **iO-ENERGIES** equipment increased from **Regular** to **Super+** in just 65 minutes.



Regular
Without device



Standart
After 25 minutes
With the device



Premium
After 50 minutes
With the device



Super+
After 65 minutes
With the device

First look

The **iO-ENERGIES** petroleum product treatment catalyst consists of two units.

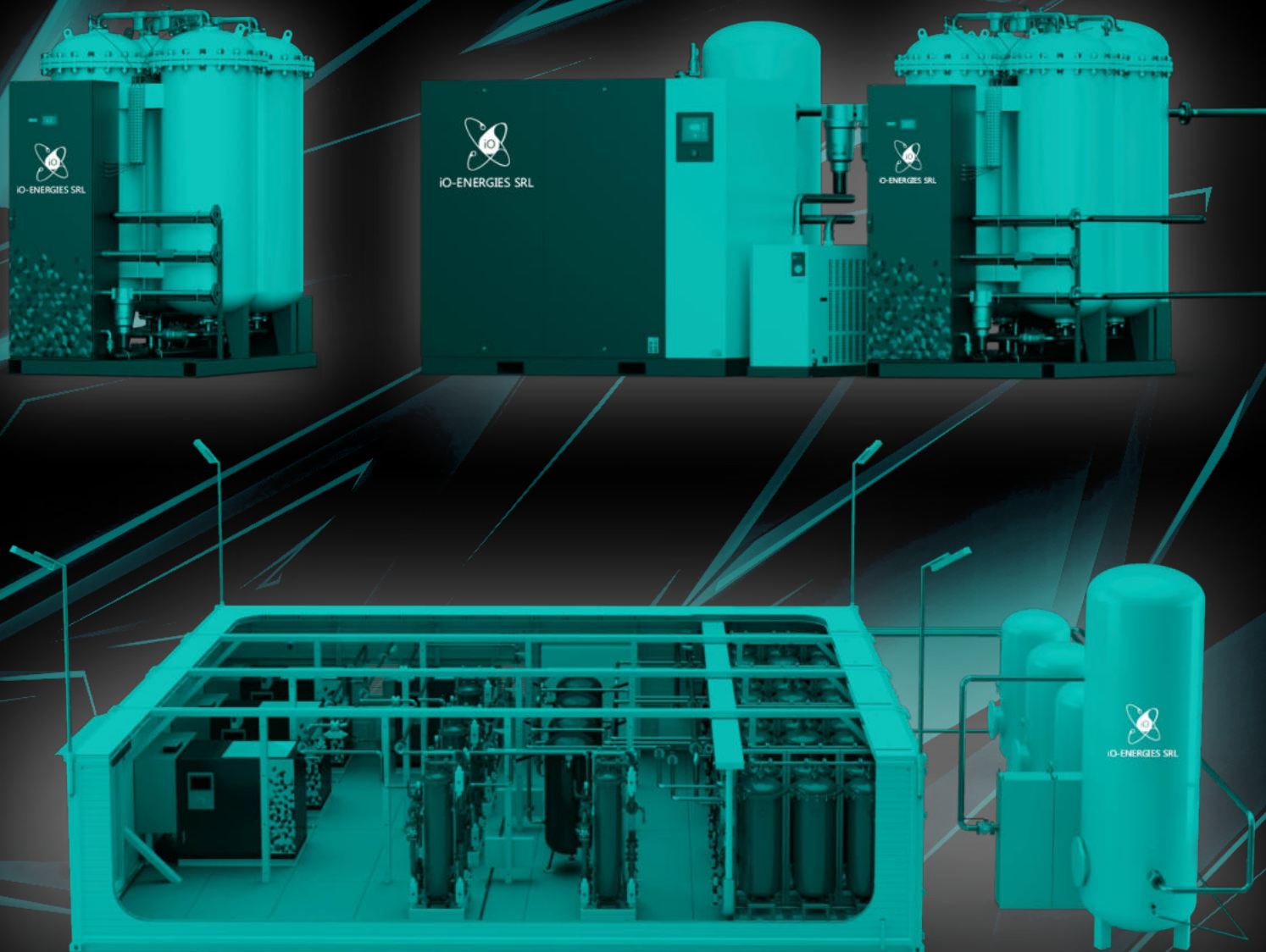


Block 1

