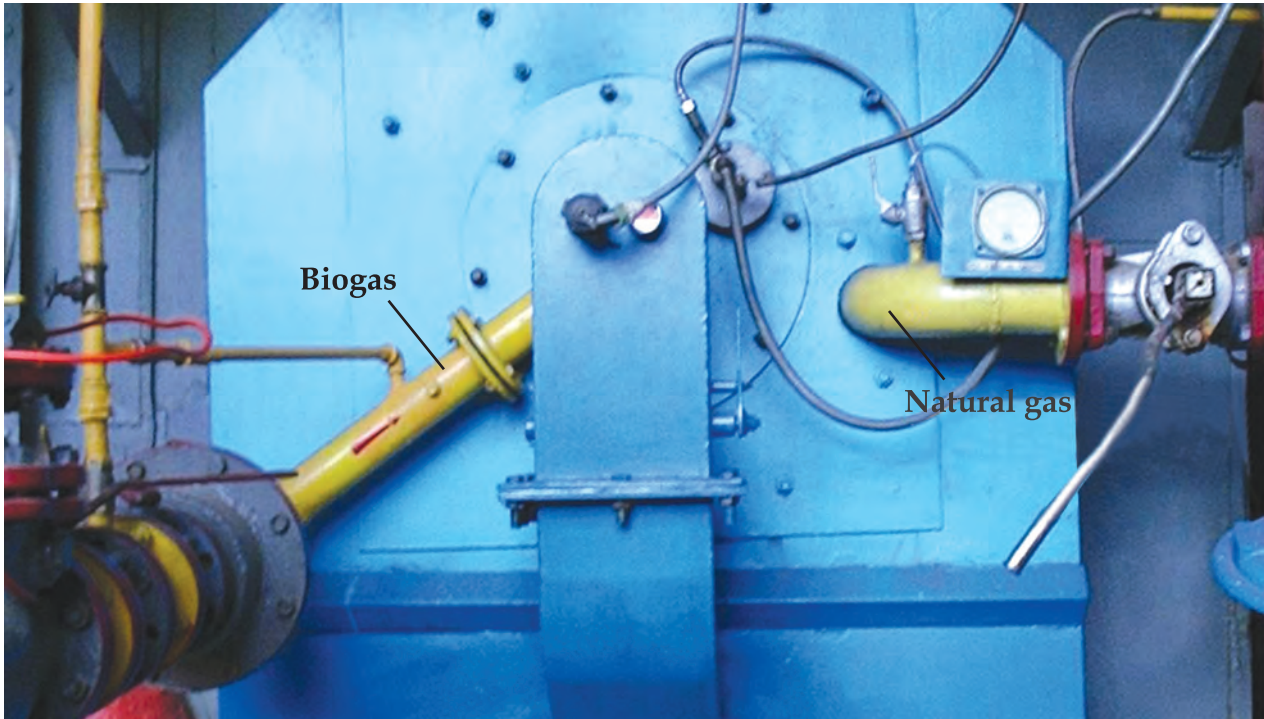


BURNERS FOR CO-COMBUSTION OF BIOGAS AND NATURAL GAS



Upgraded GM-10-B burner for co-combustion biogas and natural gas for DE-16/14 boiler

Areas of Application

The burners are designed for boilers used in food industry, wastewater treatment plants and other facilities where biogas production is possible

Specification

Burner capacity: 0.1–20 MW; $\alpha = 1.03\text{--}1.2$;
control factor: 10; $\text{NO}_x \leq 100 \text{ mg/nm}^3$;
 $\text{CO} \leq 100 \text{ mg/nm}^3$

Advantages

Unlike in the existing analogs, in these burners simultaneous combustion of biogas and natural gas occurs in a single burner and a boiler, instead of a few ones. This enables saving natural gas and electricity. The burners provide the required steam output regardless of amount of produced biogas. It is possible to upgrade the existing burners for simultaneous combustion of biogas and natural gas with minimum capital expenses and thereby to extend the boiler service life by 7–10 years. The payback period is 1 year

Stage of Development.

Suggestions for Commercialization

IRL7, TRL8

Manufacture, supply, installation, commissioning, maintenance within warranty period, and staff training, upon request

IPR Protection

IPR3

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