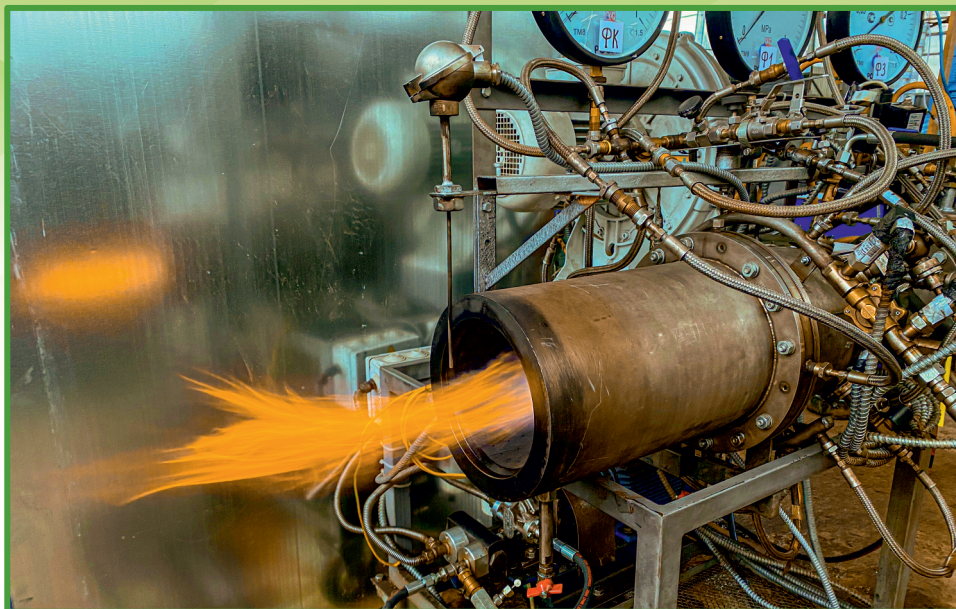


EQUIPMENT FOR EFFICIENT FUEL COMBUSTION AND REDUCING EMISSIONS INTO THE ATMOSPHERE

vortex afterburner of flue gases, vortex combustion chambers, vortex igniters, and burner devices



The system of combustion of various gases and substances developed by us focuses on the use of a **vortex countercurrent type combustion chamber**, which currently has no analogues in the world. The combustion chamber is simple in design, technologically advanced in manufacture and operation, has small dimensions and weight, is not susceptible to fluctuations in climatic conditions in a wide range of temperatures, pressure, humidity; it has natural thermal self-insulation of heat-stressed elements, is able to provide reliable operation at the maximum temperature of combustion products (up to 2,000 degrees C.)

The results of experimental studies on the combustion of various gases, solid and liquid substances on our countercurrent devices using vortex technology have shown the ability of these burner devices to meet the sanitary standards of the Russian Federation and many other countries in terms of harmful emissions of the flue gases into the atmosphere.

Afterburning chamber – “afterburner” – is designed for thermal destruction of combustible and non-combustible gases, liquids and finely dispersed solids in order to decompose and destroy harmful and toxic products contained in the emissions of various heating devices.

The afterburner is essentially a replacement for any storage filter or filtration facilities for harmful gas emissions.

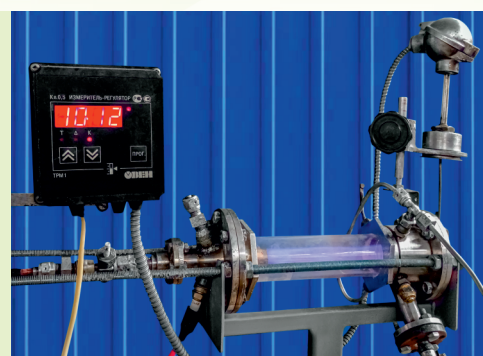
Vortex countercurrent type combustion chamber, designed and manufactured according to our calculations and technologies, have a unique **combustion efficiency of up to 0.998**. For calculation and manufacture according to the Client's specifications, a **wide limit of the thermal power of burner devices is possible ranging from 1.0 kW to 100 MW**.

Vortex countercurrent type combustion chambers have the highest stability of operation; it is **practically impossible under any circumstances to disrupt the flame in the burner device (except for stoppage of the fuel supply.)**

The chambers are distinguished by the smooth and speedy adjustment of temperature and combustion volume, as well as a wide range of excess air coefficient (thermal power adjustment.)

Chambers using this technology can easily cope with the burning of highly ballasted fuel, for example, **they obtain a stable combustion of a mixture of diesel fuel and water in a ratio of 2 to 1, as well as methane and water.** Moreover, the chambers have the ability to work on various types of fuel without rebuilding and replacing elements: gas, liquid, two-phase, water-logged. Some modifications are capable of operating on solid dust-like carbon-containing fuel.

The construction of flows in the vortex countercurrent type combustion chamber ensures constant insulation of the outer walls of the unit from high thermal loads without additional cooling systems **(the temperature on the surface of the chamber body does not exceed 60 degrees**



This category of burner devices is characterized by a great durability of work under load (up to 5,000 ... 7,000 hours without stopping work.) Due to the low complexity of the design, maintenance and repair do not require highly qualified personnel.

The development of this technology is a completely Russian development aimed at import substitution in the field of solving environmental problems.

The technology is patented on the territory of the Russian Federation.

Общество с ограниченной ответственностью
**НТ НОВЫЕ
ТЕХНОЛОГИИ**

General Director:
Alexander Katlovskiy
www.nt-yar.ru, E-mail: info@nt-yar.ru.
Тел.: +7 (910) 665-22-44

Partner:
ООО ПК "Ritm"
Alexander Elistratov
www.pkritm.ru, E-mail: ooopkritm@mail.ru.
Тел.: +7 (920) 657-00-25; +7 (4855) 25-16-74


Участник **ПК
РИТМ**