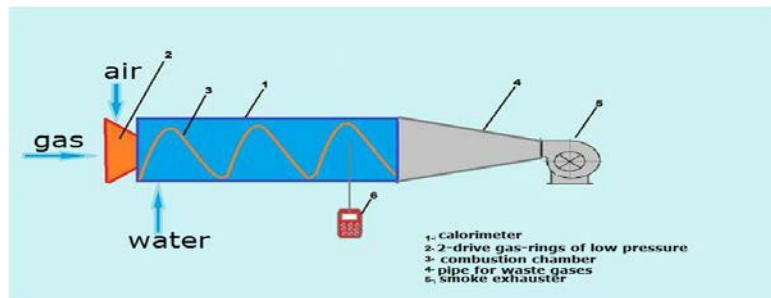


Research of Natural Gas Magnetic Treatment on Influence of its Efficiency during its Burning

The purpose of the present work is to get necessary technological parameters of magnetic natural gas treatment, which will provide maximum efficiency of fuel burning.

Technology of the special configuration magnetic fields allows solving many problems in area of incineration of liquid and gaseous fuel. The performance of combustion processes and preservation of the biosphere improves. There is complete combustion of carbon monoxide. CO content greatly decreases.

Was created an installation that allows conducting research in the laboratory.



Using the installation it is possible to determine the influence of the magnetic field to parameters change during natural gas combustion.

During carrying out of the experiments it was observed:

- Chemical decrease of incomplete CO combustion;
- Increase in coolant temperature flowing through the water shirt;
- Increase the flue gases temperature;

In order to determine effect from of magnetic field influence thermal balance equation was used, wherein:

Parameters Q outgoing (smoke) and Q ch.d. were determined with the help of OXY 5-M device, Parameters of the water shirt and air and gas consumption were determined by the computer system and the rotameter.

Q us. (water shirt) was determined using a computer collection systems of information described above.

$$Q \text{ coming} = Q \text{ the outgoing}$$

$$Q_{ch.h.} + Q_{ph.h.} + Q_{ph.v.} = Q_{us.}(\text{water shirt}) + Q_{out.}(\text{smoke}) + Q_{ch.d.}$$

According to the results of calculations 5% increase of Q useful heat, 16% increase of flue gas, and 12% decrease of chemical incomplete combustion can be seen.