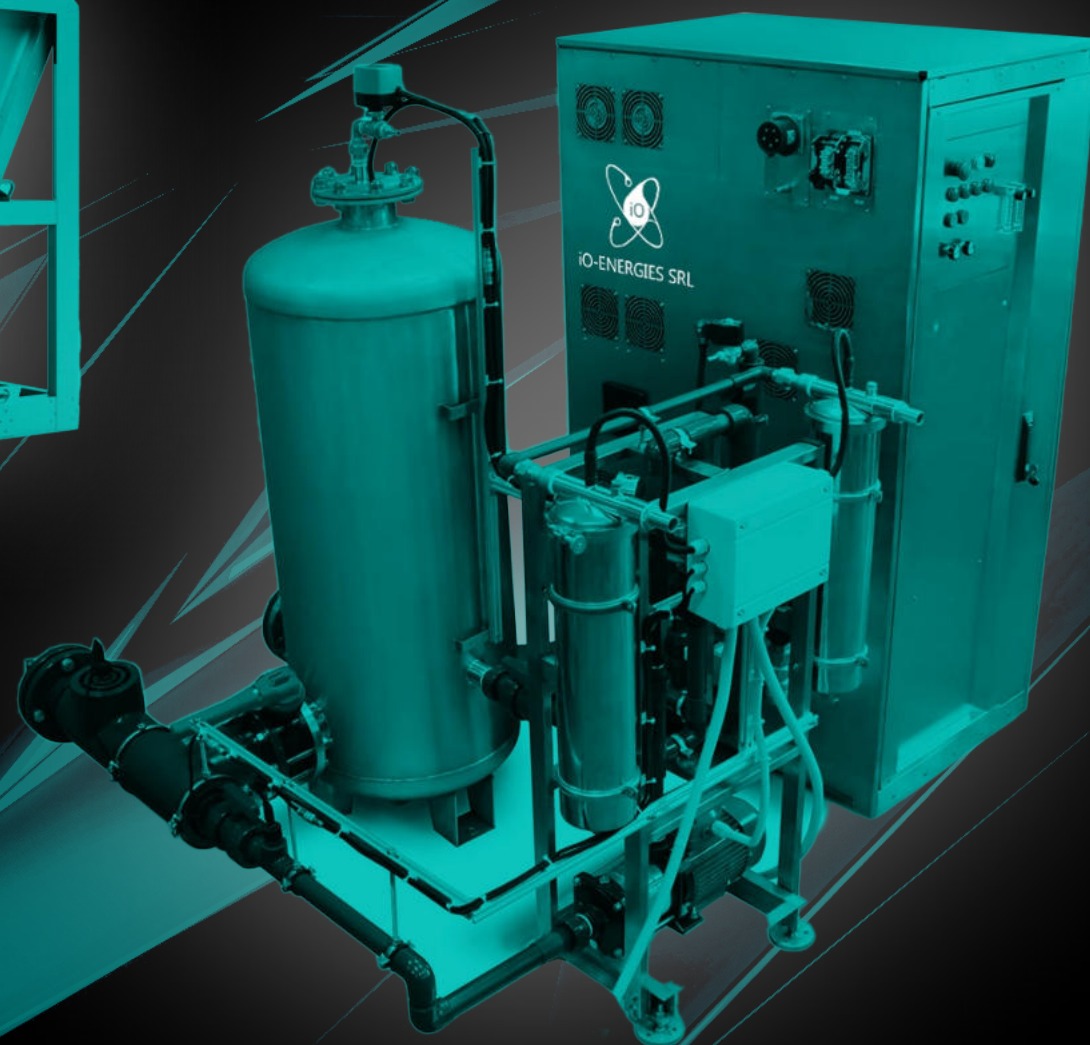
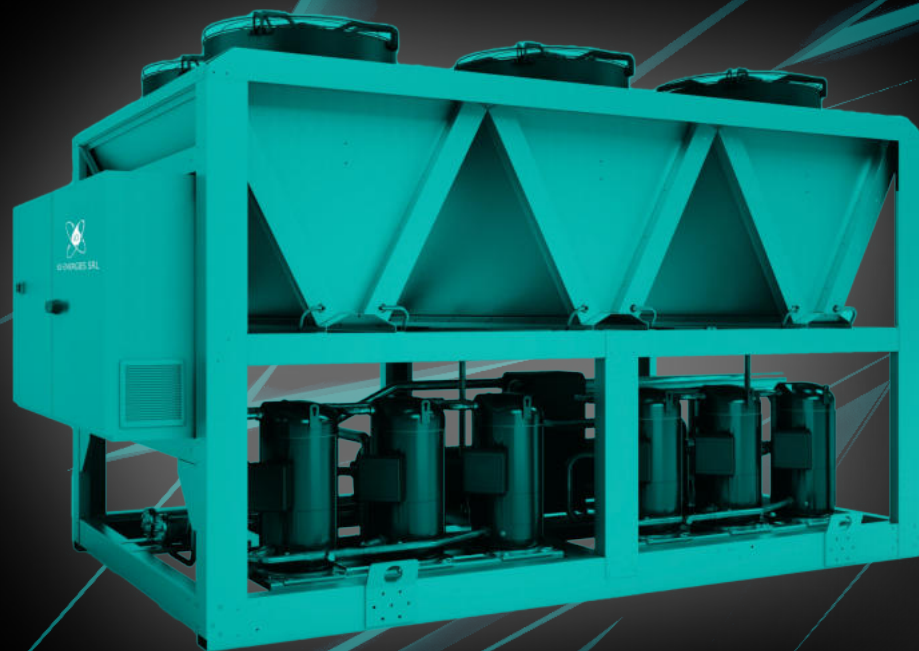


Block 2

Petroleum product treatment plant for removal of sulfur, paraffin and metals.

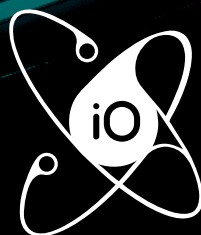


**Petroleum product treatment plant
for removal of sulfur, paraffin and metals.**



Oil supplier countries





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

THANKS
THANKS

THANKS
THANKS